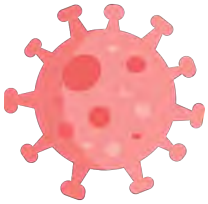
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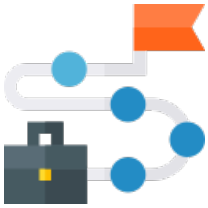
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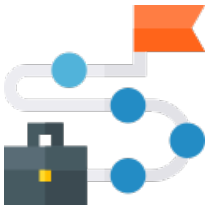
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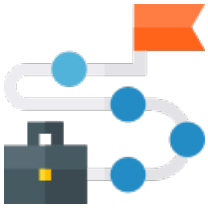
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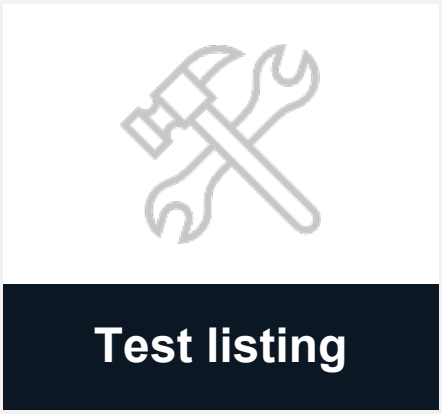
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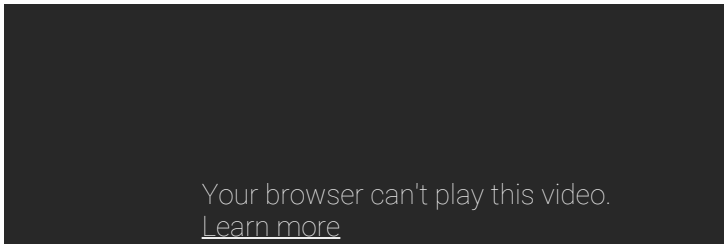
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We are the largest healthcare system in the UK with an annual revenue budget of £3.1 billion, employing over 39,000 staff. We serve a population of around 1.4 million (21.4% of the Scottish population).

We are committed to delivering high quality, innovative health and social care that is person-centred. Our ambition is to be a quality-driven organisation that cares about people- patients, their relatives, carers and our staff- and is focused on achieving a healthier life for all. As the largest Health Board in Scotland, NHS Greater Glasgow and Clyde plays a vital role in the education and training of doctors, nurses, allied health professional and other support staff, working closely with local Universities and Colleges. Our Culture is underpinned by core NHS values, and we are committed to equality and diversity.

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15 June 2022

Next review:

15 December 2022

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ICD-11

Mental Health Assessment

Mental State Examination

Mental Welfare Commission

Physical Health Assessment

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The Mental Health Act (MHA)

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Dementia and chronic cognitive impairment >

Depression >

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Optimising monotherapy +

Augmenting with non-antipsychotic agents +

Principles of combination antipsychotics +

Pharmacodynamic/pharmacokinetic considerations (Ref 8) +

Clozapine +

Adverse effect management

Consent and documentation +

Receptor profiles +

Flowchart +

References +

Last reviewed:

05 January 2021

Next review:

01 December 2023

Author(s):

PMG-MH

Version:

1

Approved By:

PMG-MH

Reviewer Name(s):

Lead Clinical Pharmacist, Clinical Effectiveness Pharmacist

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Initiation +

Side effects +

Prescribing

Licensed injection sites +

Administration and recording +

Communication +

Medication related issues +

Dose selection +

Flowchart for administration +

Last reviewed:

27 February 2020

Next review:

27 February 2023

Author(s):

Safer Use of Medicines

Version:

2.2

Approved By:

PMG-MH

Reviewer Name(s):

Lead Clinical Pharmacist, Clinical Effectiveness Pharmacist

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10 May 2022

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01 December 2023

Author(s):

PMG-MH

Version:

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Approved By:

PMG-MH

Reviewer Name(s):

Lead Clinical Pharmacist, Clinical Effectiveness Pharmacist

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Last reviewed:

21 July 2023

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01 June 2026

Author(s):

PMG-MH

Version:

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Approved By:

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Reviewer Name(s):

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Monitoring +

Haloperidol for regular use +

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Last reviewed:

21 July 2023

Next review:

01 April 2026

Author(s):

PMG-MH

Version:

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Reviewer Name(s):

Lead Clinical Pharmacist, Clinical Effectiveness Pharmacist

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High dose antipsychotic therapy

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Definition +

Key points +

Risk factors +

Drug interactions +

Monitoring +

Management of problems- QTc

Management of other adverse effects +

Off-licence use of medication +

Roles and responsibilites +

Maximum doses of antipsychotics +

Last reviewed:

14 September 2021

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Author(s):

PMG-MH

Version:

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Mental Health Quality & Clinical Governance Group

Reviewer Name(s):

Lead Clinical Pharmacist, Clinical Effectiveness Pharmacist

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Intramuscular medication for acutely disturbed behaviour

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Prerequisites to intramuscular use +

Choice of intramuscular medication +

Medication doses +

Monitoring requirements +

Management of problems

Last reviewed:

20 April 2021

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16 April 2024

Author(s):

PMG-MH

Version:

V2.1

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MHS Quality& Clinical Governance Group

Reviewer Name(s):

Lead Clinical Pharmacist, Clinical Effectiveness Pharmacist

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Prescribing in dementia

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Initiation of treatment +

Adverse effects +

Consent +

Starting antipsychotic +

Monitoring +

Lewy body and Parkinson's

Reduction/cessation of treatment* +

Antipsychotic review flowchart +

References +

Last reviewed:

21 June 2022

Next review:

01 June 2025

Author(s):

Dementia Strategy Group

Version:

3

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Mental Health Service Quality & Care Governance Group

Reviewer Name(s):

Lead Clinical Pharmacist, Clinical Effectiveness Pharmacist

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Use of zuclopenthixol acetate (Clopixol Acuphase)

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Key points +

Indications +

Conditions of use +

Dosage and administration +

Duration of action +

Adverse reactions

Monitoring

Last reviewed:

24 February 2023

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20 February 2026

Author(s):

Drugs and Therapeutic committee

Version:

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Mental Health Quality & Clinical Governance Group

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Lead Clinical Pharmacist, Clinical Effectiveness Pharmacist

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Management of alcohol withdrawal

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Assessment +

Chlordiazepoxide fixed regime +

Vitamin supplementation +

Monitoring +

Last reviewed:

29 December 2020

Next review:

01 December 2023

Author(s):

Mental health service

Version:

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Approved By:

PMG-MH

Reviewer Name(s):

Lead Clinical Pharmacist, Clinical Effectiveness Pharmacist

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Problematic drug users - management of adults in NHSGGC acute hospitals (MHS MRG 11)

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Last reviewed:

30 April 2020

Next review:

01 June 2023

Version:

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Approved By:

Medicines Utilisation Subcommittee of ADTC

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Safer use of opioids

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General points +

Prescribing +

Administration +

Storage and record keeping +

Signs of overdose +

Last reviewed:

26 May 2020

Next review:

01 May 2023

Author(s):

Safer use of medicines (mental health) group

Version:

1

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PMG-MH

Reviewer Name(s):

Lead Clinical Pharmacist, Clinical Effectiveness Pharmacist

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Initiating Clozapine

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Pre Treatment Work-up +

Patient Registration +

Treatment Initiation +

Physical Monitoring During Titration +

Laboratory Monitoring During First 4 Weeks +

Last reviewed:

21 July 2023

Next review:

01 March 2026

Author(s):

MHS Clozapine review group

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Therapeutic Drug Monitoring (Clozapine)

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When to carry out a plasma level +

Requesting a plasma level +

Interpretation of plasma levels +

Interpretation of plasma level- practical guidance +

External factors that may influence levels +

Drug interactions

Constipation and plasma levels +

Seizure risk and plasma levels +

Flowchart +

Last reviewed:

21 June 2022

Next review:

01 April 2024

Author(s):

MHS Clozapine Review Group

Version:

1

Approved By:

PMG-MH

Reviewer Name(s):

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Physical Health Monitoring (Clozapine)

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Mandatory Blood Testing +

Side-Effect Monitoring +

Ongoing Management +

Last reviewed:

21 July 2023

Next review:

01 April 2026

Author(s):

MHS Clozapine review group

Version:

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Reviewer Name(s):

Lead Clinical Pharmacist, Clinical Effectiveness Pharmacist

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Clozapine and Constipation

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Background - Importance of Assessment and Treatment +

Assessment +

Re-introduction following bowel obstruction, paralytic ileus or bowel surgery +

Recording bowel function +

Treatment - General Advice +

Constipation monitoring flowchart

When Commencing Clozapine flow chart +

Constipation treatment flow chart +

References +

Last reviewed:

26 May 2020

Next review:

01 May 2025

Author(s):

MHS Clozapine Review Group

Version:

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Approved By:

PMG-MH

Reviewer Name(s):

Lead Clinical Pharmacist, Clinical Effectiveness Pharmacist

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Clozapine and Smoking

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General information +

Management of patients who wish to stop smoking +

Management of patients who abruptly stop smoking +

Last reviewed:

14 July 2022

Next review:

01 April 2024

Author(s):

MHS Clozapine Review Group

Version:

1

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PMG-MH

Reviewer Name(s):

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Re-challenge following neutropenic episode (red result)

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General information +

'non-confirmed' red result +

Confirmed red result +

Clinical case for rechallenge +

Developing a treatment plan +

Patient-specific treatment plan

References

Last reviewed:

14 July 2022

Next review:

01 April 2025

Author(s):

MHS Clozapine Review Group

Version:

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Approved By:

Safer use of medicines- mental health

Reviewer Name(s):

Lead Clinical Pharmacist, Clinical Effectiveness Pharmacist

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Patient holidays

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Communication +

Weekly blood monitoring +

Fortnightly blood monitoring +

4 weekly blood monitoring +

Extended holidays +

Last reviewed:

21 July 2023

Next review:

01 June 2026

Author(s):

MHS Clozapine Review Group

Version:

1

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PMG-MH

Reviewer Name(s):

Lead Clinical Pharmacist, Clinical Effectiveness Pharmacist

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Clozapine liquid

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Criteria +

Procedure +

Last reviewed:

02 March 2023

Next review:

01 June 2024

Author(s):

MHS Clozapine Review Group

Version:

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Clozapine oro-dispersible tablets

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Criteria +

Procedure +

Cost comparison +

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02 March 2023

Next review:

01 October 2024

Author(s):

PMG-MH

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Treatment plan for managing contraindicated treatment

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Required information +

Last reviewed:

21 July 2023

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01 April 2026

Author(s):

MHS Clozapine Review Group

Version:

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PMG-MH

Reviewer Name(s):

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Patient information standards (Clozapine)

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Standards +

Required information +

Resources +

Prospective patients +

Established patients +

Last reviewed:

21 July 2023

Next review:

01 June 2026

Author(s):

MHS Clozapine Review Group

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Clozapine - out patient prescription form (MHS MRG 03.05)

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Last reviewed:

01 December 2017

Next review:

01 July 2024

Author(s):

Clozapine review group

Version:

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Approved By:

PMG-MH

Reviewer Name(s):

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Clozapine - side effects monitoring care plan (MHS MRG 03.02)

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01 September 2016

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01 August 2023

Author(s):

MHS Clozapine Review Group

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Reviewer Name(s):

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Clozapine - 15 day titration regime STANDARD (MHS MRG 03.03.01)

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28 March 2023

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01 December 2025

Author(s):

PMG-MH

Approved By:

Mental Health Services Drug & Therapeutics Committee

Reviewer Name(s):

Lead Clinical Pharmacist, Clinical Effectiveness Pharmacist

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Re-titration following a treatment break

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Definition +

Impact on full blood count monitoring +

Dosing information +

Preventing treatment breaks +

Last reviewed:

18 August 2020

Next review:

01 August 2023

Author(s):

Clozapine review group

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Lead Clinical Pharmacist, Clinical Effectiveness Pharmacist

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Planned withdrawal of clozapine

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Guidance +

Last reviewed:

08 October 2020

Next review:

01 October 2023

Author(s):

Clozapine review group

Version:

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Approved By:

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Reviewer Name(s):

Lead Clinical Pharmacist, Clinical Effectiveness Pharmacist

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Lithium ward bundle

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Lithium key facts +

Lithium care plan elements +

Lithium MDT checklist +

Factors to consider before giving a dose of Lithium +

Last reviewed:

31 August 2021

Next review:

01 September 2024

Author(s):

Lithium Short Life Working Group

Version:

1.0

Approved By:

Prescribing Management Group - Mental Health

Reviewer Name(s):

Lead Clinical Pharmacist, Clinical Effectiveness Pharmacist

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Lithium treatment initiation

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Baseline pre-treatment tests +

Initial patient education +

Initial prescribing +

Initial monitoring +

Last reviewed:

31 August 2021

Next review:

01 September 2023

Author(s):

PMG-MH

Version:

1

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PMG-MH

Reviewer Name(s):

Lead Clinical Pharmacist, Clinical Effectiveness Pharmacist

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Routine monitoring (Lithium)

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Tests and measurements +

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01 September 2023

Author(s):

PMG-MH

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PMG-MH

Reviewer Name(s):

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Early identification and management of lithium toxicity

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Symptoms of lithium toxicity +

Identifying toxicity in the community +

Identifying toxicity in hospital +

What to do if toxicity occurs +

Last reviewed:

31 August 2021

Next review:

01 September 2023

Author(s):

PMG-MH

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Lead Clinical Pharmacist, Clinical Effectiveness Pharmacist

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Patient, carer and staff education (Lithium)

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Principles +

Educational content +

Resources +

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Author(s):

PMG-MH

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Lead Clinical Pharmacist, Clinical Effectiveness Pharmacist

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Patient information standards- Lithium

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Required information +

Resources +

Prospective patients +

Established patients +

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PMG-MH

Version:

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PMG-MH

Reviewer Name(s):

Lead Clinical Pharmacist, Clinical Effectiveness Pharmacist

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Stopping lithium

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Stopping lithium +

Last reviewed:

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Next review:

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Author(s):

PMG-MH

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PMG-MH

Reviewer Name(s):

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Use of lithium in pregnancy & breastfeeding

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Risk and consent +

Managing patients who become pregnant while taking lithium +

Breastfeeding +

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31 August 2021

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PMG-MH

Version:

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Lead Clinical Pharmacist, Clinical Effectiveness Pharmacist

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Impaired renal function & lithium

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Principles

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01 September 2023

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PMG-MH

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Reviewer Name(s):

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Valproate pregnancy prevention programme

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Background +

What is Prevent? +

Process for women already taking valproate +

Process for new patients considered for valpraote +

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21 June 2022

Next review:

01 July 2024

Author(s):

PMG-MH

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Reviewer Name(s):

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Antidepressant stopping & switching

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Stopping +

Switching +

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Accessing non-formulary and unlicensed medicines

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Non-formulary +

PACS-2 +

Unlicensed medicines +

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PMG-MH

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Lead Clinical Pharmacist, Clinical Effectiveness Pharmacist

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Benzatropine

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Indication +

Informed consent and documentation +

Prescribing +

Monitoring +

Dose range +

Adverse effects

Contraindications and cautions +

References +

Last reviewed:

08 October 2020

Next review:

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Author(s):

PMG-MH

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Reviewer Name(s):

Lead Clinical Pharmacist, Clinical Effectiveness Pharmacist

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Covert medication policy (MHS 53)

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MHS Quality & Clinical Governance Group

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Fluphenazine long acting injection

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Indication +

Informed consent and documentation +

Review and monitoring +

Dose range +

Adverse reactions +

Contraindications and cautions

Drug interactions +

References +

Last reviewed:

21 July 2023

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Lead Clinical Pharmacist, Clinical Effectiveness Pharmacist

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Non-formulary request form (MHS MRG 08.01)

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Abstract

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Reviewer Name(s):

Lead Clinical Pharmacist, Clinical Effectiveness Pharmacist

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Off-label and unlicensed prescribing

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Definitions +

Spectrum of off-label and unlicensed prescribing +

Medico-legal implications +

Liability +

Consent and documentation +

T2/T3 certificates

Communication with other prescribers +

References +

Last reviewed:

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Version:

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Author Email(s):

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Olanzapine injection

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Indication +

Informed consent and documentation +

Monitoring +

Dose range +

Adverse effects +

Contraindications and cautions

Interactions +

References +

Last reviewed:

08 October 2020

Next review:

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Indication +

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Prescribing +

Monitoring +

Dose range +

Adverse reactions

Contraindications and cautions +

References +

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Thioridazine

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Indication +

Informed consent and documentation +

Prescribing +

Monitoring +

Dose range +

Adverse effects

Contraindications and cautions +

Interactions +

References +

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Anaphylaxis- recognition and management

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Key information

Anaphylaxis is a medical emergency

Treatment of an anaphylactic reaction should be based on general life support principles:

- Use the Airway, Breathing, Circulation, Disability, Exposure (ABCDE*) approach to recognise and treat problems
- Call for help early (2222 for main hospital services or 999 for Resource Centres, community settings – including a patient's home, LD residential settings and satellite units such as Birdston Nursing Home)
- Treat the greatest threat to life first
- Initial treatments **should not** be delayed by the lack of a complete history or definite diagnosis

Patients having an anaphylactic reaction in **any setting** should expect the following as a minimum:

- Recognition that they are seriously unwell
- An early call for help
- Initial assessment and treatments based on an ABCDE* approach
- Adrenaline therapy if indicated

- Investigation and follow-up by an allergy specialist

See full guidance for further information on recognition and management.

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Emergency cupboard list and procedure for out of hours access (MHS MRG 12)

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Intramuscular medication for acutely disturbed behaviour

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Prerequisites to intramuscular use +

Choice of intramuscular medication +

Medication doses +

Monitoring requirements +

Management of problems

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Announcements and latest updates

Paracetamol overdose

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Key message

The key message for mental health services is treat ALL reported paracetamol overdoses as a potential emergency. All actual or suspected paracetamol overdoses should be referred to hospital (Accident & Emergency) for assessment, including blood tests.

Due to the ease of access paracetamol is frequently used in overdose in self-harm attempts. Paracetamol is both acutely and accumulatively toxic. Toxic doses of paracetamol may cause severe hepatocellular necrosis which may ultimately be fatal. Liver damage is maximal 3 – 4 days after paracetamol overdose. Therefore, even if there are no significant early symptoms, patients who report taking a paracetamol overdose should be transferred to an acute hospital urgently.

For CPNs

Toxbase

Further reading

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Response ward emergency tray locations

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Locations +

Contents +

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Neuroleptic malignant syndrome (NMS)

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Key Summary

If NMS is suspected, discuss with senior colleagues and if clinically unwell, refer to acute hospital

Aetiology +

Risk factors (Ref 1,5,7) +

Diagnosis +

Differential diagnosis +

Laboratory findings +

Treatment +

Reintroduction of antipsychotics +

References +

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Serotonin syndrome

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Aetiology +

Drugs associated with SS (Ref 1-3) +

Diagnosis +

Differential diagnosis +

Management +

Restarting treatment

References

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Medication Use for Acute Behavioural Disturbance in COVID-19 infections

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Guidance +

Oral medication +

References +

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Reversal of Opioid-induced Respiratory Depression

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Medicines related procedures

Administration of covert medication and in dysphagia

Adult symptomatic relief policy

Checking liquid controlled drugs

Controlled drug prescription requirements

Covert medication policy

Dispensing outwith pharmacy hours

Medication outwith prescribed times

Ordering and reconciling desirable drugs

Ordering pass medication-HEPMA

Physical health monitoring of cognitive enhancers

Physical healthcare policy

Prescribing, administration and recording of as required psychotropics

Procedure for the Administration of Controlled Drugs within In-patient Areas

Procedure for the Administration of Medicines within In-patient Areas

Safe and secure handling of medicines

Safe use of insulin

Use of a second staff member ‘runners’ to deliver medication to the patient

Use of multi-dose compliance devices

Use of patients own drugs

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Out of hours service

Accessing medicines out of hours

Emergency cupboard list

Antiretrovirals for HIV treatment- dealing with requests

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Pharmacy Services

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Dykebar +

Gartnavel Royal +

Inverclyde +

Leverndale +

Stobhill +

Vale of Leven

Medicines Information +

Out of hours +

Last reviewed:

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Useful websites

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Medicines Information +

Patient Information +

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Protocol for the management of alcohol withdrawal using a fixed chlordiazepoxide regime in mental health in-patient wards

Background

It is relatively common for patients admitted to mental health wards to have co-morbid alcohol problems. A proportion of those patients develop alcohol withdrawal shortly after admission. An audit at Leverndale Hospital demonstrated that there is a lack of consistency in the management of withdrawal symptoms. Problems experienced include failure to accurately assess and score alcohol use, confusion over an appropriate starting dose of chlordiazepoxide, failure to carry out daily dose reductions and failure to prescribe vitamin supplementation correctly.

The purpose of the protocol is to provide a consistent but flexible approach to the management of alcohol withdrawal in mental health in patient settings.

Scope

This protocol applies to all mental health in patient setting across NHS Greater Glasgow & Clyde. It does not apply to Alcohol and Drug Recovery Service in-patient units.

Assessment

Key to the successful treatment of alcohol withdrawal is effective assessment of patients. In addition to the standard assessment undertaken for all patients on admission (FAST tool on appendix 2 can aid assessment), if there is a suspicion of alcohol misuse prior to admission a formal assessment of the patient's alcohol use must be undertaken using the Severity of Alcohol Dependence Questionnaire (SAD-Q) (see appendix 1). The completed SAD-Q will be filed in the patient's care record and the score obtained will be entered on to the fixed dose chlordiazepoxide regime.

Chlordiazepoxide fixed regime

NICE guidelines recommend the use of fixed or symptom triggered dosing regimens with either chlordiazepoxide or diazepam to manage alcohol withdrawal. In mental health services chlordiazepoxide is the drug of choice. To ensure consistency of treatment the Mental Health Drug & Therapeutics Committee has decided that a fixed dose regime is the best approach for our services. The form on the following page will be used for this purpose. The starting dose chosen will depend on the SAD-Q obtained and the clinical judgement of the prescribing doctor. In the event of known liver impairment, consideration should be given to using alternative benzodiazepines e.g. oxazepam. Contact pharmacy services for advice in these circumstances.

Vitamin supplementation

Appropriate vitamin supplementation is essential to mitigate the risk of developing Wernicke's encephalopathy (see red box below regarding recognising acute illness) or Korsakoff's syndrome. The fixed dose regime contains a reminder to clinicians to prescribe intramuscular Pabrinex (see yellow box below regarding anaphylaxis) and oral thiamine to all patients undergoing treatment for alcohol withdrawal. Thiamine should be prescribed for all individuals as 50mg four times a day. This

is the optimal dosing as thiamine's absorption is saturable and giving large doses less often will result in poorer absorption. Supplementation with thiamine should be continued indefinitely for those with a history of significant alcohol abuse. Thiamine should also be continued in individuals who continue to engage in problem drinking as chronic alcohol reduces thiamine absorption and these individuals are particularly at risk of developing alcohol-related brain damage. Long term adherence to four times daily thiamine may be a challenge, but the importance of therapy should be underlined and individuals should be encouraged to take thiamine as often as they remember e.g. encourage to take with meals. Where there is evidence of poor dietary intake, treatment with a multivitamin preparation containing trace elements should also be considered in addition to thiamine.

Wernicke's Encephalopathy is an acute illness, which may be precipitated by alcohol withdrawal and is often under treated or missed.

If a patient presents with history of alcohol misuse and any of the following symptoms, this should be treated as a **medical emergency**:

- Acute confusion
- Ataxia/unsteadiness
- Decreased consciousness
- Unconciousness/coma
- Unexplained hypotension with hypothermia
- Opthalmoplegia/Nystagmus
- Memory disturbance

Pabrinex is contraindicated if the patient is known to have an allergy to any of the components of the product or a previous reaction is noted.

MHRA/CHM advice (September 2007)
Although potentially serious allergic adverse reactions may rarely occur during, or shortly after, parenteral administration, the CHM has recommended that:
1. This should not preclude the use parenteral thiamine particularly in patients at risk of Wernicke-Korsakoff syndrome where parenteral treatment with thiamine is essential.
2. Facilities for treating anaphylaxis should be available when parenteral thiamine is administered.

Please note: Risk of anaphylaxis is very low 1/1 million i.v. and 1/5 million i.m. It is far lower than for other im/iv preparations administered without special cautions. All efforts should be made to ensure adequate vitamin B supplementation or consequently failure to do so can have life-long implications.

Monitoring

The patient's blood pressure, pulse and temperature should be monitored at 4 hourly intervals throughout treatment with close observation for over sedation. The patient should be medically reviewed as necessary during the course of treatment.

Adult chlordiazepoxide fixed dose regime

Patient's Name:				CHI Number:			
SADQ score:							
Severity of alcohol dependence		Moderate SADQ = 15-25		Severe SADQ = 30-40		Very severe SADQ = 40-60	

Day	Date	9am	1pm	5pm	10pm	Starting point
1		50mg	50mg	50mg	50mg	Very Severe[b]
		Admin by	Admin by	Admin by	Admin by	
2		45mg	45mg	45mg	45mg	
		Admin by	Admin by	Admin by	Admin by	
3		40mg	40mg	40mg	40mg	Severe[a]
		Admin by	Admin by	Admin by	Admin by	
4		35mg	35mg	35mg	35mg	
		Admin by	Admin by	Admin by	Admin by	
5		30mg	30mg	30mg	30mg	
		Admin by	Admin by	Admin by	Admin by	
6		25mg	25mg	25mg	25mg	Moderate
		Admin by	Admin by	Admin by	Admin by	
7		20mg	20mg	20mg	20mg	
		Admin by	Admin by	Admin by	Admin by	
8		15mg	15mg	15mg	15mg	
		Admin by	Admin by	Admin by	Admin by	
9		10mg	10mg	10mg	10mg	
		Admin by	Admin by	Admin by	Admin by	
10		10mg	[redacted]	10mg	10mg	
		Admin by		Admin by	Admin by	
11		5mg		5mg	5mg	
		Admin by		Admin by	Admin by	
12		5mg	[redacted]	[redacted]	5mg	
		Admin by			Admin by	
13		[redacted]			5mg	

a. **Only prescribe doses above 30mg four times a day in patients with severe dependence. Response must be regularly & closely monitored.**

b. **Only prescribe doses above 40mg four times a day in patients with very severe dependence and <u>never</u> for older people or people with liver impairment.**

Prescribe 1 pair of Pabrinex IMHP ampoules for the first 5 days of the reducing regime followed by <u>oral thiamine 50mg four times a day</u> thereafter.

Day 1	Date:	Time:	Pabrinex IMHP 1 pair	Admin by	
Day 2	Date:	Time:	Pabrinex IMHP 1 pair	Admin by	
Day 3	Date:	Time:	Pabrinex IMHP 1 pair	Admin by	
Day 4	Date:	Time:	Pabrinex IMHP 1 pair	Admin by	
Day 5	Date:	Time:	Pabrinex IMHP 1 pair	Admin by	
Prescribed by:					

Older Adult chlordiazepoxide fixed dose regime

Patient's Name:				CHI Number:			
SADQ score:							
Severity of alcohol dependence			Moderate SADQ = 15-25		Severe SADQ = 30-40		Very severe SADQ = 40-60

Day	Date	9am	1pm	5pm	10pm	Starting point
1		25mg	25mg	25mg	25mg	Very Severe[b]
		Admin by	Admin by	Admin by	Admin by	
2		20mg	20mg	20mg	20mg	
		Admin by	Admin by	Admin by	Admin by	
3		15mg	15mg	15mg	15mg	Severe[a]
		Admin by	Admin by	Admin by	Admin by	
4		15mg	15mg	15mg	15mg	
		Admin by	Admin by	Admin by	Admin by	
5		10mg	10mg	10mg	10mg	
		Admin by	Admin by	Admin by	Admin by	
6		10mg	10mg	10mg	10mg	Moderate
		Admin by	Admin by	Admin by	Admin by	
7		5mg	5mg	5mg	5mg	
		Admin by	Admin by	Admin by	Admin by	
8		5mg	5mg	5mg	5mg	
		Admin by	Admin by	Admin by	Admin by	
9		5mg		5mg	5mg	
		Admin by		Admin by	Admin by	
10		5mg		5mg	5mg	
		Admin by		Admin by	Admin by	
11		5mg			5mg	
		Admin by			Admin by	
12		5mg			5mg	
		Admin by			Admin by	
13					5mg	
					Admin by	

a. Only prescribe doses above 10mg four times a day in patients with severe dependence. Response must be regularly & closely monitored.

b. Only prescribe doses above 15mg four times a day in patients with very severe dependence

Prescribe 1 pair of Pabrinex IMHP ampoules for the first 5 days of the reducing regime followed by oral thiamine 50mg four times a day thereafter.

Day 1	Date:	Time:	Pabrinex IMHP 1 pair	Admin by	
Day 2	Date:	Time:	Pabrinex IMHP 1 pair	Admin by	
Day 3	Date:	Time:	Pabrinex IMHP 1 pair	Admin by	
Day 4	Date:	Time:	Pabrinex IMHP 1 pair	Admin by	
Day 5	Date:	Time:	Pabrinex IMHP 1 pair	Admin by	
Prescribed by:					

Notes on the use of the fixed dose regime

1. A SADQ test must be undertaken by the admitting/assessing doctor before prescribing the fixed dose regime.
2. Record the score on the form in the space provided.
3. Select the appropriate day to start based on the score obtained. Score out any days that are not required.
4. Insert the appropriate dates in the date column.
5. Write 'chlordiazepoxide fixed dose regime' on the patient's prescription sheet.
6. Chlordiazepoxide should initially be prescribed for breakthrough withdrawal symptoms. This should be prescribed on the 'as required' section of the prescription sheet. The dose should reflect the day on the chart selected e.g. if the patient starts at day 5, the as required dose would be 30mg given as required up to hourly. As the patient proceeds through the detox, this will need to be adjusted if it is still necessary.

   Note: if the patient requires 2 or more as required doses reassess the point on the chart and consider moving the patient to an earlier day on the chart. This will require the first chart to be cancelled and a new one commenced.
   If the as required dose is not used, consider discontinuing it after 48 hours and always on the completion of the regime.
   For patients commenced on days 1 - 3 of the chart their total daily as required dose should not exceed 50mg.
7. Sign the form.
8. Nurses will enter their initials as each dose is administered and complete an appropriate entry on the in-patient prescription recording sheet.

SEVERITY OF ALCOHOL DEPENDENCE QUESTIONAIRE (SADQ-C)[1]

NAME_____AGE_____No._____

DATE:

Please recall a typical period of heavy drinking in the last 6 months.

When was this? Month:…… Year……..

Please answer all the following questions about your drinking by circling your most appropriate response.

During that period of heavy drinking

1. The day after drinking alcohol, I woke up feeling sweaty.
ALMOST NEVER SOMETIMES OFTEN NEARLY ALWAYS

2. The day after drinking alcohol, my hands shook first thing in the morning.
ALMOST NEVER SOMETIMES OFTEN NEARLY ALWAYS

3. The day after drinking alcohol, my whole body shook violently first thing in the morning if I didn't have a drink.
ALMOST NEVER SOMETIMES OFTEN NEARLY ALWAYS

4. The day after drinking alcohol, I woke up absolutely drenched in sweat.
ALMOST NEVER SOMETIMES OFTEN NEARLY ALWAYS

5. The day after drinking alcohol, I dread waking up in the morning.
ALMOST NEVER SOMETIMES OFTEN NEARLY ALWAYS

6. The day after drinking alcohol, I was frightened of meeting people first thing in the morning.
ALMOST NEVER SOMETIMES OFTEN NEARLY ALWAYS

7. The day after drinking alcohol, I felt at the edge of despair when I awoke.
ALMOST NEVER SOMETIMES OFTEN NEARLY ALWAYS

8. The day after drinking alcohol, I felt very frightened when I awoke.
ALMOST NEVER SOMETIMES OFTEN NEARLY ALWAYS

9. The day after drinking alcohol, I liked to have an alcoholic drink in the morning.
ALMOST NEVER SOMETIMES OFTEN NEARLY ALWAYS

10. The day after drinking alcohol, I always gulped my first few alcoholic drinks down as quickly as possible.
ALMOST NEVER SOMETIMES OFTEN NEARLY ALWAYS

11. The day after drinking alcohol, I drank more alcohol to get rid of the shakes.
ALMOST NEVER SOMETIMES OFTEN NEARLY ALWAYS

[1] Stockwell, T., Sitharan, T., McGrath, D.& Lang, . (1994). The measurement of alcohol dependence and impaired control in community samples. Addiction, 89, 167-174.

12. The day after drinking alcohol, I had a very strong craving for a drink when I awoke.
ALMOST NEVER SOMETIMES OFTEN ALMOST ALWAYS

13. I drank more than a quarter of a bottle of spirits in a day (OR 1 bottle of wine OR 7 beers).
ALMOST NEVER SOMETIMES OFTEN ALMOST ALWAYS

14. I drank more than half a bottle of spirits per day (OR 2 bottles of wine OR 15 beers).
ALMOST NEVER SOMETIMES OFTEN ALMOST ALWAYS

15. I drank more than one bottle of spirits per day (OR 4 bottles of wine OR 30 beers).
ALMOST NEVER SOMETIMES OFTEN ALMOST ALWAYS

16. I drank more than two bottles of spirits per day (OR 8 bottles of wine OR 60 beers)
ALMOST NEVER SOMETIMES OFTEN ALMOST ALWAYS

Imagine the following situation:
1. You have been **completely off drink for a few weeks**
2. You then drink **very heavily** for **two days**

How would you feel the **morning after** those two days of drinking?

17. I would start to sweat.
NOT AT ALL SLIGHTLY MODERATELY QUITE A LOT

18. My hands would shake.
NOT AT ALL SLIGHTLY MODERATELY QUITE A LOT

19. My body would shake.
NOT AT ALL SLIGHTLY MODERATELY QUITE A LOT

20. I would be craving for a drink.
NOT AT ALL SLIGHTLY MODERATELY QUITE A LOT

SCORE

CHECKED BY:

ALCOHOL DETOX PRESCRIBED: YES/NO

NOTES ON THE USE OF THE SADQ

The Severity of Alcohol Dependence Questionnaire was developed by the Addiction Research Unit at the Maudsley Hospital. It is a measure of the severity of dependence. The AUDIT questionnaire, by contrast, is used to assess whether or not there is a problem with dependence.

The SADQ questions cover the following aspects of dependency syndrome:

- physical withdrawal symptoms
- affective withdrawal symptoms
- relief drinking
- frequency of alcohol consumption
- speed of onset of withdrawal symptoms.

Scoring
Answers to each question are rated on a four-point scale:

Almost never - 0
Sometimes 1
Often 2
Nearly always 3

A score of 31 or higher indicates "severe alcohol dependence".
A score of 16 -30 indicates "moderate dependence"
A score of below 16 usually indicates only a mild physical dependency.
A chlordiazepoxide detoxification regime is usually indicated for someone who scores 16 or over.

It is essential to take account of the amount of alcohol that the patient reports drinking prior to admission as well as the result of the SADQ.

There is no correlation between the SADQ and such parameters as the MCV or GGT.

Appendix 2

FAST ALCOHOL SCREENING TEST (FAST)

FAST questions
Record the scores in the boxes on the right.

Question 1 — **How often do you have:**

 **6** or more units on one occasion? **or** **8** or more units on one occasion? 

Never **= 0** | Less than monthly **= 1** | Monthly **= 2** | Weekly **= 3** | Daily or almost daily **= 4**

Score ☐

- If the response to this question is "never", the person is **at low risk** for alcohol-related problems, but bear in mind the drinking limits
- If the response to this question is "less than monthly" or "monthly" go on to ask questions **2, 3 and 4**
- If the response to this question is "weekly" or "daily or almost daily" the person is a risky (hazardous), harmful or dependent drinker

Question 2

How often during the last year have you been unable to remember what happened the night before because you had been drinking?

Never **= 0** | Less than monthly **= 1** | Monthly **= 2** | Weekly **= 3** | Daily or almost daily **= 4**

Score ☐

Question 3

How often during the last year have you failed to do what was normally expected of you because you had been drinking?

Never **= 0** | Less than monthly **= 1** | Monthly **= 2** | Weekly **= 3** | Daily or almost daily **= 4**

Score ☐

Question 4

In the last year has a relative, friend, doctor or health worker been concerned about your drinking and suggested that you cut down?

No **= 0** | Yes, on one occasion **= 2** | Yes, on more than one occasion **= 4**

Score ☐

Add up the scores to the above questions and record below.
The minimum score is 0 and the maximum score is 16.

Total score: ☐ **The score for hazardous drinking is 3 or more**

NHS
Greater Glasgow and Clyde

CLINICAL GUIDELINE

Recognition and Management of Anaphylaxis

A guideline is intended to assist healthcare professionals in the choice of disease-specific treatments.

Clinical judgement should be exercised on the applicability of any guideline, influenced by individual patient characteristics. Clinicians should be mindful of the potential for harmful polypharmacy and increased susceptibility to adverse drug reactions in patients with multiple morbidities or frailty.

If, after discussion with the patient or carer, there are good reasons for not following a guideline, it is good practice to record these and communicate them to others involved in the care of the patient.

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Appendix 1 – Systematic Approach to the Acutely Ill Adult (ABCDE) 21-25

1. Introduction

Anaphylaxis is an extreme form of allergic sensitivity that involves an abnormal antigen-antibody response to a drug or other substance introduced into the body. The incidence of anaphylactic reactions is increasing.1

The World Allergy Organisation Anaphylaxis Committee defines anaphylaxis as: 11 "A serious systemic hypersensitivity reaction that is usually rapid in onset and may cause death. Severe anaphylaxis is characterized by potentially life-threatening compromise in airway, breathing and/or the circulation, and may occur without typical skin features or circulatory shock being present (Emergency treatment of anaphylaxis Guidelines for healthcare providers, 2022)

1.1 Summary of changes from previous guideline

This guideline replaces the previous guideline from Resuscitation Council UK (RCUK): Emergency treatment of anaphylactic reactions – Guidelines for healthcare providers (Originally published January 2008, annotated July 2012 with links to NICE guidance).20.

• Greater emphasis on intramuscular adrenaline to treat anaphylaxis, and repeated after 5 minutes Airway/Breathing/Circulation problems persist.
• A specific dose of adrenaline is now included for children below 6 months of age.
• Increased emphasis on the importance of avoiding sudden changes in posture and maintaining a supine position (or semi-recumbent position if that makes breathing easier for the patient) during treatment.
• There are 2 algorithms: Initial treatment of anaphylaxis, with emphasis on repeating the dose of adrenaline after 5 minutes and giving an IV fluid bolus if Airway/Breathing/Circulation problems persist.
& Treatment of refractory anaphylaxis, defined as anaphylaxis where there is no improvement in respiratory or cardiovascular symptoms despite two appropriate doses of IM adrenaline.
• IV fluids are recommended for refractory anaphylaxis, and must be given early if hypotension or shock is present.
• Antihistamines are considered a third-line intervention and should not be used to treat Airway/Breathing/Circulation problems during initial emergency treatment. Non-sedating oral antihistamines, in preference to chlorphenamine, may be given following initial stabilisation especially in patients with persisting skin symptoms (urticaria and/or angioedema).
• Corticosteroids (e.g. hydrocortisone) are no longer advised for the routine emergency treatment of anaphylaxis.
• New guidance is offered relating to the duration of observation following anaphylaxis, and timing of discharge. This updated guideline has been developed according to the GRADE Evidence to Decision (EtD) frameworks for adoption, adaptation, and de novo development of trustworthy recommendations (GRADE-ADOLOPMENT).2 The evidence tables and conclusions have been peer-reviewed and published.
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1. Scope

This guidance is applicable to all areas of th e NHS GGC Mental Health service . Irrespective of where a situation arises, the need to improve patient outcome by the early administration of intramuscular Adrenaline immediately following diagnosis, drives the associated practice. As nurses are invariably involved in the administration of newly prescribed drugs and they have a statutory duty to provide care, then they are considered the 'first line' of response in the provision of the initial treatment. A prescription is **not** required to administer IM Adrenaline in Anaphylaxis. The treatment Algorithm on page 12 & 13 is guided by the fact that additional interventions are provided 'where equipment and skills' are available but Adrenaline must be available/accessible in all settings, Including Adult, Older People, Learning Disabilities, Addictions, Child and Adolescent both community and all inpatient/ residential services.

2. Background

Anaphylactic reactions can vary in severity and progress. Extremely rarely the manifestations may be delayed for a few hours. This is an important element for the administration of drugs, particularly parenteral drugs, within a patient's home. Written advice must be provided for the patient and carer describing potential 'delayed' reactions and the necessary actions to take. In inpatient settings, nurses must be aware of the fact that there may be a delayed reaction and monitor the patient accordingly.

All those who are suspected of having had an anaphylactic reaction should be referred to a specialist in allergy. Intravenous adrenaline must only be used in certain specialist settings and only by those skilled and experienced in its use, this does not include routine Mental Health settings. Individuals who are at high risk of an anaphylactic reaction should carry an adrenaline auto-injector and receive training and support in its use.

Individuals who are involved in resuscitation regularly are more likely to have advanced resuscitation skills than those who are not. This guideline does not expect individuals to obtain intravenous access in an emergency if this is not part of their usual role. Rather, individuals should use skills that they know and use regularly. This will make it more likely that these skills are used effectively on the rare occasions when they are needed to treat an anaphylactic reaction. Any extra skills specifically for the treatment of a patient with an anaphylactic reaction should be reasonably easy to learn, remember and implement (e.g., intramuscular (IM) injection of adrenaline).

Treatment of an anaphylactic reaction should be based on general life support principles:

- Use the Airway, Breathing, Circulation, Disability, Exposure (ABCDE*) approach to recognise and treatproblems.

- Call for help early (2222 for main hospital services or 999 for Resource Centres, community settings – including a patients home, LD residential settings and satellite units such as Birdston Nursing Home

Treat the greatest threat to life first.

- Initial treatments should not be delayed by the lack of a complete history or definite diagnosis.

Patients having an anaphylactic reaction in any setting should expect the following as a minimum:

- Recognition that they are seriously unwell.

- An early call for help.

- Initial assessment and treatments based on an ABCDE* approach.

- Adrenaline therapy if indicated.

- Investigation and follow-up by an allergy specialist.

Within community mental health teams/services the availability and use of Adrenaline IM is highly recommended. There is a professional and organisation duty to ensure that rapid access to the definitive treatment for this life threatening emergency should be available. This is particularly relevant if a patient has a history of anaphylaxis (typically patient should have own auto injector which is only used if no service Adrenaline accessible), severe asthma and/or food allergies/allergy history. Adrenaline 1 in 1’000, with needles/syringes should be available within Resource Centres/community facilities to facilitateadministrationinsuchcircumstances.

*See Appendix 1 for more information about the ABCDE approach.

3. Triggers

Anaphylaxis can be triggered by any of an extensive range of triggers, but those most commonly identified include food, drugs and venom2. The relative importance of these varies considerably with age, with food being particularly important in children and medicinal products being much more common triggers in older people3. Of foods, nuts are the most common cause; muscle relaxants, antibiotics, a nd NSAIDs are the most commonly implicated drugs (Table 1). It is important to note that, in many cases, no cause can be identified.

	Anaphylaxis (all severities)	Fatal anaphylaxis
Foods	Commonest triggers: • Peanut • Tree nuts • Cow's milk (children) Accounts for 35% of hospital admissions coded as anaphylaxis[5]	Commonest triggers:[5] • Peanut or tree nuts (50%) • Cow's milk (11% of total, 26% in children) 19% of anaphylaxis-related deaths[4]

Medication	Commonest triggers are antibiotics and chemotherapy drugs
	
	Commonest triggers in peri-operative setting:[20]
	• Antibiotics (47%)
	  ○ Co-amoxiclav (23%)
	  ○ Teicoplanin (18%)
	• Neuromuscular blocking agents (NMBAs) (33%)
	• Chlorhexidine (9%)
	
	Accounts for 17% of hospital admissions coded as anaphylaxis[4]
		Commonest triggers:[22]
		• NMBAs (32%)
		• Antibiotics (27%)
		  ○ Penicillins (11%)
		  ○ Cephalosporins (12%)
		• Contrast media (11%)
		• Non-steroidal anti-inflammatory drugs (6%)
		
		39% of anaphylaxis-related deaths[4]

Insect stings	6.5% of hospital admissions coded as anaphylaxis[4]	14% of anaphylaxis-related deaths[4]

(Resuscitation Council UK, 2021)

4.1 Mortality

The overall prognosis of anaphylaxis is good, with a case fatality ratio of less than 1% reported in most population-based studies 4-6. Risk of death is, however, increased in those with pre-existing asthma, particularly if the asthma is poorly controlled 7. There are approximately 20 anaphylaxis deaths reported each year in the UK, although this may be a substantial under- estimate.

4.2 Risk of recurrence

The risk of an individual suffering recurrent anaphylactic reaction appears to be quite substantial, being estimated at approximately 1 in 12 per year8.

4.3 Trends over time

There is very limited data on trends in anaphylaxis internationally, but data indicate a dramatic increase in the rate of hospital admissions for anaphylaxis, increasing from 0.5 to 3.6 admissions per 100,000 between 1990 and 2004: an increase of 700% 9, 10.

When anaphylaxis is fatal, death usually occurs very soon after contact with the trigger. From a case- series, fatal food reactions cause respiratory arrest typically after 30–35 minutes; insect stings cause collapse from shock after 10–15 minutes; and deaths caused by intravenous medication occur most commonly within five minutes

4. Recognising and diagnosing

A diagnosis of anaphylactic reaction is likely if a patient who is exposed to a trigger (allergen) develops a sudden illness (usually within minutes of exposure) with rapidly progressing skin changes and life- threatening airway and/or breathing and/or circulation problems. The reaction is usually unexpected.

The lack of any consistent clinical manifestation and a range of possible presentations cause diagnostic difficulty in practice. Many patients with a genuine anaphylactic reaction are not given the correct treatment12. Patients, particularly children, have been given injections of adrenaline inappropriately for allergic reactions just involving the skin, or for Vasovagal reactions or panic attacks 13.

A single set of criteria will not identify all anaphylactic reactions. There is a range of signs and symptoms, none of which are entirely specific for an anaphylactic reaction; however, certain combinations of signs make the diagnosis of an anaphylactic reaction more likely 14. When recognising and treating any acutely ill patient, a rational ABCDE approach must be followed and life-threatening problems treated as they are recognised (see Appendix 1)

Airway

Severe upper-airway obstruction is uncommon in refractory anaphylaxis. Evidence from autopsy shows significant laryngeal oedema in under 10% of cases.84 This may be due to laryngeal oedema being responsive to adrenaline treatment.

Tissue oxygenation is more important than tracheal intubation.

If tracheal intubation is indicated, it should be performed by the most experienced clinician available, following a difficult airway protocol (das.uk.com/guidelines).

Nebulised adrenaline can be used to treat upper airway obstruction due to anaphylaxis12 but should not be prioritised over an adrenaline infusion or delay tracheal intubation in cases of critical upper airway obstruction. 6.7.2

Breathing

Severe bronchospasm is common in food-induced anaphylaxis,85 and in children; in these cases, cardiac arrest is usually secondary to hypoxia. Treat severe respiratory symptoms that are refractory to IM adrenaline with an adrenaline infusion in addition to nebulised and intravenous bronchodilator therapy.

Magnesium sulfate is not recommended as a first-line intravenous bronchodilator in anaphylaxis as it can cause significant vasodilation and worsen hypotension. 6.7.3

Circulation

Reduced venous return is common in anaphylaxis, even in the absence of obvious circulatory compromise (e.g. in those with severe bronchospasm). An adrenaline infusion should be the first-line treatment alongside a fluid bolus.

Give further fluids as necessary. There is a tendency to underuse fluids to treat hypotension during anaphylaxis.20 A large volume (up to 3 – 5 litres in adults) may be needed for severe anaphylactic shock.29 When giving large volumes of fluid, use a non-glucose-containing crystalloid (e.g. Hartmann's or Plasma-Lyte®) rather than 0.9% sodium chloride to reduce the risk of causing hyperchloraemia.

In considering second-line vasopressor treatment, there is insufficient evidence to recommend any particular vasopressor; expert advice and local protocols should be followed. Doses should be titrated to clinical response, and administered only where there is sufficient expertise and monitoring available to minimise the risk of potential side effects (e.g. hypertensive crises and pulmonary oedema).

Cardiacarrest

Circulation problems (often referred to as anaphylactic shock) can be caused by direct myocardial depression, vasodilation and capillary leak, and loss of fluid from the circulation. Bradycardia (a slow pulse) is usually a late feature, often preceding cardiac arrest.

The circulatory effects do not respond, or respond only transiently, to simple measures such as lying the patient down and raising the legs. Patients with anaphylaxis can deteriorate if made to sit up or stand up.

The above Airway, Breathing and Circulation problems can all alter the patient's neurological status

(Disability problems) because of decreased brain perfusion. There may be confusion, agitation and loss of consciousness.

Patients can also have gastro-intestinal symptoms (abdominal pain, incontinence, vomiting).

5.1 Skin and or mucosal changes

These should be assessed as part of the Exposure when using the

ABCDE approach.

- They are often the first feature and present in over 80% of anaphylactic reactions.
- They can be subtle or dramatic.
- There may be just skin, just mucosal, or both skin and mucosal changes.
- There may be erythema – a patchy, or generalised, red rash.
- There may be urticaria (also called hives, nettle rash, weals or welts), which can appear anywhere on the body. The weals may be pale, pink or red, and may look like nettle stings. They can be different shapes and sizes, and are often surrounded by a red flare. They are usually itchy.
- Angioedema is similar to urticaria but involves swelling of deeper tissues, most commonly in the eyelids and lips, and sometimes in the mouth and throat.

Skin changes without life-threatening airway, breathing or circulation problems do not signify an anaphylactic reaction. Most patients who have skin changes caused by allergy do not go on to develop an anaphylactic reaction.

5.2 Differential diagnosis

Life-threatening conditions:

- Sometimes an anaphylactic reaction can present with symptoms and signs that are very similar to life-threatening asthma – this is commonest in children.
- A low blood pressure (or normal in children) with a petechial or purpuric rash can be a sign of septic shock.
- Seek help early if there are any doubts about the diagnosis and treatment.
- Following an ABCDE approach will help with treating the differential diagnoses.

Non-life-threatening conditions (these usually respond to simple measures):

- Faint(vasovagal episode).

- Panic attack.
- Breath-holding episode in child.

Idiopathic (non-allergic) Urticaria or Angioedema.

There can be confusion between an anaphylactic reaction and a panic attack. Victims of previous anaphylaxis may be particularly prone to panic attacks if they think they have been re-exposed to the allergen that caused a previous problem. The sense of impending doom and breathlessness leading to hyperventilation are symptoms that resemble anaphylaxis in some ways. While there is no hypotension, pallor, wheeze, or urticarial rash or swelling, there may sometimes be flushing or blotchy skin associated with anxiety adding to the diagnostic difficulty. Diagnostic difficulty may also occur with vasovagal attacks after immunisation procedures, but the absence of rash, breathing difficulties, and swelling are useful distinguishing features, as is the slow pulse of a vasovagal attack compared with the rapid pulse of a severe anaphylactic episode. Fainting will usually respond to lying the patient down and raising the legs.

As the diagnosis of anaphylaxis is not always obvious, all those who treat anaphylaxis must have a systematic approach to the sick patient. In general, the clinical signs of critical illness are similar whatever the underlying process because they reflect failing respiratory, cardiovascular, and neurological systems,
I.e. ABCDE problems. Use an ABCDE approach to recognise and treat an anaphylactic reaction. Treat life-threatening problems as you find them. The basic principles of treatment are the same for all age groups.

5. The specific treatment of an anaphylactic reaction depends on:

a. Location.

b. Training and skills of rescuers.

c. Numberofresponders.

d. Equipment and drugs available.

a) Location

Treating a patient with anaphylaxis in the community will not be the same as in an acute hospital or a psychiatric hospital. Out of hospital (community settings) and for psychiatric hospitals, an ambulance must be called early and the patient transported to an emergency department. Within some psychiatric hospitals adjunctive drugs/ equipment are available e.g. Chlorphenamine, oxygen etc. For community facilities the minimum expected is Adrenaline administration IM and basic life support (CPR) if required.

b) Training of rescuers

All clinical staff should be able to call for help and initiate treatment in a patient with an Anaphylactic reaction. Rescuers must use the skills for which they are trained. Clinical staff who give parenteral medications should have initial training inclusive of ILS (Independent Living Skills) and regular updates in dealing with anaphylactic reactions/ life threatening illness. The Health Protection Agency recommends that staff who give immunisations should have annual updates15.

c) Number of responders

The single responder must always ensure that help is coming. If there are several rescuers, Several actions can be undertaken simultaneously.

d) Equipment and drugs available

Resuscitation equipment and drugs to help with the rapid resuscitation of a patient with an Anaphylactic reaction must be immediately available in all clinical settings. Clinical staff should be familiar with the equipment and drugs they have available and must check them regularly. Within community the minimum expected is IM Adrenaline and a pocket mask for mouth to mask breathing if required.

All patients who have had an anaphylactic reaction should be continuously monitored (e.g., by Ward staff, ambulance crew, in the emergency department etc.). Minimal monitoring within inpatient settings includes pulse oximetry, non-invasive blood pressure and 3-lead ECG. Monitoring must be supervised by an individual who is skilled at interpreting and responding to any changes.

6.1 Patients having an anaphylactic reaction in any setting

Patients should expect the following as a minimum:

- Recognitionthatthey are seriously unwell.
- An early call for help.
- Initial assessment and treatments based on an ABCDE approach.
- Adrenaline therapy if indicated.
- Investigation and follow-up by an allergy specialist.

6.2 Patientpositioning

All patients should be placed in a comfortable position. The following factors should be considered:

- Patients with Airway and Breathing problems may prefer to sit up as this will make breathing easier.
- Lying flat with or without leg elevation is helpful for patients with a low blood pressure (Circulation problem). If the patient feels faint, do not sit or stand them up - this can cause cardiacarrest.
- Patients who are breathing and unconscious should be placed on their side (recovery position).
- Pregnant patients should lie on their left side to prevent caval compression.

6.3 Remove the trigger if possible

Removing the trigger for an anaphylactic reaction is not always possible.

- Stop any drug suspected of causing an anaphylactic reaction (e.g., stop

intravenous infusion of a gelatin solution or antibiotic).

- Remove the stinger after a bee sting. Early removal is more important than the method of removal.

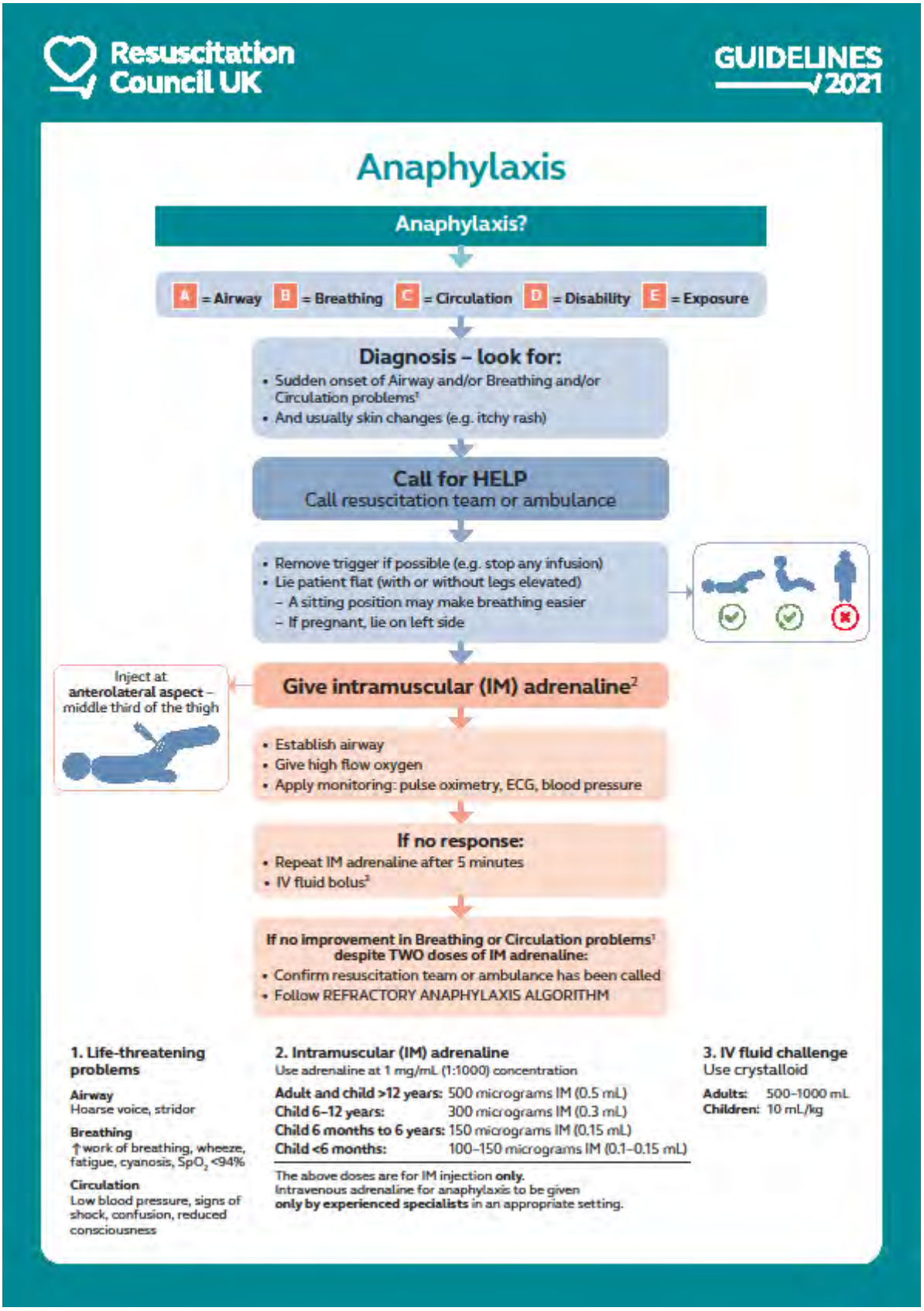
- After food-induced anaphylaxis, attempts to make the patient vomit are not recommended.

- Do not delay definitive treatment if removing the trigger is not feasible.

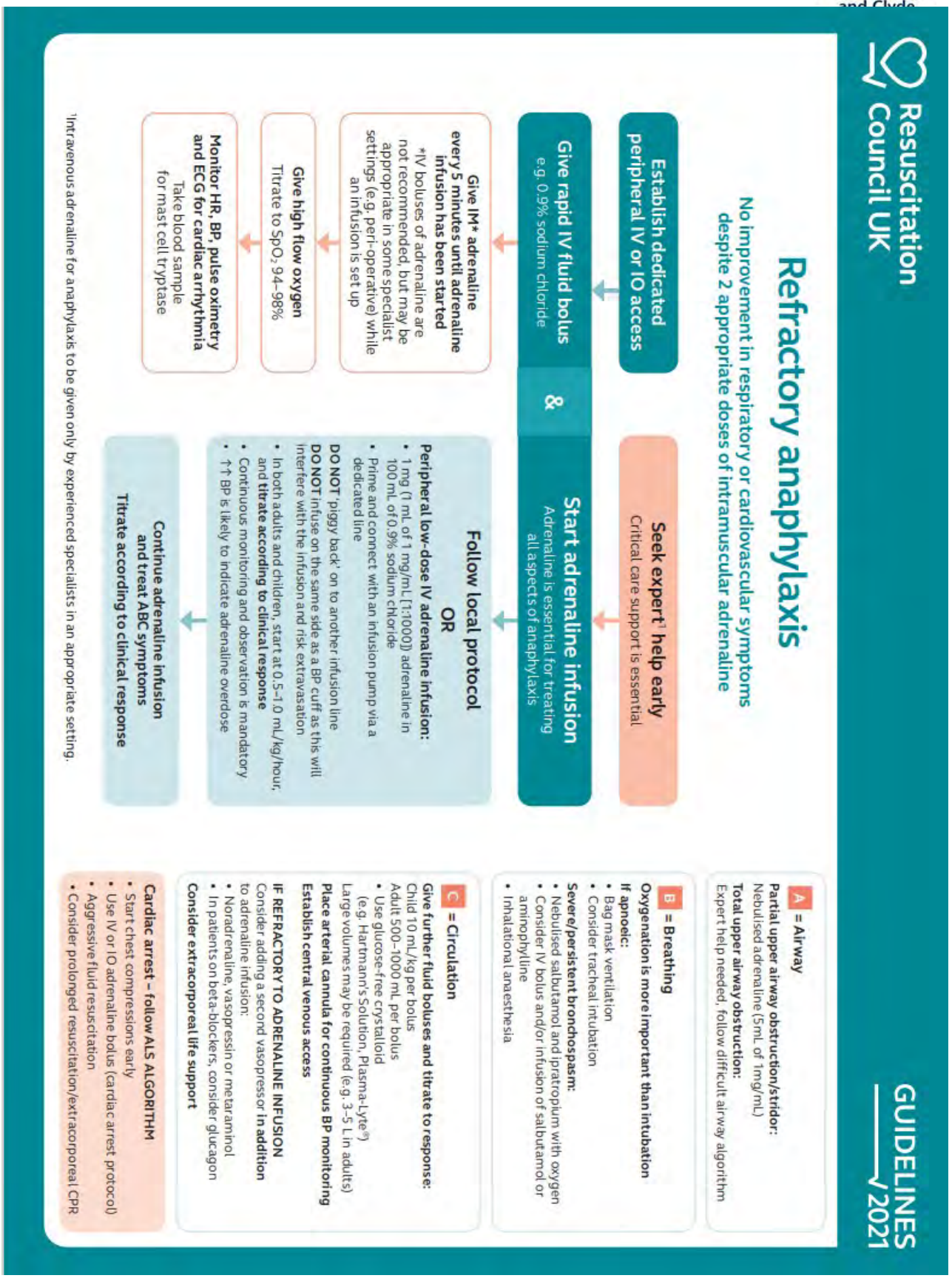
6.4 Cardio-respiratory arrest following an anaphylactic reaction

Start cardiopulmonary resuscitation (CPR) immediately and follow current guidelines. Rescuers Should ensure that help is on its way as early advanced life support (ALS) is essential. Use doses Of adrenaline recommended in the ALS guidelines. The intramuscular route for adrenaline is Not recommended after cardiac arrest has occurred.

6.5 Anaphylaxis algorithm & Refractory Anaphylaxis algorithm



(Resuscitation Council UK, 2021)



(Resuscitation Council UK, 2021)

Download this algorithm:
https://www.resus.org.uk/sites/default/files/202104/Refractory%20anaphylaxis%20algorithm%202021.pdf

Download pages 7-11 (key recommendations, Summary of changes, algorithms):
https://www.resus.org.uk/sites/default/files/2021-04/Anaphylaxis%20Summary%20Document.pdf

7.0 Adrenaline (Epinephrine)

Adrenaline is the most important drug for the treatment of an anaphylactic reaction16. Adverse Effects are extremely rare with correct doses injected intramuscularly (IM).

Difficulties can arise if the clinical picture is evolving when the patient is first assessed. Adrenaline should be given to all patients with life-threatening features of Anaphylaxis. If these features are absent but there are other features of a systemic allergic reaction, the patient needs careful observation and symptomatic treatment using the ABCDE approach. Adrenaline must be readily available in clinical areas where an anaphylactic reaction could occur.

7.1 Intramuscular (IM) Adrenaline

The intramuscular (IM) route is the best for most individuals who have to give adrenaline to treat an Anaphylactic reaction. Monitor the patient as soon as possible (pulse, blood pressure, ECG, pulse Oximetry). This will help monitor the response to adrenaline. The IM route has several benefits:

- There is a greater margin of safety.
- It does not require intravenous access.
- The IM route is easier to learn.

7.2 Choice of needle and technique for intramuscular (IM) injection

The best site for IM injection is the anterolateral aspect of the middle third of the thigh17. The Needle used for injection needs to be sufficiently long to ensure that the adrenaline is injected Into muscle.

The following guidance is based on the recommendations for intramuscular injections for Adrenaline (Emergency treatment of anaphylaxis Guidelines for healthcare providers, 2022). For IM injections," The needle used for injection must be sufficiently long to ensure that the adrenaline is injected into muscle: use a green (21G) or blue (23G) needle (see Appendix 2 for further guidance regarding needle length and IM injection technique)."

Standard UK needle gauges and lengths		
Brown	26G	10 mm
Orange	25G	16 mm or 25 mm
Blue	23G	25 mm
Green	21G	38 mm

Give IM injections with the needle at a 90º angle to the skin. The skin should be stretched, not bunched.

7.3 Adrenaline IM dose

For adults the dose of IM Adrenaline delivered should be:
0.5 mg IM (= 500 micrograms = 0.5 mL of 1:1000) adrenaline

For children the dose of IM Adrenaline should be:
The scientific basis for the recommended doses is weak. The recommended doses are based on What is c o ns i d e re d to be safe and practical to draw up and inject in an emergency. (The equivalent volume of 1:1000 adrenaline is shown in brackets)

Adrenaline IM dose	Use 1 mg/mL [1:1000] adrenaline	
Adult and child* > 12 years:	500 micrograms IM	(0.5 mL of 1 mg/ml adrenaline)
6 – 12 years:	300 micrograms IM	(0.3 mL)
6 months – 6 years:	150 micrograms IM	(0.15 mL)
< 6 months:	100 – 150 micrograms IM	(0.1 to 0.15 mL)

*Give 300 micrograms IM (0.3 mL) in a child who is small or prepubertal

(Resuscitation Council UK, 2021)

Repeat the IM adrenaline dose at 5 minute intervals, if there is no improvement in the patient's Condition.

NB: Intravenous Adrenaline would only be used by experienced health care professionals in resuscitation practices during a cardiorespiratory arrest.

7.4 Adrenaline in special populations

Previous Resuscitation Council (UK) guidelines recommended adrenaline dose adjustments in Certain circumstances (e.g., in patients taking tricyclic antidepressants, the previous recommendation was to give half the dose). This is now considered unhelpful for such caveats in the setting of an acute anaphylactic reaction. There is large inter-individual variability in the response to adrenaline. In clinical practice, it is important to monitor the response; start with a safe dose and give further doses if a greater response is needed, i.e. titrate the dose according to effect.

Adrenaline can fail to reverse the clinical manifestation of an anaphylactic reaction, especially when its use is delayed or in patients treated with beta-blockers. The decision to prescribe a beta-blocker to a patient at increased risk of an anaphylactic reaction should be made only after assessment by an allergist and cardiologist.

7.5 Adrenaline auto-injectors

Auto-injectors are often given to patients at risk of anaphylaxis for their own use. Currently, There are only two doses of adrenaline auto-injector commonly available: 0.15 and 0.3 mg. The more appropriate dose for an auto-injector should be prescribed for individual patients by allergy specialists. Healthcare professionals should be familiar with the use of the most commonly available auto-injector devices. The dose recommendations for adrenaline in this guideline are intended for healthcare providers treating an anaphylactic reaction, using a needle and syringe to 'draw up' the dose from an ampoule.

If an adrenaline auto-injector is the only available adrenaline preparation when treating anaphylaxis, healthcare providers should use it.

7.6 Oxygen (give as soon as available)

Initially, give the highest concentration of oxygen possible using a mask with an oxygen reservoir. Ensure high flow oxygen (greater than 10 litres min-1) to prevent collapse of the reservoir during inspiration. If the patient's trachea is intubated, ventilate the lungs with high concentration oxygen using a self- inflating bag.

7.7 IV Fluids (give as soon as available)

The delivery of intravenous fluids would be considered on some mental health inpatient settings where equipment and skills are available. Large volumes of fluid may leak from the patient's circulation during an anaphylactic reaction. There will also be vasodilation, a low blood pressure and signs of shock.

If there is intravenous access, infuse intravenous fluids immediately. Give a rapid IV fluid challenge (500-1000 mL in an adult) and monitor the response; give further doses as necessary. Consider colloid infusion as a potential cause in a patient receiving a colloid at the time of onset of an anaphylactic reaction and stop the infusion. 0.9% saline is a suitable fluid for initial resuscitation. Do not delay the administration of IM adrenaline whilstattemptingintravenousaccess.

7.8 Antihistamines (after initial resuscitation)

Antihistamines

- Antihistamines are not recommended as part of the initial emergency treatment for anaphylaxis.21
- Antihistamines have no role in treating respiratory or cardiovascular symptoms of anaphylaxis
- Antihistamines can be used to treat skin symptoms that often occur as part of allergic reactions including anaphylaxis.21
- Their use must not delay treatment of respiratory or cardiovascular symptoms of anaphylaxis (using adrenaline and IV fluids).

The role of antihistamines in anaphylaxis is debated but there is consensus across all guidelines that they are not a first-line treatment.22, 23, and 24 they are of no benefit in treating life-threatening features of anaphylaxis. Most guidelines express concern that their use often delays administration of initial and subsequent doses of adrenaline, thereby increasingmorbidity.21Antihistamines can be helpful in alleviating cutaneous symptoms (whether these are due to anaphylaxis or non-anaphylaxis allergic reactions), but must not be given in preference to adrenaline to treat anaphylaxis. In the presence of ongoing Airway/Breathing/ Circulation problems of anaphylaxis, give further IM adrenaline and seek expert advice. Once a patient has been stabilised, use a non-sedating oral antihistamine (e.g. cetirizine) in preference to chlorphenamine which causes sedation.

11, Recommended doses are shown below. If the oral route is not possible, chlorphenamine can be given by intravenous or intramuscular injection, but note that such H1-receptor antihistamines can cause hypotension when given as a rapid IV bolus.70

Age Dose of oral cetirizine

Age	Dose of oral cetirizine
< 2 years	250 micrograms/kg
2–6 years	2.5–5 mg
6–11 years	5–10 mg
12+ years	10–20 mg
Adults	10–20 mg

(Resuscitation Council UK, 2021)

7.9 Steroids (give after initial resuscitation)

The routine administration of corticosteroids to treat anaphylaxis is not recommended however, there is no evidence for or against their use for refractory anaphylaxis. It is reasonable to consider corticosteroids (such as hydrocortisone) for refractory reactions after initial resuscitation.3 Corticosteroids should not be prioritised over adrenaline infusion and fluid resuscitation.

6. Transfer of Care, Follow up and confirming Diagnosis

It is vital that mental health patients are followed up within acute care settings even if a positive response has been achieved with treatment within a mental health location. This will confirm the diagnosis, inform future risk status and facilitate follow up by an allergy specialist.

Before discharge from hospital (acute) all patients must be:

- Reviewed by a senior clinician (physician).
- Given clear instructions to return to hospital if symptoms return.
- Considered for anti-histamines and oral steroid therapy for up to 3 days. This is helpful for treatment of urticaria and may decrease the chance of further reaction.
- Considered for an adrenaline auto-injector (see below), or given a replacement.
- Have a plan for follow-up, including contact with the patient's RMO and general practitioner.

8.1 Recordkeeping

To help confirm the diagnosis of anaphylaxis and identify the most likely trigger, it is useful for The medical emergency team, ambulance service and allergy clinic to have:

- A description of the reaction with circumstances and timings to help identify potential triggers.
- A list of administered treatments.
- Copies of relevant patient records, e.g., ambulance charts, emergency department records, observationcharts, anestheticcharts.

- Results of any investigations alreadycompleted.

8.2 Reporting of reaction

Adverse drug reactions that include an anaphylactic reaction should be reported to the Medicines and Healthcare products Regulatory Agency (MHRA) using the yellow card scheme (www.mhra.gov.uk). The British National Formulary (BNF) includes copies of the Yellow Card at the back of each edition. This mandatory reporting is in addition to the normal organisational requirements such as Datix, incident reporting and briefing note systems.

8.3 Specialist referral

All patients presenting with anaphylaxis should be referred to an allergy clinic to identify the cause, and thereby reduce the risk of future reactions and prepare the patient to manage future episodes themselves. There is a list of specialist clinics on the British Society for Allergy and Clinical Immunology (BSACI) website.

8.4 Patient education

Refer patients at risk of an anaphylactic reaction to an appropriate allergy clinic. Patients need to know the allergen responsible and how to avoid it. If the allergen is a food, they need to know what products are likely to contain it, and all the names that can be used to describe it. They also need information to know how to avoid situations that could expose them to the allergen.

Patients need to be able to recognise the early symptoms of anaphylaxis, so that they can summon help quickly and prepare to use their emergency medication. Patients at risk are should carry their adrenaline auto-injector with them at all times. Patients and those close to them (i.e., close family, friends, and carers) should receive information/ training in using the auto-injector and should practice regularly using a suitable training device, so that they will know what to do in an emergency.

Patients must always seek urgent medical assistance when experiencing anaphylaxis and after using an adrenaline auto-injector. Information about managing severe allergies can be obtained from their allergy specialist, general practitioner, other healthcare professional or the Anaphylaxis Campaign. Although there are no randomised clinical trials, there is evidence that individualised action plans for self-management should decrease the risk of recurrence.

Specific guidance and training is available for schools with children at risk of allergic reactions (www.allergyinschools.org.uk).

All those at high risk of an anaphylactic reaction should consider wearing some device, such as a bracelet (e.g., Medic Alert), that provides information about their history of anaphylactic reaction.

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Appendix 1

The ABCDE Approach to Assessing the acutely(physically) Ill Patient

Modified from Advanced Life Support Manual 2021 (Resuscitation Council (UK)) (The ABCDE Approach, 2022)

Underlying principles

The approach to all deteriorating or critically ill patients is the same. The underlying principles are:

1. Use the Airway, Breathing, Circulation, Disability and Exposure
2. (ABCDE) approach to assess and treat the patient.
3. Do a complete initial assessment and re-assess regularly.
4. Treat life-threatening problems before moving to the next part of assessment.
5. Assess the effects of treatment.
6. Recognise when you will need extra help. Call for appropriate help early.
7. Use all members of the team. This enables interventions (e.g. assessment, attaching monitors, intravenous access) to be undertaken simultaneously.
8. Communicate effectively - use the Situation, Background, Assessment, Recommendation, Decision (SBARD) or Reason, Story, Vital signs, Plan (RSVP) approach.
9. The aim of the initial treatment is to keep the patient alive, and achieve some clinical improvement. This will buy time for further treatment and making a diagnosis.
10. Remember – it can take a few minutes for treatments to work, so wait a short while before reassessing the patient after an intervention.

First steps:

1. Ensure personal safety. Wear apron and gloves as appropriate.
2. First look at the patient in general to see if the patient appears unwell.
3. If the patient is awake, ask “How are you?” If the patient appears unconscious or has collapsed, shake him and ask “Are you alright?” If he responds normally, he has a patent airway, is breathing and has brain perfusion. If he speaks only in short sentences, he may have breathing problems. Failure of the patient to respond is a clear marker of critical illness.
4. This first rapid ‘Look, Listen and Feel” of the patient should take about 30 s and will often indicate a patient is critically ill and there is a need for urgent help. Ask a colleague to ensure appropriate help iscoming.
5. If the patient is unconscious, unresponsive, and is not breathing normally (occasional gasps are not normal) start CPR according to the resuscitation guidelines. If you are confident and trained to do so, feel for a pulse to determine if the patient has a respiratory arrest. If there are any doubts about the presence of a pulse start CPR.
6. Monitor the vital signs early. Attach a pulse oximeter, ECG monitor and a non-invasive blood pressure monitor to all critically ill patients, as soon as possible.
7. Insert an intravenous cannula as soon as possible. Take bloods for investigation when inserting the intravenous cannula.

Airway (A)

Airway obstruction is an emergency. Get expert help immediately. Untreated, airway obstruction causes hypoxia and risks damage to the brain, kidneys and heart, cardiac arrest, and death.

1. Look for the signs of airway obstruction

- Airway obstruction causes paradoxical chest and abdominal movements (‘see-saw’ respirations) and the use of the accessory muscles of respiration. Central cyanosis is a late sign of airway obstruction. In complete airway

obstruction, there are no breath sounds at the mouth or nose. In partial obstruction, air entry is diminished and often noisy.

- In the critically ill patient, depressed consciousness often leads to airway obstruction.

2. Treat airway obstruction as a medical emergency

- Obtain expert help immediately. Untreated, airway obstruction causes hypoxaemia (low PaO2) with the risk of hypoxic injury to the brain, kidneys and heart, cardiac arrest, and even death.

- In most cases, only simple methods of airway clearance are required (e.g. airway opening manoeuvres, airways suction, insertion of an oropharyngeal or nasopharyngeal airway). Tracheal intubation may be required when these fail.

3. Give oxygen at high concentration

- Provide high-concentration oxygen using a mask with oxygen reservoir. Ensure that the oxygen flow is sufficient (usually 15 L min^{-1}) to prevent collapse of the reservoir during inspiration. If the patient's trachea is intubated, give high concentration oxygen with a self-inflating bag.

- In acute respiratory failure, aim to maintain an oxygen saturation of 94–98%. In patients at risk of hypercapnic respiratory failure (see below) aim for an oxygen saturation of 88–92%.

Breathing (B)

During the immediate assessment of breathing, it is vital to diagnose and treat immediately life-threatening conditions (e.g. acute severe asthma, pulmonary oedema, tension pneumothorax, and massive haemothorax).

1. Look, listen and feel for the general signs of respiratory distress: sweating, central cyanosis, use of the accessory muscles of respiration, and abdominal breathing.
2. Count the respiratory rate. The normal rate is 12–20 breaths min^{-1}. A high (> 25 min^{-1}) or increasing respiratory rate is a marker of illness and a warning that the patient may deteriorate suddenly.
3. Assess the depth of each breath, the pattern (rhythm) of respiration and whether chest expansion is equal on both sides.
4. Note any chest deformity (this may increase the risk of deterioration in the ability to breathe normally); look for a raised jugular venous pulse (JVP) (e.g. in acute severe asthma or a tension pneumothorax); note the presence and patency of any chest drains; remember that abdominal distension may limit diaphragmatic movement, thereby worsening respiratory distress.
5. Record the inspired oxygen concentration (%) and the SpO2 reading of the pulse oximeter. The pulse oximeter does not detect hypercapnia. If the patient is receiving supplemental oxygen, the SpO2 may be normal in the presence of a very high PaCO2.
6. Listen to the patient's breath sounds a short distance from his face: rattling airway noises indicate the presence of airway secretions, usually caused by the inability of the patient to cough sufficiently or to take a deep breath. Stridor or wheeze suggests partial, but significant, airway obstruction.
7. Percuss the chest: hyper-resonance may suggest a pneumothorax; dullness usually indicates consolidation or pleural fluid.
8. Auscultate the chest: bronchial breathing indicates lung consolidation with patent airways; absent or reduced sounds suggest a pneumothorax or pleural fluid or lung consolidation caused by complete obstruction.
9. Check the position of the trachea in the suprasternal notch: deviation to one side indicates mediastinal shift (e.g. pneumothorax, lung fibrosis or pleural fluid).
10. Feel the chest wall to detect surgical emphysema or crepitus (suggesting a pneumothorax until proven otherwise).
11. The specific treatment of respiratory disorders depends upon the cause. Nevertheless, all critically ill patients should be given oxygen. In a subgroup of patients with COPD, high concentrations of oxygen may depress breathing (i.e. they are at risk of hypercapnic respiratory failure - often referred to as type 2 respiratory failure).

Nevertheless, these patients will also sustain end-organ damage or cardiac arrest if their blood oxygen tensions are allowed to decrease. In this group, aim for a lower than normal PaO2 and oxygen saturation. Give oxygen via a Venturi 28% mask (4 L min^{-1}) or a 24% Venturi mask (4 L min^{-1}) initially and reassess. Aim for target SpO2 range of 88–92% in most COPD patients, but evaluate the target for each patient based on the patient's arterial blood gas measurements during previous exacerbations (if available). Some patients with chronic lung disease carry an oxygen alert card (that documents their target saturation) and their own appropriate Venturi mask.

12. If the patient's depth or rate of breathing is judged to be inadequate, or absent, use bag-mask or pocket mask ventilation to improve oxygenation and ventilation, whilst calling immediately for expert help. In cooperative patients who do not have airway obstruction consider the use of non-invasive ventilation (NIV). In patients with an acute exacerbation of COPD, the use of NIV is often helpful and prevents the need for tracheal intubation and invasive ventilation

Circulation(C)

In almost all medical and surgical emergencies, consider hypovolaemia to be the primary cause of shock, until proven otherwise. Unless there are obvious signs of a cardiac cause, give intravenous fluid to any patient with cool peripheries and a fast heart rate. In surgical patients, rapidly exclude haemorrhage (overt or hidden). Remember that breathing problems, such as a tension pneumothorax, can also compromise a patient's circulatory state. This should have been treated earlier on in the assessment.

1. Look at the colour of the hands and digits: are they blue, pink, pale or mottled?
2. Assess the limb temperature by feeling the patient's hands: are they cool or warm?
3. Measure the capillary refill time (CRT). Apply cutaneous pressure for 5 s on a fingertip held at heart level (or just above) with enough pressure to cause blanching. Time how long it takes for the skin to return to the colour of the surrounding skin after releasing the pressure. The normal value for CRT is usually < 2 s. A prolonged CRT suggests poor peripheral perfusion. Other factors (e.g. cold surroundings, poor lighting, old age) can prolong CRT.
4. Assess the state of the veins: they may be under filled or collapsed when hypovolaemia is present.
5. Count the patient's pulse rate (or preferably heart rate by listening to the heart with a stethoscope).
6. Palpate peripheral and central pulses, assessing for presence, rate, quality, regularity and equality. Barely palpable central pulses suggest a poor cardiac output, whilst a bounding pulse may indicate sepsis.
7. Measure the patient's blood pressure. Even in shock, the blood pressure may be normal, because compensatory mechanisms increase peripheral resistance in response to reduced cardiac output. A low diastolic blood pressure suggests arterial vasodilation (as in anaphylaxis or sepsis). A narrowed pulse pressure (difference between systolic and diastolic pressures; normally 35–45 mmHg) suggests arterial vasoconstriction (cardiogenic shock or hypovolaemia) and may occur with rapid tachyarrhythmia.
8. Auscultate the heart. Is there a murmur or pericardial rub? Are the heart sounds difficult to hear? Does the audible heart rate correspond to the pulse rate?
9. Look for other signs of a poor cardiac output, such as reduced conscious level and, if the patient has a urinary catheter, oliguria (urine volume < 0.5 mL kg^{-1} h^{-1}).
10. Look thoroughly for external haemorrhage from wounds or drains or evidence of concealed haemorrhage (e.g. thoracic, intra-peritoneal, retroperitoneal or into gut). Intra-thoracic, intra-abdominal or pelvic blood loss may be significant, even if drains are empty.
11. The specific treatment of cardiovascular collapse depends on the cause, but should be directed at fluid replacement, haemorrhage control and restoration of tissue perfusion. Seek the signs of conditions that are immediately life threatening (e.g. cardiac tamponade, massive or continuing haemorrhage, septicaemia shock), and treat them urgently.
12. Insert one or more large (14 or 16 G) intravenous cannulae. Use short, wide-bore cannulae, because they enable the highest flow.
13. Take blood from the cannula for routine haematological, biochemical, coagulation and microbiological investigations, and cross-matching, before infusing intravenous fluid.
14. Give a bolus of 500 mL of warmed crystalloid solution (e.g. Hartmann's solution or 0.9% sodium chloride) over less than 15 min if the patient is hypotensive. Use smaller volumes (e.g. 250 mL) for patients with known cardiac failure or trauma and use closer monitoring (listen to the chest for crackles after each bolus).

15. Reassess the heart rate and BP regularly (every 5 min), aiming for the patient's normal BP or, if this is unknown, a target > 100 mmHg systolic.
16. If the patient does not improve, repeat the fluid challenge. Seek expert help if there is a lack of response to repeated fluid boluses.
17. If symptoms and signs of cardiac failure (dyspnoea, increased heart rate, raised JVP, a third heart sound and pulmonary crackles on auscultation) occur, decrease the fluid infusion rate or stop the fluids altogether. Seek alternative means of improving tissue perfusion (e.g. inotropes or vasopressors).
18. If the patient has primary chest pain and a suspected ACS, record a 12-lead ECG early.
19. Immediate general treatment for ACS includes:
    - Aspirin 300 mg, orally, crushed or chewed, as soon as possible.
    - Nitroglycerine, as sublingual glyceryl trinitrate (tablet or spray).
    - Oxygen: only give oxygen if the patient's SpO_2 is less than 94% breathing air alone.
    - Morphine (or diamorphine) titrated intravenously to avoid sedation and respiratory depression.

Disability (D)

Common causes of unconsciousness include profound hypoxia, hypercapnia, cerebral hypoperfusion, or the recent administration of sedatives or analgesic drugs.

- Review and treat the ABCs: exclude or treat hypoxia and hypotension.

- Check the patient's drug chart for reversible drug-induced causes of depressed consciousness. Give an antagonist where appropriate (e.g. naloxone for opioid toxicity).

- Examine the pupils (size, equality and reaction to light).

- Make a rapid initial assessment of the patient's conscious level using the ACVPU method: Alert, New confusion, responds to Vocal stimuli, responds to Painful stimuli or Unresponsive to all stimuli. Alternatively, use the Glasgow Coma Scale score. A painful stimuli can be given by applying supra-orbital pressure (at the supraorbital notch).

- Measure the blood glucose to exclude hypoglycaemia using a rapid finger-prick bedside testing method. In a peri-arrest patient use a venous or arterial blood sample for glucose measurement as finger prick sample glucose measurements can be unreliable in sick patients. Follow local protocols for management of hypoglycaemia. For example, if the blood sugar is less than 4.0 mmol L^{-1} in an unconscious patient, give an initial dose of 50 mL of 10% glucose solution intravenously. If necessary, give further doses of intravenous 10% glucose every minute until the patient has fully regained consciousness, or a total of 250 mL of 10% glucose has been given. Repeat blood glucose measurements to monitor the effects of treatment. If there is no improvement consider further doses of 10% glucose. Specific national guidance exists for the management of hypoglycaemia in adults with diabetes mellitus.
- Nurse unconscious patients in the lateral position if their airway is not protected.

Exposure (E)

To examine the patient properly, full exposure of the body is necessary. Skin and mucosal changes after anaphylaxis can be subtle. Minimise heat loss. Respect the patient's dignity.

Additionalinformation

1. Take a full clinical history from the patient, relatives or friends, and other staff.

2. Review the patient's notes and charts
    a. Study both absolute and trended values of vital signs.
    b. Check that important routine medications are prescribed and being given.

3. Review the results of recent laboratory or radiological investigations.

4. Consider what level of care is required by the patient, e.g., transport to nearest A&E facility.

5. Make complete entries in the patient's notes of your findings, assessment and treatment. Record the patient's response to therapy.

6. Consider definitive treatment of the patient's underlying condition.

Antidepressant switching and stopping

General guidance- stopping[1]

All antidepressants can cause discontinuation symptoms with the possible exceptions of agomelatine and vortioxetine.

Abrupt withdrawal should be avoided unless a serious adverse event has occurred.

Reduce dose gradually over 4 weeks (except fluoxetine due to its long half-life), this is particularly important in drugs with a short half-life (e.g. paroxetine and venlafaxine).

Discontinuation symptoms (these can be drug specific, consult individual SPC for further information) include:

- Agitation
- Flu-like symptoms
- Headache
- Insomnia
- Irritability
- Shock-like sensations
- Vivid/excessive dreaming

Symptoms are usually mild and self-limiting but in some cases may be severe and prolonged.

Ensure patients are given adequate education on the symptoms they are likely to experience, onset and duration.

General guidance- switching[1]

Cross-tapering is preferred when switch from one antidepressant to another:

- Dose of current antidepressant is reduced slowly while slowly introducing the new antidepressant
- Speed of cross-tapering should be based on individual patient tolerability
- Not suitable for all situations (see table for further information)

Risks associated with cross-tapering include:

- Pharmacodynamic interactions
  - Serotonin syndrome
  - Hypotension
  - Drowsiness
- Pharmacokintetic interactions
  - Increased plasma levels of tricyclics by some SSRIs
- Antidepressant discontinuation symptoms
  - Could be mistakenly interpreted as side effects of new medication

Symptoms of serotonin syndrome include (see full guidance for management):

- Confusion
- Convulsions
- Myoclonus
- Restlessness
- Shivering

The table below sets out guidance for specific drug to drug switches. Contact local clinical pharmacy services for additional advice.

NHS Greater Glasgow & Clyde
Mental Health Services
Prescribing Management Group

Recommended Washout Periods - numbers shown are in days[2]

From \ To	MAOIs		TCA	SSRIs				
	Hydrazines	**Tranylcypromine**	**Tricyclics**	**Citalopram/ Escitalopram**	**Fluoxetine**	**Sertraline**	**Paroxetine**	**Vortioxetine**
MAOIs Hydrazines	14	14	10-14	14	14	14	14	14
Tranylcypromine	14		14	14	14	14	14	14
Tricyclics	7 – 14*	7-14*	CTC	CTC	CTGC	CTC	CTGC	SSP
Citalopram/ Escitalopram	7	7	CTC	SSP	SSP	SSP	SSP	SSP
Fluoxetine	35	35	Great care for 4 weeks	SSP		SSP	SSP	SSP
Sertraline	7-14	7-14	CTGC	SSP	SSP		SSP	SSP
Paroxetine	14	14	CTGC	SSP	SSP	SSP		SSP
Vortioxetine	14	14	SSP	SSP	SSP	SSP	SSP	
Trazodone	14	14	CTC	CTC	CTC	CTC	CTC	SSP
Moclobemide	NSP	NSP	OPR	NSP	14	NSP	NSP	SSP
Reboxetine	7	7	NSP	NSP	NSP	NSP	NSP	NSP
Mirtazapine	7-14	7-14	NSP	NSP	NSP	NSP	NSP	NSP
Venlafaxine	7	7	NSP	CTC	CTC	CTC	CTC	SSP
Duloxetine	5	5	SSP	SSP	SSP	SSP	SSP	SSP
Agomelatine	NSP	NSP	NSP	NSP	NSP	NSP	NSP	NSP

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NHS Greater Glasgow & Clyde
Mental Health Services
Prescribing Management Group

Recommended Washout Periods - numbers shown are in days[2]

From / To	Trazodone	Moclobemide	Reboxetine	Mirtazapine	Venlafaxine	Duloxetine	Agomelatine
MAOIs Hydrazines	14	No Gap, Dietary restriction for 14 days	14	14	14	14	NSP
Tranylcypromine	14	No Gap, Dietary restriction for 14 days	14	14	14	14	NSP
Tricyclics	NSP	Seek advice	NSP	NSP	CTC	SSP	NSP
Citalopram/Escitalopram	CTC	7	NSP	NSP	CTC	SSP	NSP
Fluoxetine	CTC	35-42	NSP	NSP	CTC	SSP	NSP
Sertraline	CTC	7-14	NSP	NSP	CTC	SSP	NSP
Paroxetine	CTC	7	NSP	NSP	CTC	SSP	NSP
Vortioxetine	SSP	See note**	NSP	NSP	SSP	SSP	NSP
Trazodone		NSP	NSP	NSP	CTC	SSP	NSP
Moclobemide	NSP		NSP	NSP	NSP	SSP	NSP
Reboxetine	NSP	NSP		NSP	NSP	NSP	NSP
Mirtazapine	NSP	NSP	NSP		NSP	NSP	NSP
Venlafaxine	CTC	NSP	NSP	NSP		SSP	NSP
Duloxetine	SSP	SSP	NSP	NSP	SSP		NSP
Agomletatine	NSP	NSP	NSP	NSP	NSP	NSP	

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NB: The use of MAOIs carries life-threatening risks - use under consultant supervision only

Notes: Cross-taper indicates that drugs can be swapped by cross-tapering cautiously over a few weeks. “No significant problems” refers to lack of reported incidents, but a careful cross taper is always advisable.

*21 days if clomipramine, imipramine or tranylcypromine are involved. Initial low doses of the MAOI are essential.
**This combination is contraindicated but the SPC implies that to minimize risk of serotonin syndrome switch using low doses and close monitoring can be used.

Key:
CTC- Cross-taper with caution
CTGC- Cross-taper with great caution
NSP- No significant problem
OPR- Occasional problems reported
SSP- Serotonin syndrome possible

References:
[1]The Maudsley Prescribing Guidelines in Psychiatry 14th edition; Taylor.D, Paton.C, Kapur.S.
[2-]Psychotropic Drug Directory 2020/21; Bazire.S Reproduced by kind permission of Prof. Bazire.

Mental Health Services
Prescribing Management Group

Combination Antipsychotic & Augmentation Guidance

Introduction/background

It has been estimated that up to one third of individuals with schizophrenia don't respond to conventional antipsychotics [1,2] and around 40-70% of individuals treated with clozapine fail to obtain an adequate response.[3] Therefore, augmentation of clozapine and other antipsychotics with a second antipsychotic is often encountered in clinical practice.

The evidence-base for combined antipsychotic use however, is poor and its use should be the exception. Antipsychotic combinations should only be given as part of a closely monitored, time-limited treatment plan after more evidence-based approaches have been prescribed.

An augmentation strategy should be guided by available current research, clinical expertise, and the needs and preferences of the patient, with decisions made on a case by case basis. For less well established combinations, consider reviewing the primary references and/or consult with clinical colleagues for advice.

Optimising monotherapy - before combing antipsychotics, consider;

- ***Time for therapeutic effect***

It is essential that there has been a trial of adequate duration and dose to establish effect, partial response or non-response

- If there is no response to medication after four weeks despite dose optimisation, a change in antipsychotic should be considered.
- Where there is partial response, this should be re-assessed after eight weeks unless there are significant adverse effects. [4]

Some individuals will respond to treatment after a number of months.[5] BAP recommends that for an adequate trial, clozapine monotherapy should be prescribed for 3- 6 months. [6]

- ***Dosing and pharmacodynamics***

All antipsychotics vary in their affinity for D_2 receptors and neither the first or second generation antipsychotics are homogenous groups (see Appendix I). To effectively treat the positive symptoms of schizophrenia, antipsychotics need to block at least 60% of D_2 receptors (clozapine being the exception).

Effective D_2 blockade is achieved at different dose levels and may only be achieved after the concentration is sufficient to block other receptors. When an antipsychotic has stronger affinity for a particular receptor system than for the dopaminergic system, a side effect associated with the blockade of this receptor is likely to occur within the dose range required for antipsychotic efficacy. For example, quetiapine has stronger affinity for histaminergic and alpha-adrenergic receptors than dopaminergic, therefore sedation and postural hypotension are likely to occur within the therapeutic dose range (See Appendix II).

There are subsets of patients who both tolerate and require high levels of D_2 antagonism for symptom control and respond to high doses that achieve greater than the traditional degree of D_2 receptor occupancy.[7]

- ***Changing antipsychotic monotherapy***

Clozapine should always be considered in treatment resistant schizophrenia where other antipsychotics have failed to elicit an adequate response or caused intolerable adverse effects. Where clozapine is not a viable option, an antipsychotic with a different receptor profile to those previously tried should be

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considered prior to combining antipsychotics. For example, switching to a first generation antipsychotic where only second generation antipsychotics have been prescribed previously.

Antipsychotic augmentation with non-antipsychotic agents should be considered

Mood stabilisers and/or antidepressants should be considered especially where a mood disturbance is thought to contribute to symptoms. However, where there is not an obvious affective component, a mood stabiliser may also be worth considering in psychosis that has not responded to conventional antipsychotics. Glutamatergic neurotransmission is altered in schizophrenia, therefore lamotrigine with a mechanism of action that inhibits excessive glutamate release may have a potential role as antipsychotic augmentation.[8,9] SIGN recommends lamotrigine augmentation of clozapine for individuals whose symptoms have had an insufficient response to clozapine. [4] There is also some evidence for the effectiveness of lithium as an add-on treatment with antipsychotics for schizophrenia, however a recent Cochrane review indicated that these were low quality studies.[10]

Principles of combination antipsychotics (Appendix III antipsychotic treatment flowchart)

The following situations can be considered as appropriate indications for the use of combination antipsychotics;

- Augmentation of clozapine e.g. where clozapine has produced a partial response
- Clozapine is not a viable treatment option e.g. clozapine not tolerated or individual not willing to accept clozapine
- Switching from one antipsychotic to another e.g. temporary cross-titration
- During an acute exacerbation of illness i.e. used as a temporary measure
- Managing adverse effects e.g. hyperprolactinaemia or weight gain

Consider pharmacodynamics and pharmacokinetics when considering combinations [11]

- ***Avoid pharmacodynamic redundancy***

Using two drugs with the same or overlapping mechanism of action e.g. two potent D_2 blockers, where the addition of one drug to another is unlikely to give additional clinical benefit but will increase the risk of adverse effects.

- ***Consider pharmacodynamic interactions***

Using two drugs with opposing mechanism of action e.g. the use of aripiprazole (a partial D_2 agonist) with a potent D_2 blocker. Aripiprazole will displace full D_2 antagonists and potentially lead to a worsening of positive symptoms.

- ***Consider pharmacokinetic interactions***

Where one drug increases the metabolism of another e.g. carbamazepine induces metabolism of certain antipsychotics and reduces their plasma levels.

Clozapine and non-clozapine augmentation

The evidence-base for antipsychotic augmentation is poor. Evidence of effectiveness and side-effect burden of antipsychotic combinations (excluding clozapine) is not robust enough to allow recommendations for combinations to be made. However combinations may be useful in some clinical situations. Choice of augmenting antipsychotic should be based on complementary receptor profiles in terms of optimising therapeutic effect and minimising adverse effects.

There is somewhat better evidence for augmenting clozapine compared to other antipsychotics with some randomised controlled trials of clozapine augmentation; however a recent Cochrane review suggested that the results were limited and evidence is of low or very low quality. [12]

Augmentation strategies with clozapine should only be considered after clozapine treatment has been administered for an adequate period of at least 3 months.[6] It may be appropriate to consider the use of therapeutic drug monitoring of clozapine when optimising the dose and prior to augmentation (Clozapine TDM guide).

When choosing the augmenting antipsychotic, consideration should be given to antipsychotics with a complementary receptor profile to clozapine, and a side effect profile that minimises adverse effects such as sedation, weight gain and metabolic effects. An adequate trial of clozapine augmentation with another antipsychotic should be at least 10 weeks in duration.[4,6]

The use of more than two antipsychotics should prompt an immediate review of medication.

Antipsychotic augmentation for adverse effect management

Consideration may be given to using a second antipsychotic in order to manage the adverse effects of the original antipsychotic. For example;

- the addition of aripiprazole to individuals treated with clozapine to minimise side effects such as sedation, weight gain and other metabolic parameters [13]
- low dose aripiprazole* to manage symptomatic hyperprolactinaemia. [14,15]

*Aripiprazole (as a partial agonist) at relatively low doses (~10mg) can achieve >80% D_2 occupancy and will displace full D_2 antagonists and therefore may lead to a worsening of positive symptoms. The optimum dose of aripiprazole for managing symptoms of hyperprolactinaemia is approximately 5mg daily (range 3-6mg). [14,15] There is no rationale for using higher doses as these may have a detrimental impact on mental state.

Polypharmacy risks

Combinations of antipsychotics may increase the likelihood of adverse effects. Therefore, being aware of potential adverse effects of both antipsychotics is important when choosing suitable combinations and managing any risks appropriately. Consider the potential for high dose antipsychotic therapy when combining antipsychotics (High Dose Antipsychotic Monitoring Policy).

Consent and documentation

Good record-keeping and documentation is fundamental to all prescribing practices. When using antipsychotic augmentation strategies, it is essential to **RECoRD;**

- **R**ationale for treatment
- **E**vidence-base for combination where appropriate
- **Co**nsent - the patient and/or carer's consent (and/or compliance with statutory treatment plans) Include the key elements of the discussion with the patient and/or carer regarding risks/ benefits of treatment and alternative treatments where appropriate
- **R**eview- the process and timescale for ongoing review of treatment with consideration to using symptom and side effect rating scales to objectively assess response and adverse effect burden
- **D**ocument all of the above in the patient's clinical notes

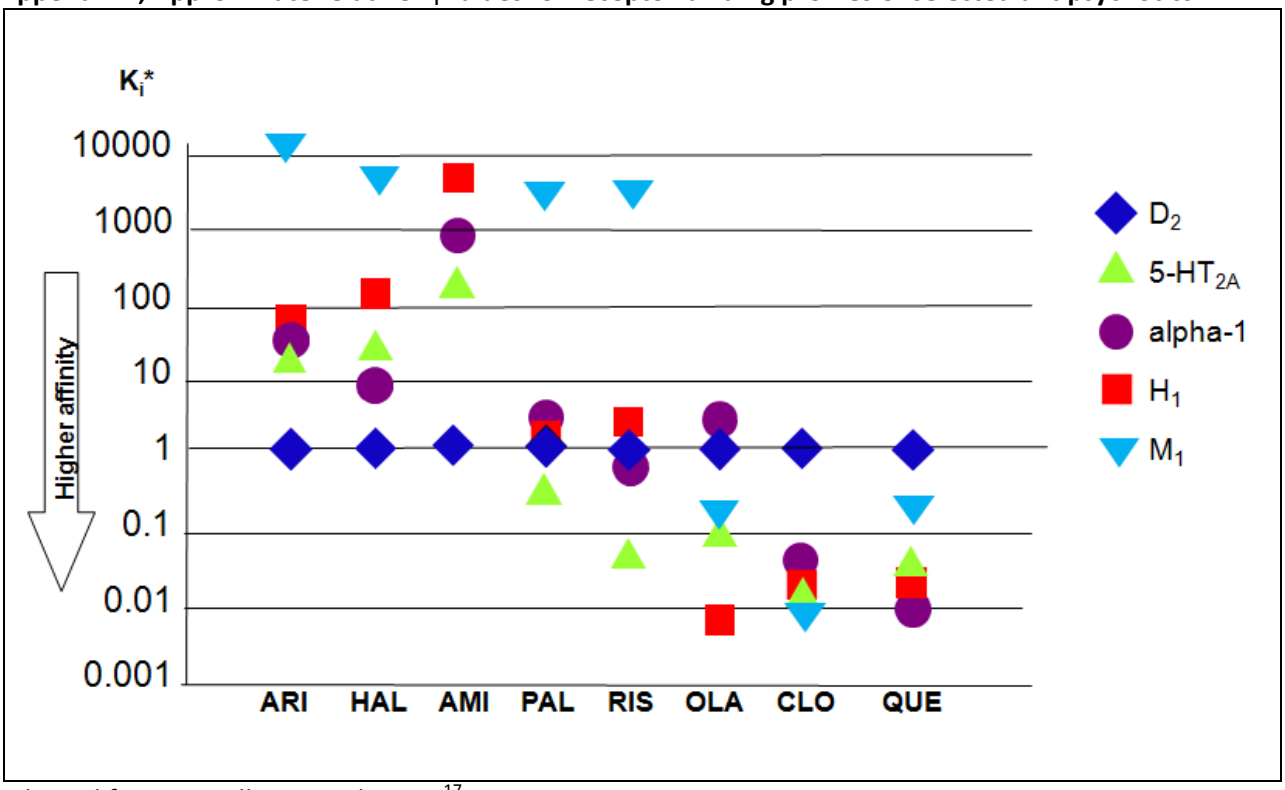
Audit criteria for reviewing current practice is available in Appendix IV.

Appendix I; Receptor profiles of various antipsychotics (adapted from Bazire 2018[16])

	D_2	$5HT_{2a}$	M_1	α_1	H_1
amisulpride	+++	Ø	Ø	Ø	Ø
aripiprazole	PAg	Antag	Ø	Ø	Ø
chlorpromazine	+	+++	++	+++	+++
clozapine	++*	+++	+++	+++	+++
flupentixol	+++	++	Ø	?	Ø
haloperidol	+++	++	+	++	+
lurasidone	+++	+++	Ø	++	Ø
olanzapine	++*	+++	++	++	+++
quetiapine	++	++	Ø	++	+++
risperidone	+++	+++	Ø	+++	++
paliperidone	+++	++	Ø	+++	+++
zuclopenthixol	+++	+++	++	++	+

+++ - high affinity; ++ - moderate affinity; + - low affinity; Ø - very low affinity;
? - unknown; PAg - partial agonist with very high affinity; Antag – antagonist
*olanzapine & clozapine have D_2 limbic selectivity

Appendix II; Approximate relative K_i values for receptor binding profiles of selected antipsychotics

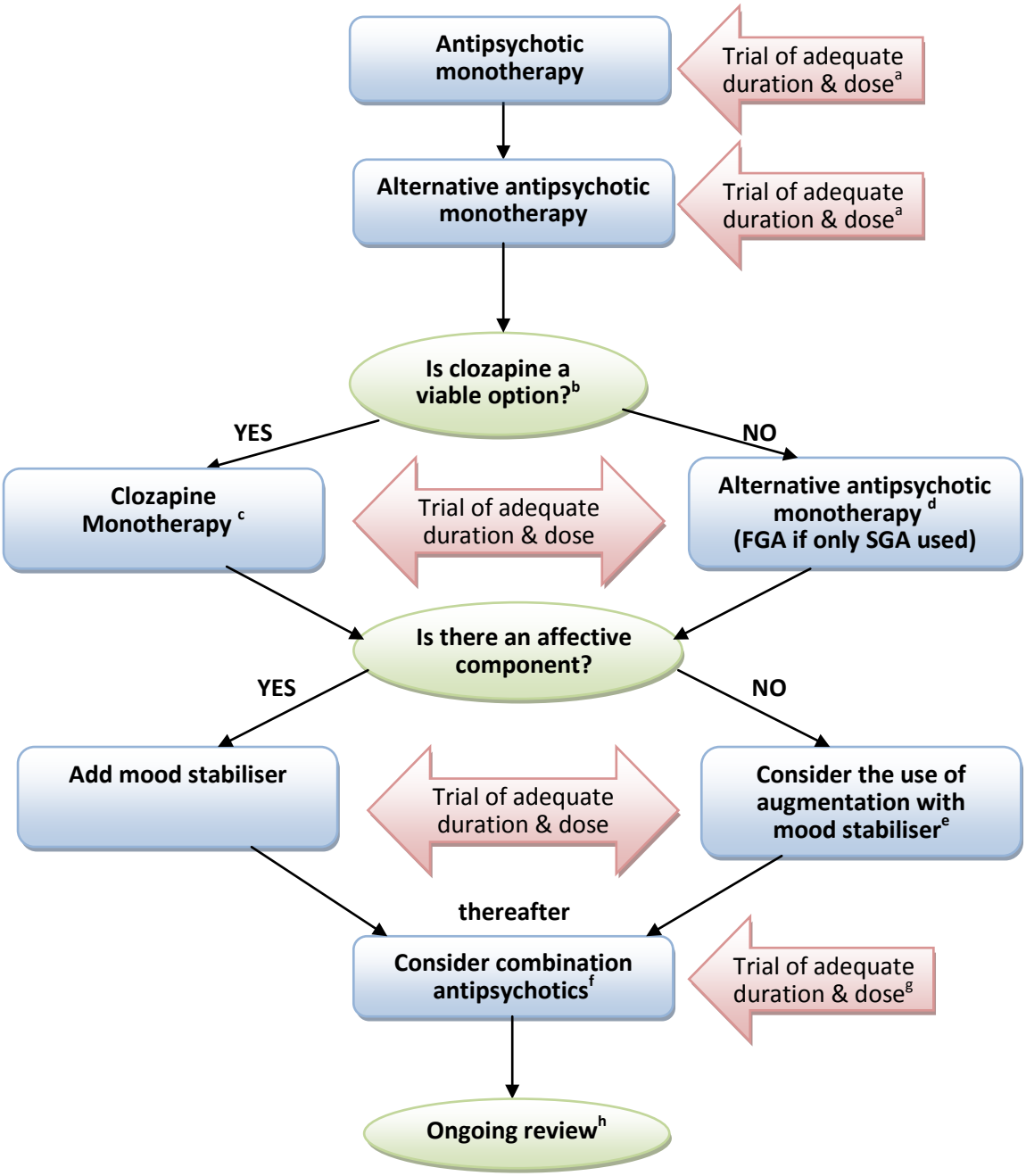


Adapted from Correll Eur Psych 2010[17]

** K_i value for D_2 receptor affinity=1 for all antipsychotics.*

K_i denotes the constant of inhibition- the nanomolar concentration of a given drug required to occupy 50% of the specific receptor type. A low K_i value signifies stronger affinity for the receptor. Where a K_i value is lower than a particular receptor than for dopaminergic receptor i.e. stronger relative affinity, a side effect associated with the blockade of this receptor is likely to occur as part of the antipsychotic treatment.

Appendix III; Antipsychotic treatment flowchart



FGA- first generation antipsychotic; SGA- second generation antipsychotic

a. No response after 4 weeks - consider change in antipsychotic. Partial response- reassess after 8 weeks.
b. Clozapine should always be considered in treatment resistant schizophrenia (ensure trial with at least 2 antipsychotics, one being a SGA).
c. Clozapine monotherapy should be prescribed for 3-6 months before considering augmentation.

d. Switch to an antipsychotic with a different receptor profile.
e. A mood stabiliser may be worth considering in psychosis that has not responded to antipsychotic therapy.
f. Choice of augmenting antipsychotic should be based on complementary receptor profiles in terms of optimising therapeutic effect and minimising adverse effects.
g. An adequate trial of clozapine augmentation should be at least 10 weeks.
h. There should be regular ongoing review (3-6 monthly) of combination antipsychotics and augmentation.

Appendix IV; Combination Antipsychotic & Augmentation Audit Criteria

	Criteria	Standard	Exception
1	Individuals should have had at least 2 adequate trials of antipsychotic monotherapy prior to considering combination antipsychotics.	90%	
2	Clozapine should have been considered prior to a trial of combination antipsychotics.	80%	Where clozapine is not tolerated, contraindicated or the individual will not consent to its use.
3	Where there is evidence of an affective component, the use of mood stabiliser/ antidepressant is considered.	90%	
4	Where combination antipsychotics are used, the clinical rationale is documented.	100%	
5	There is documented evidence of informed consent from patient/carer regarding decision to use combination antipsychotics.	100%	Unless subject to compulsory treatment under a T3
6	There is evidence of regular review (3-6 monthly) of combination antipsychotics.	90%	
7	If the combined doses of antipsychotics are greater than 100% BNF maximum, the high dose antipsychotic monitoring policy is implemented	100%	

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NHS Greater Glasgow & Clyde
Mental Health Services
Prescribing Management Group

Antipsychotic Long-Acting Injection Prescribing Algorithm

Introduction

Antipsychotic long-acting injections (LAIs) in the form of depot injections, containing an active ingredient dissolved in a naturally occurring oil base (e.g. coconut oil or sesame oil) have been available for use since 1967. The first-generation antipsychotic (FGA) medicines in this class include haloperidol decanoate, flupentixol decanoate and zuclopenthixol decanoate (pipotiazine palmitate was withdrawn from the UK market in 2014 and production of fluphenazine decanoate will cease in mid 2018).

Since 2002, second-generation antipsychotic (SGA) medicines have become available including Risperdal Consta (risperidone encapsulated in polymeric microspheres), olanzapine pamoate (suspended in aqueous solution), paliperidone palmitate (nanocrystals suspended in aqueous solution) and aripiprazole (suspended in aqueous solution).

Despite a lack of head-to-head comparisons of FGA and SGA LAIs in use, there has been a growing trend towards the use of SGA antipsychotics. Given the cost differential between the current range of FGA and SGA LAI medications (appendix I), the relative cost-effectiveness of these agents should be taken into account when prescribing. A review of the available evidence comparing these medicines together with a large difference in their acquisition costs suggests that a step-wise approach to LAI prescribing is rational.

A recent audit was conducted within 3 CMHTs on behalf of PMG-MH to look at whether the advice within this algorithm provides clinically effective treatment for patients. Overall, the results support the algorithm, with patients on FGA LAIs shown to, on average, have:

- Longer duration of treatment
- Reduced hospital admissions
- Reduced length of stay in hospital
- Increased medication use to manage side effects (though this does not appear to impact discontinuation rates)

For SGA LAI initiation, it appears that the algorithm is not being followed as many patients (66.3%) did not receiving a trial of a FGA LAI first.

New initiations for SGA LAIs are subject to approval by local clinical director.

Any new request to initiate a SGA LAI should be made in writing to the respective CD for the service with a clear rationale for the choice of a SGA LAI over a first line choice of a FGA LAI.

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Review date December 2023

First-Line Choice of an Antipsychotic LAI

A first-generation depot antipsychotic should be chosen from the NHSGG&C Formulary*

Current evidence indicates that zuclopenthixol decanoate is more effective in preventing relapse than other FGA depots.[1]

Shajahan et al[2] compared the use of risperidone, flupentixol and zuclopenthixol LAIs with respect to loss of efficacy and adverse effects leading to treatment discontinuation. They concluded that overall zuclopenthixol was less likely to be discontinued than risperidone or flupentixol. Where efficacy was concerned, findings favoured zuclopenthixol over the other LAIs and adverse effects did not differ between the three LAIs.

Cordiner et al[3] studied prescribing patterns and outcomes for zuclopenthixol, paliperidone and risperidone LAIs and found poorer outcomes for paliperidone over zuclopenthixol or risperidone.

A recent local study[4] assessed LAI use in one GG&C CMHT that had similar number of patients prescribed FGA and SGA LAIs. Patients receiving FGA LAIs complained of significantly fewer adverse effects than those receiving SGA LAIs. Average doses of FGA LAI were less than 15% BNF maximum where as average SGA LAI doses were approximately 80% of the BNF maximum. This study indicated that FGA LAIs were better tolerated and at least as efficacious as SGA LAIs.

The Cost Utility of the Latest Antipsychotic Drugs in Schizophrenia Study (CUtLASS I)[5] compared FGAs including FGA LAIs and oral SGAs, although it did not include any SGA LAIs. It concluded there was no disadvantage in terms of quality of life or symptom control over a one year period in commencing treatment with FGAs rather than non-clozapine SGAs in people with schizophrenia whose medication was being changed because of intolerance or inadequate response.

The differential in acquisition costs of FGA LAIs vs SGA LAIs therefore clearly favours the prescription of FGA LAI medicines.

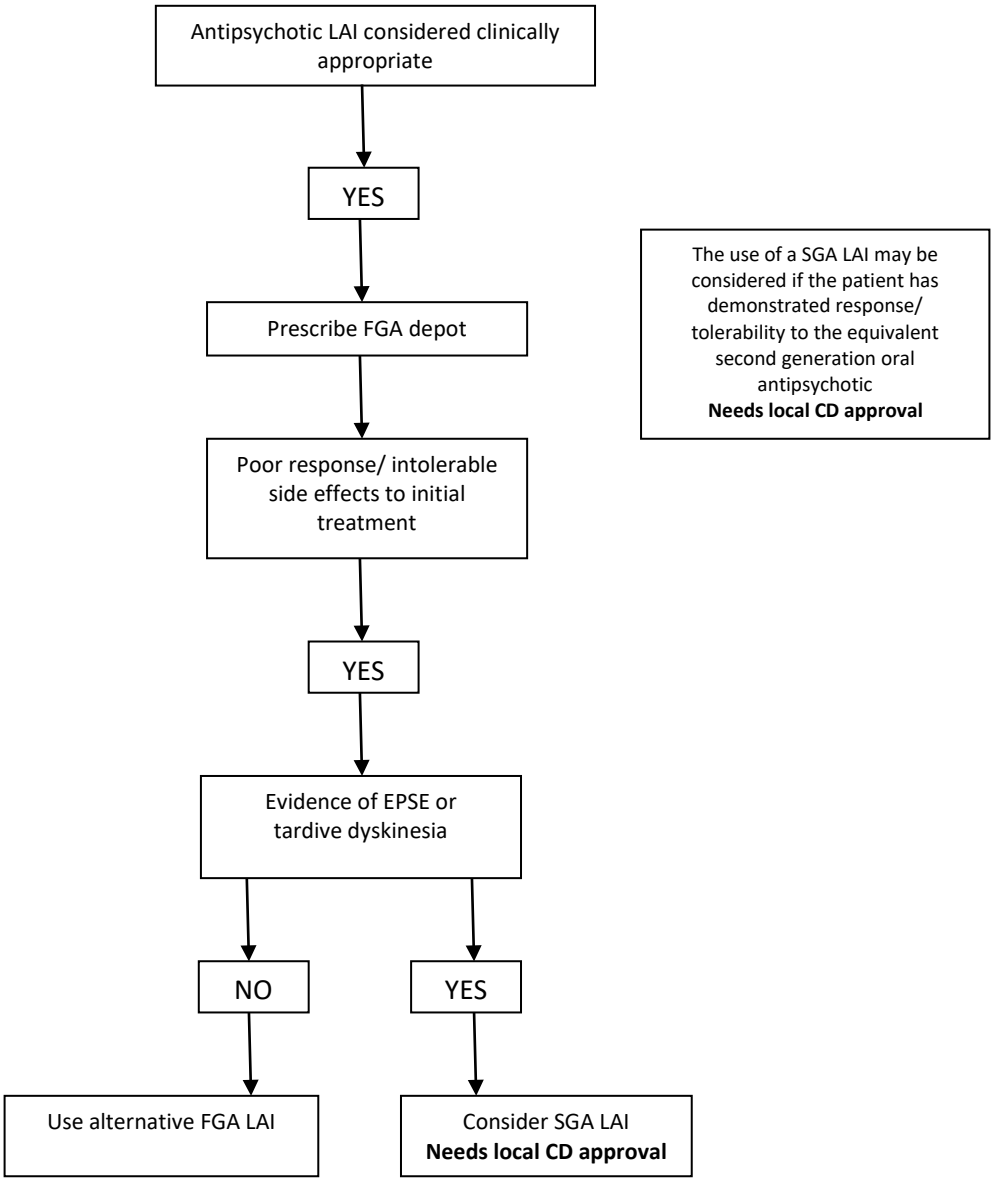
*Exception to first line choice of FGA LAI: Where there is good evidence of effect and tolerability with a specific SGA oral medication favouring its use as an LAI and where adherence with the oral medication is problematic. (Note: Paliperidone LAI over risperidone LAI should be considered for people who have responded well to oral risperidone and fit the exception criteria).

Second-Line Choice of an Antipsychotic LAI
(in the event of treatment failure or emergent, intolerable side-effects with the first-line choice)

An alternative first-generation depot medicine should be chosen from NHSGG&C Formulary*

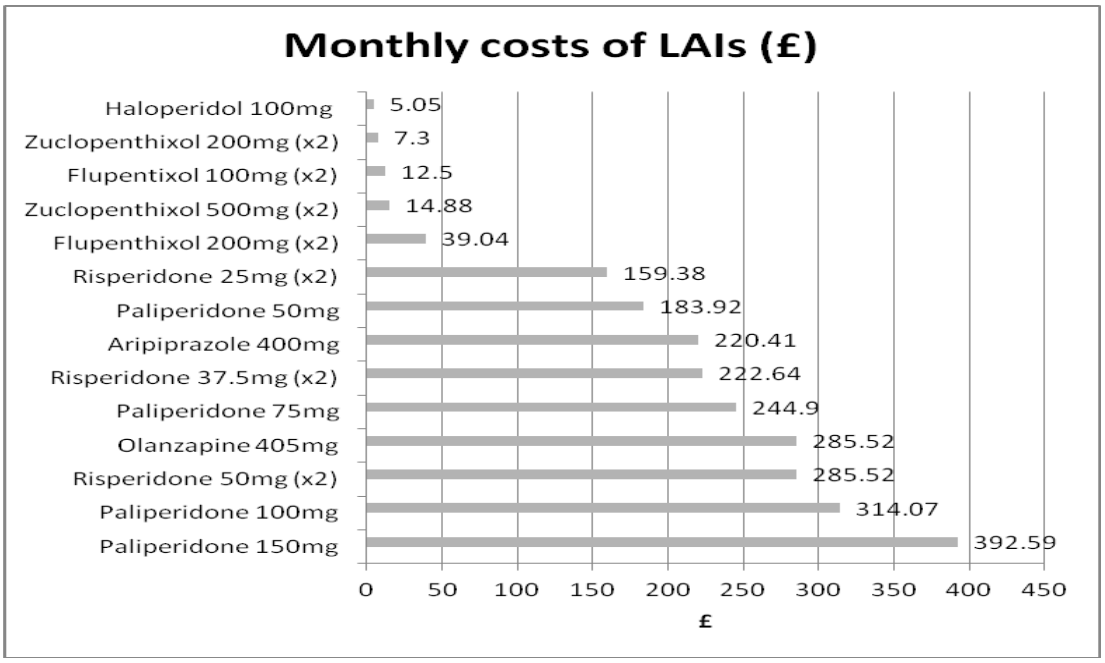
*Exception: If emergent side-effects include extrapyramidal side effects or tardive dyskinesia then consider a formulary SGA LAI.

Antipsychotic Long-Acting Injection Prescribing Algorithm: Flowchart



CD: clinical director, EPSE: extrapyramidal side effects, FGA: first generation antipsychotic, LAI: long-acting injection, SGA: second generation antipsychotic

Appendix 1: Comparative costs of various First and Second-Generation LAIs



Note:
Olanzapine LAI injection is non-formulary and requires a full PACS2 request submitted to PMG-MH for consideration and approval.

Both paliperidone and aripiprazole LAIs are monthly injections, not 4 weekly. They should be prescribed and administered on, for example, the first Monday of each month. Prescribing as 4 weekly instead of monthly would result in administration of one additional injection per year with associated costs.

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NHS Greater Glasgow & Clyde
Prescribing Management Group – Mental Health

Effective use of First-Generation Antipsychotic Depot Injections

Aim

To provide guidance to clinicians on gaining optimum benefit for patients in use of first-generation depots. It should be read in conjunction with the Mental Health Service Good Practice Statement for the use of Depot and Long-Acting Antipsychotic Injections.

Background

Antipsychotic depot injections (also known as long-acting injections (LAIs)) are commonly prescribed in mental health services. Their use is recommended in national guidance.[1] Over the last 10 years the growth in the use of second-generation antipsychotic long-acting injections has seen them inadvertently perceived as the preferred option when considering depot treatment.

There is a growing body of evidence that is questioning if second generation LAIs truly offer a significant clinical advantage over the older first-generation depots.[2,3,4] This suggests that the first-generation depots are as effective as the second generation LAIs and may be better tolerated.

Due to the prominence of second-generation LAIs many current clinicians will be less familiar with the properties of the first-generation depots and consequently maybe reluctant to prescribe them.

Drug choice[5,6,7,8,9,10]

There are three first generation antipsychotic depot antipsychotic injections available in the UK. Table 1 below lists the preparations available.

Drug	Brand name	Strengths available
Flupentixol decanoate	Psytixol, Depixol	20mg/ml as both 1ml & 2ml ampoules, 100mg/ml as both 0.5ml & 1ml ampoules and 200mg/ml as 1ml ampoules
Haloperidol decanoate	Haldol	50mg/ml and 100mg/ml as 1ml ampoules
Zuclopenthixol decanoate	Clopixol	200mg/ml and 500mg/ml as 1ml ampoules

Clinical differences

All first-generation depot antipsychotics are esterified long chain fatty acids contained in a base oil. Once injected the ester bond is gradually broken down releasing active drug into the blood stream.

There is little evidence to suggest any significant differences in efficacy between the three available drugs. The main differences are in relative side effects. Haloperidol is more commonly associated with extra-pyramidal side effects (EPSE), acute dystonic reactions (torticollis, facial grimacing, trismus, tongue protrusion, and abnormal eye movements, including oculogyric crisis) can occur within the first few days of treatment and may necessitate stopping treatment. Zuclopenthixol may be more effective at preventing relapse than the others.[11] Flupentixol is probably less sedating.[10]

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Review date: June 2026

Test doses

When prescribing first generation depot antipsychotics, administering a test dose is essential for two reasons. Firstly, to determine the sensitivity of the patient to extrapyramidal side effects (EPSE) and secondly, to test sensitivity to the base oil. The next table lists the recommended test dose for each drug.

Drug	Test dose (mg)
Flupentixol decanoate	20
Haloperidol decanoate	25[a]
Zuclopenthixol decanoate	100

a. The SPC for haloperidol does not recommend a test dose therefore a test dose of 25mg is suggested.

After giving the test dose monitor the patient closely over the next 4 – 10 days for any reaction to the base oil and the emergence of EPSE. If any reaction or side effects occur do not proceed with treatment doses. Note: hypersensitivity and anaphylaxis are rare side effects of depot antipsychotics.[7,8,9]

Titration/maintenance doses

If the test dose is tolerated, active treatment can then commence. The following principles should be applied:

1. **Begin with the lowest therapeutic dose and titrate slowly to the minimum effective dose.** Lower doses may be as effective as the higher end of the dose range and are likely to be better tolerated. This is especially true with flupentixol decanoate where standard doses are as effective as high doses.[12]
2. **Administer at the longest possible licensed interval to begin with** as this reduces the potential medicine burden and minimises the number of injections required.
3. **Adjust doses only after an adequate period of assessment**. Clearly with depot antipsychotics the pharmacokinetics of the drug is significantly altered due to the sustained action. Peak plasma levels, therapeutic effect and steady state plasma levels are all delayed. At the start of treatment the plasma levels of the antipsychotic released from a depot increase over several weeks or months without increasing the given dose due to accumulation. Steady state therefore may take up to 12 weeks to achieve. Dose increases during this period are therefore illogical but may be driven by practical necessity. It is recommended that after the initial treatment dose a minimum of 2 further doses should be administered before any dose increase is considered. During this period the patient should be assessed for response, side effects and physical health impact.

The following table illustrates the dose range and time to steady state for the first-generation depot antipsychotics.

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Drug	Dose range	Dosing interval	Time to steady state
Flupentixol decanoate	50mg every 4 weeks to 400mg a week	1 – 4 weeks	6 – 12 weeks
Haloperidol decanoate	50 – 300mg every 4 weeks	4 weeks	10 – 12 weeks
Zuclopenthixol decanoate	200mg every 3 weeks to 600mg a week	1 – 4 weeks	10 – 12 weeks

The time delays with depot treatment can cause practical management difficulties but pressures to increase doses more rapidly should be resisted in the interest of achieving treatment with the lowest possible effective dose at the maximum possible interval.

Side effects

In addition to the known side effects associated with phenothiazine and thioxanthene antipsychotics (EPSE, sedation, antimuscarinic effects, sexual dysfunction) injection site reactions are possible. Long term use can lead to scarring and nodule formation however this can be minimised by good injection technique and rotation of the injection site.

Swapping and stopping

Discontinuation of depot antipsychotics is straightforward. Withdrawal reactions are unlikely as active drug persists in the body for 3 – 6 months after discontinuation.

Changing antipsychotic is more problematic. The extended half-life of these preparations means the potential for significant interactions when swapping treatments needs careful consideration. Whether it involves swapping from one depot to another or from a depot to an oral treatment, factors to consider include:

- The dose and frequency of administration of the current drug.
- The length of time on treatment
- If swapping from a first-generation depot to oral treatment, titrate up to an approximately equivalent oral dose when the depot is next due.
- When swapping from one first generation depot to another, there is still the requirement to administer a test dose. The test dose should be administered on the day the previous depot was due. The dose should then be titrated cautiously bearing in mind the previous depot will still be present.
- Please contact mental health clinical pharmacy services for advice regarding switches.
- It is important to be aware of the potential for cumulative side effects with the delayed clearance of the original depot and the introduction of the new antipsychotic.

Patient education

It is important to provide patients with appropriate information prior to and throughout treatment with first generation depot antipsychotics. The specific drug leaflets from the Choice and Medication website are recommended. https://www.choiceandmedication.org/nhs24/

Prescribing Management Group- Mental Health

June 2023

Approved: June 2023
Review date: June 2026

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Mental Health Service

MHS 34 - High Dose Antipsychotic Monitoring Policy

A guideline is intended to assist healthcare professionals in the choice of disease-specific treatments.

Clinical judgement should be exercised on the applicability of any guideline, influenced by individual patient characteristics. Clinicians should be mindful of the potential for harmful polypharmacy and increased susceptibility to adverse drug reactions in patients with multiple morbidities or frailty.

If, after discussion with the patient or carer, there are good reasons for not following a guideline, it is good practice to record these and communicate them to others involved in the care of the patient.

Important Note:
The Intranet version of this document is the only version that is maintained.
Any printed copies should therefore be viewed as 'Uncontrolled' and as such, may not necessarily contain the latest updates and amendments.

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Lead Author:	Suzie Burke, Prescribing Management Group (MH)	
Approval Group:	Mental Health Clinical Governance Group	
Clinical Content Changes (Y/N)	Y	
CGSU Version no:		MHS No: 34

Revision/Amendment Information

Please record brief details of the changes made alongside the next version number. If the procedural document has been reviewed **without change**, this information will still need to be recorded although the version number will remain the same.

Version	Date	Brief Summary of Changes	Author(s)
1.0	July 2012	First approved version	PMG (MH)
2.0	July 2015	Reviewed	PMG (MH)
3.0	July 2018	Name changed to 'high dose antipsychotic monitoring policy' from 'high dose antipsychotic therapy guideline' Page 4 Recent GG&C audit results added Page 5 Policy key points reviewed and updated Page 6 Risk factors and drug interactions updated and tabulated Page 7 Monitoring requirements updated and tabulated Page 7,8 Threshold for prolonged QTc interval updated in line with GG&C guidance Page 8 Addition of problems associated with high dose antipsychotic therapy including clarification of normal, borderline and prolonged QTc interval Page 9 Off-label/ liability issues added Page 9 Roles and responsibilities updated to reflect new policy statements Page 10 Review of antipsychotics and doses Page 10 Haloperidol and QTc contraindication added Page 11 Review and update of audit criteria to reflect new policy statements. Removal of audit tool Page 11 References updated Page 12 Review and update of high dose monitoring form Removal of 'Prescribing Guidance: The Use of more than one antipsychotic drug at the same time' Removal of POMH ready reckoner	PMG (MH) SLWG

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This guideline was reviewed by the Prescribing Management Group (Mental Health)

1. Introduction and Background

The Consensus statement on high-dose antipsychotic medication (Royal College of Psychiatry Council Report CR190, November 2014)[1] defines high-dose antipsychotic use as:

A total daily dose of a single antipsychotic which exceeds the upper limit stated in the summary of product characteristics (SPC) or BNF with respect to the age of the patient and the indication being treated.

or

A total daily dose of two or more antipsychotics which exceeds the summary of product characteristics (SPC) or BNF maximum using the percentage method.

High dose antipsychotic use should be the exception rather than the rule. Overall, the evidence from randomised controlled trials (RCTs) to support the use of combined antipsychotics in schizophrenia remains scarce. There is little convincing evidence that antipsychotics higher than the maximum licensed dose are more effective than standard dosage for treatment-resistant schizophrenia. In addition, the evidence for combining non-clozapine antipsychotics is generally weak.

Audit work within NHS GG&C MHS demonstrated that the use of a single antipsychotic at doses above the BNF maximum was relatively uncommon (<10%) with high dose antipsychotic use being much more likely with the use of combined antipsychotics (>90%). The majority of high dose combinations included the use of a long-acting injection antipsychotic and an oral antipsychotic (40%) with around 25% of high dose use resulting from augmentation of clozapine with a second oral antipsychotic. Audits will be carried out on an annual basis.

The prescribing of as required antipsychotics for acute behavioural disturbance may inadvertently contribute to high-dose antipsychotic use.

2. Scope

This policy applies to all staff working within NHS Greater Glasgow & Clyde Mental Health Services. This includes Adult, Older Adult, Learning Disability, Addiction, Forensic and Child & Adolescent Mental Health Services.

3. High dose antipsychotic monitoring policy

1. The responsibility to exceed the licensed dose of a single antipsychotic or to use a combination of more than one lies with the consultant psychiatrist responsible for the patient's care.

2. The decision to prescribe high dose antipsychotic therapy should be discussed with the multidisciplinary team (including a clinical pharmacist). Where this is not possible, consider obtaining an informal second opinion from a local psychiatrist to support the use of high dose antipsychotic therapy.

3. The details of the clinical rationale for prescribing high dose antipsychotic therapy should be clearly documented within the patient's clinical notes.

4. The decision to prescribe high dose antipsychotic therapy and the rationale should be discussed with the patient and/or carer and valid consent obtained and documented. General advice about the unlicensed uses of licensed medications and QTc prolongation with antipsychotics is available from the Choice and Medication website[2] and may be useful in aiding discussions regarding high dose antipsychotic therapy. Unlicensed use handy fact sheet & QTc handy fact sheet

5. For patients receiving treatment under the terms of Mental Health (Care & Treatment)

(Scotland) Act 2003 or Adults with Incapacity (Scotland) Act 2000, ensure that the statutory treatment plan on a T2B or T3B certificate or section 47 includes the use of doses in excess of BNF guidelines or combinations of antipsychotics and reference the recommended monitoring within this policy prior to prescribing.

6. CMHTs and wards should maintain a local register of patients prescribed high dose antipsychotic therapy to ensure that the recommended monitoring is undertaken. All patients must have a warning added to their EMIS record

7. High dose antipsychotic therapy may be prescribed in an emergency for acute symptoms. This should be discussed with a senior psychiatrist before it is prescribed.

8. The following issues should be considered at baseline and ongoing as per monitoring recommendations and documented on the high dose monitoring form (appendix III):

    - Rationale for treatment
    - Consent or compliance with statutory treatment plans
    - Details of antipsychotics (drug names and doses) prescribed
    - Risk factors
    - Drug interactions
    - Monitoring completed and any actions as a result of abnormalities
    - Symptom rating scales
    - Side effect rating scales
    - When monitoring is next due

9. If a patient refuses to consent to high dose antipsychotic monitoring, then this should be clearly documented within their clinical notes. Ongoing refusal to engage with monitoring must prompt review and consideration of cessation of high dose antipsychotic therapy.

10. High dose antipsychotic therapy should be reduced to conventional dosing if no significant improvement is observed at review.

11. Communication at transition. Ensuring good communication at points of transition (e.g. between inpatient care and CMHT) with regards to the rationale for high dose antipsychotic therapy, results of monitoring completed and when monitoring is next due is vital to ensure optimum patient care.

4. Risk Factors and Drug Interactions

Risk factors and potential drug interactions must be considered prior to prescribing high dose antipsychotic therapy and at each review.

Risk factor	Rationale for potential risk of QT prolongation
Cardiac history	▪ particularly myocardial infarction, arrhythmias, bradycardia, abnormal ECG, long QT syndrome, heart failure ▪ consider family history
Hepatic impairment	▪ potential impact on hepatic metabolism and clearance of antipsychotics ▪ QT prolongation is increased in alcoholic liver disease
Renal impairment	▪ potentially decreases clearance of renally excreted antipsychotics ▪ may increase risk of electrolyte disturbance
Alcoholism	▪ increased risk of hepatic impairment
Smoking	▪ increased risk of ischaemic heart disease ▪ impact on hepatic metabolism of some antipsychotics
Substance misuse	▪ due to risk of QT prolongation with certain substances
Old age	▪ elderly more susceptible to QT changes
Extremes of weight	▪ impact of obesity on CV risk and hepatic function ▪ very low BMI increases risk of electrolyte abnormalities and dehydration
Female gender	▪ women have longer QT intervals
Extreme physical exertion	▪ e.g. individuals subject to restraint

Drug interactions	Rationale for potential risk of QT prolongation
Medications known to prolong QT interval including anti-arrhythmics	▪ a list of medications known to prolong the QT interval can be found at https://www.crediblemeds.org[3] (an American website which categorises medications based on their risk)
Pharmacokinetic interactions	▪ medications that increase antipsychotic plasma levels. (NB smoking can decrease plasma levels of some antipsychotics, especially clozapine, therefore, smoking cessation will increase plasma levels and may require dose reduction)
Medications known to cause electrolyte disturbance e.g. diuretics	▪ electrolyte abnormalities e.g. hypokalaemia, hypocalcaemia, hypomagnesaemia can increase the risk of QT prolongation

5. Monitoring

At initiation of high dose antipsychotic therapy, a plan for ongoing monitoring must be agreed for the individual patient including;

- frequency of monitoring *

- responsibilities for monitoring and checking results
- regular review of progress.

* It is recommended that increased monitoring is undertaken when using higher risk therapy e.g. haloperidol, diuretics, concurrent medications known to cause QT prolongation or those with other risk factors.

High Dose Antipsychotic Monitoring & Frequency*		
Monitoring	**Baseline**	**Ongoing**
ECG	Yes If a prolonged QT interval is recorded at baseline (QTc > 450msec in men and > 460msec in women), review treatment. Consider cardiology assessment. If it is decided to continue treatment record reasons for doing so in patient's case notes.	• When steady state serum levels have been reached after each dose increment (consult a clinical pharmacist for advice on appropriate timescales) • Then every 6-12 months *
U&Es	Yes	• Every 6 months *
LFTs	Yes	• Every 6 months *
Lipids Blood glucose and/or HbA1c (for high dose therapies with increased risk of metabolic disturbance)	Yes	• Every 6 months *
Standard observations (bp, pulse, temperature)	Yes	• At least every 6 months* • Following dose escalation, monitor for any deterioration in physical health.
Review of progress and ongoing need for HDAT		• Every 3 months
Symptom rating scales e.g. CGI	Yes	• At 6 weeks • At 3 months • Then at least annually *
Side rating scales e.g. GASS or LUNSERS	Yes	• At 6 weeks • At 3 months • Then at least annually *

With the exception of clozapine, plasma level monitoring is not routinely carried out for antipsychotics. In patients exhibiting signs of adverse effects/toxicity or where other risk factors are present, plasma level monitor of antipsychotics could be considered where assays and reference ranges are available.

6. Management of Problems Associated With High Dose Antipsychotic Therapy

Management of QTc prolongation in high dose antipsychotic therapy [4]			
QTc Interval*	**Males**	**Females**	**Recommendations**
Normal	<450ms	<460ms	No action unless abnormal T-wave morphology [5]
Borderline prolonged	>450 ms but <500ms	>460ms but <500ms	Consider dose reduction and/or switching to a drug of lower effect on QTc Repeat ECG
Prolonged	>500ms	>500ms	Immediate review and cessation of high dose therapy Switch to drug of lower effect on QTc Repeat ECG
A change in baseline QTc of >20ms should raise concern and should be assessed in conjunction with the overall QTc interval.			

* *The QT interval varies with heart rate. A number of formulas are used to correct the QT interval for heart rate. Once corrected, it is expressed as the QTc interval, which is reported on the ECG printout. The QTc is commonly normalised to a heart rate of 60bpm and may be inaccurate in patients with faster or slower heart rates.*[4] Medicines Update Extra: Drug-induced QT prolongation

Management of electrolyte disturbance in high dose antipsychotic therapy		
Electrolyte disturbance	**Reference range**	**Actions**
Hypokalaemia	K < 3.5mmol/l	Low K and Mg in particular can increase the risk of QTc prolongation. Consider the risk of electrolyte disturbance in the event of diarrhoea/vomiting or if diuretic therapy commenced. Address electrolyte disturbance, repeat U&Es and ECG
Hypomagnesaemia	Mg < 0.7mmol/l	
Hypocalcaemia	Adjusted Ca < 2.1mmol/l	

Management of adverse effects in high dose antipsychotic therapy (Weigh up any perceived benefits of high dose treatment vs adverse effects)	
Adverse effects	**Action**
Extrapyramidal side effects (EPSE)	Consider decreasing antipsychotics to conventional dosing
Metabolic side effects	Where high dose treatment or combination is associated with an increased risk of metabolic adverse effects, consider a change to treatment or manage metabolic changes appropriately

7. Off Label Use of Medication And Liability

Off-label medication use refers to the use of a licensed medicine outside the terms of its Marketing Authorisation (MA) (or product licence). The use of a single antipsychotic used in excess of doses recommended within the BNF or SPC would constitute off-label prescribing.[1] In addition, using two medications concurrently where the combined use is contraindicated would also constitute off-label prescribing e.g. the combined use of haloperidol with another antipsychotic.

Prescribing of a licensed medicine outside the recommendations of the MA alters the prescriber's professional liablility.[1,6] The prescriber is always responsible for the use of medicines and in the event of adverse reactions associated with prescribed medication may be called upon to justify the decisions they have made.[7]

8. Roles and Responsibilities

It is essential to ensure clear lines of roles and responsibilities in relation to high dose antipsychotic monitoring are agreed within the team prior to commencing high dose antipsychotic therapy. Responsibilities may vary depending on the location of the patient and the multidisciplinary team members involved in their care.

Medical staff responsibilities:

- Discuss with multidisciplinary team and/or obtain informal second opinion prior to prescribing high dose antipsychotic therapy
- Document rationale for high dose antipsychotic therapy within clinical notes
- Discuss rationale with patient and/or carer and document consent
- Ensure statutory treatment plan on a T2B or T3B certificate or section 47 includes the use of doses in excess of BNF guidelines and reference the recommended monitoring within this policy prior to prescribing (where patient is subject to compulsory treatment)
- Develop and agree an individualised monitoring plan (dependent on risk factors, drug interactions and antipsychotic(s) prescribed)
- Ensure a system by which the required monitoring is completed and any abnormal results are acted upon where appropriate
- Ensure at transition of care that other nursing/medical colleagues with a responsibility for prescribing and/or monitoring are informed of the patient's high dose antipsychotic therapy
- **High dose antipsychotic initiation is the responsibility of the consultant psychiatrist**

Key worker responsibilities:

- Ensure that high dose antipsychotic therapy is discussed at review
- Ensure high dose antipsychotic monitoring is highlighted within nursing care plan
- Undertake standard observations as per monitoring plan for patient
- Complete side effect rating scales with patient or ask patient to complete self assessment side effect rating scales as per monitoring plan

Nurse team leader/ Senior charge nurse responsibilities:

- Ensure that ward/ CMHT has a current register of all patients treated with high dose antipsychotic therapy
- Ensure that regular review and monitoring is undertaken for all patients on high dose antipsychotic register

Pharmacist responsibilities (for inpatients):

- Discuss treatment options/ alternatives with medical staff
- Highlight high dose antipsychotic therapy on prescription sheet and EMIS record
- Initiate high dose antipsychotic monitoring form at multidisciplinary review
- Support patient education

Non-medical prescribers can alter the dose of antipsychotic(s) in line with a treatment plan agreed by the multidisciplinary team.

Appendix I:

Maximum doses of antipsychotics and identification of patients on high dose antipsychotic therapy

In defining what constitutes high dose antipsychotic therapy for patients receiving more than one antipsychotic, use the percentage method for calculating high dose status. When expressed as a percentage of their respective recommended maximum dose and added together, a cumulative dose of greater than 100% is considered 'high dose'.

For example: clozapine 700mg and amisulpride 400mg daily.
Sum %= 78% + 33% = 111% (>100%, therefore high dose)

Antipsychotic	Maximum licensed adult dose (mg/day) 100% BNF maximum
Amisulpride	1200
Asenapine***	20
Aripiprazole oral/IM	30
Cariprazine	6
Chlorpromazine	1000
Clozapine	900
Flupentixol	18
Haloperidol oral/ IM *	20
Lurasidone	148
Olanzapine oral/IM	20
Paliperidone***	12
Pericyazine	300
Perphenazine	24
Pimozide**	20
Prochlorperazine	100
Promazine	800
Quetiapine	750 (Mania 800)
Risperidone	16
Sulpiride	2400
Trifluoperazine	50 (suggested by POMH****)
Zuclopenthixol	150

Depots/ Long-acting injections	Maximum licensed adult dose (mg/ time interval) 100% BNF maximum
Aripiprazole LAI	400 /month
Flupentixol decanoate	400 /week
Haloperidol decanoate	75 /week
Olanzapine embonate***	300 /fortnight
Paliperidone LAI (Xepilon)	150 /month
Paliperidone 3/12 LAI (Trevicta)***	525 /3 months
Risperidone LAI (Consta)	50 /fortnight
Zuclopenthixol decanoate	600 /week

Use of 'as required' (or 'prn') antipsychotic medication should also be taken into account.

* The use of haloperidol is contraindicated in combination with drugs that prolong the QTc interval and therefore, where possible the use of haloperidol in combination with other antipsychotics should be avoided. Haloperidol and QTc interval prolongation Jan18
** Subject to annual ECG irrespective of dosage.
*** Non formulary preparations within NHS GG&C MHS
**** Prescribing Observatory for Mental Health. POMH. Ready reckoner version 7. October 2017

Appendix II: High Dose Antipsychotic Monitoring Audit Criteria

	Criteria	Standard	Exception
1	All inpatients prescribed high dose antipsychotic therapy should have the an appropriate flag added to prescription record and EMIS	100%	None
2	Each ward/ CMHT has a register of all patients subject to high dose antipsychotic monitoring	100%	None
3	There is evidence of documentation of rationale for high dose antipsychotic therapy	100%	None
4	There is documented evidence that consent from patient/ carer to prescribe high dose antipsychotic therapy was obtained	100%	Unless subject to compulsory treatment
5	T2B/ T3B certificate or section 47 make reference to high dose antipsychotic therapy and associated monitoring	100%	For those subject to compulsory treatments
6	Each patient identified as receiving high dose antipsychotic therapy has a high dose form in use	100%	None
7	There is evidence from the high dose antipsychotic monitoring form that monitoring is being completed and is up to date	100%	None
8	There is evidence from the high dose antipsychotic monitoring form that there is regular review of high dose antipsychotic therapy	100%	None

9. References:

1. Royal College of Psychiatrist College Report. Consensus statement on high-dose antipsychotic medication. CR 190. November 2014
2. Choice and Medication. Available at http://www.choiceandmedication.org/nhs24/
3. AZERT, Inc (2014) QTDrugs Lists. Available at https://www.crediblemeds.org/
4. NHS GG&C Medicines Update Extra. Drug induced QT prolongation. Issue 8 July 2018
5. Taylor D, Paton C, Kapur S. The Maudsley Prescribing Guidelines in Psychiatry. Wiley Blackwell. 14th edition
6. Baldwin DS, & Kosky N. Off-label prescribing in psychiatric practice. Adv Psych Treat 2007; 13:414–422
7. NHS GG&C Unlicensed Medicines Policy. June 2012.
8. Prescribing Observatory for Mental Health. POMH. Ready reckoner version 7. October 2017

Appendix III: **High Dose Antipsychotic Monitoring Form** (information to be recorded each time a patient on high dose antipsychotics is reviewed)

Name:	CHI:	Consultant Psychiatrist:	Date of high dose antipsychotic initiation:

	Date of high dose antipsychotic review			
	Baseline			
Rationale				
Consent T2/T3				
Antipsychotic details				
Risk factors				
Drug interactions				
Monitoring completed e.g. ECG, U&Es, LFTs, standard obs (details)				
Symptom rating scale				
Side effects rating scale				
Monitoring next due				

NHS
Greater Glasgow and Clyde

Mental Health Services

Guidance for Antipsychotic Prescribing In Dementia

A guideline is intended to assist healthcare professionals in the choice of disease-specific treatments.

Clinical judgement should be exercised on the applicability of any guideline, influenced by individual patient characteristics. Clinicians should be mindful of the potential for harmful polypharmacy and increased susceptibility to adverse drug reactions in patients with multiple morbidities or frailty.

If, after discussion with the patient or carer, there are good reasons for not following a guideline, it is good practice to record these and communicate them to others involved in the care of the patient.

Important Note:
The Intranet version of this document is the only version that is maintained.
Any printed copies should therefore be viewed as 'Uncontrolled' and as such, may not necessarily contain the latest updates and amendments.

Original Date of Approval:	17th June 2022	
Review Date:	June 2025	
Lead Author:	**Dr Ashley Fergie, Clinical director for Older People's Mental Health**	
Approval Group:	**MH Quality & Care Governance Group**	
Clinical Content Changes (Y/N)	Y	
CGSU Version no:	3	MHS No: 31

Revision/Amendment Information

Please record brief details of the changes made alongside the next version number. If the procedural document has been reviewed **without change**, this information will still need to be recorded although the version number will remain the same.

Version	Date	Brief Summary of Changes	Author(s)
1.0	Feb 2016	First approved version	PMG (MH) SLWG
2.0	Nov18	Throughout document Terminology changed from Behavioural and Psychological Symptoms of Dementia (BPSD) to symptoms of stress and distress in dementia Hyperlinks and references updated Page 5 Hyperlinks for choice and medication website and Alzheimer's society factsheets added Section on monitoring added with hyperlinks to Physical Healthcare policy and Drug induced QT prolongation Page 6 Addition to risperidone dose advice Updated DLB Consortium reference, now 4th report. Page 7 Replaced by adapted version of updated NHS Polypharmacy guidance 2018 Hyperlink to NHS GGC Clinical Guideline Psychotropic Medicines Reviewing with Care Home Residents added Antipsychotic treatment table added Page 8 Appendix I- Antipsychotic review flowchart added Page 10-12 Leaflet updated- statistics amended in accordance with updated NICE decision aid 2018 References amended Page 13 Section for T2/T3 certificate added	PMG (MH) SLWG
3.0	May 22	Page 6- Statement added regarding use of clozapine in DLB	Dr Ashley Fergie

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1. SLWG Membership

Dr Eric Jackson, Consultant Psychiatrist, OPMH, Glenkirk Centre
Liz Mackie, Clinical Pharmacist, Leverndale Hospital
Ishbel McCallum, Senior Clinical Pharmacist, Leverndale Hospital
Alice McMenamin, Clinical Pharmacist, Gartnavel Royal Hospital
Dr Matthew Sheridan, Consultant Psychiatrist, OPMH, Glenkirk Centre
Lorna Templeton, Clinical Effectiveness Pharmacist, MHS

Information for the original guidance has been assimilated from areas of good practice from NHSGG&C, NHS Tayside, NHS Forth Valley and NHS Lanarkshire

This guideline was reviewed by the Prescribing Management Group (Mental Health)

2. Introduction

This guidance is intended to assist in the decision-making process for the treatment of patients with symptoms of stress and distress in dementia, also referred to as Behavioural and Psychological Symptoms of Dementia (BPSD)

It is recognised that non-pharmacological interventions are first line in the management of symptoms of stress and distress in dementia, but in certain circumstances, pharmacological intervention may be required. The guidance is intended to facilitate initiation and withdrawal of antipsychotics where appropriate, giving consideration for safe and effective prescribing.

3. Scope

This guidance supports a rational approach to antipsychotic prescribing for patients with symptoms of stress and distress in dementia under the care of specialist NHSGG&C Older People's Mental Health Services, in hospitals and community settings.

4. Rationalisation of Antipsychotics for People with Dementia – Good Practice Guide for Initiation of Treatment

It is important to remember that symptoms of stress and distress in dementia are often a temporary phenomenon or a result of external influences. 'Watchful waiting' and non-pharmacological interventions should be considered, and possible physical causes of deterioration should be ruled out before prescribing antipsychotics. NHSGG&C has introduced the NES training for the assessment and management (non-pharmacological) of behaviours which indicate stress or distress in patients with dementia. Contact your local Older Adult Clinical Psychologist to find out if staff in your area have been trained, or to get further information.

If required for acute distress/agitation/anxiety, consider short-term use of 'as required' benzodiazepines prescribed at the lowest effective dose e.g. lorazepam 500micrograms (maximum 2mg over 24 hours). Clearly document the reason for use and outcome. There is no evidence base supporting the long-term regular use of benzodiazepines for symptoms of stress and distress in dementia

Do Not Initiate Antipsychotics In The Following Circumstances:
Antipsychotic medication use in older people with dementia is associated with an increased risk of stroke and death. In addition, all antipsychotics have significant adverse side effects. They should only be used as a last resort for specific symptom(s) for a specified time period, with regular monitoring of effect and any adverse effects.

- It is not appropriate to initiate antipsychotic medication to manage symptoms which are unlikely to be modified by antipsychotic medication e.g. wandering, repetitive vocalisation, sleep disturbance, repetitive questioning.

- It is not appropriate to initiate antipsychotic medication when the symptoms can be managed effectively by non-pharmacological methods such as person-centred care. Ensure non-pharmacological approaches have been properly implemented, evaluated and documented before initiating antipsychotic medication.

- Other possible causes should have been investigated e.g. physical causes, psychological causes and environmental factors before initiating antipsychotic medication (Appendix II- Quick Reference Guide).

When to Initiate Antipsychotic Medication:
It may be appropriate to initiate medication where:

- The person with dementia is distressed by the target symptoms.

- The health or safety of the person with dementia is compromised by the severity of the symptoms or the safety of others is at risk.

- There has been an adequate analysis of the potential risks and benefits.

Antipsychotic treatment may be effective for psychosis, persistent physical aggression or severe agitation. It may be appropriate to consider a short course of antipsychotic in delirium. See NHS GGC Delirium Diagnosis, Risk Reduction and Management in Acute Services for further information.[1]

Consideration of antipsychotic adverse effects

The most important adverse effects associated with antipsychotic use in patients with dementia are parkinsonism, falls, postural hypotension, dehydration, constipation, chest infections, ankle oedema, deep vein thrombosis/pulmonary embolism, cardiac arrhythmia/MI and stroke (highest risk in the first four weeks of treatment). Patients should be kept well hydrated and as mobile as possible. The consideration of these potential adverse effects and decisions regarding treatment choice should be clearly documented.

Consent and statutory treatment plans

Medication initiation and changes to medication must be discussed with the patient if they have capacity. Where capacity is absent and there is an existing legal proxy i.e. welfare attorney or guardian, the decision to prescribe must be discussed with them, risks outlined, and agreement sought. (See Appendix III for patient and carer information leaflet)

Patient information leaflets for the use of specific medications are available on the Choice and Medication website.[2] An information guide for medication used for symptoms of dementia is also available from Alzheimer's Society Alzheimer's Society Factsheet Drugs used to relieve BPSD[3]

If the patient lacks capacity and if there is no formal legal welfare proxy, the principles of the Adults with Incapacity (Scotland) Act 2000 apply and treatment options should be discussed with relevant others, such as next of kin, carer or patient advocate. In either circumstance, an appropriate Section 47 certificate of incapacity is required. If a patient is subject to the Mental Health (Care and Treatment) (Scotland) 2003 Act, check that any psychotropic medication is included on a current T2/T3 certificate.

Commencing antipsychotic treatment

Antipsychotics should be commenced at the lowest possible dose, titrated carefully and reviewed within the first four weeks and after 6-12 weeks. At review, discontinuation of the antipsychotic should be considered unless there is ongoing significant risk and/or distress.
Appendix IV- Antipsychotic prescribing in dementia initiation and review should be used when commencing treatment and for review throughout treatment

Monitoring

The management of physical health care of older patients differs to that of a younger population for the following reasons;

- Bioavailability of medication
- An increase in the sensitivity to medication effects
- Increased frailty and multi-morbidity.

The older adult patient should receive the same standard of physical health care as that of the younger adult, paying attention to these special features. Monitor for common side effects such as extrapyramidal side effects, antimuscarinic effects (especially constipation) and effects on blood pressure and biochemistry. Please refer to NHS GGC MHS Physical Healthcare Policy[4] for further information on monitoring standards.

Where appropriate and practical, ECGs should be completed at baseline and thereafter when clinically indicated. Abnormalities should be acted on according to significance and clinical indication. Consult with cardiologist if in doubt. See NHS GGC MU Extra Drug Induced QT Prolongation for further information on QT prolongation.[5]

Licensed treatment

Risperidone is an antipsychotic licensed for the short-term treatment (up to 6 weeks) of persistent aggression in patients with moderate to severe Alzheimer's dementia unresponsive to non-pharmacological approaches and when there is a risk of harm to self or others

The BNF dose in this case is 250micrograms twice daily increased according to response. The usual dose is 500micrograms twice daily. (Maximum 1mg twice daily)[6]
Consider a lower starting dose of 250micrograms once daily. This can be effective and may be more appropriate for those frailer patients who are at higher risk of adverse effects.

Lewy Body Disease and Parkinson's disease dementia

The use of antipsychotic medication for the treatment of symptoms of stress and distress in patients with Lewy Body disease should generally be avoided as risks are greater in this patient group. In dementia with Lewy bodies and Parkinson's disease (PD) dementia the limited evidence supports the use of cholinesterase inhibitors to target psychotic symptoms. It is acknowledged however that for more severe symptoms that have not responded to a cholinesterase inhibitor, a cautious trial with an antipsychotic may be required. First generation antipsychotics e.g. haloperidol should be avoided.

The fourth report of the Dementia with Lewy Body (DLB) Consortium[7] suggests that low dose quetiapine may be relatively safer than other antipsychotics in DLB. Aripiprazole has theoretical advantages over conventional antipsychotics in DLB and is occasionally used in practice, however, the updated DLB Consortium did not recommend its use. The use of antipsychotics in DLB is off-label. When commencing antipsychotic treatment for DLB or PD dementia, 'start low and go slow' e.g. 12.5mg quetiapine.

On rare occasions when above antipsychotics have not been effective clozapine could be considered. It is strongly advised that before clozapine is started that advice is sought from specialist mental health pharmacist.

Antipsychotic	**Indication**	**Dose range**
Risperidone	Persistent aggression in moderate to severe Alzheimer's dementia *	250 micrograms daily to 1mg bd
Quetiapine	DLB or PD dementia	Start at 12.5mg daily and increase cautiously as tolerated
Aripiprazole	DLB or PD dementia**	Start at 1mg aripiprazole daily and increase cautiously as tolerated e.g. in 1mg increments
Clozapine	DLB or PD dementia	Do not start without first seeking advice from specialist mental health pharmacist

*risperidone licensed for short term management of Alzheimer's dementia
** anecdotal evidence for use of aripiprazole in DLB and PD dementia

5. **Rationalisation of Antipsychotics in Patients with Dementia**

- **Good Practice Guide for Reduction/Cessation of Treatment**

Adapted from NHS Scotland Polypharmacy Guidance 2018[8]

Antipsychotics have only limited benefit in treating symptoms of stress and distress in older people with dementia and carry significant risk of harm e.g. delirium, cerebrovascular events, falls and all-cause mortality.

Medication and management of stressed and distressed behaviours:

- Medication should be used as last, not first resort, to manage stress and distress
- People with dementia on psychotropic medicines should be prioritised for multidisciplinary review
- People with dementia on psychotropic medicines should be reviewed every three months
- Psychotropic medicines should be withdrawn gradually

Which patients should be prioritised for review?

Patients who have dementia and who have been on antipsychotics for more than 3 months and have stable symptoms should be reviewed by initiating team or in consultation with mental health services with a view to reducing or stopping antipsychotic medication. Priority groups for reducing antipsychotic medication include:

- People in care homes (see NHS GGC Clinical Guideline Psychotropic Medicines Reviewing with Care Home Residents) for support in reviewing psychotropic medications other than antipsychotics[9])
- People with vascular dementia
- People with dementia plus history of cardiovascular disease

When should antipsychotic medication NOT be stopped?

Patients who have a co-morbid mental illness that is treated with antipsychotic medication, such as schizophrenia, persistent delusional disorder, psychotic depression or bipolar affective disorder should not have antipsychotic medication reduced without specialist advice.

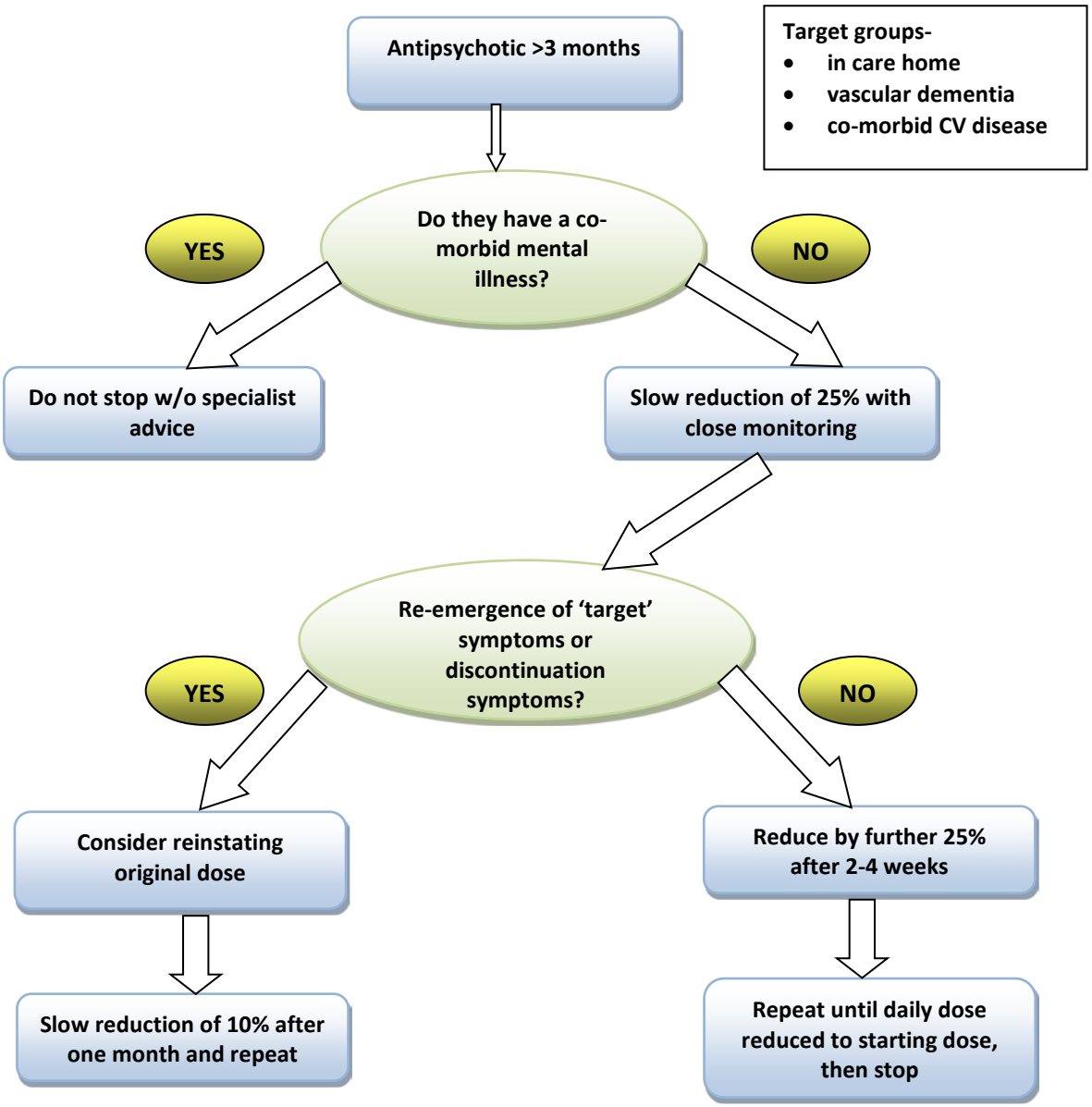
How to reduce antipsychotic medication? (Appendix I: Antipsychotic Review Flowchart)

- Slow reduction (25% daily dose) with close monitoring
- Review the effect after one week to assess for: the re-emergence of the initial 'target' symptoms of stress and distress
- Discontinuation symptoms include nausea, vomiting, anorexia, diarrhoea, rhinorrhoea, sweating, myalgia, paraesthesia, insomnia, restlessness, anxiety and agitation. Generally begin within 1 to 4 days of withdrawal and abate within 7 to 14 days
- If either of the above occurs the clinician should make an assessment of the risks and benefits of re-instating the previous dose of antipsychotic. Further attempts to reduce the antipsychotic should be made one month later with smaller decrements (10% daily dose)
- If there are no particular problems after week 1 then the dose should remain the same with further review after week 2 to 4 weeks.
- If the reduction has been tolerated without any of the effects described above then reduce by a further 25% and repeat the process
- There may be practical issues when reducing the dose, for example the availability and form of small doses of medication. It is recommended that this is discussed with a pharmacist.
- It is suggested that once the total daily dose is reduced to the recommended starting dose for the individual antipsychotic, it may be stopped
- In addition to reviewing antipsychotic prescriptions, review any other medication prescribed for antipsychotic side effects as they may no longer be required once the antipsychotic has been stopped.

6. References

1. NHS GGC Clinical Guideline Delirium Diagnosis, Risk Reduction and Management in Acute Services. March 2018
2. Choice and medication www.choiceandmedication.org/nhs24
3. Alzheimer's Society Publications and factsheets https://www.alzheimers.org.uk
4. NHS GGC Mental Health Service Physical Healthcare Policy April 2018
5. NHS GGC Medicines Update Extra Drug Induced QT prolongation. Issue8. Jul 2018
6. British National Formulary BNF76. Sep18-Mar19
7. McKeith IG, Boeve BF, Dickson DW, Halliday G, Taylor JP et al. Diagnosis and management of dementia with Lewy bodies: Fourth consensus report of the DLB Consortium. Neurology. 2017 Jul 4;89(1):88-100.
8. NHS Scotland Polypharmacy Guidance Realistic Medicine 3rd Edition 2018
9. NHS GGC Clinical Guideline. Psychotropic Medicines Reviewing with Care Home Residents. May2017
10. National Institute for Health and Care Excellence. NICE Decision aid for Dementia: assessment, management and support for people living with dementia and their carers. June 2018

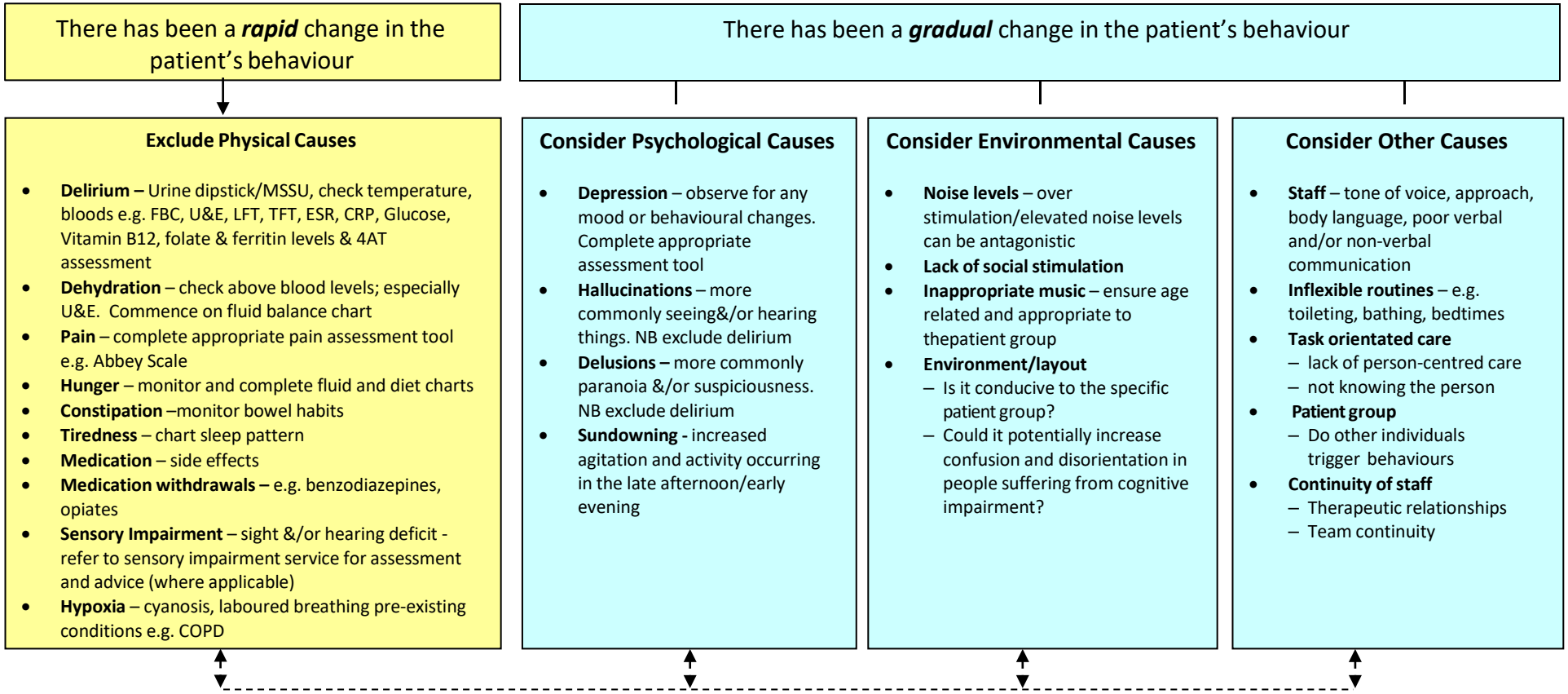
Appendix I: Antipsychotic review flowchart



Appendix II - Quick Reference Guide

The following is a guide to causation and management of symptoms of stress and distress in dementia. At any stage of dementia the person may display symptoms of stress and distress including; psychotic symptoms, aggression, agitation, wandering, anxiety, irritability, loud and/or repetitive vocalisation, apathy, repetitiveness, uncooperativeness, sexual disinhibition, inappropriate urination/defecation, disturbed sleep, sundowning etc.

This guide has been designed to be used by all staff to assist in the management of symptoms of stress and distress and to eliminate possible causes for changes in emotions, behaviour and functioning. It should be referred to in the first instance, prior to utilising psychotropic medication.



Exclude other causes if there has been no improvement or further deterioration in the patient's behaviour

Adapted from Quick Reference Guide NHS Forth Valley

Appendix III - Patient and Carer Information Leaflet.

Information for carers and patients about

Antipsychotic Medication in Dementia

What is dementia?

Dementia is an illness that causes a progressive worsening of brain function. Dementia affects people in different ways and common symptoms are memory loss, difficulties with communication and personality change. There are many causes of dementia but the common types are Alzheimer's and Vascular.

What are symptoms of stress and distress in dementia? (also referred to as behavioural and psychological symptoms of dementia)

People with dementia can develop symptoms of stress and distress which become more common as the illness develops. These symptoms can be distressing for the person and for those who care for them.

Sometimes a person may develop delusions (believing things that aren't true, like people stealing from them) or hallucinations (seeing or hearing things that aren't there).

Other times a person's character may change, making them more easily upset, angry or even aggressive.

What is antipsychotic medication?

Risperidone, an antipsychotic, is licensed for use in severe distress or aggression in Alzheimer's dementia.

There are other antipsychotics which are sometimes used including;

- haloperidol which may be used if a person has delirium as well as dementia;
- quetiapine which is used in Parkinson's or Lewy body dementia.

When do we use antipsychotics?

In some cases a person may become very severely distressed by their symptoms or the level of physical aggression becomes hard to manage safely.

We always aim to manage these symptoms using non-drug methods, such as distraction and taking part in other activities. Occasionally however this does not work and the doctor or nurse may suggest using an antipsychotic drug.

We only use these drugs when other alternatives do not work and the person is very distressed or aggressive.

What are the benefits of using antipsychotics?

These medications have been shown to be helpful for reducing levels of physical aggression and reducing psychotic symptoms (such as delusions and hallucinations).

For some people with dementia this can make a big difference to them, their family and carers.

Are there any risks of using antipsychotics?

No medication is free from side effects. This group of medications has been shown to cause some important side effects.

These include:

- Sedation (drowsiness)
- Muscle stiffness, slowing of movements or shakiness
- Ankle swelling
- Increased risk of falls
- Increased risk of infections
- Increased risk of blood clots
- Increased risk of stroke
- Increased risk of death

Risk of stroke[10]

- Taking antipsychotic medication increases the risk of stroke from 0.8% to 2%
- That means for every 1000 people living with dementia who have hallucinations, delusions or agitation and who take an antipsychotic for 6-12 weeks, while they are taking it, on average;
  - 980 people will not have a stroke whether they take an antipsychotic or not
  - 8 people will have a stroke whether they take it or not
  - a further 12 people will have a stroke because they take an antipsychotic

Risk of death[10]

- Taking antipsychotic medication increases the risk of death from 2.2% to 3.3%
- That means for every 1000 patients living with dementia who have hallucinations, delusions or agitation and who take an antipsychotic for 6-12 weeks, while they are taking it, on average;
  - 967 people do not die whether they take an antipsychotic or not
  - 22 people die whether they take the antipsychotic or not
  - a further 11 people die because they take the antipsychotic

This is the average. Some people will be at greater or lower risk of dying. It is not possible to know in advance what will happen to an individual person.

The doctor or nurse will discuss with the patient (where possible) and a family member or carer when considering these medications. There is often a balance between quality of life and risk of side effects.

How long are antipsychotics given?

In most cases we give people a short course of medication (up to 6-12 weeks). We know that usually a person's symptoms get better in time (often just a few weeks) and we aim to stop the medication as early as possible. A small number of people may need to be on medication longer term. This group of people often have the most severe and distressing symptoms.

The following websites contain useful information and links to resources:

NICE Decision Aid Antipsychotic Medicines for treating agitation aggression and distress in people living with dementia[11]

https://www.choiceandmedication.org/nhs24

Alzheimer Scotland 0808 808 3000 www.alzscot.org

Alzheimer Society www.alzheimers.org.uk

Appendix IV - <u>ANTIPSYCHOTIC PRESCRIBING IN DEMENTIA INITIATION AND REVIEW</u>

Name: (addressograph)		Consultant Psychiatrist:	
CHI:		Location:	
Diagnosis:			
Indication for antipsychotic medication			

PRE-TREATMENT tick as appropriate

Management plan for symptoms of stress and distress in place	
Non-pharmacological methods and alternative treatments tried	
Physical co-morbidities considered	
Capacity considered and AWI Section 47 form /treatment plan completed as required[d]	
T2/T3 certificate completed as appropriate	
Written Information provided e.g. Information for carers and patients about antipsychotic medication in dementia	
Discussion with patient/relative/carer/ welfare guardian/welfare attorney Name: Date:	

INITIATION OF TREATMENT

Antipsychotic	
Initiation dose/ titration schedule	
Date commenced	

REVIEW OF TREATMENT

Review period from initiation	Date	Response None/mild/moderate/good	Side effects	Still indicated? Consider withdrawal if stable Action
4 weeks				
Between 6 – 12weeks				
Every 3 months				

NHS
Greater Glasgow and Clyde

Mental Health Services

Good Practice Statement For The Use Of DEPOT & LONG ACTING ANTIPSYCHOTIC INJECTIONS

Date of Revision: February 2020
Approved by: Mental Health Prescribing Management Group
Review Date:

CONSULTATION

The document was sent to Community Mental Health teams, Pharmacy and the Psychiatric Advisory Committee for comments prior to completion.

KEY DOCUMENTS

When reading this policy please consult the NHS Consent Policy when considering any aspect of consent

National Institute for Clinical Excellence CG178 (2014), **Psychosis and schizophrenia in adults: prevention and management**

NHS Lothian (2011), **Depot Antipsychotic Guidance,**

Maudsley (2015), Prescribing Guidelines in Psychiatry 12th edition.

UKPPG (2009) **Guidance on the Administration to Adults of Oil based Depot and other Long Acting Intramuscular Antipsychotic Injections**

Summary of Product Characteristics for:

- Clopixol (Zuclopethixol Decanoate)
- Flupenthixol Decanoate
- Haldol (Haloperidol Decanoate)
- Risperdal Consta
- Xeplion (Paliperidone Palmitate)
- ZypAdhera (Olanzapine Embonate)
- Abilify Maintena (Aripiprazole)

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INTRODUCTION

Antipsychotic depot injections have been used in psychiatry for many years. Their use was endorsed by NICE in CG178 Psychosis and schizophrenia in adults: prevention and management

'Consider offering depot/long-acting injectable antipsychotic medication to people with schizophrenia:

- *who would prefer such treatment after an acute episode*
- *where avoiding covert non-adherence (either intentional or unintentional) to antipsychotic medication is a clinical priority within the treatment plan.'*

There are disadvantages to depot use namely managing side effects that may be prolonged and patient perception.

The use of depots can be the subject of controversy, however in appropriate circumstances they are a very useful addition to the range of antipsychotic preparations available.

The purpose of this good practice statement is to support the safe and effective use of depot antipsychotic injections.

SCOPE

These guidelines apply to all staff involved in the prescribing, administration and supply of depot antipsychotics in the Mental Health Services of NHS Greater Glasgow & Clyde. It is the responsibility of all appropriate senior managers to ensure that these guidelines are implemented.

DEFINITIONS

Depot or long acting antipsychotic injection – an antipsychotic drug formulated in such a way as to allow the steady gradual release of a drug over a defined time period. There are a variety of formulations and delivery vehicles but all are administered by deep intra-muscular injection.

STANDARD STATEMENT

Only appropriately trained and competent staff may administer depot antipsychotics. Newly qualified staff must complete a competency framework and must undergo a period of supervised practice before they may administer depot antipsychotics. Student Nurses, once deemed competent, are allowed under supervision to administer depot medication.

CHOICE OF DRUG AND DOSAGE SELECTION

The antipsychotics currently available as depot preparations are:

First generation

- Flupentixol decanoate
- Haloperidol decanoate
- Zuclopenthixol decanoate

Second generation

- Aripiprazole
- Risperidone
- Paliperidone palmitate
- Olanzapine embonate (note: Category 3 non formulary item)

All of the currently available depots are indicated for the maintenance of schizophrenia and other psychoses.

First Generation

Depots are long acting and any adverse effects are likely to be long lived. Therefore, when using 'first generation' depots, a small test dose is always given to identify if patients are likely to be susceptible to side effects or will suffer a severe reaction. Once a test dose has been given it is necessary to wait at least 4 –10 days before initiating any titration to maintenance dose (always refer to the Summary of Product Characteristics (SPC) for individual products). Adverse reactions may occur at any time during this period and the patient must be closely monitored.

The following table summarises the test doses for each depot drug, the dose range per week and the usual dosage interval.

Drug	Test dose (mg)	Dose range (mg/wk)[a]	Dosing interval (wks)
Flupentixol decanoate	20	12.5 - 400	2 - 4
Haloperidol decanoate	25[b]	12.5 - 75	4
Zuclopenthixol decanoate	100	100 - 600	1 - 4

Notes

In **older adults or frail individuals** the dose should be quartered or halved.

a. Dose range is given as mg/week for illustrative purposes only. Avoid using shorter dose intervals than those recommended (last column) except where the dose required necessitates an unacceptably high injection volume (>2.5ml of injection).

b. The SPC for haloperidol does not recommend a test dose therefore a test dose of 25mg is suggested. The use of haloperidol in combination with drugs known to prolong the QTc interval is contra-indicated. Such combinations should be avoided.

Second Generation

The formulation and pharmacokinetics of Risperdal Consta© preclude the use of a test dose**,** for risperidone-naive patients, it is recommended to establish tolerability with oral risperidone prior to initiating treatment with RISPERDAL CONSTA. It is recommended that patients treated with higher doses of oral antipsychotics should be considered for a 37.5mg starting dose of Risperdal Consta.

With Paliperidone palmitate a loading dose of 150mg on day 1 then 100mg on day 8 is given followed by monthly adjustments according to response. The loading dose must be administered into the deltoid muscle. Please note that paliperidone long acting injection is administered every calendar month **not** every 4 weeks.

Olanzapine embonate has a complex starting dose depending on the oral dose of olanzapine the patient was taking. This preparation is non-formulary and subject to IPTR3 process. Please contact PMG(MH) before prescribing.

The recommended initial dose for aripiprazole is 400mg. However this should be reduced as described in the SPC as necessary. Please note that aripiprazole long acting injection is administered every calendar month **not** every 4 weeks.

Always refer to the SPC, BNF or pharmacy for the appropriate initial dosing.

When initiating a depot, the following principles apply:

- Give a test dose (first generation only) or the recommended loading or initial dose first
- Begin with the lowest therapeutic dose. Lower doses are likely to be better tolerated and are less expensive.
- Administer at the longest possible licensed interval. Follow the recommended licensed dosing interval, there is no evidence to suggest that shortening the dosing interval will improve efficacy.
- Allow an adequate assessment period before adjusting doses. Peak plasma levels, therapeutic effect and steady-state plasma levels are delayed with depot injections. Adequate time must be allowed for these to occur before increasing doses. Therefore it would be prudent to wait until these have been achieved before considering increasing the dose. The following table gives the approximate time to steady state for these drugs.

Drug	Time to steady state (weeks)
Flupentixol decanoate	6 - 12
Haloperidol decanoate	10 - 12
Zuclopenthixol decanoate	10 - 12
Aripiprazole	16
Olanzapine embonate	12
Paliperidone palmitate	9 - 21
Risperidone	6 - 8

Side effects

Like all drugs, depot antipsychotics may be associated with side effects. A full list of possible side effects can be found in the SPC for each drug. The following are some important points to remember.

- Pain, erythema, swelling and nodules can occur at the injection site.
- Depot antipsychotics do not produce extra-pyramidal side effects at the time of administration. They may occur after several hours or days.
- Rarer adverse effects such as rashes and agranulocytosis are well documented with antipsychotics, anaphylaxis is not. However, it is recommended that the first dose of a depot be administered in a clinical base with access to emergency equipment (disposable Ambubag, airways, Laerdal pocket mask, and supportive medicines). Thereafter, there should be no need for nursing staff to carry adrenaline in case of anaphylaxis. Olanzapine LAI must always be given in a healthcare facility and patients must remain there for 3 hours post dose.

Standardised tools or checklists e.g. GASS (Glasgow antipsychotic side-effect scale) should be used to monitor and assess side effects every 6 – 12 months minimum.

Prescribing

Depot antipsychotic injections must be prescribed on the prescription sheet (for inpatients only) and on a depot prescription card/sheet for all patients. Depot prescription sheets should be reviewed every six months.

The prescription **must** be legibly written and signed by a medical practitioner or suitably qualified non-medical prescriber (acting in accordance with an agreed clinical management plan). Verbal prescriptions for depots **are not** permitted.

On initiation and also at any change of medication, dose or frequency, the date the injection is due should be clearly stated. Prescriptions should not be post dated.

The prescription **must** contain the following details

- The patient's name, address and CHI number.
- Any known allergies or if none record '*no known allergie*s' on the prescription.
- Special notes of relevance to administration of the depot.
- The drug name, dosage, strength and frequency of administration.
- A review date.
- Prescriber's signature

Only an appropriate prescriber may make alterations to the prescription. The responsible medical officer should review prescriptions regularly at least every six months.

Licensed injection sites

The following table details the licensed site of administration for each long acting antipsychotic injection. The information has been taken from the current Summary of Product Characteristics for each drug.

Drug	**Licensed site of administration**
Flupentixol decanoate	Upper outer buttock or lateral thigh
Haloperidol decanoate	Gluteal
Zuclopenthixol decanoate	Upper outer buttock or lateral thigh
Aripiprazole	Deltoid or gluteal
Olanzapine embonate	Gluteal
Paliperidone palmitate	Deltoid or gluteal
Risperidone	Deltoid or gluteal

ADMINISTRATION

Detailed guidance to support administration of depot antipsychotics is outlined on pages 9 to 20. The following provides summary guidance.

- Depot antipsychotics may only be administered against a valid prescription.

- Before administering any new depot check that

  a. A test dose has been given, if appropriate, and no adverse reactions occurred.
  b. The patient has received an adequate explanation of the treatment and has received any appropriate written information.
  c. The patient consents to treatment or if detained under Mental Health legislation that the appropriate documentation is in place.

- Patient identification. It is essential that a formal system for confirming patient's identity be in use. This will ensure that patients are correctly identified before depots are administered.

- Once the above criteria are satisfied appropriately trained staff or student nurses under supervision may administer depots. All staff must meet the competencies required for administering depot injections.

- Select the appropriate strength of depot preparation to administer the required dose in the lowest possible volume (see appendix 1 for guidance).

- Observe good practice guidelines for hand washing and 'no touch' technique when preparing the dose for administration.

- Administer the depot by deep intramuscular injection using the 'Z tracking technique'.

- Dispose of all used materials as indicated by local policy.

The following web link provides a helpful introduction to intramuscular injections

http://www.nottingham.ac.uk/nursing/sonet/rlos/placs/nctl178-injection-sites/index.html

Recording the administration

Proper record keeping is essential to patient safety, medication incidents have occurred because of poor record keeping e.g.

- Doses being given before or after the next due date in error.
- Wrong medication or dose being dispensed or administered.
- Doses missed completely.

The following details must be recorded on the appropriate documentation:

On the depot card:

- Date given
- Preparation, strength and volume given
- Site given
- Next due date
- Nurse administering the dose
- Batch number & expiry date

In the patient's record:

- Drug given
- Dose given
- Site given
- Date next due
- Any noted side effects
- Details if dose refused
- Any other relevant clinical information

Local areas should devise a system for tracking the next due dates for all patients prescribed depot antipsychotics. For in-patients this may involve documented checking each weekend of all patients due depots in the coming week.

In addition to the above out-patient settings must have a "Did Not Attend" procedure in place to deal with situations where patients fail to attend their appointment for their depot. This procedure must include the following

- Communication systems i.e. who to tell e.g. CPN, Consultant, GP
- Documentation
- Actions to be taken to contact and recall the patient. It should detail who is responsible for carrying out these actions.
- Key workers should prepare an individualised Did Not Attend plan for each person prescribed depot or LAI medication. This will inform staff unfamiliar with the patient of the actions to be taken when they do not attend appointments.

Communication

It is essential to good patient care that communication between patient settings regarding depot prescriptions is robust. This may be between community teams and mental health in patient settings, between community teams and acute medical in patient settings and between mental health in patient settings and acute medical in patient settings. When a patient is transferred between any of these settings the following details must be clearly communicated

- The depot preparation prescribed plus the dose and dosage interval.
- Date last given and the next due date.

Good communication can be aided by transferring depot prescription & recording sheets with the patient as they move.

It is the responsibility of ward staff in mental health or acute settings to administer depot or LAIs when patients are in hospital. In no circumstances should community staff administer depots or LAIs to patients in hospital.

Staff within CMHTs are responsible for ensuring depot alerts on EMIS are up to date.

Medication related issues

A number of other important issues may impact on the use of depot antipsychotics

1. Concomitant medication

Patients may be prescribed or be taking a variety of other medications. It is important to be aware of these when prescribing depots. It is especially important when a psychiatrist is responsible for prescribing the depot and the GP prescribes everything else.

2. Changes to depot antipsychotic prescriptions

It is essential that all changes to a depot prescription are quickly and clearly communicated to all relevant staff. The use of the depot prescription sheet facilitates this. If the GP prescribes the depot a local system should be developed to ensure good communication.

3. Drug Interactions

It is important that all health professionals involved in the use of depot antipsychotics are aware of the clinically significant interactions between depots and other medicines. Staff should refer to the current edition of the BNF or contact Pharmacy for advice.

4. High Dose Antipsychotics

The Royal College of Psychiatrists has issued revised guidance on the use of high dose antipsychotics (May 2014). It is possible that a patient could be prescribed regular or as required oral antipsychotics whilst on a depot. This may result in them reaching high dose status with the associated requirement for monitoring as detailed in the High Dose antipsychotic guidelines.

5. Extremes of weight

There are practical issues to consider when prescribing or administering depots to patients with very low weight or significant obesity.

Muscle mass is important for effective absorption of depots. The reduced muscle mass in patients with low weight may affect absorption and may also result in increased pain on injection. Contact mental health clinical pharmacy services for advice.

Significant obesity may make successful administration of depots difficult. Longer needles may need to be used (see page 10).

6. Consent to treatment

If a patient is detained under the Mental Health Act and/or subject to a CTO, or is being treated under the Adults with Incapacity legislation, treatment with a depot antipsychotic must comply with any relevant treatment plan in place. All staff involved with the patient must be aware of the contents of any treatment plan. Staff must have access to a copy of the treatment plan with the depot prescription sheet at the point of administration.

7. General Physical Monitoring

The regular interaction between community staff and patients prescribed depots may provide an ideal opportunity to monitor relevant physical parameters. This is especially true for those patients who don’t or won’t attend their GP. Some of the items for monitoring are

- Blood pressure, pulse.
- ECG
- Weight
- Side effects

8. Storage and preparation requirements for Risperdal Consta

Unlike the other depot preparations, Risperdal Consta requires to be refrigerated prior to use. Accordingly it is subject to 'Cold Chain' transportation. Deliveries from the Pharmacy Distribution Centre have cold chain verification. To ensure the 'cold chain' is maintained orders must be transferred to fridge immediately on receipt by ward and community staff.

If the 'cold chain' is broken at any point Risperdal Consta should be stored at room temperature and used within 7 days.

Risperdal Consta requires to be reconstituted prior to use. Staff should be familiar with and deemed competent to prepare this preparation before they are allowed to prepare and administer it. Once reconstituted, the product must be used within **6 hours**. Careful planning is therefore necessary when organising depot clinics where Risperdal Consta will be used.

9. Audit

There should be regular self and peer audit of compliance with these guidelines.

DEPOT ANTIPSYCHOTIC INJECTIONS – GUIDANCE TO SUPPORT APPROPRIATE ADMINISTRATION

Injections may be administered by a number of routes but this guidance deals with the administration of depot antipsychotic medication by deep intra-muscular injection.

1. Preparation & equipment

Gloves
NHS Greater Glasgow & Clyde recommend the use of gloves to protect the nurse from contact with body fluids and allergic injection compounds. They may contribute to a reduction in a sense of control over the injections materials, especially in individuals who have learned technique without them, however this can be minimised by ensuring that gloves fit well.

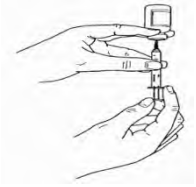
Sharps
To reduce the risk of injury, sharp equipment such as needles and glass drug vials need to be handled and disposed of carefully. Used needles should **not** be resheathed and all used and unwanted sharp equipment should be disposed of in appropriate containers, **not** in clinical waste bags. Other waste can be collected in the disposal bag then placed in clinical waste bags.



Needles
Needles should be long enough to allow injection to the intended depth of muscle with a quarter of the needle length remaining external to the skin. A variety of lengths are available and an assessment of the length of needle required to reach the muscle should be made by an assessment of the individual patient, taking into account any subcutaneous fat and remembering to allow for approximately 2-3mm of the needle length to be left outside the skin to allow the needle to be removed should it break. In obese patients care must be taken to ensure administration into muscle and not subcutaneous fat. Longer than standard needles may be required. The most common used for deep intra-muscular injections is 21g x 1.5 inch (green needle) or 23g x 1.25 inch (blue needle). In order to minimise the likelihood of drawing up small slivers of glass from glass drug vials, a smaller bore needle may be used to draw up the drug. The drug's viscosity will determine whether this can be done.

Syringes
Selection of syringe should take account of the volume of medication to be given as well as the syringe's suitability to measure dosage. Syringes range in size from under 1ml to over 50ml, however for injection other than insulin you will generally choose from the following:

- **1ml** which has markers showing each 0.1 of a ml.
- **2ml** which has markers showing each 0.1 of a ml.
- **5ml** which has markers showing each 0.2 of a ml.



These markers are important, as prior to drawing up an injection it is necessary to calculate the volume of medication that will provide the prescribed dose. To accurately calculate the dose requires selection of a syringe which is suitably marked for measurement of the dose *(see appendix 1, dose selection for depot injections)*

Dose selection
The administration of depot antipsychotic drugs is a skilled procedure. Intra-muscular injections can be painful and this can be especially true of the depot injections. Pain can be minimised by using the smallest volume possible. Ideally, no more than **2ml** should be given to one site if possible. The tables in appendix 1 give guidance on product selection to minimise the volume of depot injection administered.

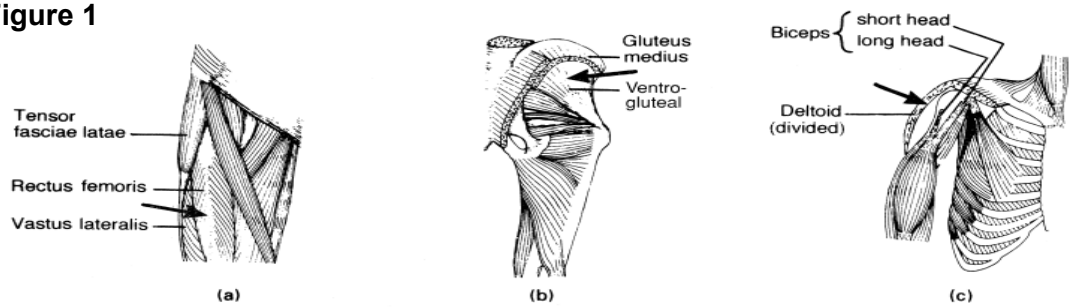
2. Preparation & equipment

Depot antipsychotic medication is administered by Z-track injection. Care must be taken to use concentrations in the smallest appropriate dose (ideally no more than 2 ml).

Prior to injecting, inspect the chosen site for signs of inflammation, swelling or infection and any skin lesions should be avoided. Following the injection, inspect the site for any adverse reaction. Document where the injection is given and alternate the site to allow an even rotation. This reduces the risk of abscess due to poor absorption and muscle atrophy.

The Royal Marsden (2003) offers the following advice on selection of sites for deep intra-muscular injections (fig.1)

Figure 1



(a)Rectus femoris: used for antiemetics, narcotics, sedatives, injections in oil, deep intra-muscular and Z-track injections. It is rarely used in adults but is the preferred site for infants and for self-administration of injections *(Springhouse Corporation, 1993).*

(b)Gluteus medius: used for deep intra-muscular and Z-track injections. The gluteus muscle has the lowest drug absorption rate. The muscle mass is also likely to have atrophied in elderly, non-ambulant and emaciated patients. This site carries with it the danger of the needle hitting the sciatic nerve and the superior gluteal arteries *(Workman, 1999).*

(b)Ventrogluteal: used for antibiotics, antiemetics, deep intra-muscular and Z-track injections in oil, narcotics and sedatives, typical volume is 1–4 ml. It is best used when large-volume intra-muscular injections are required and for injections in the elderly, non-ambulant and emaciated patient as it provides the safer option to accessing the gluteus medius muscle. This is because the site is away from major nerves and vascular structures and there have been no reported complications *(Beyea & Nicholl, 1995; Workman, 1999).*

(a)Vastus lateralis: used for deep intra-muscular and Z-track injections. This site is free from major nerves and blood vessels. It is a large muscle and can accommodate repeated injections.

(c) Deltoid: should only be used with Paliperidone palmitate, Risperidone Consta and Aripiprazole

A recent study into best practice guidelines for the administration of intra-muscular injections in mental health care settings, (Wynaden et al, 2006) recommended the dorso-gluteal site.

Skin preparation
NHS Greater Glasgow & Clyde accept that if the patient is physically clean and the nurse maintains a high standard of hand hygiene and asepsis during the procedure, skin disinfecting is not necessary

Source – Adapted (2006) from - The Royal Marsden Hospital and Blackwell Science © 2001 and University of Paisley

Injection techniques

As the angle of the needle entry may contribute to the pain of the injection, intra-muscular injections should be given at an angle of between 70- 90^0 - this reduces pain and increases the likelihood of the needle reaching the muscle



NHS Greater Glasgow & Clyde recommend the **Z-track technique**. To Z-track an intra-muscular injection, pull the skin downward or to one side at the intended site. This causes the cutaneous and subcutaneous tissues to move by approximately 1-2 cm, by allowing the skin to fold back after the injection you close over the deposit of medication, preventing it from leaking.

Move the skin away with the Ulnar or flat of your steadying (generally non-dominant) hand and hold it there while you administer the injection. Using this part of your hand leaves your fingers free to assist in supporting the syringe when the needle has been inserted in the patient. Remember that moving the skin in this way may divert you from the original site and it is important that you focus on injecting into the appropriate muscle area.

Insert the needle to the desired depth using the dart-like action, then use the fingers of the steadying hand to hold the syringe barrel. Aspirate by pulling the plunger back to allow a small vacuum and hold for several seconds, this allows any blood encountered to be drawn into the syringe, discard the syringe and contents if this happens. If no blood appears, fully depress the plunger injecting slowly (allow 10 seconds for each 10 ml). When the plunger has been fully depressed, wait 10 seconds before withdrawing the needle this allows diffusion of the medication. A cotton wool ball and small wound plaster may be useful to absorb and cover any seepage of blood or medication. **Check before use whether the patient is allergic to these**. Do not massage the site following injection as this may encourage leakage. Some gentle exercise of the limb may be suggested as this may help absorption of the drug by increased blood flow.

Royal Marsden, (2003) listed a number of techniques that could be utilised to reduce pain and discomfort experienced by the patient during injection e.g.

- Adequate preparation of the patient
- Using ice or freezing spray to numb the skin
- Correct choice of site
- Technique
- Positioning of the patient so that the muscles are relaxed
- In addition Wynaden et al (2006), suggest that encouraging patients to adopt the prone position and lying on their stomach helps the patient to relax during the procedure and offers the nurse more personal security if the patient becomes restless or agitated during the procedure

Supporting documentation

Appendix 1 Dose selection for depot antipsychotic injections
Appendix 2 Equipment
Appendix 3 Procedure – preparation for administering depot antipsychotic injections
Appendix 4 Procedure – administration of depot antipsychotic injections
Appendix 5 Flowchart for administering an injection

Appendix 1

Dose selection for Depot Injections

The administration of depot antipsychotic drugs is a skilled procedure. Intra-muscular injections can be painful and this can be especially true of the depot injections. Pain can be minimised by using the smallest volume possible. Ideally, no more than **2ml** should be given to one site if possible. The following tables give guidance on product selection to minimise the volume of depot injection administered.

****Note** Under no circumstances should different strengths of depot preparation be mixed.**

The above advice is intended as a guide, if you require further advice contact pharmacy.

Flupenthixol Decanoate			
Dose	**Product**	**Volume**	**Method**
10mg	Flupentixol 20mg/ml	0.5ml	Via 1ml syringe
20mg	Flupentixol 20mg/ml	1ml	Via 1ml syringe
30mg	Flupentixol 40mg/2ml	1.5ml	Via 2ml syringe
40mg	Flupentixol 40mg/2ml	2ml	Via 2ml syringe
50mg	Flupentixol 50mg/0.5ml	0.5ml	Via 1ml syringe
60mg	Flupentixol 100mg/ml	0.6ml	Via 1ml syringe
70mg	Flupentixol 100mg/ml	0.7ml	Via 1ml syringe
80mg	Flupentixol 100mg/ml	0.8ml	Via 1ml syringe
90mg	Flupentixol 100mg/ml	0.9ml	Via 1ml syringe
100mg	Flupentixol 100mg/ml	1ml	Via 1ml syringe
120mg	Flupentixol 200mg/ml	0.6ml	Via 1ml syringe
150mg	Flupentixol 200mg/ml	0.75ml	Via 1ml syringe
200mg	Flupentixol 200mg/ml	1ml	Via 1ml syringe

Zuclopenthixol decanoate - Clopixol			
Dose	**Product**	**Volume**	**Method**
50mg	Zuclopenthixol 200mg/ml	0.25ml	Via 1ml syringe
100mg	Zuclopenthixol 200mg/ml	0.5ml	Via 1ml syringe
150mg	Zuclopenthixol 200mg/ml	0.75ml	Via 1ml syringe
200mg	Zuclopenthixol 200mg/ml	1ml	Via 1ml syringe
300mg	Zuclopenthixol 500mg/ml	0.6ml	Via 1ml syringe
400mg	Zuclopenthixol 500mg/ml	0.8ml	Via 1ml syringe
500mg	Zuclopenthixol 500mg/ml	1ml	Via 1ml syringe
600mg	Zuclopenthixol 500mg/ml	1.2ml	Via 2ml syringe

A 2ml syringe is graduated to 2.5ml. This dose may have to be split if the patient is very thin.

Haloperidol decanoate - Haldol			
Dose	**Product**	**Volume**	**Method**
50mg	Haloperidol 50mg/ml	1ml	Via 1ml syringe
100mg	Haloperidol 100mg/ml	1ml	Via 1ml syringe
150mg	Haloperidol 100mg/ml	1.5ml	Via 2ml syringe
200mg	Haloperidol 100mg/ml	2ml	Via 2ml syringe
250mg	Haloperidol 100mg/ml	2.5ml	Via 2ml syringe

–Aripiprazole – Abilify Maintena			
Dose	**Product**	**Volume**	**Method**
400mg	Aripiprazole 400mg	2ml	Via syringe provided
300mg	Aripiprazole 400mg	1.5ml	Via syringe provided
200mg*	Aripiprazole 400mg	1.0ml	Via syringe provided
160mg*	Aripiprazole 400mg	0.8ml	Via syringe provided

*to deliver reduced dose with regards to specific drug interactions (see SPC)

Appendix 2

Equipment

1.	Clean tray or receiver in which to place drug and equipment
2.	19 g needle(s) to ease reconstitution and drawing up, 23 g if from a glass ampoule.
3.	21, 23 or 25g needle - size dependent on route of administration
4.	Syringe(s) of appropriate size for amount of drug to be given.
5.	Clean swab, if drug is presented in ampoule form.
6.	Drug(s) to be administered.
7.	Patient's prescription chart to check dose, route etc.
8.	Recording sheet or diary as required by law and depot policy.
9.	Well-fitting gloves
10.	**Risperdal Consta comes in pack with all equipment**
11.	**Paliperidone palmitate comes in pre-filled syringes with needles in pack**
12.	**Aripiprazole comes in pack with all equipment and as pre-filled syringes**

Appendix 3

Procedure – preparation for administering depot antipsychotic injections

	Action	Rationale
1.	Collect and check all equipment	To prevent delays and enable full concentration on the procedure.
2.	Check that the packaging of all equipment is intact	To ensure sterility, if the seal is damaged, discard.
3.	Wash hands with bactericidal soap and water or bactericidal alcohol hand rub	To prevent contamination of medication and equipment.
4.	Prepare needle(s), syringe(s) etc. on a tray or receiver	
5.	Inspect all equipment	To check that none is damaged if so discard.
6.	Consult the patient's prescription sheet, and ascertain the following: (a) Drug (b) Dose (c) Date and time of administration (d) Route and method of administration (e) Validity of prescription (f) Signature of doctor. (g) Site of last injection	To ensure that the patient is given the correct drug in the prescribed dose, at the right time, via the correct route and to the correct site.
7.	Check all details with another nurse, if required by hospital policy	To minimise any risk of error.
8.	Select the drug in the appropriate concentration, volume or dosage and check the expiry date. (Refer to appendix 1 for dose selection table)	To reduce volume / wastage. Treatment with medication that is outside the expiry date is dangerous - drugs deteriorate with storage. The expiry date indicates at point in time beyond which the product must not be used as its efficacy & quality will diminish
9.	Proceed with the preparation of the injection **Note: Risperdal Consta has specific preparation procedures that must always be followed. Refer to the package insert at all times.** **Some of the guidance below is not relevant to Aripiprazole, Risperdal Consta or Paliperidone(11,12,13,14,16)**	
10.	Inspect the solution for cloudiness or particulate matter. If this is present, discard and follow hospital guidelines on what action to take e.g. return drug to pharmacy to prevent the patient from receiving an unstable or contaminated drug. **Note. Risperdal Consta is a suspension of microspheres - it is always cloudy.**	

	Action	Rationale
	Note. Paliperidone is a white to off-white suspension	
11.	Tap the neck of the ampoule gently	To ensure that all the solution is in the bottom of the ampoule
12.	Cover the neck of the ampoule with a swab and snap it open. If there is any difficulty, devices to aid opening are available	To reduce the risk of injury to the nurse
13.	Inspect the solution for glass fragments if present, discard	To minimise the risk of injection of foreign matter into the patient
14.	Withdraw the required amount of solution, tilting the ampoule if necessary	To avoid drawing in any air
15.	Tap the syringe.	To dislodge any air bubbles, expel air.
16.	Change the needle, and discard used needle into appropriate sharps container **Aripiprazole, Risperdal Consta and Paliperidone all come with their own needles that must be used as indicated in the package insert.**	To reduce the risk of infection, avoid tracking medications through superficial tissues, ensure that the correct size of needle is used for the injection to reduce the risk of injury to the nurse.

Appendix 4

Procedure – administration of depot antipsychotic injections

	Action	Rationale
1.	Explain and discuss the procedure with the patient	To ensure that the patient understands the procedure
2.	Evaluate the patient's knowledge of the medication being offered. If this knowledge is incomplete or the patient wishes further information, offer an explanation of the use, action, dose and potential side effects.	A patient has a right to information about treatment
3.	Consult the patient's prescription sheet, and ascertain the following: (a) Drug (b) Dose (c) Date and time of administration (d) Route and method of administration (e) Validity of prescription (f) Signature of doctor (g) Site of last injection (h) Confirm identity of patient	To ensure that the patient is given the correct drug in the prescribed dose using the appropriate dilution and by the correct route. To ensure injection is given to the right patient.
4.	Assist the patient into the required position	To allow access to the chosen site and to ensure the designated muscle group is flexed and therefore relaxed.
5.	Remove the appropriate garment to expose the chosen site	To gain access for injection
6.	Assess whether skin cleansing is required	Skin cleansing not necessary if skin is clean
7.	Stretch the skin around the chosen site by gently pulling the underlying skin downwards or to one side of the injection site and hold	Z-track is recommended for all intra-muscular injections. To facilitate the insertion of the needle and to displace the underlying subcutaneous tissue.
8.	Holding the needle at an angle of 90°, quickly plunge it into the skin	To ensure that the needle penetrates the muscle. Leave a third of the shaft of the needle exposed to facilitate removal of the needle should it break.
9.	Pull back the plunger, if no blood is aspirated, depress the plunger at approximately 1 ml every 10 seconds and inject the drug slowly. If blood is aspirated, withdraw needle, dispose of injection materials and start again. Explain to the patient what has occurred to confirm that the needle is in the correct position.	
10.	Wait 10 seconds before withdrawing the needle, releasing the skin as you withdraw	To allow the medication to diffuse into the tissue. Manoeuvre seals puncture tract.
11.	Withdraw the needle rapidly. Apply pressure to any bleeding point	To prevent haematoma formation

	Action	Rationale
12.	Record the administration and site of injection on appropriate sheets / diary / appointment card. Record the date next injection due on appropriate sheets	To ensure different site used at next injection. To maintain accurate records, provide a point of reference in the event of any queries and prevent any duplication of treatment. To ensure reminder set for next injection
13.	Ensure that all sharps and non-sharp waste are disposed of safely and in accordance with locally approved procedures	To ensure safe disposal and to avoid laceration or other injury to staff.

Appendix 5

FLOWCHART FOR ADMINISTERING AN INJECTION

Is prescription valid and due?

No → Pursue valid prescription or reschedule

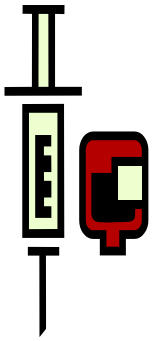
Yes

Is client aware of procedure and prepared?

No → Inform and prepare client

Yes

Collect injection materials and medication.



Recheck prescription and draw up required dose.

Put on gloves, locate and clean preferred site, push skin to the side, insert needle and aspirate

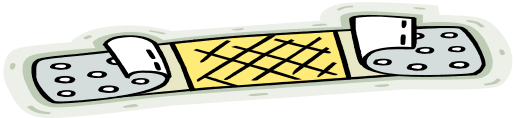


Blood drawn up?

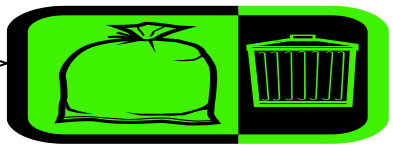
Yes → Remove needle and dispose of injection materials, start again

No

Inject slowly, wait 10 seconds then remove needle, allowing skin to fold back, wipe and apply plaster if needed.



Dispose of sharps in sharps box and other equipment in clinical waste bin



Check client's condition, record administration and forward plan

NHS Greater Glasgow & Clyde
Mental Health Services

Protocol for the use of Unlicensed Benzatropine

Indication
Benzatropine (previously known as benztropine) is an unlicensed medicine indicated for use as an alternative treatment of hypersalivation secondary to clozapine treatment in patients for whom an adequate trials of hyoscine hydrobromide (both tablets and transdermal patches), trihexiphenidyl and pirenzepine have been ineffective either due to lack of efficacy or side effects. It must not be used first line due to the unlicensed status.

Benzatropine was previously licensed for the management of extrapyramidal side effects (EPSE) secondary to antipsychotic treatment. This protocol does not cover the use of benzatropine for this indication due to other licensed preparations being available.

Informed consent
Due to its unlicensed status, informed consent and explanation for the rationale of treatment choice must be obtained prior to treatment initiation.[1] Patient information explaining unlicensed medication in general terms is available via the Choice and Medication portal, as is a specific benzatropine leaflet.[2] Where there is a lack of capacity, adherence to the principles contained in the Adults with Incapacity (Scotland) Act, 2000 is mandatory.

Documentation
The consultant psychiatrist must make a clear record of the rationale for prescribing an unlicensed medication within the patient's case notes and document the discussion regarding consent.[1]

In-patient prescribing and administration
Nursing staff in the ward must be informed of the medicine's unlicensed status by the prescriber and ward clinical pharmacists must ensure that staff are aware of the unlicensed status.

When ordering benzatropine, the patient's initials and CHI should be included on the requisition as well as the phrase "as per protocol" for the order to be processed. A record of administration of unlicensed medication must be kept (as per unlicensed medication policy).[3] When entering administration on HEPMA, the drug batch number and expiry date should be recorded when prompted. It is the responsibility of the nurse in charge to ensure this occurs.

When supplying benzatropine from pharmacy, pharmacy staff must ensure that batch numbers are documented on the prescription or requisition.

Out-patient prescribing
The clozapine dispensary at Leverndale will supply benzatropine prescriptions after discharge to outpatients. The standard clozapine out-patient prescription form will be used to prescribe benzatropine in addition to the patient's regular clozapine dose.

Review
Need for ongoing prescription of an unlicensed medicine should be assessed on a 6 monthly basis

Monitoring
There is no requirement for any specific monitoring. Close monitoring of bowel function is mandatory with the combination of clozapine and benzatropine and should be reflected within the clozapine side effect monitoring care plan. Refer to the Guidelines for assessment and management of clozapine induced constipation for further information.

Dose range [4,5]
Up to 2mg daily for hypersalivation.
Benzatropine was licensed up to 6mg in divided doses for the management of EPSE.

Approved by Prescribing Management Group (Mental Health)
Updated October 2020
Review date Oct 2023

Evidence base
The use of benzatropine for clozapine-induced hypersalivation is recommended in the Maudsley Prescribing Guidelines and the UKMi Q&A on drug-induced hypersalivation. These refer to the use of benzatropine plus terazosin as being more efficacious than either drug alone. [4,5]

Proposed mode of action
Anticholinergic and antihistamine activity

Side effects (incidence not available) [6,7]
Tachycardia, paralytic ileus, constipation, vomiting, nausea, dry mouth, confusion, memory impairment, visual hallucinations, nervousness, depression, numbness of fingers, blurred vision, dilated pupils, urinary retention, dysuria, skin rash, heat stroke hyperthermia, fever.

Contraindications[7]
- Hypersensitivity to benzatropine or any excipients
- Narrow angle glaucoma
- Tardive dyskinesia
- Pregnancy

Cautions[7]
- Renal impairment
- Tachycardia
- Prostatic hypertrophy
- Glaucoma

Interactions
May exacerbate the anticholinergic effects of other drugs including clozapine, especially constipation.
Alcohol can increase the sedative effects of benzatropine.

References:

1. GMC Good practice in prescribing and managing medicines and devices. Updated Dec14 http://www.gmc-uk.org/guidance/ethical_guidance/14316.asp

2. Choice and Medication. Handy Fact Sheets. Unlicensed medications and benzatropine PIL http://www.choiceandmedication.org/nhs24/

3. NHS Greater Glasgow and Clyde Area Drug and Therapeutics Committee Policies Relating to the Management of Medicines Section 9.1 Acute Unlicensed Medicines Policy (ULM Policy)

4. Taylor D, Paton C, Kapur S. The Maudsley Prescribing Guidelines in Psychiatry; 13th edition: Wiley Blackwell

5. UKMi Medicines Q&A. Drug-induced hypersalivation- what treatment options are available? May17

6. Martindale. The Complete Drug Reference. https://www.medicinescomplete.com/mc/martindale/2009/ Accessed 7/8/17

7. Prescribing Information. Benztropine 2mg. Pendopharm. Nov 2014 (obtained from Mawdsleys Brooks & Co)

Approved by Prescribing Management Group (Mental Health)
Updated October 2020
Review date Oct 2023

NHS Greater Glasgow & Clyde
Mental Health Services
Prescribing Management Group
Urgent Alert

Clarithromycin & QTc Prolonging Interactions

Background

The macrolide antibiotic, clarithromycin, carries known risks for prolonging QTc interval with associated risk of serious arrhythmias and sudden cardiac death.[1,2]

The summary of characteristics (SmPC EMC) for clarithromycin list several circumstances where the use of the drug is **contra-indicated** including

- Patients with a history of prolonged QTc or ventricular arrhythmias
- Patients with electrolyte disturbance.

Furthermore the SmPC **cautions** against the use of clarithromycin in the following circumstances

'*Prolonged cardiac repolarisation and QT interval, imparting a risk of developing cardiac arrhythmia and torsade de pointes, have been seen in treatment with macrolides including clarithromycin*'

- Patients with coronary artery disease, severe cardiac insufficiency, conduction disturbances or clinically relevant bradycardia.
- Clarithromycin must not be given to patients with hypokalaemia
- Patients concomitantly taking other medicinal products associated with QT prolongation[2].'

Significance in Mental Health

Many of the drugs (antipsychotics, antidepressants and mood stabilisers) used in mental health are known to be associated with a significant risk of QTc prolongation. The use of high dose antipsychotic therapy (HDAT guideline) also carries a significant risk of QTc prolongation. In addition the increased risk of cardiac illness in this population is also a significant factor.

Consequently the use of clarithromycin and other macrolides e.g. erythromycin is not recommended in the following circumstances

- **Patients on high dose antipsychotic therapy or taking haloperidol**
- **Patients with known QTc prolongation**
- **Patients on drugs with known risk of QTc prolongation.**

Other antimicrobials including ciprofloxacin and fluconazole may also carry this risk.

Advice on appropriate antibiotic choice can be obtained from microbiology and the clinical pharmacy service.

References:

1. The summary of characteristics (SmPC) for clarithromycin (EMC)
2. Credible meds

PMG (MH)

August 2021

NHS Greater Glasgow & Clyde
Mental Health Services

Blank Clozapine Titration Regime

Name: **Ward:** **CHI Number:** **Consultant:**

Day	Date	8am	Administered by	10pm	Administered by
1		12.5mg to be given at …….. (please indicate an appropriate time)			
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					

Date Titration Commenced:

Prescribing Doctor's signature:

Approved: December 2019
Review date: December 2025

NHS Greater Glasgow & Clyde
Mental Health Services

Important Information for Nursing Staff

- **This titration regimen is used to create a personalized schedule to initiate clozapine for relevant patients.**
- **This titration regime must also be prescribed by medical staff on HEPMA under 'Clozapine loading regime- as charted'**
- **Nursing staff must monitor for effect and side effects during titration [monitor blood pressure, pulse, respiration and temperature] – and liaise with medical staff accordingly.**
- **After initial 15-day titration is complete, clozapine can then be prescribed routinely on HEPMA. Doses should be increased at a rate and by increments based on the response to treatment and tolerability.**
- **This regime should be kept within the treatment room and be available at the time of administration whilst in use then filed in case notes when complete.**
- **All nursing staff must be aware of side effects of clozapine & to be alert for signs and symptoms of infections, refer to GG&C clozapine standards at all times.**

Approved: December 2019
Review date: December 2025

NHS Greater Glasgow & Clyde
Mental Health Services

Clozapine Titration Regime

Name: **Ward:** **CHI Number:** **Consultant:**

Day	Date	8am	Administered by	10pm	Administered by
1		12.5mg to be given at …….. (please indicate an appropriate time)			
2		12.5mg		12.5mg	
3		12.5mg		25mg	
4		25mg		25mg	
5		25mg		50mg	
6		25mg		75mg	
7		25mg		75mg	
8		50mg		75mg	
9		50mg		100mg	
10		50mg		100mg	
11		50mg		125mg	
12		75mg		125mg	
13		100mg		125mg	
14		100mg		150mg	
15		100mg		175mg	
16		100mg		Commence regular dosing on prescription sheet	

Date Titration Commenced:

Prescribing Doctor's signature:

Approved by:
Review date: December 2025

NHS Greater Glasgow & Clyde
Mental Health Services

Important Information for Nursing Staff

- **This titration regime is available as a preset protocol on HEPMA and should be used as standard.**
- **If this form is used instead of the preset protocol it must also be prescribed by medical staff on HEPMA under 'Clozapine loading regime- as charted'**
- **Nursing staff must monitor for effect and side effects during titration [monitor blood pressure, pulse, respiration and temperature] – and liaise with medical staff accordingly.**

*** Should it be deemed necessary that a slower titration is required, the blank titration regime may be used. Alternatively, this regime can be discontinued on HEPMA and clozapine should then be prescribed as all other medications are prescribed and prescription dosages altered when required.**

- **After initial 15-day titration is complete, clozapine can then be prescribed routinely on HEPMA.**

  Prescribe as suggested by monitoring service recommendations:

	8am	10pm
Days 16 – 20	**100mg**	**200mg**
Days 21 – 24	**100mg**	**250mg**
Days 25 – 29	**100mg**	**300mg**

Or as per. Consultant's prescription

[Maintenance, reductions and increases thereafter as per. Consultants instructions]

- **This regime should be kept within the treatment room and be available at the time of administration whilst in use then filed in case notes when complete.**
- **All nursing staff must be aware of side effects of clozapine & to be alert for signs and symptoms of infections, refer to GG&C clozapine standards at all times.**

Approved by:
Review date: December 2025

MHS MRG 03.04 - Developing a Treatment Plan for Managing the Off-Licence use of Clozapine with a Contraindicated Treatment

Clozapine is associated with around a 3-4% risk of developing neutropenia. Due to its potential myelosuppressive effect, the use of clozapine with other medications known to suppress white blood cell production is contraindicated. However, there are occasions where medication that would be otherwise contraindicated with clozapine needs to be managed, e.g. cytotoxic chemotherapy.

Experience with developing treatment plans over a number of years has demonstrated that robust planning with key information sharing is advantageous in minimising risk of adverse outcomes.

It is essential that mental health pharmacy services based at Leverndale hospital are involved at the earliest opportunity with regards to the treatment plan.

The following is the minimum information that should be included in a treatment plan submitted to the clozapine monitoring service for approval of using a contraindicated medication with clozapine.

1. Contraindicated concomitant treatment
   - indication and rationale for contraindicated treatment
   - name of treatment
   - predicted treatment course and provisional end date
   - potential impact of this treatment on haematological factors
   - name and designation of physician responsible for the relevant treatment (haematologist, oncologist, etc.)

2. Altered monitoring parameters for WCC/ neutrophils/ platelets (if these are to differ from standard clozapine monitoring parameters) including;
   - threshold for stopping/ making alterations to concomitant treatment
   - and threshold for stopping clozapine therapy.

NB Although the intention would be to continue management with clozapine throughout the treatment plan, consideration must be given to what is done in the event of a catastrophic reduction in neutrophils and the development of agranulocytosis.

If the patient's management is to include the use of G-CSF (granulocyte-colony stimulating factor) to manage a neutropenic episode, the treatment plan should clearly state the thresholds for initiating this.

Standard clozapine monitoring parameters	
Result	**Blood parameters**
Green	WBC ≥ 3.5 x 10^9/L and neutrophils ≥2 x 10^9 /L
Amber	WBC ≥ 3 and <3.5 x 10^9/L and/or neutrophils ≥1.5 and <2 x 10^9 /L
Red	WBC < 3 x 10^9 /L and/or neutrophils <1.5 x 10^9 /L

3. Altered frequency for FBCs whilst on treatment plan (if different to standard monitoring). Frequency of monitoring often increases to at least weekly during management with concomitant treatment and for a period of time after treatment has ceased.

4. Any other monitoring that is to be put in place e.g. closer monitoring of standard observations.

5. Roles and responsibilities of all disciplines involved in the ongoing management of the treatment plan.

6. Names and contact numbers for key personnel in case of issues out of hours; e.g. appropriate clozapine monitoring service, haematology/oncology on call contact numbers, etc

7. The 3 UK clozapine manufacturers have different procedures for rechallenge so the clozapine monitoring service that the patient will be registered with should be contacted to confirm what process and further documentation is required.

8. A copy of the treatment plan should be sent to Leverndale pharmacy and copies kept within the patient's care plan

NHS Greater Glasgow & Clyde
Mental Health Services
Clozapine Review Group review

Options for the initiation of clozapine

Background

A review of clozapine services in NHS Greater Glasgow & Clyde undertaken in 2011 recommended that out patient clozapine initiation be adopted as standard. However whilst seeing this as potentially desirable the Mental Health Services Governance group requested that an options paper be prepared describing a range of solutions for the initiation of clozapine treatment. This paper has been prepared by a subgroup of the MHS Clozapine Review Group and is endorsed by the overall group. The options described are those that services with appropriate resources, planning and co-ordination can implement.

It should be noted these options relate to new patients starting clozapine not re-titration of existing patients after a treatment break.

Standards

The group believes that it is a fundamental standard that the minimum monitoring parameters must apply to all patients starting clozapine regardless of where that might be. The monitoring will be mandatory and that requirement has influenced the options described in this document. The monitoring standards are as follows

1. Mandatory full blood count monitoring as required by the clozapine marketing authorisation.

2. Cardiac parameters as describe in the following table

Day	Parameters	Frequency
1	Temperature, pulse, blood pressure (standing & lying)	Immediately before dose then hourly for 6 hours
2	Temperature, pulse, blood pressure (standing & lying)	Immediately before dose then after 2 and 6 hours
3 - 15	Temperature, pulse, blood pressure (standing & lying)	Immediately before dose then after 6 hours

It is also recommended that patients be assessed daily for evidence of dizziness, drowsiness, hypersalivation, constipation and urinary problems. Any abnormal parameters or emerging side effects must be reported to medical staff immediately. Full details of the monitoring required during the titration of clozapine can be found at Initiating Clozapine (nhsggc.org.uk)

For community based initiation, during days 1 & 2, it is advisable that the patient remain in the monitoring area, for the remainder of the titration they may leave and return after 6 hours for monitoring or monitoring may take place in their home. If they leave they should be advised to contact the service immediately if they experience any unusual symptoms.

Options

The group believes there are three feasible options for the initiation of clozapine

1. Hospital admission.

This is standard practice at present and will remain necessary for many patients. With the exception of ensuring in patient services, observe the monitoring standards the group will not comment further on this option.

2. Shared Care

This option represents a flexible solution that incorporates brief admission (of varying duration) and early transfer to a community based approach. Patient assessment, planning and properly resourced community services will be essential to the success of this option. The elements of this option are

- Pre-assessment, patient selection and registration within Community Mental Health Teams
- Short term admission to hospital.
- Discharge to community support when clinically appropriate (minimum of three days after commencing clozapine).

3. Community initiation

Where patient assessment deems it appropriate clozapine treatment may be commenced in a community setting, this may be achieved either by attending a resource centre on a daily basis or in the patient's home. It is the responsibility of the community mental health team to ensure they can safely deliver this option within the resources that they have available. With this option, treatment must always commence on a Monday.

The following issues are associated with this option

- Patient assessment
- Resources – staffing and infrastructure

For options, 2 & 3 where there is a community component to the titration there must be a named individual who is responsible for co-ordinating the process. Their role will include

- Communication with RMO, Pharmacy, the ward as appropriate
- Identifying who is seeing patient where and when
- Ensuring the patient and their carers/relatives have all the relevant information including information about the drug, services and how to get support routinely and in an emergency etc.

There is an expectation that community services within the HSCP including Crisis or similar services will provide support to deliver community based clozapine initiation.

Patient assessment/selection

To be eligible for option 2 or 3 patients must be assessed against the following criteria

- Patients must meet the licensed indications for community clozapine initiation (see the Summary of Product Characteristics)

- Patients should be considered suitable for outpatient care in view of their current symptoms and safety risk. A thorough clinical assessment will be undertaken to determine suitability.

- Prior to treatment patients should be counselled and given standard information on clozapine treatment (www.choiceandmedication.org/nhs24) and then give consent

(documented in care notes) to clozapine treatment and blood testing. Details of information provided should be recorded on EMIS. Patients must be aware of and agree to the requirement for attendance at a local mental health base in some circumstances, for daily home visits or that, admission to local mental health hospital may be required. It is the responsibility of the multi-disciplinary team to ensure that patients are appropriately informed of the relevant aspects of clozapine treatment.

- An adequately resourced healthcare team, capable of supporting community initiation, must be in place. I.e. able to undertake supervision of dosing and required monitoring

- Sites should consider their capacity to support community initiation.

- It is advised that the patient is not left alone during the first week of treatment. Ideally someone (family/social carer) should stay overnight with the patient during that period.

- Patients must be able to contact the clinical team and out of hours support at all times (for option 2 from discharge onwards). If they can't then admission is the only option.

- Community initiation will not be appropriate for patients with a history of diabetes, cardiac disease, seizures or neuroleptic malignant syndrome or where they continue to misuse alcohol or drugs.

- Mandatory pre-treatment screening will be undertaken by the community mental health team and is primarily a medical responsibility and will include

  Full medical history particularly: diabetes, cardiovascular, seizure, or haematological disorders, smoking status, use of caffeine.

  Baseline measurement of mental state using a standardised tool e.g. CGI

  Full physical examination including weight, pulse, temperature, and blood pressure (standing and lying), and recent electrocardiogram (ECG). Recent is defined as within the last 6 months assuming no change in cardiac status or risk factors. If anything has changed, an ECG should be performed as part of the pre-assessment process.

  Baseline blood screening: full blood count including differential white cell count, liver function tests, random plasma glucose, HBA_1c, lipids, blood pressure, C-Reactive protein (CRP), troponin 1**,** pulse, weight, urea and electrolytes.

  Registration with the clozapine monitoring service.

  Where any of the following circumstances apply titration in hospital is recommended

  - Patient has significant difficulties in tolerating regime
  - Patient continues to misuse alcohol/substances
  - Patient or carer requests hospital admission due to deterioration in mental state
  - Titration cannot be fully undertaken due to service demands

Prescribing

Standard clozapine titration regimes are used for inpatient services. The group recommends that a standard prescription be adopted for options 2 & 3.

Due to the constraints of community initiation that regime will differ from the inpatient regime and will be as follows

	Day	Dose
1	Monday	12.5mg in the morning
2	Tuesday	25mg in the morning
3	Wednesday	37.5mg in the morning
4	Thursday	50mg in the morning
5	Friday	75mg in the morning
6	Saturday	75mg in the morning
7	Sunday	75mg in the morning
8	Monday	100mg in the morning
9	Tuesday	125mg in the morning
10	Wednesday	150mg in the morning
11	Thursday	150mg in the morning
12	Friday	175mg in the morning
13	Saturday	175mg in the morning
14	Sunday	175mg in the morning
15	Monday	200mg in the morning

Please note that for option 3 treatment must commence on a Monday.

Implications & issue for each option

Option	Implications & issues	Comments
Hospital Admission	Only issue is in delayed access to a bed for a planned admission to initiate clozapine.	Status quo option. Excessive delays could raise issues with meeting waiting times for treatment.
Community	Team resources Environment Monitoring at weekends Systems development Support networks	Patient preference
Shared care	As for community option plus Planning & co-ordination Communication Delayed access to a bed	

Appendix 1

Pre clozapine physical and baseline blood screening

	Date/sign	Results
Blood tests		
FBC		
U&E's		
LFT		
Random Glucose		
HbA1c		
Lipids		
C-reactive protein (CRP)		
Troponin 1		
ECG		
History of		
?Renal disease		
?liver disease		
?Cardiac disease		
?Neutropenia		
?Agranulocytosis		
?Bone marrow disorder		
?GI disease		
? PTE or DVT		
Epilepsy		
Active alcoholism		
Glaucoma		
BP		
Pulse		
Temperature		
Baseline weight & measured height		
Smoking status		
Pregnancy status		
List of medication/history of compliance		
Sort paperwork and complete registration		
Diagnosis appropriate		
Confirm patients understanding , consent and commitment		
Complete clozapine titration prescription		
Email first week's prescription to Leverndale pharmacy		

Suitable for community clozapine initiation; YES/NO
Planned start date;
Keyworker informed;
Crisis team informed;

Appendix 2

Patient Label with chi

CLOZAPINE CLINIC CONTACT INFORMATION

Treatment centre-

Telephone- Monday to Friday – 9am to 5pm

Out with these hours, in case of Emergency,

Crisis Team-

Out of Hours Service-

Very common side effects are:
- Drowsiness
- Dizziness
- Fast heartbeat
- Constipation
- Increased production of saliva.

You Must;
Tell doctor/nurse immediately before taking the next clozapine tablet:
- if you get signs of a cold, fever, flu-like symptoms, sore throat or any other infection.
- if you feel unwell in any way
- if you have constipation.

Appendix 3

Clozapine community initiation observation record

Surname	Forename		Date of birth	CHI number	Consultant

Baseline Recordings

Date		BP			Pulse		Weight		Temp	

DAY 1	Before am dose	1^0 (1 hour post dose)	2^0		3^0	4^0	5^0	6^0	Comments
Time									
Temp									
Pulse									
BP (lying)									
BP (stand)									
Bowels									

DAY 2	Before dose	2^0	6^0	Comments
Time				
Temp				
Pulse				
BP (lying)				
BP (stand)				
Bowels				

DAY 3	Before dose	6^0	Comments	DAY 4	Before dose	6^0	Comments
Time				Time			
Temp				Temp			
Pulse				Pulse			
BP (lying)				BP (lying)			
BP (stand)				BP (stand)			
Bowels				Bowels			

DAY 5	Before dose	6^0	Comments	DAY 6	Before dose	6^0	Comments
Time				Time			
Temp				Temp			
Pulse				Pulse			
BP (lying)				BP (lying)			
BP (stand)				BP (stand)			
Bowels				Bowels			

DAY 7	Before dose	6^0	Comments	DAY 8	Before dose	6^0	Comments
Time				Time			
Temp				Temp			
Pulse				Pulse			
BP (lying)				BP (lying)			
BP (stand)				BP (stand)			
Bowels				Bowels			

DAY 9	Before dose	6^0	Comments	DAY 10	Before dose	6^0	Comments
Time				Time			
Temp				Temp			
Pulse				Pulse			
BP (lying)				BP (lying)			
BP (stand)				BP (stand)			
Bowels				Bowels			

DAY 11	Before dose	6^0	Comments	DAY 12	Before dose	6^0	Comments
Time				Time			
Temp				Temp			
Pulse				Pulse			
BP (lying)				BP (lying)			
BP (stand)				BP (stand)			
Bowels				Bowels			

DAY 13	Before dose	6^0	Comments	DAY 14	Before dose	6^0	Comments
Time				Time			
Temp				Temp			
Pulse				Pulse			
BP (lying)				BP (lying)			
BP (stand)				BP (stand)			
Bowels				Bowels			

DAY 15	Before dose	6^0	Comments
Time			
Temp			
Pulse			
BP (lying)			
BP (stand)			
Bowels			

Upload to EMIS after completion

Appendix 4

Clozapine initiation in-patient observation record

Surname	Forename	Date of birth	CHI number	Consultant

Baseline Recordings

Date		BP		Pulse		Weight		Temp	

DAY 1	Before am dose	1^0 (1 hour post dose)	2^0	3^0	4^0	5^0	6^0
Time							
Temp							
Pulse							
BP (lying)							
BP (stand)							
Bowels							

DAY 2	Before am dose	2^0	6^0
Time			
Temp			
Pulse			
BP (lying)			
BP (stand)			
Bowels			

DAY 3	Before am dose	6^0	DAY 4	Before am dose	6^0
Time			Time		
Temp			Temp		
Pulse			Pulse		
BP (lying)			BP (lying)		
BP (stand)			BP (stand)		
Bowels			Bowels		

DAY 5	Before am dose	6^0	DAY 6	Before am dose	6^0
Time			Time		
Temp			Temp		
Pulse			Pulse		
BP (lying)			BP (lying)		
BP (stand)			BP (stand)		
Bowels			Bowels		

DAY 7	Before am dose	6^0	DAY 8	Before am dose	6^0
Time			Time		
Temp			Temp		
Pulse			Pulse		
BP (lying)			BP (lying)		
BP (stand)			BP (stand)		
Bowels			Bowels		

DAY 9	Before am dose	6^0	DAY 10	Before am dose	6^0
Time			Time		
Temp			Temp		
Pulse			Pulse		
BP (lying)			BP (lying)		
BP (stand)			BP (stand)		
Bowels			Bowels		

DAY 11	Before am dose	6^0	DAY 12	Before am dose	6^0
Time			Time		
Temp			Temp		
Pulse			Pulse		
BP (lying)			BP (lying)		
BP (stand)			BP (stand)		
Bowels			Bowels		

DAY 13	Before am dose	6^0	DAY 14	Before am dose	6^0
Time			Time		
Temp			Temp		
Pulse			Pulse		
BP (lying)			BP (lying)		
BP (stand)			BP (stand)		
Bowels			Bowels		

DAY 15	Before am dose	6^0
Time		
Temp		
Pulse		
BP (lying)		
BP (stand)		
Bowels		

Upload to EMIS after completion

NHS GREATER GLASGOW & CLYDE

Mental Health Services

CLOZAPINE OUT PATIENT PRESCRIPTION REQUEST FORM

Patient's Name:		**Consultant**	
Clozapine Registration Number		**Blood sampling location**	
CHI number (10 digits)			
		Collection location	

	START DATE*	DRUG	FORM	DOSE	MORNING	LUNCH TIME	TEA TIME	NIGHT	STOP DATE*
A									
B									
C									
D									
E									
F									

* To be used during dose escalation (see guidance notes)

Pharmacist Check & Date:

Compliance aid required	Y / N	**Date prescribed**	
Prescriber's signature		**Date to commence**	
Prescriber's name (print)		**Prescriber's designation (print)**	
Contact number			

Notes on the use of the Clozapine out patient prescription request form

Actions for prescribers

1. Complete the form as fully as possible in blue or black ink.
2. Print details in block capital letters
3. Complete the full 10 digit CHI number
4. Complete both the date prescribed and date commenced section. This gives pharmacy an indication of the urgency of the supply. In many instances changes in dose can wait until the patient is next scheduled to collect medication. If prescribers do not know the date of the next scheduled collection please enter 'when next due' in the date to commence box.
5. Prescriptions will only be valid if signed by an authorised prescriber.
6. Once complete please send this prescription request form to Leverndale pharmacy dispensary. If faxing follow the procedure outlined in the procedure for requesting pass medication.
7. Use of start and stop dates. These columns are designed to facilitate services who may wish to make progressive dose changes over a period of several weeks e.g. taking a dose from 200mg to 350mg in weekly increments of 50mg over three weeks. Then the start and stop date of each incremental change should be completed on the form. Once the dose is stable a new form for that dose should be sent to pharmacy. If for any reason an incremental change has not to be actioned e.g. side effects please send a new form to pharmacy.
8. Out patient initiation. Where services are able to safely support out patient initiation of clozapine this form may be used in conjunction with the agreed initiation titration regimes. Simply prescribed clozapine as per titration regime on line A of the form and send it and a copy of the titration regime to pharmacy.

Actions for pharmacy

9. Pharmacy or CMHT staff will input the clozapine registration number and collection address.
10. On first dispensing, pharmacy will complete the pharmacy only section and return a complete copy of the prescription to the prescriber/community team for their records. Subsequent repeated prescriptions will be sent with consignment information only.
11. Pharmacy will repeat the prescription at intervals determined by the blood testing schedule unless otherwise instructed.

NHS Greater Glasgow & Clyde
Mental Health Services
Clozapine Review Group

Clozapine supplies for patient holidays

This document provides some advice on how to manage holidays for patients taking clozapine in view of the mandatory blood testing required and restricted supply process.

1. Communication

It is essential that community mental health teams and wards communicate with Leverndale pharmacy as soon as they become aware of a clozapine patient's holiday plans. This early communication allows appropriate planning to be undertaken to ensure the necessary blood monitoring and dispensing takes place to cover the patient's holiday period.

In the majority of cases patients will take a holiday of up to 14 days. This can usually be accommodated with appropriate adjustment of the blood sampling to allow dispensing of an adequate supply.

In the event of an off-label supply being required, the 3 clozapine manufacturers have different off–label procedures so the clozapine monitoring service that the patient is registered with should be contacted to confirm what process and documentation is required.

2. Holidays for patients on weekly blood monitoring

The rules around clozapine allow a maximum dispensing of 10 days (14 for patients registered with ZTAS) of clozapine from the date of the last sample for people on weekly blood monitoring. Consequently holidays for periods of up to 8 days (12 for patients registered with ZTAS) can be easily managed with enough notice.

- In this circumstance a **local** blood sample should be taken as close to the departure date as possible and an appropriate supply to cover the holiday period will be made once the result of that blood sample is known. The patient should have another **local** blood sample taken as soon after they return from holiday as possible.
- If the holiday is for more than 8 days (12 for patients registered with ZTAS), again take a **local** blood sample as close to the departure date as possible. It is likely that it will not be possible to take another blood sample before the 10 day (14 days with ZTAS) validity of the pre-holiday sample lapses and therefore pharmacy will have to make a supply for more than 10 days to accommodate that. That is an off-label supply and therefore an off-label agreement will have to be agreed by the appropriate monitoring service to allow an extended supply to be issued. The exact quantity supplied will depend on the date of the post-holiday blood sample.

3. Holidays for patients on fortnightly blood monitoring

The rules around clozapine allow a maximum dispensing of 21 days of clozapine from the date of the last sample for people on fortnightly blood monitoring. Consequently holidays for periods of up to 19 days can be easily managed with enough notice.

- In this circumstance a **local** blood sample should be taken as close to the departure date as possible and an appropriate supply to cover the holiday period will be made once the result of

that blood sample is known. The patient should have another **local** blood sample taken as soon after they return from holiday as possible.

- If the holiday is for more than 19 days, again take a **local** blood sample as close to the departure date as possible. It is likely that it will not be possible to take another blood sample before the 21 day validity of the pre-holiday sample lapses and therefore pharmacy will have to make a supply for more than 21 days to accommodate that. That is an off-label supply and therefore an off-label agreement will have to be agreed by the appropriate monitoring service to allow an extended supply to be issued. The exact quantity supplied will depend on the date of the post-holiday blood sample.

4. Holidays for people on 4 weekly blood monitoring

The rules around clozapine allow a maximum dispensing of 42 days of clozapine from the date of the last sample for people on 4 weekly blood monitoring. Consequently holidays for periods of up to 40 days can be easily managed with enough notice.

- In this circumstance a **local** blood sample should be taken as close to the departure date as possible and an appropriate supply to cover the holiday period will be made once the result of that blood sample is known. The patient should have another **local** blood sample taken as soon after they return from holiday as possible.
- If the holiday is for more than 40 days, again take a **local** blood sample as close to the departure date as possible. It is likely that it will not be possible to take another blood sample before the 42 day validity of the pre-holiday sample lapses and therefore pharmacy will have to make a supply for more than 42 days to accommodate that. That is an off-label supply and therefore an off-label agreement will have to be agreed by the appropriate monitoring service to allow an extended supply to be issued. The exact quantity supplied will depend on the date of the post-holiday blood sample.

5. People taking very extended holidays

On rare occasions patients and their families go on extended holidays (2 months or more). In these exceptional circumstances bespoke arrangements need to be put in place and this will involve discussion with relevant monitoring service and potentially healthcare systems at the destination to co-ordinate blood monitoring and supply. Please contact pharmacy as early as possible to enable planning to take place to organise such trips.

To access information about clozapine in a number of languages contact Mental Health Pharmacy Services.

Clozapine Review Group
April 2023

NHS Greater Glasgow & Clyde
Mental Health Services
Clozapine Review Group

Clozapine Patient Information Standards

Feedback from repeated patient surveys both locally and nationally over many years contains persistent requests for more and better information about the medicines they are prescribed. The recently reviewed MHS Clozapine Standards (MHS MRG 3.1) require the service to provide appropriate information about clozapine to patients throughout their treatment. The purpose of these standards is to make mental health staff aware of the sources of information available and to define the responsibilities of staff in providing information.

Information standards

1. All new patients for whom clozapine treatment is being considered will be given appropriate information to allow them to make an informed choice. Where patients lack capacity or are to receive compulsory treatment via a T2 or T3, information will be provided commensurate to their needs and capability.
2. At regular intervals (minimum annually) throughout clozapine treatment patients information needs will be assessed and appropriate information provided.

Information Resources

The information needs of patients will vary over time and often need to be tailored to their capacity and mental state at different stages of their illness. The principle of the Montgomery ruling; is that patients are provided with information regarding material risks of treatment sufficient to allow a 'reasonable' person to make an informed choice. Alternative treatments should also be discussed but that may be problematic with regards to treatment resistant schizophrenia. In the context of clozapine, such information will cover:

- What it is
- What it is for
- How long treatment is likely to last
- The need and rationale for regular blood tests (explaining red, amber, green results) and physical health checks (with an explanation of the function of CMHT clozapine clinics)
- How to take it including what to do about missed doses
- How prescriptions will be provided
- Very common and common side effects and what to do about them with a particular focus on constipation, sedation, hypersalivation, weight gain and urinary incontinence
- Where appropriate the likelihood of developing some of the more serious risks like cardiac problems, diabetes and seizures should be discussed in the context of enhanced monitoring
- Lifestyle advice
- Significant interactions especially alcohol and smoking
- Family planning and pregnancy where appropriate
- Compliance advice

With these topics in mind, the following resources are recommended to clinical staff to use to provide information to potential or existing clozapine patients.

Approved by PMG(MH) June 2023
Review date: June 2026

1. Information from the Choice and Medication website

This includes a variety of patient information leaflets (in a variety of formats and languages), handy fact sheets and handy charts. These will be used to provide detailed information and reinforce verbal counselling to all prospective clozapine patients and on specific issues for existing patients.

2. NHS GG&C single topic clozapine information cards

This is a set of 6 cards developed by NHS GG&C Mental Health Pharmacy and CPNs from Riverside & the Stewart Centre CMHTs. The following topics are covered

- Do you know why you need regular blood tests
- Do you know why you should try and take your clozapine regularly
- Do you know clozapine can cause constipation
- Do you know clozapine can cause weight gain
- Do you know smoking can affect the amount of clozapine in your blood
- Do you know clozapine can make you have too much saliva or make you dribble

These cards will be issued as a set to all prospective clozapine patients and by pharmacy one per month over 6 months each year to existing out patients. For in-patients the ward clinical pharmacist will issue the patient a complete set of the cards. The cards are available from Leverndale Pharmacy.

3. Information produced by clozapine manufacturers

The 3 UK manufacturers provide a variety of patient information resources on clozapine tailored to their product. These can be used to compliment the resources above if necessary. Contact Leverndale Pharmacy for advice.

Responsibilities of Healthcare Professionals

All healthcare professionals directly involved in the care of patients prescribed clozapine have duty to supply appropriate information as necessary.

Prospective clozapine patients

For prospective clozapine patients it is the duty of the ward MDT to ensure each patient's information needs are assessed and met. Ideally all prospective clozapine patients will have the opportunity to discuss clozapine treatment with a clinical pharmacist prior to treatment starting. However this may not always be possible in which case appropriate members of the MDT will provide the information as outlined in the information resources section above. Consideration with regards to the level of initial information provided may depend on the patient's mental state at the time.

Established clozapine patients

Appropriate members of the MDT whether that be in hospital wards or community mental health teams will regularly assess and meet the information needs of clozapine patients under their care. They will use the resources outlined above to meet those needs.

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On an annual repeating basis pharmacy will provide clozapine out patients with the single topic clozapine cards. This will be one card per month for 6 months with each prescription issued.

Record keeping

A clear record of information provided to patient including salient points discussed must be documented in the chronological account of care.

Developed by: Clozapine Review Group July 2017

NHS Greater Glasgow & Clyde
Mental Health Services
Prescribing Management Group

Guidance on the planned withdrawal of clozapine treatment

As a general rule, gradual withdrawal of any psychotropic drug treatment is advisable. This will minimise the risk of relapse and discontinuation adverse effects. Immediate withdrawal of treatment is only necessary in circumstances where patients experience serious adverse effects or a serious acute physical health issues dictates such an action.

Where there is a planned intention to withdraw clozapine treatment this should be done gradually to prevent a significant risk of rebound psychosis.

The following guidance provides some principles to support the safe planned withdrawal of clozapine treatment.

1. Discuss and agree a clear withdrawal plan with the patient, Leverndale pharmacy and multi-disciplinary team

2. The Summary of Product Characteristics for clozapine recommends gradual withdrawal over at least 1 – 2 weeks. However that may be too rapid for some patients to tolerate. Consider the following issues

    - What dose does the patient take and how long have they been taking that dose? The higher the dose and the longer the duration of treatment, the longer the duration any withdrawal will be
    - What is the treatment plan after clozapine? Are you switching to another antipsychotic? Contact mental health pharmacy services for advice on switching antipsychotics
    - Agree a step wise withdrawal regimen over at least two weeks but be prepared to extend the duration if necessary
    - Contact Leverndale Pharmacy to discuss the plan and put in place the necessary discontinuation prescriptions. The clozapine out-patient prescription form should be used for this purpose.

3. Review for rapid emergence of psychotic symptoms

4. Provide enhanced support to the patient during the withdrawal period

5. Maintain clozapine full blood count monitoring during the withdrawal period and for 4 weeks after complete discontinuation i.e.

Blood monitoring frequency	Discontinuation blood sample schedule
Weekly	A further 4 weekly samples are required
Fortnightly	A further 2 fortnightly samples are required
4 weekly	A further sample is required 4 weeks after discontinuation

6. Inform the clozapine patient monitoring service when discontinuation is complete

Approved: October 2020
Review date: October 2023

NHS Greater Glasgow & Clyde
Mental Health Services
Clozapine Review Group

A Guide to the Therapeutic Drug Monitoring of Clozapine

Contents

1. Introduction
2. Requesting a clozapine plasma level
3. External factors that may influence clozapine plasma levels
4. Constipation and clozapine plasma levels
5. Drug interactions that may affect clozapine plasma levels
6. Factors to consider when requesting a clozapine plasma level (flowchart)
7. Metabolism and pharmacokinetics of clozapine
8. Interpretation of clozapine plasma levels
9. References
10. Appendices – managing patients who stop smoking

The information in this document is not intended as a definitive treatment strategy, but as a suggested approach. It is based on previous experience from the references quoted at the end of the document. Each case should, of course, be considered individually.

Clozapine dosage should be adjusted according to clinical response and side effect profile. Therapeutic drug monitoring (TDM) of clozapine i.e. measurements of clozapine and norclozapine concentrations in plasma samples is not required for routine patient management, but may be beneficial in certain circumstances, for example:

- If the patient's smoking status changes
- To monitor compliance
- In poor responders after an adequate trial especially prior to consideration of augmentation strategies
- If dose reduction is being contemplated
- To diagnose dose-related side effects
- If a drug interaction is suspected
- Non-urgent investigation of suspected overdose
- Measuring baseline levels during successful treatment to use as a reference point
- For patients on long term high dose who have no evidence of previous levels being assessed

Side effects that are thought to be dose-related include; sedation, dizziness, hypersalivation, tachycardia, postural hypotension, constipation and seizures. Often these can be avoided/minimised by careful and slow dose escalation or alleviated by reducing the dose.

Clozapine TDM can be useful in certain circumstances, but is not required for routine management

As a rule, treat the patient – not the level

2. Requesting a clozapine plasma level- practical information

Clozapine plasma levels are **not** performed by local GGC labs. All clozapine manufacturers and monitoring services have a service level agreement with an external laboratory to perform clozapine plasma levels.

Packs and forms for measuring clozapine levels are available from the respective clozapine monitoring services. An assay request form is included in each pack and should be completed **in full** in order to aid interpretation of the results. A minimum of 2ml of venous blood is required to perform the assay. The sample and request form should be sent directly to the correct external laboratory for analysis.

Paper copies of the results are sent to the patient's named consultant psychiatrist, usually within a week of the sample being taken. In addition, MH pharmacy services have access to clozapine plasma level results online. The current cost for analysis of each clozapine level is approximately £16.00 plus VAT.

3. External factors that may influence clozapine plasma levels

Variable	Effect on plasma clozapine (with constant dose)
Age	Decreased in younger patients
Gender	Decreased in males
Ethnicity	Increased in several Asian ethnicities e.g. Chinese, Korean, Taiwanese
Liver disease	Possibly increased
Caffeine intake	Increased with significant caffeine intake
Infection (especially chest)	Increased
Cigarette smoking	Significantly decreased in smokers (see Appendix I:Managing patients on clozapine who stop smoking)

4. Constipation and clozapine plasma levels

Constipation is a potentially severe dose-related side effect of clozapine. Constipated patients may not absorb clozapine as expected and as a result, interpretation of plasma clozapine and norclozapine results may be unreliable. Continued dosing of clozapine without addressing constipation can make matters worse and can have catastrophic results. **Severe constipation can lead to paralytic ileus or bowel obstruction, which is potentially fatal.**

In a patient who develops high plasma levels unrelated to other external factors or drug interactions, the possibility of constipation (even if the patient is not complaining of this) should be considered and treated. For further advice on managing constipation, see MRG 25 Assessment & treatment of clozapine induced constipation.

5. Drug interactions that may affect clozapine plasma levels

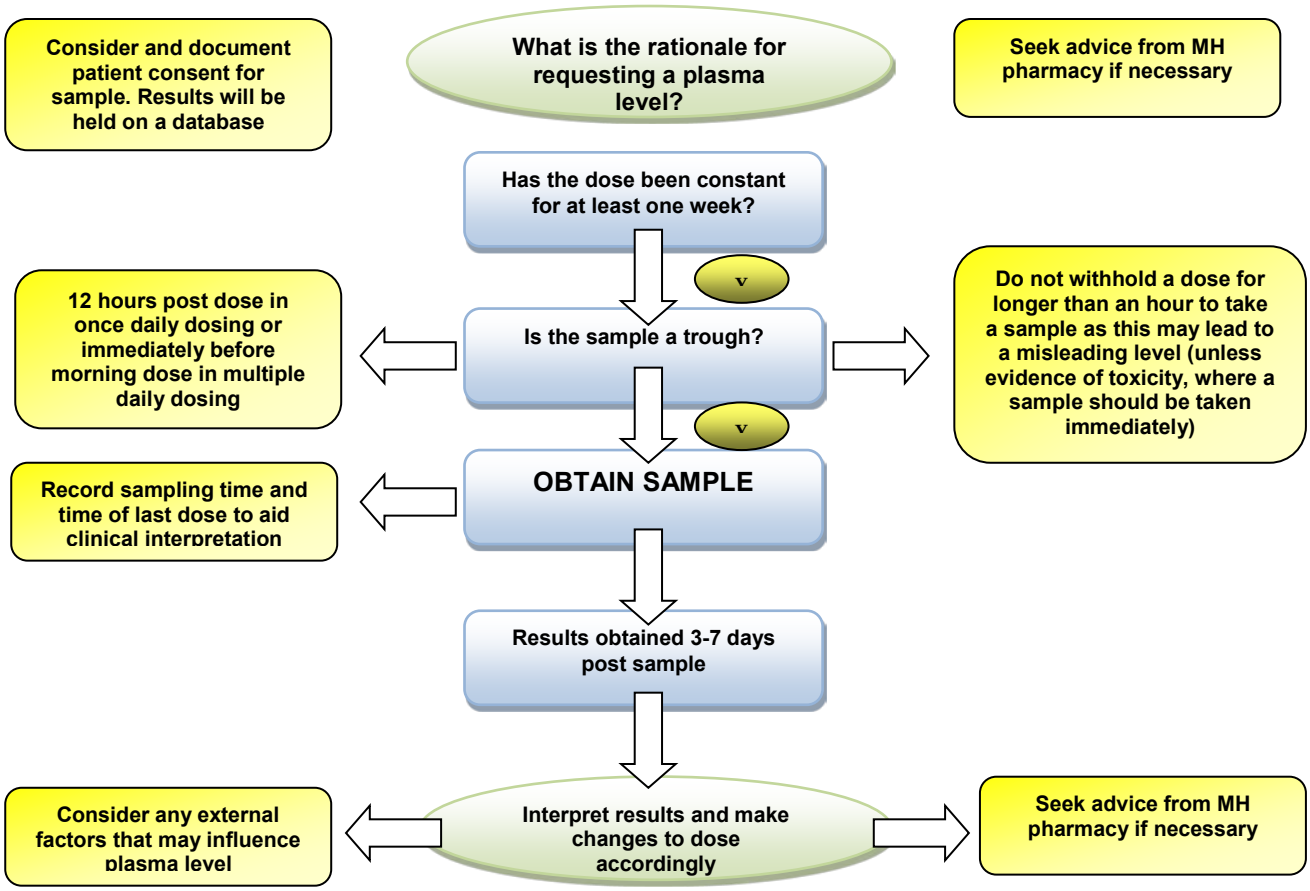
Increase plasma clozapine levels	Decrease plasma clozapine levels
Fluvoxamine (very significant)	Rifampicin
Other SSRIs (modest increases)	Phenytoin
Ciprofloxacin	Phenobarbital
*Cimetidine**	Primidone (metabolised to phenobarbital)
*Combined oral contraceptive with ethinyloestradiol**	*Omeprazole**
*Erythromycin**	*St John's wort**
*Lamotrigine**	
*Modafinil**	
*Pregabalin**	
*Risperidone**	
Sodium valproate in non-smokers**	Sodium valproate in smokers**
Ritonavir***	Carbamazepine***
This list only includes pharmacokinetic interactions and is not exhaustive, please refer to most recent Summary of Product Characteristics or Stockley's Drug Interactions (available via www.medicinescomplete.com) for comprehensive interaction information	

* **These interactions have been demonstrated in a few case reports only and may be of less clinical significance.**

** **There are reports of sodium valproate both increasing and decreasing clozapine plasma levels which may be dependent on whether individual is a smoker or non-smoker.**

*** **The use of clozapine with either ritonavir or carbamazepine is contraindicated due to risk of haematological adverse effects.**

6. Factors to consider when requesting clozapine plasma levels



7. Metabolism and pharmacokinetics of clozapine

Clozapine is metabolised by *N*-demethylation, hydroxylation and *N*-oxidation. The hepatic enzyme involved is primarily CYP1A2, with possible additional contributions by CYP2C9, CYP2C19, CYP2D6 and CYP3A4. Clozapine has a mean terminal elimination half-life of about 12 hours and its N-demethylated metabolite, norclozapine has a plasma half-life that is around twice as long.

A clozapine plasma trough concentration of greater than 0.35mg/L has been associated with efficacy in treatment resistant schizophrenia. There is no clearly established upper limit for plasma clozapine levels, although trough concentrations above 0.6mg/L have been associated with increased risk of adverse effects, including seizures. The risk of seizures is significantly increased with levels greater than 1mg/L. The reference range for clozapine is usually quoted as 0.35 – 0.6mg/L. However, it is important to note that clozapine does not have a narrow therapeutic index and some individuals will be maintained at plasma levels outwith the quoted reference range.

Norclozapine concentration is much less affected by short term changes and can give information on compliance with treatment in the run up to the sample being taken. Norclozapine is usually present at around 70% of the parent compound; therefore measurements of norclozapine can also provide information on metabolism. If the plasma clozapine is high (>1mg/L) and the norclozapine level is much less than 70% of the clozapine level, metabolism may have become saturated.

The clozapine/norclozapine ratio is often reported as a target ratio of 1.3. In chronic dosing, the ratio of clozapine to norclozapine should remain the same for a particular individual.

There appears to be a definite relationship between the dose of clozapine and plasma concentration of clozapine and norclozapine, although there is around a 50-fold variation between individuals and the way they metabolise clozapine.

8. Interpretation of clozapine plasma levels

These suggestions are not intended as a definitive treatment strategy, but as a suggested approach.
Each case should be considered individually.

Trough sample	Suggested action
0mg/L	Review patient – if dose >50mg/day suggest no clozapine taken for up to a week before sampling
<0.35mg/L	If response **good** maintain current dose
	If response **poor** or incomplete, review and address issue of compliance. If compliance OK, consider cautious dose increase and repeat assay after 1 week.
0.35 – 0.6mg/L	If response **good** maintain current dose. If side effects present and are serious or persistent consider cautious dose reduction.
	If response **poor** and there has been an adequate trial consider cautious dose increase or augmentation
0.6 – 1.0mg/L	If response **good** review current dose and consider cautious dose reduction if mental state allows
	If response **poor** cautiously reduce dose to bring level down below 0.6mg/L. Monitor mental state and repeat level at least 1 week after dose reduction.
1.1 – 1.9mg/L*	If response **good** with no signs of toxicity review dose and consider cautious dose reduction to bring level below 1 and possibly below 0.6mg/L.
	If response **poor** cautiously reduce dose to bring level down below 1 and possibly below 0.6mg/L. Monitor mental state and repeat level at least 1 week after dose reduction.
2mg/L & above*	If response **good** with no signs of toxicity **URGENT REVIEW** and consider cautious dose reduction to bring level below 1 and possibly below 0.6mg/L if mental state allows
	If response **poor URGENT REVIEW and dose reduction.** If patient in the community consider admitting. Stop clozapine for 24 hours and re-start at **75%** of last dose and reduce dose by 25mg per week to bring plasma clozapine below 1 and possibly below 0.6mg/L. Monitor mental state and repeat level at least 1 week after dose reduction.

With levels >1mg/L, plasma clozapine may continue to rise in the short term even after dose reduction is commenced.

* Seizure risk is increased significantly with levels greater than 1mg/L, therefore serious consideration must be given to the pros and cons of using seizure prophylaxis. As a rule, high clozapine plasma levels should be managed by careful dose reduction and when done in a timely fashion, this may be all that is required when dealing with an acute high level. For acute high levels not associated with definitive seizure activity the use of an anticonvulsant is not usually required, although each case must be managed individually based on the actual level, clinical picture and the patient's medical history. Consideration to short term benzodiazepine use may be advisable in managing an acute high level rather than initiating anticonvulsant treatment.

There are a small subset of patients who are maintained at levels above the upper limit of the reference range. Where an individual has a chronically high plasma level it may be more appropriate to consider seizure prophylaxis to manage the ongoing risk. Sodium valproate is usually the treatment of choice when managing clozapine seizure risk with lamotrigrine as an alternative.

N.B Sodium valproate is contraindicated in women of child-bearing potential unless they participate in the pregnancy prevention programme and therefore commencing in this population will take time to consider and

ensure appropriate safeguards are in place. Lamotrigine requires a slow titration due to risk of serious skin reactions, therefore it takes time to titrate to a dose that would provide seizure prophylaxis.

Where there is evidence of seizure activity, clozapine should be withheld for 24 hours, recommenced at half the original dose and an anticonvulsant commenced irrespective of the plasma level.

Interpreting clozapine plasma levels – some practical guidance

1) Consider the norclozapine level as well as the clozapine level

- The clozapine/norclozapine ratio can be a helpful guide to indicate recent non-compliance or saturated metabolism however if the plasma levels themselves are within the recommended range and the patient is responding well with minimal side effects it should not be used as an indicator for dose adjustment.
- Norclozapine is usually around 70% of clozapine level
- Norclozapine can be helpful in assessing compliance
- The median clozapine/ norclozapine ratio is around 1.3.
- Is the clozapine level much more (>3 fold) than the norclozapine level? (ratio >3)
  - *It may not be a true 'trough' sample. Attempt to confirm if it is a trough sample before taking any further actions*
  - *Clozapine N-demethylation may have become saturated. If saturation is suspected, consider cautious dose reduction, but be aware that the level may take some time to decrease*
  - *May suggest recent missed doses over preceding days*
- Is norclozapine level greater than clozapine level? (ratio <1)
  - *May suggest poor adherence over 24 hours prior to assay (i.e. clozapine level decreases, but norclozapine with longer half-life remains high)*

2) Is the result unexpected? – consider repeating before acting on result

- Is it incompatible with the clinical picture?
- Is it markedly different from previous result(s) at constant dose with no other external factors implicated?

3) The use of clozapine suspension may result in variable dosing (especially if not shaken before use)

4) Treat the patient NOT the level

- Clozapine TDM is an aid to clinical decision making, it should not dictate practice.

5) Contact MH pharmacy services for advice in interpreting plasma clozapine levels

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10. Appendix I: Managing patients on clozapine who stop smoking

Tobacco smoke contains polycyclic aromatic hydrocarbons that increase the activity of certain hepatic enzymes especially CYP1A2. Smoking increases the metabolism of clozapine and consequently reduces the plasma levels. This means a higher dose of clozapine may be necessary to achieve a therapeutic effect. The effect of smoking is dose related i.e. the more cigarettes smoked, the greater the enzyme induction. This also means that any reduction in the number of cigarettes smoked per day may result in increased clozapine plasma levels. This is worth bearing in mind should a patient begin to reduce their smoking in preparation for a quit attempt.

Plasma clozapine may rise substantially within 3-5 days of smoking cessation and vice-versa (i.e. starting smoking can decrease levels and cause deterioration in mental state). Careful monitoring is therefore essential if there is a change in smoking habit. When a patient stops smoking the increased enzyme activity reduces over a week, although it can take many weeks for this to return to baseline. This will result in a likely rise of clozapine plasma level with subsequent increase in plasma-related side effects e.g. sedation, dizziness, hypersalivation, tachycardia, postural hypotension, constipation and seizures. It has been suggested that the mean increase in plasma levels is 50% but as this is an average figure, the actual increase could be lower or higher than this.

The interaction between smoking and clozapine is unrelated to nicotine, and therefore the use of nicotine replacement therapy or e-cigarettes does not affect plasma clozapine at constant clozapine dose.

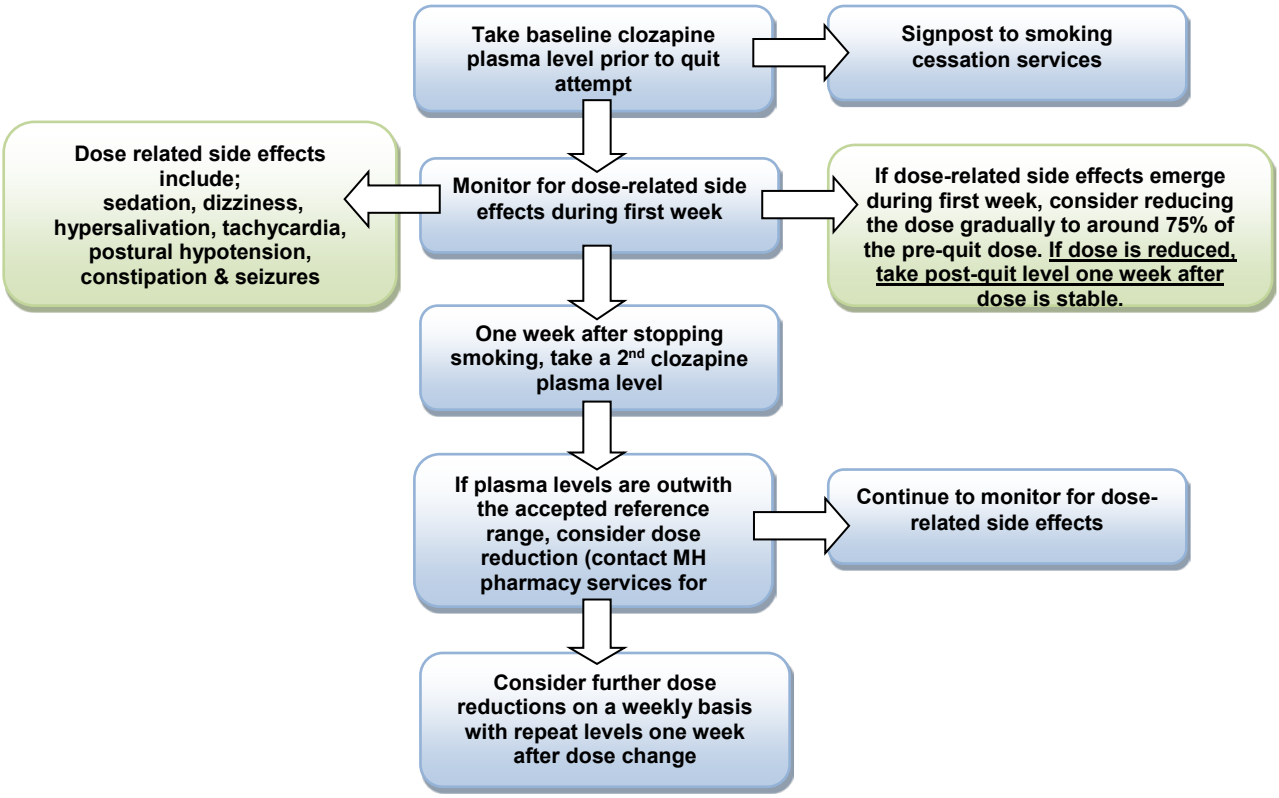
For patients on clozapine who smoke and are also prescribed valproate, the increase in clozapine plasma levels seen after stopping smoking may be greater than that seen in patients not taking valproate.

Whenever possible the impact of smoking on clozapine treatment should be explained to the patient. It should be stressed that whenever patients make a change to their smoking status it must be discussed with someone responsible for their care.

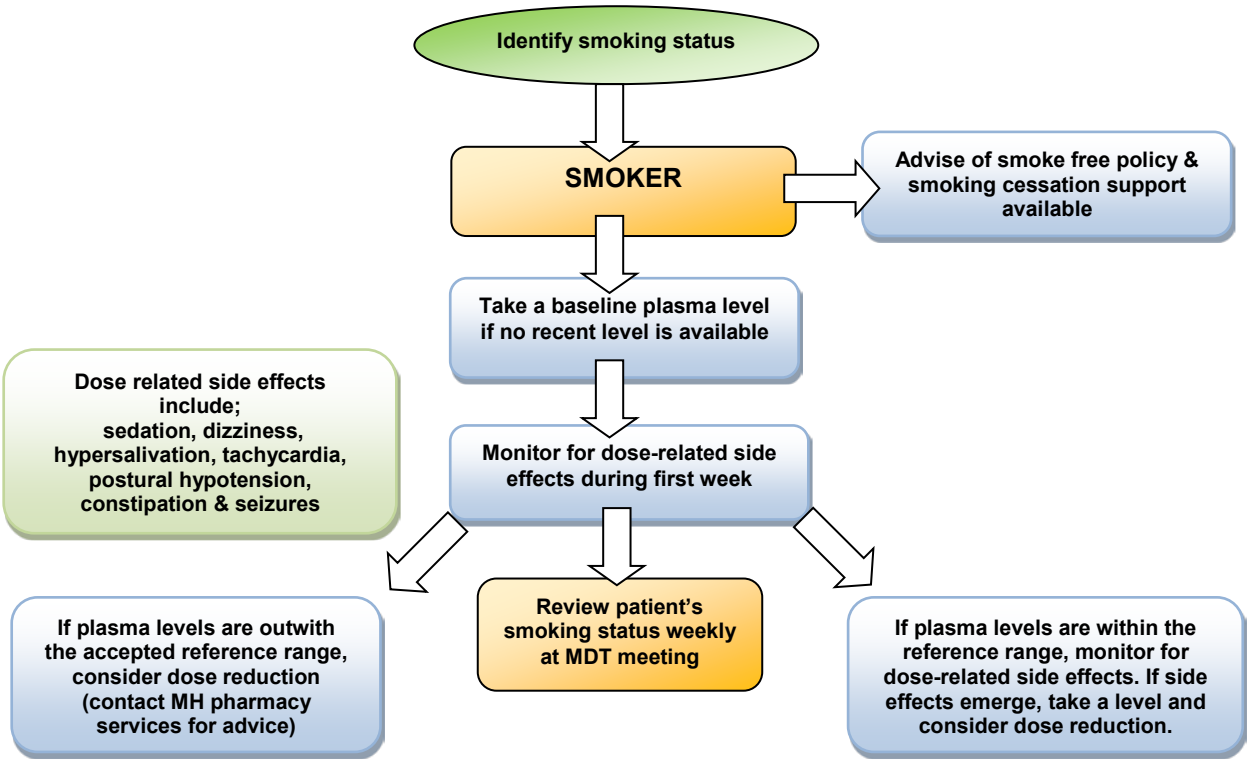
Smoke free wards continue to pose a problem in managing individuals prescribed clozapine where access to smoking will be limited, a quit attempt may be temporary and the individual may choose to resume smoking when on pass or at discharge. A pragmatic approach to managing smoke free environments and those prescribed clozapine is therefore required.

The following flowcharts describe scenarios encountered in MHS for managing smoking cessation in individuals prescribed clozapine. The first describes the management of patients undergoing a planned quit attempt and the second describes the management of patients who have to quit temporarily due to being admitted to hospital.

Flowchart 1
Guidance for the management of patients on a stable clozapine dose who wish to stop smoking



Flowchart 2
Guidance for the management of patients who abruptly stop smoking due to a hospital admission



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Protocol for Clozapine Rechallenge Following a Neutropenic Episode (Red result)

Clozapine is the gold standard drug intervention for treatment-resistant schizophrenia. Prescribing of clozapine is strictly controlled by the marketing authorisation (or product licence), requiring regular blood monitoring throughout treatment due to the risk of significant blood dyscrasias. Approximately 2.7 % of patients treated with clozapine develop neutropenia; half of those within the first 18 weeks of treatment and three quarters by the end of the first year.[1]

The marketing authorisation for clozapine states that its use is contraindicated where there is a history of clozapine-induced agranulocytosis. It also states that those individuals in whom clozapine has been discontinued as a result of either decreased white cell count or neutrophil count must not be re-exposed to clozapine. [2]

The use of clozapine after a 'red' result is therefore out with the marketing authorisation (or product licence) (referred to as 'off-label' or 'off-licence')

A 'red' alert is issued by the clozapine monitoring service when;

WBC < 3.0 x 10^9/L and/or neutrophil <1.5 x 10^9/L

Clozapine-induced neutropenia is defined as any episode of neutropenia that occurred whilst a patient was treated with clozapine for which no other possible cause, such as concurrent infection or the concomitant use of medication known to have a substantial potential for causing agranulocytosis, could be given. [3]

The clozapine manufacturers have a process that allows re-exposure to clozapine following an episode of clozapine-induced neutropenia under certain conditions and involves the consultant psychiatrist agreeing to an off-licence disclaimer.

Incidence of recurrence of blood dyscrasia on rechallenge

A review looking at a cohort of 53 patients who had been rechallenged with clozapine following a confirmed blood dyscrasia showed that around 38% of individuals (n= 20) experienced a second blood dyscrasia. In the majority of these patients, the second dyscrasia was more severe, lasted longer and occurred more quickly than the first dyscrasia. 55% of the 53 (n=29) were, however, rechallenged successfully and remained in treatment.[4] The exact cause of clozapine-induced blood dyscrasias is unknown. However, it has been suggested that there are distinct mechanisms that underlie the development of the more severe, potentially lethal agranulocytosis (neutrophils <0.5x 10^9/L) and the development of mild to moderate neutropenia (neutrophils - 0.5-1.5X10^9/L). [5]

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The success rate of rechallenge after agranulocytosis is reportedly much lower than after neutropenia. [6] There are significant risks associated with a clozapine rechallenge after a blood dyscrasia and the response to a rechallenge is unpredictable.

Restarting clozapine following a 'non-confirmed' red result [7,8,9]

Clozapine may be re-started within the conditions of the marketing authorisation if the (initial) red result was not confirmed by another abnormal result and when the following conditions are met for the individual clozapine monitoring services:

Result scenario	CPMS	ZTAS	DMS
Single red followed by one green then one amber	**Restart Clozapine after 2nd result** **Follow amber procedure but confirm next test date with CPMS**	**Amber or red result in the last three months: two consecutive greens before clozapine can restart** **Isolated red: can restart after first green. Daily testing must continue after the amber result until 2 consecutive greens**	**Restart clozapine after 2nd result** **Follow amber protocol following the amber result : twice weekly monitoring & pharmacy can only dispense a maximum of 4 days from the date of the amber blood sample** **Normal monitoring can resume after further green result**
Single red followed by one amber then one green	**Restart clozapine after 2nd result** **Blood tests as normal (unless treatment break) but confirm next date with CPMS**	**Treatment cannot restart** **Daily testing must continue until two consecutive green results**	**Restart clozapine after 2nd result** **Return to normal monitoring frequency**
Single red followed by two ambers	**Restart Clozapine after 2nd amber result** **Follow amber procedure but confirm next test date with CPMS**	**Treatment cannot restart** **Daily testing must continue until two consecutive green results**	**Restart Clozapine after 2nd amber result** **Follow amber protocol: twice weekly monitored until a green result then resume**

			normal monitoring & pharmacy can only dispense a maximum of 4 days from the date of the amber blood sample

Confirmed red result

After a red result, daily blood testing should commence. Confirmation of the red result is recommended by performing two blood counts on two consecutive days; however, clozapine should be discontinued after the first blood count. The red alert is confirmed if one of the follow-up blood counts is in the red range and the non-rechallengeable procedure is initiated.

Entry into Central Non-Rechallengeable Database

In the event of a confirmed red result, the clozapine monitoring service will submit the patient's details to the Central Non-Rechallengeable Database (CNRD) and the patient should not be re-exposed to clozapine.

Potential explanation for red result

If there is a potential explanation for the red result e.g. a concurrent viral infection or there has been concomitant use of medication known to have a substantial potential for causing neutropenia, this should be communicated to the clozapine monitoring service at the earliest opportunity to allow clozapine to be re-initiated within the terms of the marketing authorisation. In addition, it is also well recognised that there is a diurnal variation in circulating neutrophils resulting in a lower neutrophil count early in the morning compared to later in the day in certain individuals; therefore the timing of samples may have an implication on the perceived result. Close monitoring of the trends of the neutrophils/ white blood counts may demonstrate that timing of samples is implicated in the blood dyscrasia and sample time can be manipulated accordingly.

Clinical case for rechallenge following a confirmed red result

In many situations, clozapine has been the most effective treatment and following a true, confirmed red result the individual may become increasingly unwell. Where it is felt that the benefits of a clozapine rechallenge in terms of the individual's mental state outweighs the potential risks of a further blood dyscrasia, the clozapine monitoring service will consider accepting the individual for a rechallenge under an off-licence (or off-label) agreement.

The 3 clozapine manufacturers have different procedures for rechallenge so the clozapine monitoring service that the patient will be registered with should be contacted to confirm what process and documentation is required.

If the first dyscrasia had the following characteristics, it is thought that the chances of a successful rechallenge are low (i.e. the likelihood of a further neutropenia is high): [10]

- The drop in neutrophils was inconsistent with previous counts and was not merely a slight drop in a patient with a pattern of repeated low WBC counts
- The neutropenia/agranulocytosis occurred in the first 18 weeks of treatment
- The drop in neutrophils was severe and fell below $0.5x10^9$/L
- The blood dyscrasia was prolonged (>10 days)
- There were no alternative explanations apart from clozapine for the first neutropenia/agranulocytosis, such as other medication or an infection

Developing a treatment plan for clozapine rechallenge

The following is recommended when considering a patient for a clozapine rechallenge following a blood dyscrasia;

- A second opinion from another consultant psychiatrist supporting the rechallenge.
- Advice from haematology regarding the dyscrasia and the likely relationship with clozapine and/or any other potential causes or relevant factors.
- Advice from a specialist mental health clinical pharmacist which may include a medication history and review supporting a rechallenge.
- Clear documentation of a discussion with the patient and/or carer regarding risks and benefits of a rechallenge and documentation of consent from the patient.
- For patients receiving treatment under the terms of the Mental Health (Care & Treatment) (Scotland) Act 2003, ensure that the statutory treatment plan includes the off-label prescribing of clozapine.
- Consider convening a case conference with relevant parties (including clozapine clinic staff) to discuss practical issues relating to increased monitoring and to ensure clear lines of responsibility.

A **patient-specific treatment** plan should be developed (which may involve input from haematology). This should include;

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1. Increased monitoring
   - First 12 weeks: twice weekly (in the event of 3 sequential falls in WBC and/or neutrophils, monitoring should be increased to three times weekly)*
   - Weeks 12-18: weekly
   - Weeks 18-52 fortnightly
   - Thereafter: fortnightly* or monthly monitoring proposed in the 2nd year, according to further evaluation of risk. [3]

   * Note: Clozapine monitoring systems are unable to manually change the monitoring frequency from their 'standard' monitoring frequency for a rechallenge in order to flag when a blood is overdue i.e. they cannot set the frequency of bloods as twice weekly and highlight when this is late. Therefore, it is imperative that the team involved in the patient's care check when bloods are due according to the treatment plan and not solely rely on the clozapine monitoring system and agree on a system of inputting any local FBC results on to the clozapine monitoring system. It is vital to liaise with Leverndale pharmacy closely with regards any increased monitoring frequency.

2. Avoiding the use of other medications which may have an impact on FBC results. Input from a specialist mental health clinical pharmacist is advisable in this respect.

3. Consider the timing of the sample. The potential diurnal variation in circulating neutrophils seen in certain individuals can result in a lower neutrophil count early in the morning compared to later in the day. Consider taking blood samples in late morning/ early afternoon to avoid this potential.

4. A clear action plan in the event of a further blood dyscrasia, including;

   - Emergency contacts for key personnel (patient, carer, consultant psychiatrist, haematology, pharmacy)

   - Actions to be taken in the event of an amber or red result.

   - Altered monitoring parameters for WCC/ neutrophils (if these are to differ from standard clozapine monitoring parameters)

   - If the management of the neutropenic episode is to include the use of prophylactic antibiotics and/or G-CSF (granulocyte-colony stimulating factor), the treatment plan should clearly state the thresholds for initiating this.

   - Management options for treating the patient's mental state during the neutropenic episode. (NB all antipsychotics have the potential for causing/ delaying recovery from neutropenia and should ideally be avoided until 2 green results have been obtained. Antipsychotics with the lowest potential for blood dyscrasias include amisulpride, aripiprazole and haloperidol).

   - The patient must be given education about the relevance of any physical changes, particularly fever, sore throat or other signs of symptoms of infection, and to whom these must be reported.

5. A copy of the treatment plan should also be shared with Leverndale pharmacy.

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NHS Greater Glasgow & Clyde
Mental Health Services
Prescribing Management Group

Protocol for the use of Denzapine (Clozapine) Suspension

The vast majority of patients prescribed clozapine are able to successfully take tablets. However a small number are not. For those patients the use of clozapine suspension may be appropriate. This protocol must be followed to request the use of clozapine suspension.

Patients meeting the following criteria are considered eligible for treatment with clozapine suspension:

1. **Patients with a diagnosed swallowing difficulty.**

2. **A request has been submitted to and approved by the Prescribing Management Group (PMG-MH). (See request form overleaf)**

If use of Denzapine suspension is approved the following process **must** be completed before clozapine suspension can be prescribed.

1. The consultant psychiatrist, treatment location and patient must be registered with the Denzapine Monitoring Service (DMS).
2. Confirmation of this registration must be received by pharmacy and the consultant psychiatrist before clozapine suspension is prescribed.
3. For outpatients: Prescribe appropriately on a clozapine outpatient prescription form and email the prescription to Leverndale Pharmacy.
4. For inpatients: Prescribe appropriately on HEPMA and inform Leverndale Pharmacy of the change via telephone or email.

Prescribing Management Group Mental Health

February 2023

Approved by PMG(MH) June 2021
Review date June 2024

NHS Greater Glasgow & Clyde
Mental Health Services
Prescribing Management Group

Clozapine (Denzapine) Suspension Request Form

Name		**CHI Number**	

Ward/CMHT	

Reason for requesting clozapine suspension (Please give a full explanation of the need for clozapine suspension)

Consultant name (Please print)	
Consultant signature	
Date	

PMG(MH) Decision	
Date	

Please return this completed form to:
PrescribingManagementGroup.MentalHealth@ggc.scot.nhs.uk

A copy of the form with the PMG(MH) decision will be returned to the requesting consultant and Leverndale Pharmacy.

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NHS Greater Glasgow & Clyde
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Protocol for the use of clozapine oro-dispersible tablets

The vast majority of patients prescribed clozapine are able to successfully take tablets. However a small number are not. For those patients the use of clozapine oro-dispersible tablets may be appropriate. This protocol must be followed to request the use of clozapine oro-dispersible tablets.

Patients meeting the following criteria are considered eligible for treatment with clozapine oro-dispersible:

1. **As an alternative for patients already established on clozapine suspension.**

2. **To support establishment of clozapine treatment for patients reluctant to swallow tablets.**

3. **To aid compliance monitoring in patients with a known history of oral non-compliance.**

4. **Patients with a diagnosed swallowing difficulty who cannot swallow tablets.**

5. **A non-formulary request has been submitted to and approved by the Prescribing Management Group (PMG (MH)).**

Note: the standard tablets are the preparation of choice. Patients, where possible, should be switched to standard tablets at the earliest opportunity.

Cost comparison

Clozapine Preparation	**Cost per unit dose (£)**
25mg standard tablets	0.05
100mg standard tablets	0.19
12.5mg oro-dispersible tablets	0.12
25mg oro-dispersible tablets	0.23
50mg oro-dispersible tablets	0.44
100mg oro-dispersible tablets	0.97
200mg oro-dispersible tablets	1.92
50mg/ml suspension	0.40

If use of clozapine oro-dispersible tablets is approved the following process **must** be completed before clozapine oro-dispersible can be prescribed.

1. The consultant psychiatrist, treatment location and patient must be registered with ZTAS
2. Confirmation of this registration must be received by pharmacy and the consultant psychiatrist before clozapine oro-dispersible is prescribed.

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3. Inpatient- new clozapine initiation: Prescribe the appropriate titration regime on HEPMA and inform Leverndale pharmacy via telephone or email. If a paper titration form is being used then this should be emailed to Leverndale Pharmacy and prescribed on HEPMA as 'clozapine loading regime- as charted'.
4. Inpatient- formulation change: Prescribe appropriately on HEPMA and inform Leverndale Pharmacy of the change via telephone or email.
5. For outpatients: Prescribe appropriately on a clozapine outpatient prescription form and email the prescription to Leverndale Pharmacy. This should be a new entry on the prescription form and NOT oro-dispersible added to existing clozapine.
6. Amend the clozapine warning on EMIS to highlight the use of oro-dispersible tablets.

Prescribing Management Group Mental Health

February 2023

DRAFT

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Guidance for clozapine re-titration following a treatment break

Like any antipsychotic, successful treatment with clozapine requires consistent compliance. One hundred percent compliance with treatment is impossible to guarantee so treatment breaks are almost inevitable. However, with clozapine there are very strict rules regarding the re-establishment of treatment following a treatment break.

What constitutes a clozapine treatment break?

A patient is deemed to have had a clozapine treatment break if dosing has been interrupted for more than 48 hours.

If treatment has been missed for less than 48 hours this is not classed as a treatment break and dosing may resume without any adjustment.

Does a treatment break impact on the patient's full blood count testing frequency?

Yes, although the three clozapine manufacturers have slightly different rules for this.

Clozapine monitoring service	Treatment break rules – change of blood test frequency
CPMS (Clozaril)	If there has been a break of more than 96 hours, revert to weekly blood tests for 6 weeks*
DMS (Denzapine)	If there has been a break of more than 72 hours, revert to weekly blood tests for 6 weeks*
ZTAS (Zaponex)	

* After 6 weeks patients may resume their previous blood sampling schedule if authorised to do so by the monitoring service.

The clinical team must notify the clozapine patient monitoring service and Leverndale pharmacy of the treatment break as soon as possible, even if clozapine treatment has been resumed already.

Please note:

- **Patients must have a valid full blood count result in place before restarting clozapine**
- **An ECG should be performed before resuming treatment if the treatment break exceeds 72 hours**

What dose should a patient resume after a treatment break?

Patients should recommence clozapine treatment starting from 12.5mg once or twice daily on day 1. The product information for clozapine suggests that re-titration to a previous dose may be achieved at a faster rate than initial titration, if it is safe to do so. The blank clozapine titration chart can be used for this purpose.

The following factors should be considered when deciding how quickly to build up the dose:

- What dose was the patient on previously and for how long? The higher the dose, the longer re-titration will take.

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- Did the patient experience any issues during the original titration (e.g. postural hypotension, persistent tachycardia)?
- What caused the treatment break (e.g. intolerable dose-related side effects, physical illness)?
- The setting in which re-titration will take place. Hospital re-titrations may allow faster dose escalation as more intense monitoring is possible. Patients may be discharged prior to the completion of their re-titration if their CMHT can support the necessary monitoring.

If in doubt use the standard clozapine titration chart . This takes the daily dose to 275mg by day 15 and further alterations can be made from there as appropriate.

What steps can I take to prevent treatment breaks?

- Provide regular patient education emphasising the need for reliable compliance with treatment.
- As admission to an acute hospital is often a source of unintended treatment breaks, ensure clozapine warnings on EMIS are up to date so that clozapine use is identified on the Glasgow Mental Health Summary within Clinical Portal.

Mental Health Services
Medicine Related Guidance

Clozapine Service Standards

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Lead Author:	**MHS Clozapine Review Group**
Responsible Director:	**Lead Associate Medical Director MHS**
Approved by:	**Mental Health Prescribing Management Group on behalf of MHS Quality and Care Governance Group**
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Clozapine Service Standards

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- **Clozapine transfer form**

Developed by MHS Clozapine Review Group

Clozapine Service Standards

Background

The second generation antipsychotic, clozapine, is the gold standard drug of choice for treatment resistant schizophrenia. Due to its serious side effect, profile and licensing restrictions there are systems and criteria that must be met to ensure its safe use. This document details the standards mental health services in NHS Greater Glasgow & Clyde are expected to meet when using clozapine regardless of the care setting.

The standards consist of the following sections

1. Registration
2. Initiating clozapine
3. Prescribing
4. Patient Education
5. Dispensing
6. Monitoring
7. Communication
8. Information Governance
9. Appendices

1. Registration

1.1 All patients, prescribers and pharmacy departments must be registered with the monitoring service associated with the appropriate clozapine supplier. Please note that Leverndale Pharmacy is the only site in NHS GG&C registered to dispense clozapine to patients. Registration forms patients, prescribers and other healthcare professionals can be found on the home page of the relevant clozapine monitoring service.

1.2 Clozapine may not be prescribed or dispensed until the registration process for a patient is complete.

1.3 The patient's consultant psychiatrist is responsible for their registration.

2. Initiating clozapine treatment

2.1 Pre-treatment work up

As part of the pre-treatment work up, the following must be undertaken prior to starting clozapine

Lab tests	Physical tests	Others
CRP	Blood pressure	ECG
Full blood count	Pulse	Smoking status
Fasting glucose	Weight	Bowel function
HbA_1C		Pregnancy status
Lipids		Drug interactions*
LFTs		Check exclusion criteria
Troponin		
U&Es		

*Especially drugs associated with neutropenia

2.2. Initiation process

To initiate a patient on clozapine, it is paramount to ensure there is effective communication between all members of the healthcare team. The following is not an exhaustive list but should be done as a minimum to ensure treatment is started in a safely and timely manner:

- Contact Leverndale Pharmacy Department (01412116525) to confirm registration is complete.
- Prescribe on HEPMA using the pre-set protocols or 'as charted' for bespoke initiations
- If using pre-set protocols, Leverndale Pharmacy should be informed that It has been prescribed either via telephone or email
- For bespoke titrations, sign and date the titration form. Which should then be scanned and emailed to Leverndale Pharmacy Department (leverndale.pharmacy@ggc.scot.nhs.uk).
- An individually labelled supply will then be sent to the ward to initiate treatment.
- Avoid initiating clozapine over a weekend. This ensures that adequate supplies, dose changes and monitoring can be undertaken appropriately.

3. Prescribing

3.1 All consultant psychiatrists prescribing clozapine will be registered with the current clozapine monitoring service.

3.2 Clozapine will be prescribed by or under the supervision of a consultant psychiatrist in accordance with the licensed indications for the drug. Any unlicensed prescribing of clozapine must be notified to and agreed with the clozapine monitoring service (e.g. re-challenge following a red result, concomitant treatment with chemotherapy).

3.3 For in-patients the approved standard titration regime is now available as a protocol on HEPMA. A blank format for bespoke regimes will be used to initiate clozapine therapy for patients where the standard regime is inappropriate. Both regimes may be found at the following links.

Standard titration regime Blank titration regime

For out-patients, the titration regime given in the Options for Initiation of Clozapine document will used.

When a patient is discharged from hospital a clozapine out-patient prescription form must be sent to pharmacy as well as creating the normal IDL on Clinical Portal.

All changes to clozapine prescriptions must be communicated to pharmacy immediately.

3.4 If the patient has a treatment break (any period off clozapine greater than 48 hours requires re-titration) clozapine must be re-titrated from a 12.5mg dose. The re-titration regime is patient specific and will take into account their previous dose and any adverse effects that were apparent when clozapine treatment was first initiated. Monitoring of cardiac parameters is required during re-titration. It is good practice to undertake an additional full blood count before re-titration if more than 72 hours has elapsed since the last dose of clozapine.

3.5 For patients with a diagnosed swallowing difficulty, clozapine suspension (Denzapine) or oro-dispersible tablets (Zaponex) are available. Guidance on the process to be followed to request access to these preparations may be found here Clozapine (nhsggc.org.uk) Please note patients must be registered with the relevant monitoring service in order to be prescribed these products.

4. Patient Education

As described in the Clozapine patient information standards all patients for whom clozapine treatment is being considered must be provided with appropriate education about treatment. Also during treatment, educational needs should be revisited on a frequent basis. Educational resources for patients can be found on the monitoring service website and the Choice & Medication website (www.choiceandmedication.org/nhs24/).

5. Dispensing

5.1 All pharmacy departments dispensing clozapine will be registered all current clozapine monitoring service. Each registered clozapine pharmacy will have a registered clozapine pharmacist who is responsible in conjunction the Mental Health Sector Chief Technician for ensuring clozapine dispensing standards are met.

5.2 Clozapine will be dispensed in accordance with the systems and rules dictated by the marketing authorisation (licence) and the clozapine monitoring service.

5.3 Each dispensary will have standard operating procedures describing the dispensing process. These will cover

- The roles and responsibilities of staff
- Staff training
- Dispensing procedures
- Use of the clozapine monitoring system
- Quarantine processes
- Delivery schedules
- Communication

For hospital wards and teams not operating the one stop model, no clozapine will be issued from quarantine without a valid blood result. For teams using the one stop model there will be a robust mechanism to retrospectively confirm blood result status.

6. Monitoring

6.1 All patients prescribed clozapine will be monitored to the level described in the marketing authorisation and the clozapine monitoring service manual.

Monitoring will be undertaken at ward level for in-patients and in clozapine clinics or their equivalent for out-patients. **Clozapine clinics have a geographical remit NOT speciality, those being treated under CAMHS, Esteem, Forensic, Learning Disability or Older Peoples services should attend the clozapine clinic within their local area.**

6.2 All patients prescribed clozapine will have a detailed care plan. These care plans must include the following:

- Frequency of full blood count monitoring
- Baseline physical health measures
- Signs and symptoms of neutropenia
- Identifying and managing common side effects e.g. constipation, hypersalivation, sedation, incontinence, cardiac side effects (tachycardia), weight gain, use of GASS and patient education.
- Compliance assessment

6.3 Staff working in clozapine clinics and wards will receive training on the relevant clozapine systems e.g. the monitoring service website and the clinical use of the drug. A training package is available from pharmacy on request.

It is recommended that all staff in clozapine clinics and wards using clozapine have access to the monitoring service website.

6.4 Each clozapine clinic will have written Standard Operating Procedures describing all aspects of their function e.g.

- The scope of the service. Clozapine services will have a geographic rather than specialty remit i.e. they serve all patients prescribed clozapine within a defined catchment area.
- Locations & timings
- Staff & grades involved
- Did not attend procedures
- Problem samples
- Amber result protocols
- Red result protocols
- Prescription collection procedures
- Use of the monitoring system web site

6.5 Full blood counts

Patients prescribed clozapine will have full blood count measurements taken to the following schedule

Baseline for registration	
Weekly	For a minimum of 18 weeks from start
Fortnightly	From the end of weekly monitoring up to a minimum of 52 weeks
Every 4 weeks	For as long as treatment continues post 52 weeks
Twice weekly	If an amber, result is obtained. Continue until green
Daily	If a red, result is obtained. Continue until two successive green results

Note: Patients may only progress from weekly to fortnightly or fortnightly to 4 weekly full blood counts if authorised by the clozapine monitoring service.

Clozapine clinics and wards must have reliable processes for ensuring clozapine full blood counts are taken as scheduled.

Full blood counts are normally sent to the clozapine monitoring service's laboratory for analysis. **If samples for patients are analysed locally it is the responsibility of the ward multi-disciplinary team and community-based clozapine clinics to obtain**

that result and communicate it to the clozapine monitoring service and pharmacy and to act on the outcome of that result.

Clozapine discontinuation full blood count monitoring will be undertaken as required by the clozapine monitoring service.

6.6 Monitoring during the titration phase

Day 1

- Blood pressure (standing and lying) - pre-dose and hourly for 6 hours.
- Pulse- pre-dose and hourly for 6 hours.
- Temperature- pre-dose and hourly for 6 hours.

Day 2

- Blood pressure (standing and lying) - pre-dose and 2 & 6 hours post morning dose.
- Pulse- pre-dose and 2 & 6 hours post morning dose.
- Temperature- pre-dose and 2 & 6 hours post morning dose.
- Check if bowels have moved. If not, assess other dietary reasons or causative medicines and prescribe laxatives if needed.

Days 3 - 15

- Blood pressure (standing and lying) - 6 hours post morning dose.
- Pulse- 6 hours post morning dose.
- Temperature- 6 hours post morning dose.
- Check if bowels have moved daily.

Day 21

ECG

6.7 Ongoing Physical Health Monitoring

All patients prescribed clozapine, regardless of setting, will be offered monitoring for physical health problems to the standards described in the table on the following page. Clear communication and joint working between mental health services and primary care will be required to ensure any physical health issues identified are appropriately managed. The standards in the table below are those produced by the Scottish Government in 2013, which were revised in 2016. (See table on page 9)

6.8 Side effect monitoring

Clozapine clinics and wards will perform additional side-effect monitoring relevant to clozapine as a matter of routine. This will include

- Constipation – at every contact*
- Blood pressure
- Pulse
- Hypersalivation
- Sedation

- Incontinence
- Signs of neutropenia – sore throat, temperature & flu like symptoms
- Fits, faints & funny turns

Clinical observation and the Glasgow Antipsychotic Side-effect Scale (GASS) – clozapine variant should be used for this.



GASS for Clozapine 2014 version.pdf

GASS should be undertaken every 6 months and one month after a dose change. Side-effect assessments will be recorded formally and reported systematically to the multi-disciplinary team. The outcome of routine side effect monitoring and 6 monthly use of GASS must be reported to the patient's responsible medical officer (RMO). A template for assessing and responding to clozapine side effects is available as an EMIS template and should be used for all patients.

* Constipation must be assessed systematically at every contact with the patient. Patients will receive education about the likelihood of becoming constipated, things they can do to minimise the risk and the need to report any change in bowel habits. It is recommended that the Clozapine & Constipation fact sheet from the Choice & Medication website be given to all patients. (https://www.choiceandmedication.org/nhs24/generate/handyfactsheetclozapineandconstipationuk.pdf)

More guidance can be found via the following link Clozapine and constipation

6.9 Clozapine plasma level monitoring

Clozapine clinics and wards will perform clozapine plasma level monitoring in line with MHS guidance at the request of a consultant psychiatrist. The main indications for clozapine plasma level monitoring are

- To monitor compliance
- For patients who fail to respond completely to clozapine after an adequate trial especially prior to consideration of augmentation strategies
- If dose reduction is being contemplated
- To support the diagnosis of dose-related side effects*
- If a drug interaction is suspected
- Non-urgent investigation of suspected overdose
- If the patient's smoking status changes
- Measuring baseline levels during successful treatment to use as a reference point.

*Side effects that are thought to be dose-related include; sedation, dizziness, hypersalivation, tachycardia, postural hypotension, constipation and seizures. Often these can be avoided/minimised by careful and slow dose escalation or alleviated by reducing the dose.

Please note that Magnalabs will contact Pharmacy and the patient's consultant if the clozapine plasma level is >1.0mmol/L or if it is undetectable.

More information on clozapine plasma level monitoring can be found via this link. Clozapine TDM

Table 6.7 National Clozapine Monitoring Standards

Parameter/test	Frequency	Action if outside reference range
Full Blood Count	Follow manufacturer's mandatory protocol	
Constipation	Assess bowel habits at baseline, any point of blood sampling and ideally at every point of contact.	Treat symptomatically and seek help from physicians if Complete obstruction `or poor response to conservative laxative treatment.
BMI	Baseline, weight during initiation, 3 monthly for 1 year, then annually.	Offer lifestyle advice.
Plasma glucose (fasting)	Baseline, at 1 month, then from 3 months, 3 monthly up to 1 year, then 6 monthly.	Offer lifestyle advice. Obtain HbA_{1c}. Consult with GP and/or specialist as appropriate.
Blood lipids	Baseline, 3 monthly for 1 year, then 6 monthly.	Offer lifestyle advice and consult with GP and/or specialist for consideration of treatment e.g. statin therapy as appropriate.
Blood pressure	Baseline, as per initiation protocol, 3 monthly for 1 year, then annually. Also following dose changes.	If hypotensive: Consider slower titration or dose reduction If Hypertensive: Offer lifestyle advice and consult with GP and/or specialist for consideration of treatment.
Pulse	Baseline and as per initiation protocol, at 3 months, then annually	Consider slower titration or dose reduction. If tachycardia persistent, observe for other indicators of myocarditis or cardiomyopathy.
ECG	Baseline, **3 weeks,** at 3 months and then annually. **Additional ECGs should be performed as clinically indicated (see actions)**	Act on abnormality according to significance, clinical indication. Refer to cardiologist if in doubt. Continue clozapine with daily CRP and Troponin I monitoring and request echocardiography if ANY of the following criteria are met: • Signs or symptoms of unidentified illness • HR≥120bpm or increased by >30bpm over 24 hours • CRP 50 – 100 mg/l • Mild elevation of troponin I ≤ 2 x Upper limit of normal **Stop clozapine**, consult cardiologist and request echocardiogram if ANY of the following occurs: • Troponin > 2 x upper limit of normal • CRP >100mg/l
Troponin 1	**Baseline, day 7, 14, 21 & 28**	
CRP	**Baseline, day 7, 14, 21 & 28**	
Urea & electrolytes	Baseline then as clinically indicated.	Investigate as clinically appropriate.
Liver function tests	Baseline then annually or more frequently if clinically indicated.	Investigate as clinically appropriate.
Side-effects	"GASS for Clozapine" or other recognised side-effect questionnaire for antipsychotic medication during initiation and regularly thereafter, with general side-effect enquiry at least at any point of blood sampling.	As clinically appropriate.

Smoking status	On initiation and at regular intervals thereafter, at least annually. Warn patient regarding effect of changes in smoking status on clozapine levels and side-effects	Check clozapine level and GASS for clozapine if change of status.
Women of reproductive age	Pregnancy/contraceptive status on initiation and at regular intervals thereafter, at least annually	In all cases: Pre-pregnancy discussion of pregnancy intentions. Offer advice/signposting on contraception. Early discussion of options if unplanned pregnancy.

7. Communication

7.1 To ensure safe and effective use of clozapine there must be effective communication between the elements of the clozapine service. This includes the patient, their consultant psychiatrist, the pharmacy, clozapine clinics, wards and the clozapine monitoring service. Each patient prescribed clozapine should have a care plan, which contains the relevant communication pathway with regards to their clozapine service and should include contact details for

- Consultant psychiatrist
- Clozapine pharmacy
- Clozapine clinic
- GP practice
- Community pharmacy

All patients prescribed clozapine will have and alert added to their EMIS records. This will be maintained by clozapine clinics and Pharmacy.

GPs should be informed when clozapine is prescribed or treatment is stopped and encouraged to add clozapine to their prescribing records using the process developed by the prescribing support team.

The clozapine transfer form **must** be used to support transfer of care when patients on clozapine move from one location to another (appendix 5).

7.2 The clozapine monitoring service send alerts to the clozapine pharmacy and consultant psychiatrists. The table below lists these alerts and indicates the actions and responsibilities associated with them. Note different suppliers may not issue all of these alerts.

Alerts	Actions & Responsibilities
Eligibility reminders	Pharmacy contact consultant & CMHT or ward to advise of move to fortnightly or monthly bloods & supplies.
Late reminders	Consultant, ward or CMHT to organise urgent local FBC
Discontinuation notification	Pharmacy to cancel prescription.Consultant, ward or CMHT to organise discontinuation bloods
Non-Rechallengeable	Consultant to place in case record – indicates genuine red result therefore any future clozapine treatment unlicensed and must be approved by the monitoring service.
Amber warning	Consultant, ward or CMHT to organise twice weekly FBC until green
Red Alert	Clozapine treatment stopped. Pharmacy to contact consultant, ward or CMHT to confirm red alert. Consultant, ward or CMHT to organise urgent local FBC on a daily basis until two consecutive greens. Implement appropriate care as per monitoring service guidance.
Downward trend/single drop	Consultant, ward or CMHT review recent blood history and physical status and if appropriate undertake additional blood tests pharmacy contact to advise review when necessary.
Out of range warning – high eosinophils or low platelets	Review patient urgently. FBC twice a week. High eosinophils (3 x10^9/L) – stop clozapine until eosinophils less than 1. Monitor cardiac function including ECG. Low platelets – stop clozapine until levels greater than 50 x 10^9/L.

7.3 It is good practice to inform the community pharmacy when a patient is prescribed clozapine. A letter template (appendix 2) has been prepared for that purpose. CMHT clozapine clinics will give this letter to patients to take to their community pharmacy.

8. Information governance

8.1 The clozapine monitoring service and their website are essential to the safe use of clozapine. They must be notified immediately and then the clozapine pharmacy informed in the following circumstances to ensure the data they hold is up to date and accurate.

Data item	Responsible person(s)
New registration or re-titration	Medical staff
Change of consultant	Medical staff
Change of blood sampling location	Clozapine clinic or ward staff
Treatment break	Medical staff or clozapine clinic or ward staff
Treatment discontinuation	Medical staff
Off label treatment e.g. red re-challenge, concomitant chemotherapy	Medical staff
Local blood sample	Clozapine clinic or ward staff

Forms for communicating with the monitoring service are available on their website.

Appendix 1

In patient clozapine initiation flowchart

Perform all pre-treatment tests required for clozapine

- ❑ Full blood count (FBC) with differential (valid for 10 days)
- ❑ ECG, baseline lipids, glucose, HbA1c, weight, LFTs & U&Es, Troponin & CRP.

⇩

Register patient with monitoring service

- ❑ Registration form completed and signed by consultant.
- ❑ Forms are available on the monitoring service website

⇩

Prescribe on HEPMA and inform Leverndale Pharmacy*

- ❑ Once confirmation of the registration is received from the monitoring service, pharmacy will make an initial supply the amount of which will depend on the validity of the initial FBC. * email bespoke titrations to pharmacy
- ❑ If registration FBC is no longer valid pharmacy will contact ward for an urgent local FBC.

⇩

Commence patient on clozapine as described in the protocol

- ❑ **Day 1 of the titration should ideally be a Monday and clozapine should not be initiated over a weekend**.
- ❑ Monitor the patient as described in the titration regime.

⇩

Day 2 take first 'on treatment FBC' and send to monitoring service or local labs for analysis

- ❑ This blood test is essential to allow weekly dispensing of clozapine.
- ❑ Pharmacy will dispense the remainder on the titration regime to the appropriate schedule.

⇩

Initiate weekly FBC for the patient preferably on a Monday or Tuesday to facilitate ongoing weekly dispensing each Friday

- ❑ This blood test is essential to allow on-going weekly dispensing of clozapine.
- ❑ The post titration regular dose should be prescribed on the in patient prescription sheet and this should be sent to pharmacy for a weeks supply of the post titration dose.
- ❑ Every time the dose is changed the altered in patient prescription sheet must be sent to pharmacy.

Note:
When a local blood sample is taken it is the responsibility of the ward multi-disciplinary or community based clozapine clinic to communicate the result of this sample to the clozapine monitoring service and pharmacy.
Do not commence a clozapine titration out of hours.

Appendix 2

Mental Health Services

Address of Resource centre

PRIVATE AND CONFIDENTIAL
Name of GP practice/pharmacy

Date

Direct Line

Dear *Doctor/pharmacist*,

Patient……CHI……

The above patient is prescribed clozapine which they receive from .....CMHT every ...week(s).

Clozapine, a second generation antipsychotic is primarily managed through specialist mental health services within NHS GG&C. It can cause serious blood dyscrasias including neutropenia and agranulocytosis and as such, those receiving treatment undergo mandatory regular full blood count monitoring.

Patients may present complaining of flu-like symptoms, such as fever or sore throat or other signs of infection. They should be actively encouraged to contact their community psychiatric nurse/ resource centre to obtain an urgent FBC to rule out neutropenia. In addition, the use of other medication known to cause neutropenia is contraindicated with clozapine therapy; the most recent edition of the BNF can give specific information on interactions with clozapine.

Constipation can be problematic and often requires pharmacotherapy to manage it. On rare occasions, constipation can be significant and can cause serious complications, which are associated with death.

Smoking has a significant effect on plasma clozapine levels and stopping smoking can cause plasma levels to increase substantially with a subsequent increase in the risk of dose-related adverse effects including sedation, constipation and seizures. For these reasons, any quit attempt should be managed in conjunction with the patient's mental health team.

Mental Health services may also dispense unlicensed pirenzepine and benztropine to manage drug-induced hypersalivation caused by clozapine.

If you have any questions, please contact the team within the resource centre or the pharmacy department at Leverndale Hospital (01412116525).

Yours sincerely,

.

Appendix 3

Clozapine initiation in-patient observation record

Surname	Forename	Date of birth	CHI number	Consultant

Baseline Recordings

Date	
BP	
Pulse	
Weight	
Temp	
Troponin	
C-Reactive Protein (CRP)	
Date of last bowel movement	
Details of typical bowel habits (e.g. once or twice per day etc.)	

DAY 1	Before am dose	1^0 (1-hour post dose)	2^0	3^0	4^0	5^0	6^0	Before pm dose
Time								
Temp								
Pulse								
BP (lying)								
BP (stand)								

DAY 2	Before am dose	2^0	6^0	Before pm dose
Time				
Temp				
Pulse				
BP (lying)				
BP (stand)				
Has patient moved bowels today?	Yes/No			
If no, date of last bowel movement?				

DAY 3	Before am dose	6^0	Before pm dose	DAY 4	Before am dose	6^0	Before pm dose
Time				**Time**			
Temp				**Temp**			
Pulse				**Pulse**			
BP (lying)				**BP (lying)**			
BP (stand)				**BP (stand)**			
Has patient moved bowels today?	Yes/No			**Has patient moved bowels today?**	Yes/No		
If no, date of last bowel movement?				**If no, date of last bowel movement?**			

DAY 5	Before am dose	6^0	Before pm dose	DAY 6	Before am dose	6^0	Before pm dose
Time				**Time**			
Temp				**Temp**			
Pulse				**Pulse**			
BP (lying)				**BP (lying)**			
BP (stand)				**BP (stand)**			
Has patient moved bowels today?	Yes/No			**Has patient moved bowels today?**	Yes/No		
If no, date of last bowel movement?				**If no, date of last bowel movement?**			

DAY 7	Before am dose	6^0	Before pm dose	DAY 8	Before am dose	6^0	Before pm dose
Time				**Time**			
Temp				**Temp**			
Pulse				**Pulse**			
BP (lying)				**BP (lying)**			
BP (stand)				**BP (stand)**			
Troponin							
CRP							
Has patient moved bowels today?	Yes/No			**Has patient moved bowels today?**	Yes/No		
If no, date of last bowel movement?				**If no, date of last bowel movement?**			

DAY 9	Before am dose	6^0	Before pm dose	DAY 10	Before am dose	6^0	Before pm dose
Time				**Time**			
Temp				**Temp**			
Pulse				**Pulse**			
BP (lying)				**BP (lying)**			
BP (stand)				**BP (stand)**			
Has patient moved bowels today?	Yes/No			**Has patient moved bowels today?**	Yes/No		
If no, date of last bowel movement?				**If no, date of last bowel movement?**			

DAY 11	Before am dose	6^0	Before pm dose	DAY 12	Before am dose	6^0	Before pm dose
Time				**Time**			
Temp				**Temp**			
Pulse				**Pulse**			
BP (lying)				**BP (lying)**			
BP (stand)				**BP (stand)**			
Has patient moved bowels today?	Yes/No			**Has patient moved bowels today?**	Yes/No		
If no, date of last bowel movement?				**If no, date of last bowel movement?**			

DAY 13	Before am dose	6^0	Before pm dose	DAY 14	Before am dose	6^0	Before pm dose
Time				**Time**			
Temp				**Temp**			
Pulse				**Pulse**			
BP (lying)				**BP (lying)**			
BP (stand)				**BP (stand)**			
				Troponin			
				CRP			
Has patient moved bowels today?	Yes/No			**Has patient moved bowels today?**	Yes/No		
If no, date of last bowel movement?				**If no, date of last bowel movement?**			

DAY 15	Before am dose	6^0	Before pm dose
Time			
Temp			
Pulse			
BP (lying)			
BP (stand)			
Has patient moved bowels today?	Yes/No		
If no, date of last bowel movement?			

Once the titration phase is complete, upload this form to the patient's EMIS record.

Appendix 4

Clozapine initiation community patient observation record

Surname	Forename	Date of birth	CHI number	Consultant

Baseline Recordings

Date	
BP	
Pulse	
Weight	
Temp	
Troponin	
CRP	
Date of last bowel movement	
Details of typical bowel habits (e.g. once or twice per day etc.)	

DAY 1	Before am dose	1^0 (1 hour post dose)	2^0	3^0	4^0	5^0	6^0
Time							
Temp							
Pulse							
BP (lying)							
BP (stand)							

DAY 2	Before am dose	2^0	6^0
Time			
Temp			
Pulse			
BP (lying)			
BP (stand)			
Has patient moved bowels today?	Yes/No		
If no, date of last bowel movement?			

DAY 3	Before am dose	6^0	DAY 4	Before am dose	6^0
Time			**Time**		
Temp			**Temp**		
Pulse			**Pulse**		
BP (lying)			**BP (lying)**		
BP (stand)			**BP (stand)**		
Has patient moved bowels today?	Yes/No		**Has patient moved bowels today?**	Yes/No	
If no, date of last bowel movement?			**If no, date of last bowel movement?**		

DAY 5	Before am dose	6^0	DAY 6	Before am dose	6^0
Time			**Time**		
Temp			**Temp**		
Pulse			**Pulse**		
BP (lying)			**BP (lying)**		
BP (stand)			**BP (stand)**		
Has patient moved bowels today?	Yes/No		**Has patient moved bowels today?**	Yes/No	
If no, date of last bowel movement?			**If no, date of last bowel movement?**		

DAY 7	Before am dose	6^0	DAY 8	Before am dose	6^0
Time			**Time**		
Temp			**Temp**		
Pulse			**Pulse**		
BP (lying)			**BP (lying)**		
BP (stand)			**BP (stand)**		
Troponin					
CRP					
Has patient moved bowels today?	Yes/No		**Has patient moved bowels today?**	Yes/No	
If no, date of last bowel movement?			**If no, date of last bowel movement?**		

DAY 9	Before am dose	6^0	DAY 10	Before am dose	6^0
Time			**Time**		
Temp			**Temp**		
Pulse			**Pulse**		
BP (lying)			**BP (lying)**		
BP (stand)			**BP (stand)**		
Has patient moved bowels today?	Yes/No		**Has patient moved bowels today?**	Yes/No	
If no, date of last bowel movement?			**If no, date of last bowel movement?**		

DAY 11	Before am dose	6^0	DAY 12	Before am dose	6^0
Time			**Time**		
Temp			**Temp**		
Pulse			**Pulse**		
BP (lying)			**BP (lying)**		
BP (stand)			**BP (stand)**		
Has patient moved bowels today?	Yes/No		**Has patient moved bowels today?**	Yes/No	
If no, date of last bowel movement?			**If no, date of last bowel movement?**		

DAY 13	Before am dose	6^0	DAY 14	Before am dose	6^0
Time			**Time**		
Temp			**Temp**		
Pulse			**Pulse**		
BP (lying)			**BP (lying)**		
BP (stand)			**BP (stand)**		
			Troponin		
			CRP		
Has patient moved bowels today?	Yes/No		**Has patient moved bowels today?**	Yes/No	
If no, date of last bowel movement?			**If no, date of last bowel movement?**		

DAY 15	Before am dose	6^0
Time		
Temp		
Pulse		
BP (lying)		
BP (stand)		
Has patient moved bowels today?	Yes/No	
If no, date of last bowel movement?		

Once the titration phase is complete, upload this form to the patient's EMIS record.

Clozapine Transfer Form Appendix 5

Name:		**Date of Birth**	
Address:		**CHI No:** **Clozapine Pin No:**	
GP: **Community Pharmacist:**		**In patient Consultant:** **CMHT Consultant:**	
Admission date:		**Legal Status**:	
		T2	**T3**
Discharge date:			

Clozapine start date:		**Monitoring frequency:**	
Current clozapine dose:		**Date of last blood sample:**	
Date of last ECG:			
Other medication: **High Dose Status**			
Concurrent serious medical conditions:			
Tobacco Smoking status:			
Referral to clozapine clinic made:		**Please state which clinic the patient will attend:**	
Transfer date:		**Date of first clozapine clinic appointment:**	
CMHT Keyworker or duty worker:		**Clozapine clinic nurse:**	
Clozapine labels transferred to clinic:		**Clozapine out-patient prescription sent to clinic & pharmacy:**	
Clozapine monitoring website data updated:			

Completed by:	**Signature:**	**Date:**

This form must be completed when clozapine patients move from one service to another

Patient ID Label

Clozapine Side Effect Monitoring Care Plan

Identified Need No: _____

Consultant:

Named Nurse/
Key Worker:

	Date	Ward/Team
Admitted(if applicable)		
Transferred		
Transferred		
Transferred		
Transferred		

Clozaril Patient Monitoring Service Number	
Date Commenced on Clozapine	

Frequency of FBC Monitoring	Date Commenced	Date Reviewed/Changed

Baselines & Dates		Dates when reviews repeated										
BMI												
Physical Examination												
ECG												
FBC												
Urea & Electrolytes												
CRP												
Troponin 1												
Liver Function Test												
Thyroid Function Test												
HbA1c												
Blood Lipids												
Clozapine Plasma Levels												
GASS Clozapine variant												

Signature of Named Nurse/Key Worker or other Registered Nurse		**Date**		**Frequency of Review**		**Date**	
Signature of patient (or reason for no signature)		**Date**		**Date Identified Need Discontinued**		**Date**	

Clozapine Side Effect Monitoring Care Plan

Patient ID Label	**_____ is prescribed Clozapine. There is the potential for developing significant unwanted effects & close monitoring is required when taking this medication to prevent &/or manage these.** **Nursing, pharmacy & medical staff will also require to provide on-going guidance, education & advice, regarding Clozapine to, _____ during 1:1 sessions & record this in Chronological Account of Care.**

Sore Throat, Mouth Ulcers, Cold/Flu Type Symptoms. (potential Neutropenia/Red Alert Blood Result)

Actions
Liaise with Medical Staff & Pharmacy Team regarding further procedures, e.g. stopping Clozapine, administration of antipyretic if high temp etc.
Blood test, Full Blood Count and Differential should be taken immediately and analysed at the local hospital laboratory.
Monitor Blood Pressure, Pulse and temperature. Liaising with medical staff regarding results.
Record actions and outcomes in chronological account of care liaising with medical staff & pharmacy team should patient require to attend hospital for further input.

Incontinence

Actions
Ascertain frequency and occurrence and record in Chronological Account of Care.
Advise reduction in amount of fluids consumed prior to bed time.
Liaise with medical staff & pharmacy team regarding further interventions and record actions and outcomes in Chronological Account of Care.

Constipation

Actions
Discuss bowel movements & record in the Bowel Movement Record Chart. Nursing staff to note any recent changes in the chronological account of care and discuss with medical staff & pharmacy team.
Liaise medical staff regarding prescribed laxative as and when required. Record action and outcome in chronological account of care
Encourage _____ to have a high fibre diet, containing plenty of cereals and fruit and adequate fluids. Minimum of 1 ½ Litres per day.
If evidence of constipation/diarrhoea or if _____ experiences stomach pains for more than a few days (2-3), inform medical staff immediately. This could potentially be a sign of faecal impaction which can be life threatening. Liaise with medical staff & pharmacy team regarding further interventions and record actions and outcomes of same in chronological account of care.

Risk of developing Cardiac Problems. Eg: tachycardia, Dizzy Spells, Faints & "funny turns"

Actions
Risk of postural hypotension also risk of falls. Ensure Cannard Risk Assessment is completed and up to date (if inpatient).
Monitor blood pressure (lying & standing) and record actions and outcome in chronological account of care.
Advise _____ to take time and move slowly from lying/sitting to standing positions.

Pulse to be monitored & staff to check rate & rhythm, observing for any abnormalities, tachycardia, bradycardia, irregular beats.
Liaise with medical staff regarding performing of an ECG & any requirement on for referral to Acute Services.
Liaise with medical staff & pharmacy team regarding actions and outcomes and record in Chronological Account of Care.

Hypersalivation

Actions
Monitor frequency and occurrence.
Provide _____ with guidance regarding use of chewing gum/sugar free sweets to boost salivation and swallowing.
Suggest propping up with pillows in bed at night when asleep
Liaise with medical staff & pharmacy team regarding the prescription of an anticholinergic to reduce hypersalivation. Record actions and outcome in Chronological Account of Care.
Note anticholinergic drugs will increase the likelihood of developing constipation.

Weight Gain

Actions
Monitor BMI and Weight. Regularly monitor waist circumference (increased waist circumference indicates higher risk of incidence of heart disease. Record any changes and liaise with dietician regarding healthy eating plans as and when required.
Record all actions and outcomes in chronological account of care.
Liaise with medical staff & pharmacy team regarding further review & interventions.

Sedation

Actions
Ascertain from _____ onset, time of day and record in chronological account of care.
Liaise with medical staff regarding discussion of changes in timing of doses of Clozapine. (e.g. higher proportion of the dose being taken at bedtime)
Record actions and outcomes in chronological account of care.

Other required monitoring

Actions
The Glasgow Antipsychotic Side Effect Rating Scale – clozapine variant, will be completed during initiation of therapy and regular thereafter. (Weekly/monthly/every 3 months/every 6 months/ _____)* ***(indicate frequency)*** **& completed 1 month after any change to clozapine dose.**
Results & any required interventions will be recorded in chronological account of care by nursing staff liaising with medical staff & pharmacy team.

Patient ID Label

Clozapine Side Effect Monitoring Care Plan

Bowel Movement Monitoring Record (BMMR) for individuals prescribed Clozapine.

NHS Greater Glasgow and Clyde

Chart Number: _____

Date BMMR Commenced:

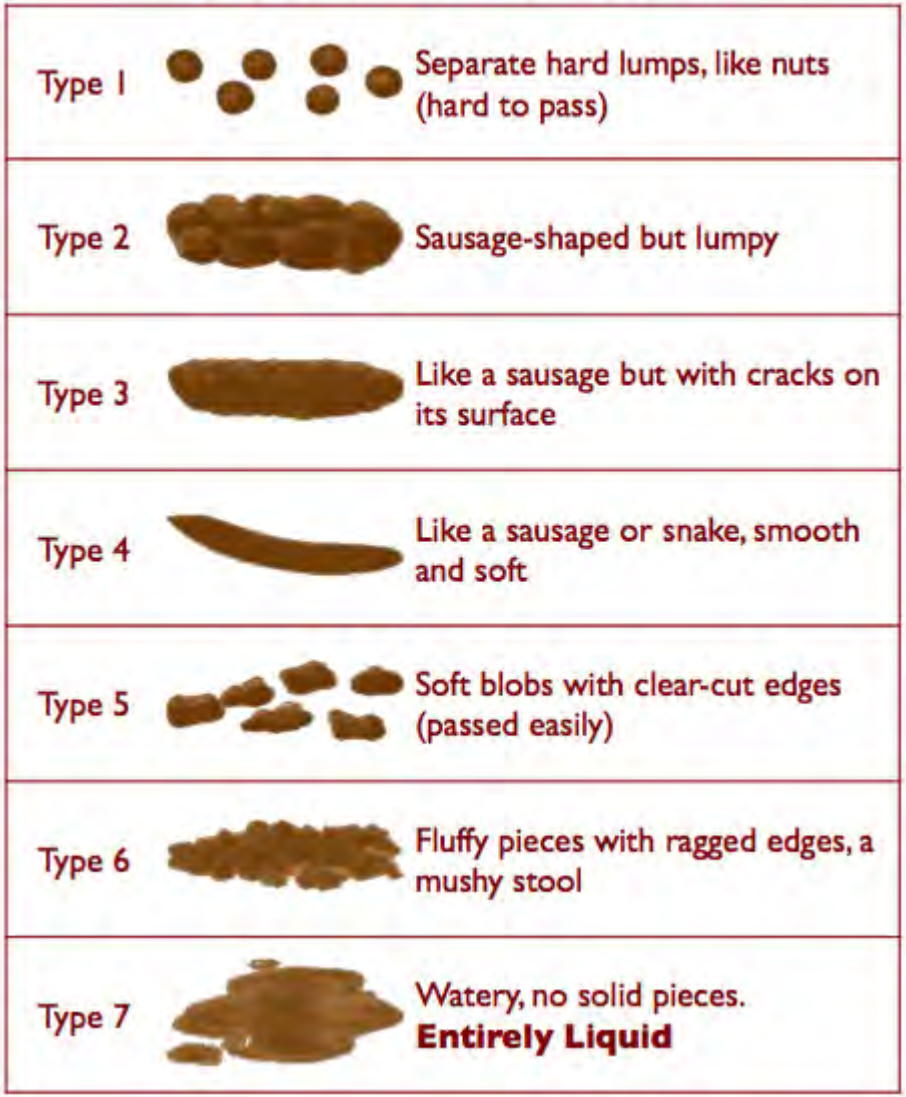
_____ / _____ / _____

Date	Type 1 	Type 2 	Type 3 	Type 4 	Type 5 	Type 6 	Type 7 	**Comments** (e.g.mucous, blood, volume, S, M , L)	**Staff Sig.**

Adapted from the Bristol Stool Scale developed by KW Heaton and SJ Lewis at the University of Bristol 1997

Clozapine Side Effect Monitoring Care Plan

Bristol Stool Chart



Clozapine Side Effect Monitoring Care Plan

Glasgow Antipsychotic Side Effect Scale (GASS) for Clozapine

Name:		**Current Medications**:
Date		
Caffeine intake	**……cups/day**	
Smoker: Yes / No	**……cigarettes/day**	

Has there been a recent change in your smoking habit? Yes / No	**Increase/Decrease by ……..cigarettes/day**

This questionnaire is being used to determine if you are suffering from excessive side effects from your medication.
Please put a tick in the column which best indicates how often or how severely you have experienced the following side effects.

Over the **past week:**		Never	Once	A few times	Everyday	Tick here if severe or distressing
1.	I have felt sleepy during the day					
2.	I felt drugged or like a zombie					
3.	I felt dizzy when I stood up or have fainted					
4.	I have felt my heart beating irregularly or unusually fast					
5.	I have experienced jerking limbs or muscles					
6.	I have been drooling					
7.	My vision has been blurry					
8.	My mouth has been dry					
9.	I have felt sick (nauseous) or have vomited.					
10.	I have felt gastric reflux or heartburn					
11.	I have had problems opening my bowels (constipation)					
12.	I have wet the bed					
13.	I have been passing urine more often					
14.	I have been thirsty					
15.	I have felt more hungry than usual or have gained weight.					
16.	I have been having sexual problems.					

I have also experienced:

(please write down any other side effects **OR PHYSICAL PROBLEMS OR COMPLAINTS** that you may have experienced over the past week)

17.	
18.	
19.	
20.	

Clozapine Side Effect Monitoring Care Plan

Staff Information

1. Allow the service user to fill in the side-effect scale themselves. All questions relate to the previous week.

2. **Scoring**

0 Points	"Never"
1 Point	"Once"
2 Points	"A few times"
3 Points	"Everyday"

3. **Results**

0-16	absent / mild side-effects
17-32	moderate side-effects
33-48	severe side-effects

4. **Side-effects covered include:**

1-2	Drowsiness & sedation
3	Postural hypotension
4	Tachycardia
5	Myoclonus
6	Hypersalivation
7-8	Anticholinergic side-effects
9-10	Gastrointerstinal side-effects
11	Constipation
12	Nocturnal enuresis
13-14	Screening for diabetes mellitus
15	Weight gain
16	Sexual dysfunction

5. The column relating to the severity/distress experienced with a particular side effect is not scored, but is intended to inform the clinician of the service user's views & condition.

6. Questions 17 to 20 invite the service user to report any other side-effects or problems not already mentioned. These questions should not be scored but may instigate a discussion with the service user if clinically appropriate.

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Mental Health Services
Clozapine review group

Guidelines for the assessment and treatment of Clozapine Induced Constipation

Scope

This guideline is intended to support the appropriate assessment of patients prescribed clozapine to enable the early identification and treatment of clozapine induced constipation. It is relevant to healthcare professionals across NHS Greater Glasgow & Clyde involved in the care of people prescribed clozapine.

Background

Clozapine is a second generation antipsychotic licensed for treatment resistant schizophrenia, for use in patients intolerant of other antipsychotics and for the treatment of psychosis in Parkinson's disease. Clozapine has a range of potentially troublesome side effects, some of which can have significant impacts on patients' physical health. National guidelines to support improved physical health monitoring of patients prescribed clozapine were published by the Scottish Government in 2013 (*1*).

Constipation is a very common side effect of clozapine. It is estimated that up to 60% of patients who are prescribed clozapine experience constipation (*2*). Although rare, death from complications arising from constipation is estimated at more than three times the rate of death from agranulocytosis (2). Severe complications associated with clozapine induced constipation include intestinal obstruction, faecal impaction and paralytic ileus. Despite this however, unlike for blood dyscrasias, there are no mandatory requirements to monitor patients for and actively treat clozapine induced constipation.

Many services have begun to introduce more structured processes for physical health monitoring but there is a need for a systematic, frequent assessment to identify patients experiencing clozapine induced constipation and then implement effective treatment.

Risk factors for constipation are:

- Recent initiation of clozapine (greatest risk is during the first four months of treatment, but the risk persists)
- High dose or plasma clozapine level
- Intercurrent illness
- History of bowel surgery
- Concurrent use of other drugs known to cause constipation (opioids, drugs with anticholinergic properties. This includes most of the treatments for clozapine-induced hypersalivation e.g. hyoscine hydrobromide).
- Lifestyle issues e.g. poor diet and lack of exercise.
- Learning disability
- Old age
- Obesity

This guideline provides advice to services in NHS GG&C to support systematic assessment and treatment of clozapine induced constipation.

Assessment

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Review date: May 2025

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Mental Health Services
Clozapine review group

Patients prescribed clozapine are regularly in contact with NHS services in order to undergo mandatory full blood count testing. That frequent contact presents an opportunity to systematically assess patients for common serious side effects. There are two distinct phases to clozapine treatment, a titration/stabilisation phase and a maintenance phase. Assessment of clozapine induced constipation is appropriate in both phases. There must be a systematic, documented and reliable process of assessment throughout clozapine treatment.

It should be noted that clozapine has a greater potential for gastro-intestinal side effects compared with other antimuscarinic agents, possibly because of its anti-serotonergic properties. This may lead to slower colon transit, reduced gastro-colonic reflexes, increased colonic compliance and perhaps reduced intestinal sensitivity to distension. This means that patients may not complain about constipation and therefore should be asked regularly about bowel habit.

The risk of developing clozapine induced constipation should be clearly identified within care plans.

1. Titration/stabilisation phase

- During the work up for clozapine treatment, patients should be assessed for risk factors for constipation including previous history, concurrent treatments likely to induce constipation and lifestyle factors.
- Active bowel monitoring should occur throughout this phase at each clinically appropriate contact (Appendix 1 and 2). The use of daily bowel charts should be considered. Tools like the Bristol Stool Chart (see clozapine care plan in GG&C Clozapine Standards) should be used to help identify constipation.
- Any change in bowel habit should be immediately reported to the multi-disciplinary team and constipation actively treated (Appendix 3).
- Educate patients and carers about the risk of constipation. Consider providing the Choice and Medication Clozapine and Constipation Handy Fact Sheet (http://www.choiceandmedication.org/nhs24/)

2. Maintenance phase.

Patients with no history of constipation

- Patients should be assessed for constipation at every visit for their full blood count (Appendix 1). Tools like the Bristol Stool Chart should be used to help identify constipation.
- Any patient reporting changes in their bowel habit, abdominal pain or having less than 3 bowel movements per week must be immediately referred for a thorough medical assessment* including an abdominal examination if necessary (Appendix 3).
- Any patient with a high clozapine plasma level should be immediately examined for constipation.

Patients undergoing treatment for clozapine induced constipation

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- Any patient who is already receiving laxative treatment for clozapine induced constipation who continues to report problems should be referred for further medical assessment* including an abdominal examination if necessary.
- Any patient with a high clozapine plasma level should be immediately assessed for constipation.

***Note:** for the CMHTs referral would be to the patient's GP or if symptoms are severe to A&E. For patients in hospital contact the duty doctor. The patient's Responsible Medical Officer (RMO) must always be informed.

Re-introducing clozapine to patients who have experienced bowel obstruction, paralytic ileus or bowel surgery

For patients who have experienced severe bowel related clozapine adverse effects including obstruction, paralytic ileus or bowel surgery re-introducing clozapine carries considerable risks and is best avoided. Indeed, clozapine treatment is contra-indicated in existing ileus. If clozapine is the only effective treatment option for the patient an individualised care plan should be developed that considers and includes the following

- Use of the lowest possible clozapine dose with consideration of augmentation strategies to allow the minimum possible dosing
- Aggressive regular laxative therapy from the outset e.g. combination of osmotic and stimulants and consideration of novel agents
- Consider non-pharmacological approaches where appropriate e.g. abdominal massage
- Frequent assessment of bowel function (at least daily while in hospital and weekly as an out-patient). For patient's incapable of reporting bowel function reliably abdominal examination should be considered
- Regular plasma level monitoring
- Withdrawal of all drugs with the potential to worsen bowel motility including drugs with anti-cholinergic properties used to treat clozapine induced hypersalivation
- Seek advice from a clinical pharmacist
- Obtaining informed consent where possible or an appropriate second opinion (DMP if necessary) before recommencing clozapine.

Recording bowel function

A standardised approach to recording bowel function should be adopted and include numerical values for Bristol Stool Chart type and frequency. For example:

BSC (Bristol Stool Chart) - 4

BM (Bowel motion) - 2/7

Treatment

When clozapine induced constipation has been identified the following steps are recommended

- Recommend changes in lifestyle, diet and fluid intake
- Consider reducing the clozapine dose
- Stop or reduce medications that can cause constipation

- Consider non-pharmacological approaches where appropriate e.g. abdominal massage
- Flowcharts in appendices 2 and 3 give guidance on the recommended management of clozapine induced constipation.
- Review compliance regularly and if necessary prescribe more palatable options e.g. docusate. Patients frequently have issues complying with laxative treatment as they may be quite unpalatable.
- If severe symptoms emerge e.g. abdominal pain, distension, vomiting, overflow diarrhoea*, absent bowel sounds, acute abdomen, feculent vomitus or symptoms of sepsis, take the following steps
    - Stop clozapine and all other anti-muscarinic medicines
    - Refer for emergency medical treatment
    - Assess for bowel obstruction
- Patients presenting with diarrhoea may be constipated with main symptom presenting as overflow and that should be excluded before any treatment is considered.

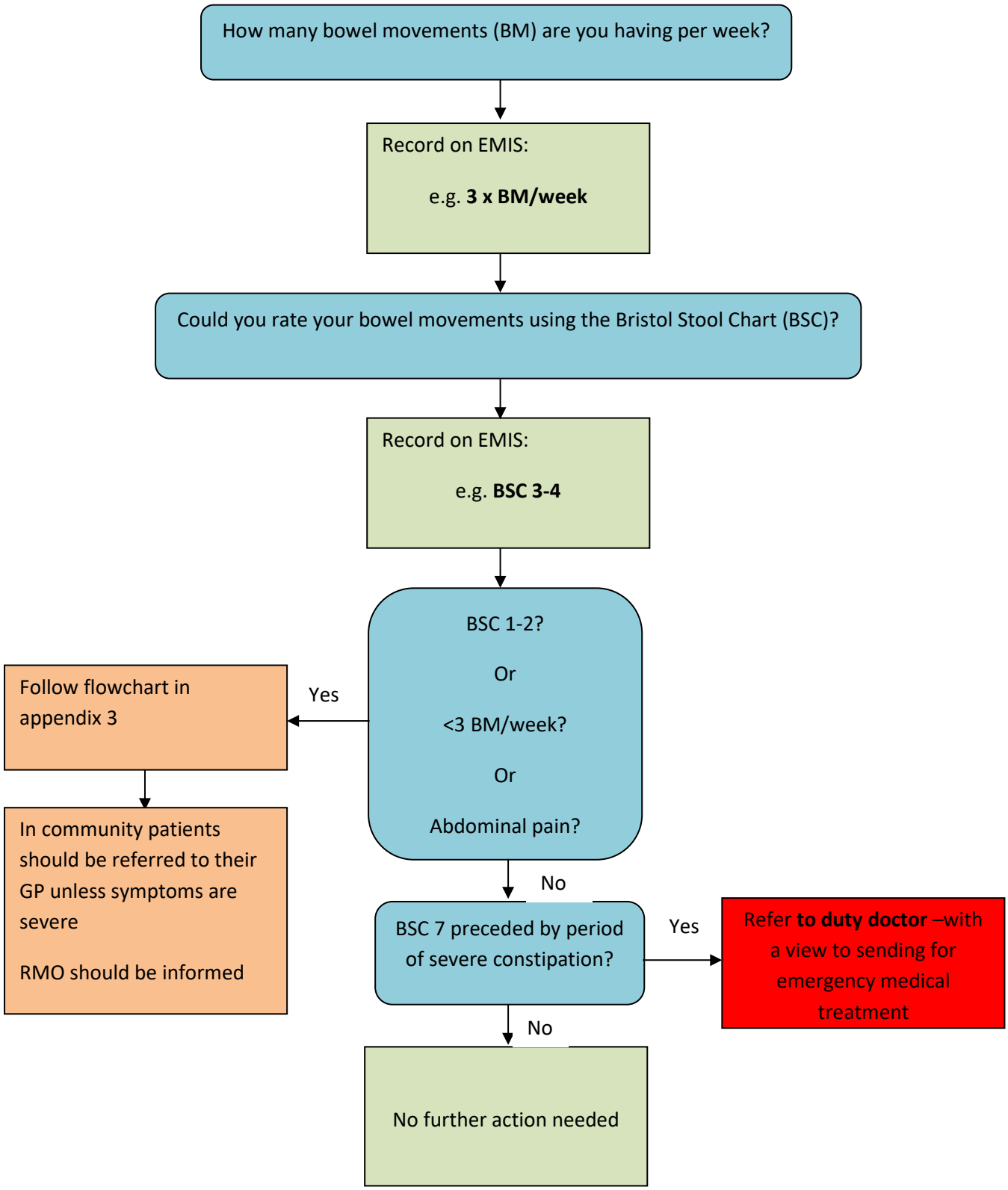
For patients who cannot reliably identify bowel problems, the use of preventative laxative treatment throughout clozapine treatment may be appropriate. It should be noted that prolonged use of stimulant laxatives may lead to degenerative changes in colonic muscles and nerves.

References

1. National Standard for Monitoring the Physical Health of People Being Treated with Clozapine. Scottish Government. CMO (2013)12
2. Fact Sheet; Constipation. ZTAS December 2013
3. Lactulose versus polyethylene glycol for Chronic Constipation (Review). Cochrane Collaboration (2011)

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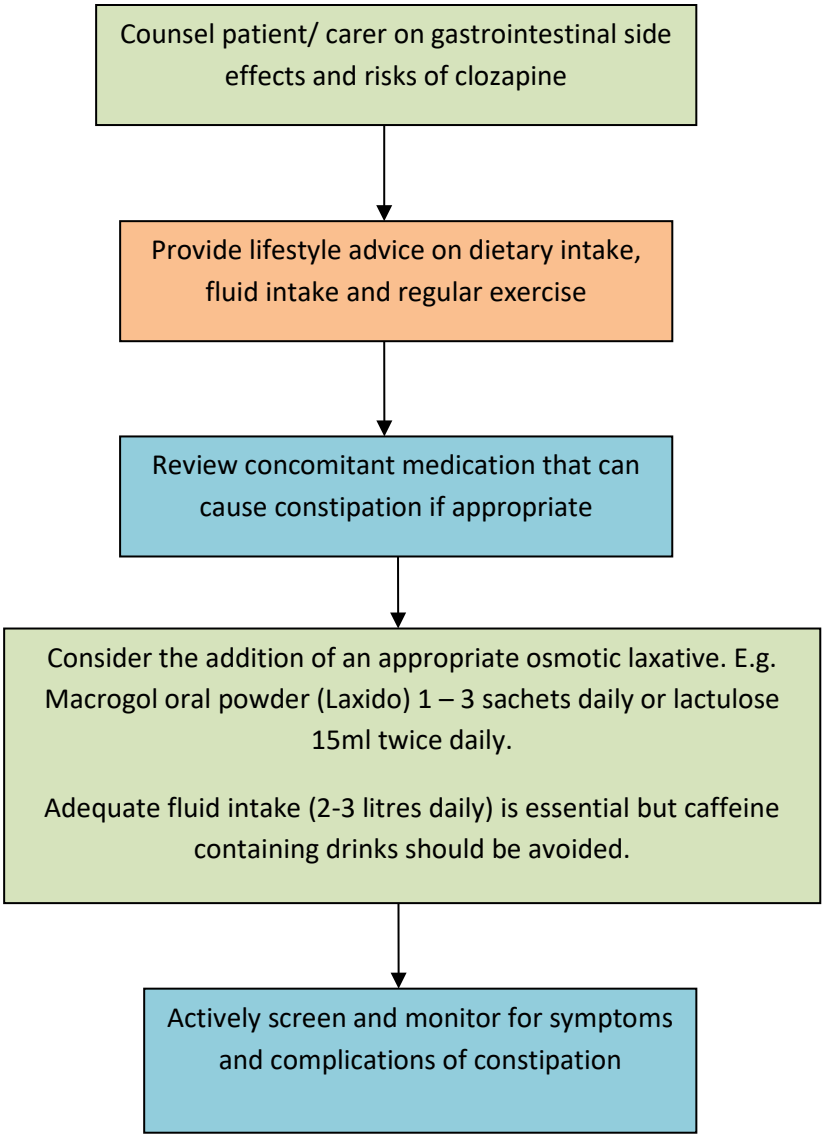
Appendix 1- Clozapine induced constipation monitoring



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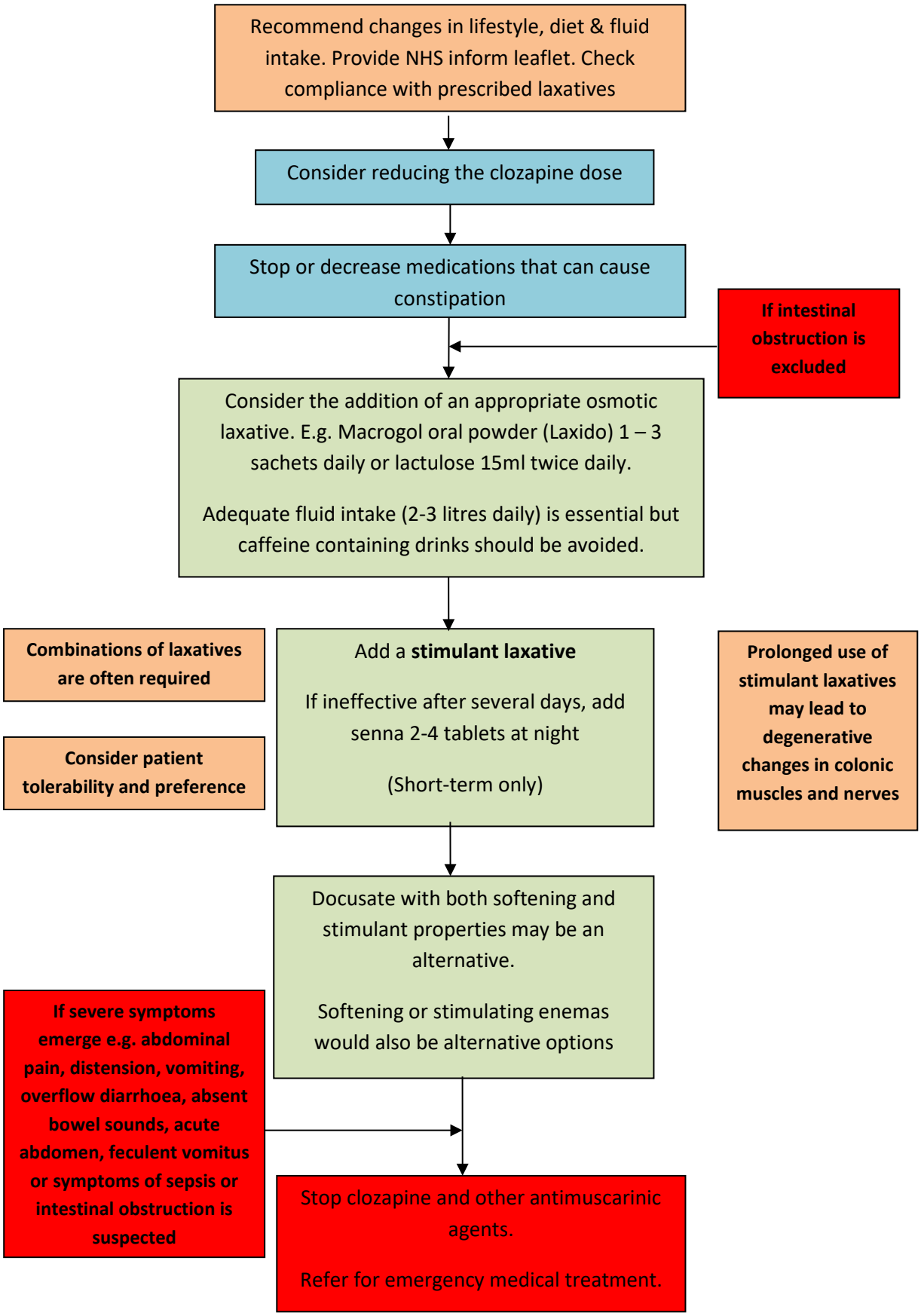
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Appendix 2- When commencing clozapine



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Appendix 3- Clozapine induced constipation treatment



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Controlled drugs - Advice for checking stock balances of liquid preparations

The use of liquid controlled drugs preparations such as methadone solution can be fairly common place within mental health services. Current advice from the NHS GG&C Safe and Secure Handling of Medicine document (April 2008) advises that the ward stock of every controlled drug must be checked at least once every 24 hours. This has a number of practical implications for liquid preparations such as methadone;

- There is a potential discrepancy in the volume of methadone in each bottle (current manufacturer quotes +/- 5%, therefore each bottle may contain between 95 and 105ml in each 100ml bottle). There is likely to be similar discrepancies in other liquid controlled drug preparations. Note: underage is unlikely, shortage of a liquid controlled drug is usually due to a miscalculation.

- It is inevitable that some liquid will be lost each time an amount is measured out, especially if the liquid is viscous and is not allowed to drain thoroughly from the measure.

- There will be a risk of contamination of the liquid if it is continually being poured out in order to measure it.

- There is a lack of consistency in the way staff measure liquids.

In order to address these issues and have a consistent approach to dealing with liquid preparations of controlled drugs, the following advice has been developed for use across GG&C Mental Health Services and has been approved by GG&C Controlled Drugs Governance team.

1. Liquid preparations of controlled drugs should not be physically measured at every shift changeover. Instead, a visual estimation approach to checking balances should be used.

2. Qualified nursing staff should undertake a physical check of open bottles of liquid controlled drugs on a weekly basis. (It should be assumed that sealed bottles contain the amount stated on the label). If a ward is ordering and using large amounts of controlled drugs over a week e.g. >1000ml methadone, consideration should be given to doing a physical check of the balance more regularly than weekly. Weekly checks should be undertaken during pharmacy opening hours to ensure a timely response if a problem is encountered (see points 7 & 8 below).

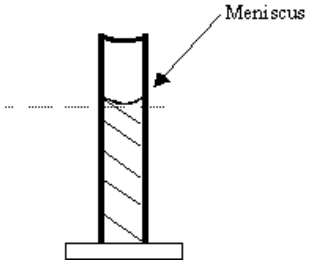
3. Ensure that there is a suitable conical glass cylinder available to allow for precise measuring. (Plastic medicine cups are not appropriate for accurately measuring controlled drugs).

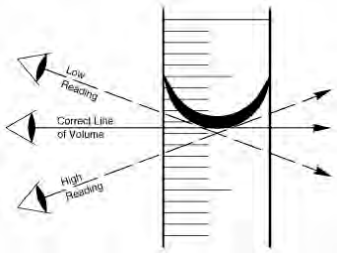
4. When measuring liquid controlled drug preparations, ensure that this is done consistently:
   - Place the measure on a flat hard surface

Approved: MHP SUM group & MHP Senior Nurse Group February 2011

Review date: May 2024

- Ensure sight line at the same height as the bottom of the meniscus
- The bottom of the meniscus is the accurate measurement.





5. After measuring, use a prolonged drainage period until there are no further drops (around 3 seconds).

6. Staff should check back to the last time a controlled drug balance reconciliation was carried out to ensure that each arithmetic calculation is correct and the reason for a discrepancy is not a miscalculation.

7. Discrepancies of less than 5% over the total amount of liquid controlled drug received since the last reconciliation, should be corrected by 2 members of nursing staff at the weekly balance check.

   e.g. Ward has received 8 x 100ml (800mls) of methadone since the last reconciliation. At the next balance check, there is an actual overage of 35ml compared to the controlled drug register. This can be adjusted by nursing staff (as cumulative overage is < 5%).

   The controlled drug register should be annotated along the lines of:

   Weekly balance check- balance found to be XXmls and adjusted accordingly

   with the signatures of the 2 staff undertaking the check and the new balance in the balance column. Please annotate the register entry in a different colour of ink from routine entries to distinguish it clearly.

8. Any discrepancies greater than 5% over the total amount of liquid controlled drug received since the last reconciliation should be communicated to pharmacy staff, the ward senior charge and appropriate local nurse management immediately. The discrepancies will be reviewed and adjusted by a pharmacist as soon as possible.

   e.g. Ward has received 8 x 100ml (800mls) of methadone since the last reconciliation. At the next balance check, there is an actual overage of 50ml compared to the controlled drug register. This must be communicated to pharmacy in order to be adjusted (as cumulative overage is > 5%).

9. Any shortage that is not due to spillage or miscalculation should be communicated to pharmacy and the ward senior charge nurse and appropriate local nurse management immediately.

10. Discrepancies in excess of 5% and any unexplained shortages should be reported on Datix.

Mental Health Pharmacy Services
May 2020

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Review date: May 2024

Cognitive enhancers- physical health monitoring (MHS MRG 44)

Warning: This guideline is 19627340 day(s) past its review date.

Resources

Use the button below to access this resource item.

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Last reviewed:

25 January 2023

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01 December 2024

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Approved By:

PMG-MH

Reviewer Name(s):

Lead Clinical Pharmacist, Clinical Effectiveness Pharmacist

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MHS MRG 02 - Safe and Cost Effective Administration for Covert Medication and in Dysphagia

Guidance for inpatient Mental Health Services NHS GG&C

Contents

- Background - page 1
- General guidance - page 2
- Frequently seen A-Z – page 3

Background

Covert medication is the administration of any medical treatment in disguised form. This usually involves disguising medication by administering it in food and drink. This document concerns the choice of formulation of the medication to be given covertly only. Please refer to the documents below for detail on the best practice in making a decision about whether or not covert administration is suitable and what documentation should accompany this decision;

The Mental Welfare Commission-Good practice guidance on covert administration (Feb 2017)

NHS GG&C's covert pathway

Covert Administration of Medication Provision of Pharmaceutical Advice

Different formulations of medication can have vastly different purchase costs, for example, the drug tariff cost (June 2022) for nitrazepam 5mg tablets is £3.25 for 28 tablets and the cost of nitrazepam suspension 2.5mg/5ml is £114.00 for 70ml. Making a 5mg dose in tablet form cost around 12p and in liquid form £16.29. Monthly this equates to a cost of £3.25 for the tablets and £456 for the liquid. Once a medicine is given covertly it becomes unlicensed, therefore in most cases using the formulation with the lowest cost price is appropriate. There are some exceptions where specific medicines are licensed if given mixed with certain liquids which will be covered in this document.

General Guidance

1) Ensure that medication is required for continuing active treatment of an ongoing condition or to prevent deterioration of physical/mental health. For example, thyroxine treatment.

2) Following the principles of realistic medicines an analysis of the risk/benefit of staying on medication required to be administered covertly should be undertaken. Medication that may be increasing the side effect burden without providing immediate health benefits should where appropriate be withdrawn. The decision to do this or not will be dependent on each patients' set of circumstances and medical history.

3) Modified release preparations generally cannot be given covertly.

4) As a general rule unless otherwise stated crushed tablets or the contents of opened capsules can be mixed with soft cold foods. Ideally around a teaspoons size of food and (smooth, lump free) jams/chocolate spreads being the best medium.

5) Medicines that are crushed or mixed should be administered immediately.

6) Liquid preparations tend to be more expensive and can be strongly flavoured making them more difficult to give covertly.

7) Pharmacists preparing advice about the administration of medication covertly should consider cost along with safety.

8) *If not covered in the A-Z (starting on the next page) advice should always be sought from a pharmacy.*

Using thickening agents to thicken liquid medication;

NHSGGC's medication pages accessed 29/6/17 state that the "preferred thickener for patients over the age of three years is Nutilis Clear®; a gum based thickener. Nutilis Clear is licensed to thicken food and drinks **not medicines**, so thickening of any liquid medications to the recommended viscosity may require more or less thickener than is stated in the instructions on the side of the tin. Any thickening of a liquid medicine is using the medication **unlicensed** and as such prescribing should be in line with the principles of NHSGGC Unlicensed Medicines Policy. For more information, contact the Central Prescribing Team"

There is no data about how the thickening agent impacts on the pharmacokinetics of the liquid medication. Therefore crushing a tablet/opening a capsule and mixing with a soft food is generally the best option (where available and recommended in guidance below). If the patient is aware that the medication is in the soft food, this does not require the use of the covert pathway. This approach is simply making it more palatable and/or safe for patients with swallowing difficulties.

Licensed liquids should only be used if they are of the appropriate fluid consistency without the need for thickener.

Liquid specials should only be considered if thickener is not required but the patient is unable to manage any solid dosage forms. Liquid specials should NEVER be given covertly (unlicensed medication given in an unlicensed manner) unless the medication is essential and a pharmacist has provided advice stating that this is the most appropriate formulation to give covertly, as part of a covert pathway.

https://ggcmedicines.org.uk/media/vxmcmi2n/nutilis-clear-prescription-info-002-201222.pdf

Frequently seen A-Z

Drug name	Preferred choice	Alternatives/additional information
Alendronic acid	This is not considered essential and should not be given covertly. There may be a strong argument for an individual cases in which case consider the options in next column. These are considerably more expensive than tablets >£250 per annum	Use the effervescent tablets or the oral solution. Alternatively consider using once-yearly zoledronic acid. [1]Smyth J. The NEWT Guidelines (electronic version). Wrexham. Betsi Cadwaladr University Health Board (NHS Wales). Last updated May 2017. Accessed at www.newtguidelines.com on 01/06/22
Amitriptyline	The tablets can be crushed and dispersed in water Crushed amitriptyline tablets have a bitter taste.[1] [1]Smyth J. The NEWT Guidelines (electronic version). Wrexham. Betsi Cadwaladr University Health Board (NHS Wales). Last updated October 2018. Accessed at www.newtguidelines.com on 01/06/22	No documented food interactions Can crush and mix with food as described in general principles.
Amlodipine	Most tablet brands will disperse in water easily. They disperse in one to five minutes. Give immediately as the drug is light sensitive[1] [1] Smyth J. The NEWT Guidelines (electronic version). Wrexham. Betsi Cadwaladr University Health Board (NHS Wales). Last updated Feb 19. Accessed at www.newtguidelines.com on 01/06/22	Bioavailability is not affected by food with the exception of below[2]. Administration of amlodipine with grapefruit or grapefruit juice is not recommended as bioavailability may be increased in some patients resulting in increased blood pressure lowering effects. [2] [2]Amlodipine 10mg tablets, Amarox Limited. Last updated 06/04/22. Accessed at https://www.medicines.org.uk/emc/product/13534/smpc on 01/06/22
Amoxicillin	Amoxicillin suspension may be mixed with formula, milk, water or other cold drinks. Drink right away after mixing.[1] [1] Amoxicillin: Dosage - Last updated 03/01/22. Accessed at https://www.drugs.com/amoxicillin.html#dosage on 01/06/22	No documented food interactions Can crush and mix with food as described in general principles
Apixaban	For patients who are unable to swallow whole tablets, Apixaban 5 mg Film-coated Tablets may be crushed and suspended in water, or 5% glucose in water (G5W), or apple juice or mixed with apple puree and immediately administered orally. [1] [1] Apixaban 5mg Film-Coated Tablets, Teva UK Limited. Last updated 27/05/22. Accessed at https://www.medicines.org.uk/emc/product/13690/smpc on 01/06/22	No documented food interactions Can crush and mix with food as described in general principles
Aripiprazole	Use oro-dispersible tablets[1] [1]NEEMC Guidelines for tablet crushing. NHS North-East Essex.	No documented food interactions Can crush and mix with food as described in general principles

	Last updated October 2020. Accessed at https://www.neessexccg.nhs.uk/uploads/files/GUIDELINES%20FOR%20TABLET%20CRUSHING%20%202020.pdf on 01/06/22	
Aspirin	Use the dispersible tablets. Give with food[1] [1]Smyth J. The NEWT Guidelines (electronic version). Wrexham. Betsi Cadwaladr University Health Board (NHS Wales). Last updated Aug 2012. Accessed at www.newtguidelines.com on 01/06/22	No documented food interactions Consider need. Must be clear benefit to individual
Atenolol	The tablets can be crushed and mixed with water for administration.[1] [1]Smyth J. The NEWT Guidelines (electronic version). Wrexham. Betsi Cadwaladr University Health Board (NHS Wales). Last updated March 2019. Accessed at www.newtguidelines.com on 01/06/22	No documented food interactions Can crush and mix with food as described in general principles [2]Atenolol 50 mg Tablets, Accord Healthcare Limited. Last updated 30/11/21. Accessed at https://www.medicines.org.uk/emc/product/6025/smpc# on 01/06/22
Atorvastatin	The tablets can be crushed and mixed with water for administration. Atorvastatin tablets are not very soluble and a residue may be left. Give immediately as the drug is light sensitive.[1] [1]Smyth J. The NEWT Guidelines (electronic version). Wrexham. Betsi Cadwaladr University Health Board (NHS Wales). Last updated March 2019. Accessed at www.newtguidelines.com on 01/06/22	Avoid grapefruit[2]. No other documented food interactions Can crush and mix with food as described in general principles Consider need. Must be clear benefit to individual [2]Atorvastatin 10 mg Film-coated Tablets, Ranbaxy (UK) Limited. Last updated 07/03/22. Accessed at https://www.medicines.org.uk/emc/product/4339/smpc on 01/06/22
Betahistine	The tablets can be crushed and mixed with water for administration. The drug is very soluble.[1] [1] Smyth J. The NEWT Guidelines (electronic version). Wrexham. Betsi Cadwaladr University Health Board (NHS Wales). Last updated April 2019. Accessed at www.newtguidelines.com on 01/06/22	No documented food interactions Can crush and mix with food as described in general principles
Bisacodyl	Consider alternatives. Use the suppositories[1] [1] Smyth J. The NEWT Guidelines (electronic version). Wrexham. Betsi Cadwaladr University Health Board (NHS Wales). Last updated May 2010. Accessed at www.newtguidelines.com on 01/06/22	The tablet has an enteric coating, and is designed to release the drug in the colon where it has its effect. Do not crush as it has an irritant effect on the stomach.[1]
Bisoprolol	The tablets can be crushed finely and mixed with water for administration. The lower strength tablets will disperse in one to five minutes without crushing. The higher strength tablets should be crushed before mixing with water.[1] [1] Smyth J. The NEWT Guidelines (electronic version). Wrexham. Betsi Cadwaladr University	Can be taken with food[2] , therefore can crush and mix with food as described in general principles [2]Bisoprolol 1.25mg film coated tablets, Mylan. Last updated 06/05/22. Accessed at

	Health Board (NHS Wales). Last updated April 2019. Accessed at www.newtguidelines.com on 01/06/22	https://www.medicines.org.uk/emc/product/13281/smpc on 01/06/22
Calcium TheiCal D3® Accrete D3® Cacit D3® Adcal D3® Calcichew D3 And forte®	Preferred brand, chewable tablet though does dissolve slowly in mouth. Tropical flavoured Change to alternate brand Change to alternate brand Chewable tablet or dissolving tablets available[1]. https://bnf.nice.org.uk/drug/colecalciferol-with-calcium-carbonate.html [1] Accessed 01/06/22 Calcichew D3® and Calcichew D3® Forte will not disperse easily but will crush for administration to patients with swallowing problems who are not able to chew the tablets themselves.[2] [2]Smyth J. The NEWT Guidelines (electronic version). Wrexham. Betsi Cadwaladr University Health Board (NHS Wales). Last updated Sep 2012. Accessed at www.newtguidelines.com on 01/06/22	Oxalic acid (found in spinach and rhubarb) and phytic acid (found in whole cereals) may inhibit calcium absorption through formation of insoluble compounds with calcium ions. The patient should not take calcium products within two hours of eating foods high in oxalic acid and phytic acid[2]. [2]Theical, Stirling Anglian Pharmaceuticals. Last updated 14/01/2016. Accessed at https://www.medicines.org.uk/emc/medicine/29206 on 01/06/22 No other documented food interactions
Carbamazepine	Use the suppositories or liquid (contains sorbitol)[1] Maintain brand. [1] Smyth J. The NEWT Guidelines (electronic version). Wrexham. Betsi Cadwaladr University Health Board (NHS Wales). Last updated Nov 2018. Accessed at www.newtguidelines.com on 01/06/22	No documented food interactions Carbamazepine oral suspension is given orally, usually in two or three divided doses. Carbamazepine oral suspension (oral suspension should be shaken before use) may be taken during, after or between meals. [2] [2]Carbamazepine 100 mg/5 ml Oral Suspension, Ranbaxy (UK) Limited. Last updated 05/05/22. Accessed at https://www.medicines.org.uk/emc/product/3060/smpc# on 01/06/22
Cetirizine	You can crush the tablet and mix it with a small amount of soft food such as yogurt, jam or mashed potato. Must be swallowed straight away, without chewing [1] [1] Cetirizine. Accessed at https://www.medicinesforchildren.org.uk/cetirizine-hay-fever-0 on 01/05/22	No documented food interactions
Chlorphenamine	Crush tablet and mix with water; tablet will disperse in 1-2 minutes [1]	No documented food interactions Can crush and mix with food as described in general principles

	[1]NEEMMC Guidelines for Tablet Crushing and Administration via Enteral Feeding Tubes. Last updated April 2015. Accessed at: https://view.officeapps.live.com/op/view.aspx?src=https%3A%2F%2Fwww.stch.org.uk%2Fwp-content%2Fuploads%2Fneemmc-guidelines-for-tablet-crushing-april-2015.docx on 06/06/22	
Co-beneldopa	Use the dispersible tablets. [1] They should be dispersed in at least 25mL of water per tablet. They may also be taken in dilute orange squash, however orange juice should not be used.[2] [1]Smyth J. The NEWT Guidelines (electronic version). Wrexham. Betsi Cadwaladr University Health Board (NHS Wales). Last updated March 2022. Accessed at www.newtguidelines.com on 01/06/22	Dose should be taken 30 min before or one hour after meals. Food intake generally reduces the extent of levodopa absorption by 15% but this can be variable[2]. Dispersible tablets have a faster onset of action and shorter duration of action than modified-release capsules and a direct substitution cannot occur. Contact Pharmacy for advice on dosage conversion[1]. If changing from capsules to dispersible tablets a direct changeover is acceptable, but the patient should be monitored for any change in effect as there may be an altered bioavailability. It may be appropriate to prescribe a small "when-required" dose to cover any unexpected "on-off" effects. [1] Consider getting advice from Parkinson's nurse. [2] Madopar 100 mg/25 mg Dispersible Tablets, Roche Products Limited. Last updated 08/04/20. Accessed at https://www.medicines.org.uk/emc/product/6924/smpc on 01/06/22
Co-careldopa	Change to co-beneldopa dispersible tablets[1] [1]Smyth J. The NEWT Guidelines (electronic version). Wrexham. Betsi Cadwaladr University Health Board (NHS Wales). Last updated December 2021. Accessed at www.newtguidelines.com on 01/06/22	Consider getting advice from Parkinson's nurse
Co-codamol	Use the effervescent tablets or the sachets[1]. Note the high sodium content in the effervescent tablets prohibits regular long term use. [1]Smyth J. The NEWT Guidelines (electronic version). Wrexham. Betsi Cadwaladr University Health Board (NHS Wales). Last updated Oct 2014. Accessed at www.newtguidelines.com on 01/06/22	No documented food interactions Sodium content approximately 13-17mmol per tablet. Consider switching to paracetamol liquid and codeine liquids separately if the high sodium load of the effervescent tablets is a problem[1].
Codeine	Use liquid[1]	No documented food interactions

	[1]Smyth J. The NEWT Guidelines (electronic version). Wrexham. Betsi Cadwaladr University Health Board (NHS Wales). Last updated December 2018. Accessed at www.newtguidelines.com on 01/06/22	Note liquid contains alcohol.[1]
Diazepam	Tablets may be crushed[1] [1]Diazepam: Important considerations. Last updated 15/11/20. Accessed at https://www.healthline.com/health/diazepam-oral-tablet#important-considerations on 02/06/22	Do not take with grapefruit juice[2]. [1]Diazepam Tablets BP 10mg, Accord-UK Ltd. Last updated 16/07/19. Accessed at https://www.medicines.org.uk/emc/product/4522/smpc on 02/06/22
Digoxin	The tablets can be crushed for administration [1] [1]Smyth J. The NEWT Guidelines (electronic version). Wrexham. Betsi Cadwaladr University Health Board (NHS Wales). Last updated Sep 2019. Accessed at www.newtguidelines.com on 02/06/22	No documented food interactions
Dihydrocodeine	Use the suspension[1] Standard-release tablets can be crushed[2] Do not crush sustained-release tablets [1]Smyth J. The NEWT Guidelines (electronic version). Wrexham. Betsi Cadwaladr University Health Board (NHS Wales). Last updated Dec 2018. Accessed at www.newtguidelines.com on 02/06/22 [2] White R and Bradnam V, Handbook of Drug Administration via Enteral Feeding Tubes. Accessed at www.medicinescomplete.com on 02/06/22	No documented food interactions Consider changing to a transdermal opioid patch if regular long term pain relief required
Diltiazem	All tablets and capsules are labelled as modified-release, however the 60mg generic preparation is not slow-release and can be crushed[1] Patients on once or twice-daily modified-release preparations may need to be converted onto three-times-daily doses of the generic preparation[1] The MR capsules have been opened and the contents mixed with soft food for administration. Do not crush the capsule contents.[1] This method may not be suitable for patients with limited understanding or impaired ability to follow instructions. [1]Smyth J. The NEWT Guidelines (electronic version). Wrexham. Betsi Cadwaladr University Health Board (NHS Wales). Last updated Jul 2019. Accessed at www.newtguidelines.com on 02/06/22	Alternatively, switch to amlodipine (NB amlodipine does not offer the rate-control effects of diltiazem).[1] No documented food interactions
Doxycycline	Do not open the capsules as the contents are irritant, instead use the dispersible tablets [1] [1]Smyth J. The NEWT Guidelines (electronic version). Wrexham. Betsi Cadwaladr University Health Board (NHS Wales). Last updated Sep	The absorption of doxycyline is not notably influenced by simultaneous ingestion of food or milk[2]

	2019. Accessed at www.newtguidelines.com on 02/06/22	[2] Doxycycline 100mg Capsules, Kent Pharma Ltd. Last updated 05/02/21. Accessed at https://www.medicines.org.uk/emc/product/4063/smpc# on 02/06/22
Duloxetine	The capsules can be opened and their contents mixed with apple juice or apple sauce. [1] The capsule contain enteric coated beads which should not be chewed or crushed, therefore this method may not be appropriate for patients with limited understanding or impaired ability to follow instructions. Give the mixture immediately.[1] [1] Smyth J. The NEWT Guidelines (electronic version). Wrexham. Betsi Cadwaladr University Health Board (NHS Wales). Last updated Sep 2019. Accessed at www.newtguidelines.com on 02/06/22.	Food delays peak levels by several hours and decreases absorption by 11%, however this is not considered clinically relevant. [2] [2] White R and Bradnam V, Handbook of Drug Administration via Enteral Feeding Tubes. Accessed at www.medicinescomplete.com on 02/06/22
Enalapril	The tablets can be crushed and dispersed in water for administration. Without crushing some brands will disperse in around five minutes[1] Crushed tablets may have a bitter after-taste. [1] Smyth J. The NEWT Guidelines (electronic version). Wrexham. Betsi Cadwaladr University Health Board (NHS Wales). Last updated Jan 2020. Accessed at www.newtguidelines.com on 02/06/22.	No documented food interactions Can crush and mix with food as described in general principles
Esomeprazole	Change to suitable alternative OR For patients who have difficulty in swallowing, the tablets can also be dispersed in half a glass of non-carbonated water. No other liquids should be used as the enteric coating may be dissolved. Stir until the tablets disintegrate and drink the liquid with the pellets immediately or within 30 minutes. Rinse the glass with half a glass of water and drink. The pellets must not be chewed or crushed.[1] [1] Esomeprazole 20 mg Gastro-resistant Tablets, Cipla EU Ltd. Last updated 18/10/21. Accessed at https://www.medicines.org.uk/emc/product/10557/smpc on 02/06/22	Change to lansoprazole or omeprazole or esomeprazole granules[2] for oral suspension. [2] Smyth J. The NEWT Guidelines (electronic version). Wrexham. Betsi Cadwaladr University Health Board (NHS Wales). Last updated July 2019. Accessed at www.newtguidelines.com on 02/06/22.
Ferrous salts	Use ferrous fumarate tablets; The tablets are easy to swallow but may also be crushed or chewed being almost tasteless.[1] [1]Ferrous fumarate 210mg Tablets, Advanz Pharma Last updated 22/05/22. Accessed at https://www.medicines.org.uk/emc/product/2821 on 06/06/22	The absorption of iron from the gut is decreased if it is taken at the same time as coffee, tea, eggs or milk. Its absorption is enhanced if it is taken at the same time as foods or supplements containing vitamin C (ascorbic acid).[1] Or convert to an appropriate dose of ferrous fumarate liquid[2]. [1] Fersamal (ferrous fumarate).

		Last updated 28/11/11. Accessed at https://www.netdoctor.co.uk/medicines/dietry/a6730/fersamal-ferrous-fumarate/ on 06/06/22 [2]Smyth J. The NEWT Guidelines (electronic version). Wrexham. Betsi Cadwaladr University Health Board (NHS Wales). Last updated April 2017. Accessed at www.newtguidelines.com on 06/06/22
Finasteride	Place the tablet in the barrel of an oral or enteral syringe. Draw water up into the syringe and allow the tablet to disperse (in order to minimise contact with the medication).[1] [1]Smyth J. The NEWT Guidelines (electronic version). Wrexham. Betsi Cadwaladr University Health Board (NHS Wales). Last updated June 2017. Accessed at www.newtguidelines.com on 06/06/22	No documented food interactions. Women of childbearing potential should avoid handling crushed or broken tablets
Fluconazole	The capsules can be opened, and the contents mixed with water for administration[1] [1]Smyth J. The NEWT Guidelines (electronic version). Wrexham. Betsi Cadwaladr University Health Board (NHS Wales). Last updated July 2013. Accessed at www.newtguidelines.com on 06/06/22	No documented food interactions Can open capsules and mix with food as described in general principles
Fluoxetine	The capsules have been opened and the contents dispersed in 120mL water. The capsule contents will dissolve in about 5 minutes[1] [1]Smyth J. The NEWT Guidelines (electronic version). Wrexham. Betsi Cadwaladr University Health Board (NHS Wales). Last updated August 2017. Accessed at www.newtguidelines.com 06/06/22	Fluoxetine is well absorbed from the gastro-intestinal tract after oral administration. The bioavailability is not affected by food intake.[2] Can open capsule and mix with food as described in general principles [2]Fluoxetine 20mg Capsules – Summary of Product Characteristics. Flamingo Pharma (UK) Ltd. Last updated 08/04/22. Accessed at https://www.medicines.org.uk/emc/product/13515/smpc on 06/06/22
Folic acid	The tablets have been crushed and mixed with water for administration[1] [1]Smyth J. The NEWT Guidelines (electronic version). Wrexham. Betsi Cadwaladr University Health Board (NHS Wales). Last updated July 2015. Accessed at www.newtguidelines.com on 06/06/22	No documented food interactions Can crush and mix with food as described in general principles
Furosemide	Tablets will disperse in 1-2 minutes. Liquid preparation available.[1,2] [1]NEEMMC Guidelines for Tablet Crushing and Administration via Enteral Feeding Tubes. Last	Food reduces the bioavailability by 30%, however no specific recommendations for timing of administration in relation to intake.[3]

	updated April 2015. Accessed at: https://view.officeapps.live.com/op/view.aspx?src=https%3A%2F%2Fwww.stch.org.uk%2Fwp-content%2Fuploads%2Fneemmc-guidelines-for-tablet-crushing-april-2015.docx on 06/06/22 [2]Smyth J. The NEWT Guidelines (electronic version). Wrexham. Betsi Cadwaladr University Health Board (NHS Wales). Last updated January 2019. Accessed at www.newtguidelines.com 06/06/22	Can crush and mix with food as described in general principles [3]White R and Bradnam V, Handbook of Drug Administration via Enteral Feeding Tubes. Accessed at www.medicinescomplete.com on 06/06/22
Gabapentin	The contents of the capsules can be sprinkled on food or given in fruit juice to mask their unpleasant taste. They should be given immediately as the drug is rapidly hydrolysed [1] [1]Smyth J. The NEWT Guidelines (electronic version). Wrexham. Betsi Cadwaladr University Health Board (NHS Wales). Last updated October 2019. Accessed at www.newtguideline.com on 06/06/22.	Do not give at the same time as aluminium/magnesium antacids[1] [1]Smyth J. The NEWT Guidelines (electronic version). Wrexham. Betsi Cadwaladr University Health Board (NHS Wales). Last updated October 2019. Accessed at www.newtguideline.com on 06/06/22
Gliclazide	Crush the tablets well (as the drug is practically insoluble) and mix with water or orange juice for administration[1] Do not crush the modified-release tablets[1] [1]Smyth J. The NEWT Guidelines (electronic version). Wrexham. Betsi Cadwaladr University Health Board (NHS Wales). Last updated February 2020. Accessed at www.newtguidelines.com on 06/06/22	Switching from modified-release to standard tablets should be done with careful blood monitoring. 30mg modified-release tablet equivalent to 80mg standard tablet It may be advisable to monitor blood glucose in any patient when altering the formulation / crushing the tablets.[1] [1]Smyth J. The NEWT Guidelines (electronic version). Wrexham. Betsi Cadwaladr University Health Board (NHS Wales). Last updated February 2020. Accessed at www.newtguidelines.com on 06/06/22 Gliclazide is well absorbed. Food intake does not affect the rate or degree of absorption [2] Can crush and mix with food as described in general principles [2]Gliclazide 80mg Tablets, Flamingo Pharma (UK) Ltd Last updated 29/04/22. Accessed at https://www.medicines.org.uk/emc/product/13676/smpc on 06/06/22
Haloperidol	The capsules can be opened and the contents dispersed in water[1] [1]Smyth J. The NEWT Guidelines (electronic version). Wrexham. Betsi Cadwaladr University Health Board (NHS Wales). Last updated Oct 2018.	No documented food interactions Can crush and mix with food as described in general principles

	Accessed at www.newtguidelines.com on 06/06/22.	Liquid preparation (Haldol) also available[2]. Haldol can be mixed with water, apple, orange, tomato or cola drinks[3], avoid hot drinks. [2] Haldol 2mg/ml oral solution, Janssen-Cilag Ltd. Last updated 21/03/22. Accessed at https://www.medicines.org.uk/emc/product/180/smpc on 06/06/22. [3] Haloperidol (oral). Last updated 10/02/22. Accessed at https://www.drugs.com/cons/haloperidol.html#dosage on 06/06/22
Hyoscine hydrobromide	Consider using the patch[1] The tablets can be dissolved in water but absorption may vary[1] [1]Smyth J. The NEWT Guidelines (electronic version). Wrexham. Betsi Cadwaladr University Health Board (NHS Wales). Last updated April 2012. Accessed at www.newtguidelines.com on 06/06/22	No documented food interactions Can crush and mix with food as described in general principles
Ibuprofen	Ibuprofen is safe to crush for patients in skilled nursing facilities. Also, ibuprofen may be taken with food to limit GI irritation[1] Use the syrup[2] (this may not be practical for larger doses). [1] Richard S. Weiner (2001). Pain Management: A Practical Guide for Clinicians, Sixth Edition (2001) pp 437. Accessed online at https://books.google.co.uk/books?id=lg7sIgP9D3kC&pg=PA437&lpg=PA437&dq=crush+ibuprofen&source=bl&ots=gg4zZtYx3w&sig=oOorWD4M99HGn_fuBRX-iPZvV4Q&hl=en&sa=X&ved=0ahUKEwj99eH6ypXVAhXlKcAKHVILBAw4HhDoAQgvMAE#v=onepage&q=crush%20ibuprofen&f=false on 06/06/22 [2]Smyth J. The NEWT Guidelines (electronic version). Wrexham. Betsi Cadwaladr University Health Board (NHS Wales). Last updated March 2015. Accessed at www.newtguidelines.com on 06/06/22	No documented food interactions Can crush and mix with food as described in general principles
Isosorbide mononitrate	The standard-release tablets can be crushed and dispersed in water. They may have an increased rate of absorption and therefore increased side effects.[1] Dispersing the tablets in water may alter their rate of absorption, and therefore their side effects. Consider reducing the dose and giving doses more frequently if this occurs.[1] Do not crush or open MR preparations.[1]	

	[1]Smyth J. The NEWT Guidelines (electronic version). Wrexham. Betsi Cadwaladr University Health Board (NHS Wales). Last updated December 2019. Accessed at www.newtguidelines.com on 06/06/22	
Ispaghula husk	Use the granules or the powder.[1] [1]Smyth J. The NEWT Guidelines (electronic version). Wrexham. Betsi Cadwaladr University Health Board (NHS Wales). Last updated April 2013. Accessed at www.newtguidelines.com on 06/06/22	Do not use when giving via enteral feeding tubes – may congeal & block the tube.[1]
Lactulose	Use the solution[1] [1]Smyth J. The NEWT Guidelines (electronic version). Wrexham. Betsi Cadwaladr University Health Board (NHS Wales). Last updated May 2017. Accessed at www.newtguidelines.com on 06/06/22	Lactulose solution may be administered diluted or undiluted. Each dose may if necessary be taken with water or fruit juices, etc[2]. [2]Duphalac 3.335 g/5 ml Oral Solution, Mylan. Last updated 14/10/20 Accessed at https://www.medicines.org.uk/emc/product/5525/smpc on 06/06/22.
Lamotrigine	Use the dispersible tablets[1] The MHRA has issued guidance recommending that (where possible) patients on lamotrigine (when used for seizures) are maintained on a specific manufacturer's product, due to variability in product characteristics which may lead to a loss of seizure control when switching between brands / manufacturers. When managing patients with enteral tubes or swallowing difficulties it may not be possible to maintain the patient on their previous preparation due to the need to change to an appropriate formulation. However all product switches should be carried out with care and close monitoring, and where possible patients should be maintained from then onwards on a single manufacturer's product.(see end references) [1]Smyth J. The NEWT Guidelines (electronic version). Wrexham. Betsi Cadwaladr University Health Board (NHS Wales). Last updated Jan 2019. Accessed at www.newtguidelines.com on 06/06/22	No documented food interactions Can crush and mix with food as described in general principles
Lansoprazole	Capsules may be opened and the granules mixed with a small amount of water, apple/tomato juice or sprinkled onto a small amount of soft food (e.g. yoghurt, apple puree) to ease administration. Capsules may be opened and capsule cntents may then be mixed with 40mL apple juice. After preparing the suspension or mixture, the drug should be administered immediately [1] The FasTabs® and orodispersible tablets can be placed in the mouth where they will disperse to release gastro-resistant granules which will be swallowed with the patient's saliva. They can also be dispersed in water, leaving micro-granules which	Food markedly reduces the bioavailability of lansoprazole. Small amounts of foods such as apple sauce, or apple or orange juice, or yoghurt do not seem to significantly affect the bioavailability of lansoprazole from the contents of the capsules In crossover studies in fasting healthy subjects, the bioavailability of enteric-coated granules (removed from a capsule of lansoprazole 30 mg) mixed with either orange juice, tomato juice,

	should be swallowed without being crushed. The FasTab is strawberry flavoured. [2] [1] Lansoprazole 30mg Gastro-resistant Capsules, Accord UK Ltd. Last updated 27/10/21. Accessed at https://www.medicines.org.uk/emc/product/4761/smpc# on 06/06/2022 [2]Zoton – FasTab 15mg, Pfizer ltd. Last updated 10/09/21. Accessed at https://www.medicines.org.uk/emc/product/1714# on 06/06/22	or with one tablespoonful of strained pear, yoghurt, cottage cheese, or *Ensure* pudding was comparable to that of an intact capsule given with water[3] [3]Baxter, K. and Stockley, I. Stockley's drug interactions. London: Pharmaceutical Press. Accessed online at www.medicinescomplete.com on 06/06/22.
Levothyroxine	The tablets can be crushed and mixed with water for administration.[1] [1]Smyth J. The NEWT Guidelines (electronic version). Wrexham. Betsi Cadwaladr University Health Board (NHS Wales). Last updated June 2021. Accessed at www.newtguidelines.com on 06/06/22	Absorption of levothyroxine (thyroxine) possibly reduced by antacids, proton pump inhibitors, calcium salts, cimetidine, oral iron, sucralfate, colestipol, polystyrene sulphonate resin and cholestyramine (administration should be separated by 4-5 hours).[2] [2] Levothyroxine Aristo 100 micrograms tablets, Aristo Pharma Limited. Last updated 02/09/21. Accessed at https://www.medicines.org.uk/emc/product/11620/smpc on 06/06/22. Can crush and mix with food as described in general principles
Lisinopril	The tablets can be dispersed in water. The drug is soluble, and the tablets disperse in one to five minutes[1] [1]Smyth J. The NEWT Guidelines (electronic version). Wrexham. Betsi Cadwaladr University Health Board (NHS Wales). Last updated March 2020. Accessed at www.newtguidelines.com on 06/06/22	Lisinopril absorption is not affected by the presence of food[2]. Can crush and mix with food as described in general principles [2]Lisinopril 5 mg tablets, Mylan. Last updated 01/04/22. Accessed at https://www.medicines.org.uk/emc/product/10114/smpc on 06/06/22
Lithium	Use the equivalent dose of the liquid[1]. [1]Smyth J. The NEWT Guidelines (electronic version). Wrexham. Betsi Cadwaladr University Health Board (NHS Wales). Last updated March 2020. Accessed at www.newtguidelines.com on 06/06/22	Lithium carbonate 200mg is approximately equivalent to lithium citrate 520mg (5ml Priadel liquid[1]). Different preparations/brands of lithium vary widely in their bioavailability, when changing between lithium preparations, serum lithium levels should first be checked and repeated as for a new initiation. As most tablets are modified release, when this is change to a liquid form the total daily dose will need to be given in divided doses[2].

		[1]Priadel liquid | Clinical medicinal product information, BNF content published by NICE Accessed 06/06/22 [2] Priadel 520 mg/5 ml Liquid, Pfizer. Last updated 09/03/22. Accessed at https://www.medicines.org.uk/emc/product/13164/smpc on 06/06/22
Loratidine	Switch to cetirizine or chlorphenamine (chlorphenamine liquid is available and is inexpensive)	
Lorazepam	The tablets can be crushed and mixed with water for administration.[1] Without crushing they disperse in one to five minutes. [1]Smyth J. The NEWT Guidelines (electronic version). Wrexham. Betsi Cadwaladr University Health Board (NHS Wales). Last updated March 2020. Accessed at www.newtguidelines.com on 06/06/22	Do not give with caffeine containing drinks or grapefruit[2] Can crush and mix with food as described in general principles [2] Lorazepam 1mg Tablets Last Updated on EMC 21/10/2020. Genus Pharmaceuticals https://www.medicines.org.uk/emc/product/6137/smpc Accessed 06/06/22
Macrogol	Use sachets	No documented food interactions. First add the right amount of water and stir until the powder has dissolved and the water is clear. The resultant liquid can be mixed with liquids such as squash, juice, hot chocolate, milk etc to encourage them to drink it. DO NOT mix the powder straight into the milk/juice/flavoured drink – it needs to 'bind' with the water first.[1] The manufacturers specifically recommend against reconstitution with fizzy drinks as there is a risk of interaction between macrogols and phosphoric acid.[2] [1]https://www.eric.org.uk/Handlers/Download.ashx?IDMF=731bd260-e1a7-4c88-9865-d56260d0345a Last updated 2022. Accessed 06/06/22 [2]Smyth J. The NEWT Guidelines (electronic version). Wrexham. Betsi Cadwaladr University Health Board (NHS Wales). Last updated August 2021. Accessed at www.newtguidelines.com on 06/06/22

		If thickening is required, refer to the MHRA warning, Polyethylene glycol (PEG) laxatives and starch-based thickeners: potential interactive effect when mixed, leading to an increased risk of aspiration
Metformin	You can crush standard metformin tablets using a pill crusher. You can add crushed medicine to food. You CANNOT crush modified release metformin.[1] [1]https://www.uclh.nhs.uk/patients-and-visitors/patient-information-pages/metformin Last updated Oct 2018. Accessed 06/06/22	Licensed liquid available but expensive and unlicensed if given mixed with food Can crush and mix with food as described in general principles
Metronidazole	Crush the tablets and mix with water[1] [1]Smyth J. The NEWT Guidelines (electronic version). Wrexham. Betsi Cadwaladr University Health Board (NHS Wales). Last updated February 2019. Accessed at www.newtguidelines.com on 06/06/22	No documented food interactions with tablet form.[2] Can crush and mix with food as described in general principles [2]Flagyl 400mg Tablets, SANOFI Last updated 17/03/22, Accessed at https://www.medicines.org.uk/emc/product/9238/smpc on 06/06/22
Mirtazapine	Use the orodispersible tablets. The orodispersible tablets will disperse immediately in water.[1] Note the standard tablet, when crushed, has a bitter taste and an anaesthetic taste on the mouth.[1] [1]Smyth J. The NEWT Guidelines (electronic version). Wrexham. Betsi Cadwaladr University Health Board (NHS Wales). Last updated Aug 2020. Accessed at www.newtguidelines.com on 06/06/22	No documented food interactions Can crush and mix with food as described in general principles
Morphine	Consider switching to transdermal opiate preparations for patients with chronic pain.[1] Use MST Continus® sachets or the immediate-release oral solution, according to clinical need.[1] MXL® capsules can also be opened and the contents sprinkled onto cold soft food for patients with swallowing difficulties. The contents of the capsules should not be chewed or crushed, and therefore this method may not be appropriate for patients with limited understanding or impaired ability to follow instructions.[1] Zomorph® capsules can be opened and the contents sprinkled on food, e.g. yogurt or jam.[1] [1]Smyth J. The NEWT Guidelines (electronic version). Wrexham. Betsi Cadwaladr University Health Board (NHS Wales). Last updated October 2021. Accessed at www.newtguidelines.com on 06/06/22	No significant interaction with food See recommendations as before

Nitrazepam	The tablet may be crushed before swallowing. The tablet may take longer than 2 minutes to disperse.[1] [1]NEEMMC Guidelines for Tablet Crushing and Administration via Enteral Feeding Tubes. Last updated April 2015. Accessed at: https://view.officeapps.live.com/op/view.aspx?src=https%3A%2F%2Fwww.stch.org.uk%2Fwp-content%2Fuploads%2Fneemmc-guidelines-for-tablet-crushing-april-2015.docx on 06/06/22 The Australian Drug Guide: Every Person's Guide to Prescription and Over-the-counter Medicines, Street Drugs, Vaccines, Vitamins and Minerals. Jonathon Upfal, 2006 Accessed 09/06/21	No documented food interactions Can crush and mix with food as described in general principles
Olanzapine	The Velotab® may be dispersed in a full glass of water or other suitable beverage (orange juice, apple juice, milk, or coffee) immediately before administration. Wear gloves as irritant to skin. Protect eyes.[1,2] [1]SPC accessed on EMC 06/06/22 Eli Lilly, Zyprexa Velotab, last updated on 17/12/2020 https://www.medicines.org.uk/emc/product/7901/smpc [2]NEEMMC Guidelines for Tablet Crushing and Administration via Enteral Feeding Tubes. Last updated April 2015. Accessed at: https://view.officeapps.live.com/op/view.aspx?src=https%3A%2F%2Fwww.stch.org.uk%2Fwp-content%2Fuploads%2Fneemmc-guidelines-for-tablet-crushing-april-2015.docx on 06/06/22	
Omeprazole	Patients can open the capsule and swallow the contents with half a glass of water or after mixing the contents in a slightly acidic fluid e.g., fruit juice or applesauce, or in non-carbonated water. Patients should be advised that the dispersion should be taken immediately (or within 30 minutes).[1] Disperse the MUPS® tablet in water, then mix this with orange / apple / pineapple juice, apple sauce, or yogurt[2] [1]Losec Capsules 10mg, Neon Healthcare Ltd. Last updated 13/05/22 Neon Healthcare Ltd. Accessed at https://www.medicines.org.uk/emc/product/10339/smpc on 06/06/22 [2]Smyth J. The NEWT Guidelines (electronic version). Wrexham. Betsi Cadwaladr University Health Board (NHS Wales). Last updated Sept 2021. Accessed at www.newtguidelines.com on 06/06/22	

Oxycodone	Use the liquid. OxyNorm Concentrate liquid can be diluted with a soft drink to aid administration and improve palatability if desired[1]. [1]Smyth J. The NEWT Guidelines (electronic version). Wrexham. Betsi Cadwaladr University Health Board (NHS Wales). Last updated January 2013. Accessed at www.newtguidelines.com accessed on 06/06/22	Consider changing to an alternate opioid ***OxyNorm*** concentrate may be mixed with a soft drink for ease of administration and to improve palatability. Grapefruit juice can increase levels of oxycodone[2] [2]Oxynorm concentrate 10mg/ml, Napp pharmaceuticals. Last updated 06/05/22. Accessed at https://www.medicines.org.uk/emc/product/12489/smpc on 06/06/22
Paracetamol	Use the orodispersible tablets, the soluble tablets or the suspension (250mg/5mL). The soluble tablets contain a lot of sodium which may be a problem in some patients.[1] [1]Smyth J. The NEWT Guidelines (electronic version). Wrexham. Betsi Cadwaladr University Health Board (NHS Wales). Last updated April 2022. Accessed at www.newtguidelines.com on 06/06/22	Disperse effervescent tablets in water[1]. Note high sodium content in effervescent tablets[2]. [1]Smyth J. The NEWT Guidelines (electronic version). Wrexham. Betsi Cadwaladr University Health Board (NHS Wales). Last updated April 2022. Accessed at www.newtguidelines.com on 06/06/22 [2]Paracetamol Effervescent 500 mg Tablets, Fannin (UK) Ltd. Last updated 07/02/22. Accessed at https://www.medicines.org.uk/emc/medicine/31805 on 06/06/22
Phenobarbital	The tablets may be crushed and mixed with water for administration[1] The MHRA has issued guidance recommending that (where possible) patients on phenobarbital (when used for seizures) are maintained on a specific manufacturer's product, due to variability in product characteristics which may lead to a loss of seizure control when switching between brands / manufacturers. When managing patients with enteral tubes or swallowing difficulties it may not be possible to maintain the patient on their previous preparation due to the need to change to an appropriate formulation. However all product switches should be carried out with care and close monitoring, and where possible patients should be maintained from then onwards on a single manufacturer's product.(see end references) [1]Smyth J. The NEWT Guidelines (electronic version). Wrexham. Betsi Cadwaladr University Health Board (NHS Wales). Last updated January	No documented food interactions Can crush and mix with food as described in general principles

	2021. Accessed at www.newtguidelines.com on 06/06/22	
Pirenzepine	Use hyoscine patches or trihexyphenidyl (see below)	Tablets have been observed to disperse
Prednisolone	Many brands of tablets disperse easily in water, with some dispersing almost immediately and others taking two to five minutes[1] [1]Smyth J. The NEWT Guidelines (electronic version). Wrexham. Betsi Cadwaladr University Health Board (NHS Wales). Last updated November 2021. Accessed at www.newtguidelines.com on 06/06/22	Its initial absorption, but not its overall bioavailability, is affected by food[2] Can crush and mix with food as described in general principles [2]Prednisolone 1mg Tablets, SANOFI. Last updated 03/03/22. Accessed at https://www.medicines.org.uk/emc/product/9238/smpc# on 06/06/22
Pregabalin	Open the capsules and dissolve the contents in water for administration. The capsule contents may have an unpleasant taste[1] [1]Smyth J. The NEWT Guidelines (electronic version). Wrexham. Betsi Cadwaladr University Health Board (NHS Wales). Last updated March 2021. Accessed at www.newtguidelines.com on 06/06/22	No clinically significant interaction with food.[2] Open capsule and mix with food as described in general principles [2]Pregabalin 100mg hard capsules, Mylan. Last updated 24/01/22 Accessed at https://www.medicines.org.uk/emc/product/9300/smpc on 06/06/22
Procyclidine	Tablets will disperse in > 2 minutes[1] [1]NEEMMC Guidelines for Tablet Crushing and Administration via Enteral Feeding Tubes. Last updated April 2015. Accessed at: https://view.officeapps.live.com/op/view.aspx?src=https%3A%2F%2Fwww.stch.org.uk%2Fwp-content%2Fuploads%2Fneemmc-guidelines-for-tablet-crushing-april-2015.docx on 06/06/22	No documented food interactions Can crush and mix with food as described in general principles
Propranolol	You can cut or crush the tablet.[1] Tablets will disperse in >2minutes.[2] [1] https://www.healthline.com/health/propranolol-oral-tablet#important-considerations Last updated 26/07/21 Accessed 06/06/22 [2]NEEMMC Guidelines for Tablet Crushing and Administration via Enteral Feeding Tubes. Last updated April 2015. Accessed at: https://view.officeapps.live.com/op/view.aspx?src=https%3A%2F%2Fwww.stch.org.uk%2Fwp-content%2Fuploads%2Fneemmc-guidelines-for-tablet-crushing-april-2015.docx on 06/06/22	No documented food interactions Can crush and mix with food as described in general principles. Do not crush / open MR preparations.
Quetiapine	The crushed tablets have been added to soft food (e.g. yogurt). They taste bitter.[1] [1]Smyth J. The NEWT Guidelines (electronic version). Wrexham. Betsi Cadwaladr University Health Board (NHS Wales). Last updated October 2019. Accessed at www.newtguidelines.com on 06/06/22	No documented food interactions Can crush and mix with food as described in general principles. Do not crush MR tablets

Ramipril	The capsule contents can be placed directly into the mouth, or onto bread if the patient has swallowing difficulties. Stability studies have shown that ramipril can be mixed with apple juice or apple sauce, and this may be helpful for patients with swallowing difficulties. The capsule contents taste unpleasant. The tablets can be crushed and mixed with water for administration, the drug is poorly soluble[1] [1]Smyth J. The NEWT Guidelines (electronic version). Wrexham. Betsi Cadwaladr University Health Board (NHS Wales). Last updated March 2021. Accessed at www.newtguidelines.com on 06/06/22	Ramipril capsules may be taken before, with or after meals, because food intake does not modify its bioavailability[1] [1]Ramipril 10 mg hard capsules, Accord Healthcare Limited. Last updated 25/10/22. Accessed at https://www.medicines.org.uk/emc/product/1904/smpc on 06/06/22
Risedronate	Review whether the medication is still needed. Consider switching to yearly zoledronic acid.[1] [1]Smyth J. The NEWT Guidelines (electronic version). Wrexham. Betsi Cadwaladr University Health Board (NHS Wales). Last updated January 2014. Accessed at www.newtguidelines.com on 06/06/22	
Risperidone	Use the liquid or the orodispersible tablet.[1] The liquid can be mixed with any non-alcoholic dink except tea.[1,2] [1]Smyth J. The NEWT Guidelines (electronic version). Wrexham. Betsi Cadwaladr University Health Board (NHS Wales). Last updated February 2021. Accessed at www.newtguidelines.com on 06/06/22	Food does not affect the absorption of Risperidone. Though incompatible with most types of tea.[2] [2] Risperidone 1 mg/ml oral solution, Mylan. Last updated 16/03/22. Accessed at https://www.medicines.org.uk/emc/product/8492/smpc# on 06/06/22.
Senna	Use liquid[1] [1]Smyth J. The NEWT Guidelines (electronic version). Wrexham. Betsi Cadwaladr University Health Board (NHS Wales). Last updated Feb 2021. Accessed at www.newtguidelines.com 06/06/22	Consider alternative laxatives.
Sertraline	For enteral tubes, tablets can be dispersed in water for administration. They disperse in one to five minutes.[1] The tablets can be crushed and mixed with food for patients with swallowing difficulties. Crushed tablets have a bitter taste, and an anaesthetic effect on the tongue, so use with caution and take care with hot foods after administration.[1] [1]Smyth J. The NEWT Guidelines (electronic version). Wrexham. Betsi Cadwaladr University Health Board (NHS Wales). Last updated November 2019. Accessed at www.newtguidelines.com on 06/06/22	No documented food interactions however avoid administration of sertraline with grapefruit juice.[2] Can crush and mix with food as described in general principles [2] Sertraline 100 mg Film-coated Tablets, Flamingo Pharma (UK) Ltd. Last updated 29/04/22. Accessed at https://www.medicines.org.uk/emc/product/13524/smpc# on 06/06/22
Simvastatin	Consider need The tablets can be crushed and mixed with water for administration. Crush well as the drug is practically insoluble. Use immediately (light sensitive)[1].	Avoid grapefruit juice when taking simvastatin[2]. No other documented food interactions. Absorption not altered by food. Can crush and mix with food as described in general principles

	[1]Smyth J. The NEWT Guidelines (electronic version). Wrexham. Betsi Cadwaladr University Health Board (NHS Wales). Last updated August 2018. Accessed at www.newtguidelines.com on 4/5/2021	[2]Simvastatin 80mg, Aurobindo Pharma - Milpharm Ltd. Last Updated 04/02/22. Accessed at https://www.medicines.org.uk/emc/product/5687/smpc on 06/06/22
Sodium valproate	The crushable tablets can be crushed and mixed with a small amount of soft food, e.g yogurt or jam. They have an extremely bitter taste Epilim Chronosphere® and Episenta® granules can be mixed with soft food or a cold drink, and should be swallowed whole without chewing. This method may not be appropriate for patients with limited understanding or impaired ability to follow instructions.[1] [1]Smyth J. The NEWT Guidelines (electronic version). Wrexham. Betsi Cadwaladr University Health Board (NHS Wales). Last updated December 2019. Accessed at www.newtguidelines.com on 06/06/22	The MHRA has issued guidance recommending that (where possible) patients on sodium valproate (when used for seizures) are maintained on a specific manufacturer's product, due to variability in product characteristics which may lead to a loss of seizure control when switching between brands / manufacturers. When managing patients with enteral tubes or swallowing difficulties it may not be possible to maintain the patient on their previous preparation due to the need to change to an appropriate formulation. However all product switches should be carried out with care and close monitoring, and where possible patients should be maintained from then onwards on a single manufacturer's product.(see end references)
Tamsulosin	The capsules contain granules which should not be crushed. If no alternative is suitable, they may be mixed with cold water and swallowed whole (only suitable for patients able to follow the instruction not to chew).[1] [1]Smyth J. The NEWT Guidelines (electronic version). Wrexham. Betsi Cadwaladr University Health Board (NHS Wales). Last updated May 2017. Accessed at www.newtguidelines.com on 06/06/22	Absorption of tamsulosin hydrochloride is reduced by a recent meal. Uniformity of absorption can be promoted by the patient always taking tamsulosin after the same meal[2]. [2]Pamsvax XL 400 micrograms capsules, Accord-UK Ltd. Last updated 18/05/22 Accessed at https://www.medicines.org.uk/emc/product/3152/smpc on 06/06/22
Temazepam	Review need. Tablet may be crushed but will take > 2 minutes to disperse in liquid.[1] [1]NEEMMC Guidelines for Tablet Crushing and Administration via Enteral Feeding Tubes. Last updated April 2015. Accessed at: https://view.officeapps.live.com/op/view.aspx?src=https%3A%2F%2Fwww.stch.org.uk%2Fwp-content%2Fuploads%2Fneemmc-guidelines-for-tablet-crushing-april-2015.docx on 06/06/22	No documented food interactions Can crush and mix with food as described in general principles
Trazodone	1st choice - Use the liquid[1]. 2nd choice - Use the special suspension[1].	Absorption is somewhat enhanced by food[2]. Can mix with food as described in general principles.

	Opening the capsules is not recommended but there are reports of this being done. The content of the capsules tastes unpleasant[1]. There is no information available about crushing the tablets, so this is not recommended[1]. [1]Smyth J. The NEWT Guidelines (electronic version). Wrexham. Betsi Cadwaladr University Health Board (NHS Wales). Last updated February 2021. Accessed at www.newtguidelines.com on 06/06/22	MH wards within NHS GG&C: Trazodone liquid will only be supplied for doses below 50mg unless exceptional circumstance pertain and the ward clinical pharmacist agrees with the need for liquid to be supplied. Trazodone, appropriate formulation choice and use guide [2]Trazodone Hydrochloride 50mg/5ml Oral Solution, Accord-UK Ltd. Last updated 17/05/22. Accessed at https://www.medicines.org.uk/emc/product/9814/smpc# on 06/06/22
Trihexyphenidyl	The tablets can be crushed and will disperse in water for administration[1]. [1]Smyth J. The NEWT Guidelines (electronic version). Wrexham. Betsi Cadwaladr University Health Board (NHS Wales). Last updated June 2021. Accessed at www.newtguidelines.com on 06/06/22	No documented food interactions Can crush and mix with food as described in general principles
Valproic acid	Convert to valproate. A slightly higher dose (approximately 10%) of sodium valproate is used.[1] [1]Smyth J. The NEWT Guidelines (electronic version). Wrexham. Betsi Cadwaladr University Health Board (NHS Wales). Last updated November 2015. Accessed at www.newtguidelines.com on 06/06/22	
Venlafaxine	The tablets can be crushed and mixed with water or jam for administration[1] [1]Smyth J. The NEWT Guidelines (electronic version). Wrexham. Betsi Cadwaladr University Health Board (NHS Wales). Last updated June 2021 www.newtguidelines.com Accessed 06/06/22	Can crush and mix with food as described in general principles
Warfarin	The tablets can be crushed and mixed with water for administration. Without crushing they disperse in two to five minutes[1] [1]Smyth J. The NEWT Guidelines (electronic version). Wrexham. Betsi Cadwaladr University Health Board (NHS Wales). Last updated May 2021. Accessed at www.newtguidelines.com on 06/06/22	Consider if conversion to newer agent is possible (see haematology for advice) Avoid cranberry and grapefruit. No sudden diet changes[2]. Can crush and mix with food as described in general principles [2]Marevan 0.5mg Tablets (warfarin), ADVANZ Pharma. Last updated 01/02/22. Accessed at https://www.medicines.org.uk/emc/product/2803/smpc on 06/06/22
Zolpidem	The tablets can be crushed and mixed with water for administration[1]	No clinically significant food interactions

	[1]Smyth J. The NEWT Guidelines (electronic version). Wrexham. Betsi Cadwaladr University Health Board (NHS Wales). Last updated June 2021. Accessed at www.newtguidelines.com on 06/06/22	Can crush and mix with food as described in general principles
Zopiclone	The tablets are film-coated to protect the active drug, which is sensitive to light and practically insoluble in water, from degradation. They are not suitable for crushing or dissolving, and should not be used. They also have a bitter taste.[1] [1]Smyth J. The NEWT Guidelines (electronic version). Wrexham. Betsi Cadwaladr University Health Board (NHS Wales). Last updated June 2021. Accessed at www.newtguidelines.com on 06/06/22	Review need. If required change to zolpidem.

Additional references

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Barnett, N, Parmar P. How to tailor medication formulation for patients with dysphagia. The Pharmaceutical Journal, 23/08/16

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NHS GG&C Mental Health Service

Covert Medication Policy

Important Note:
The Intranet version of this document is the only version that is maintained.
Any printed copies should therefore be viewed as 'Uncontrolled' and as such, may not necessarily contain the latest updates and amendments.

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MHS 53 MHS Covert Medication Policy

Please record brief details of the changes made alongside the next version number. If the procedural document has been reviewed **without change**, this information will still need to be recorded although the version number will remain the same.

Version	Date	Brief Summary of Changes	Author(s)
1.0		First Draft	
1.1	09-06-15	Updated incorporating further comments from Acute, Community Nursing and Mental Health Services	
1.2	22-07-15	Updated for Acute Service, circulated for comments	
1.3	04-08-15	Updated comments from consultation	
1.4	14-08-15	Updated post circulation	
2.0	13/04/2018	1. General changes made to wording & terminology throughout document. 2. References updated. Appendix III 3. Changes &/or additions to text within document	SLWG
2.0	13/04/2018	**Section 1 -** will have read & understood the guidance published by the Mental Welfare Commission for Scotland's *"Good Practice Guide Covert Medication"* (February 2017) regarding the legal & practical issues in relation to covert medication. In conjunction with this clinical staff will also have read NHSGG&C *"Safe & Cost Effective Administration for Covert Medication & in Dysphagia*" (2017)	
2.0	13/04/2018	**Section 2** "It is generally" has now been replaced with "in most circumstances it is unlawful" The undernoted has been added to the text: "Where the individual is incapable of consenting, all other alternatives must have been explored & found to be impracticable. Investigation into the individual's previous concerns & wishes must also be made & taken into account during the decision making process"	
2.0	13/04/2018	**Section 3** The undernoted has been added; Mental disorder is described in the "Mental Health (Care & treatment) (Scotland) Act 2003" as including: ▪ Mental illness ▪ Learning disability ▪ Personality disorder Inability to communicate only results in incapacity if it cannot be overcome by translation or communication aids. All clinical staff must recognize that capacity may change or fluctuate over time. With regard to children, capacity develops according to their age. Any views expressed by a child must have that view taken into account in any decision making. This definition has been changed: "Covert Medication is the administration of any medical treatment in disguised form. Therefore an injectable medication or patch cannot by definition be 'covert'. The commonest way is via liquid or foodstuffs	
2.0	13/04/2018	**Section 5** The undernoted has been added: ... which would be critical to the patient's care that the only alternative is that the medication is given by deception...	

Version	Date	Brief Summary of Changes	Author(s)
2.0	13/04/2018	**Section 6** The undernoted has been added: ..Therefore the expertise of the Pharmacist is essential.. Referencing to a document from the Royal College of Psychiatrists' The undernoted has been added: "Pharmacists must be consulted as any alteration to the licensed dispensing guidance from the pharmaceutical manufacturers could result in harm & requires specialist advice	
2.0	13/04/2018	**Appendix I –** Responsible Physician has been changed to Responsible Medical Officer. Responsible Medical Officer has also been added as the individual who must inform any involved, who disagree, have a right to challenge the treatment. **Appendix II –** Responsible Physician has been changed to Responsible Medical Officer. 5 sections have had YES/NO* Circle as appropriate answers added.	
2.1	24/10/2018	Addition of link and statement regarding GGC Consent Policy	C Sellar
3.0	05/08/2022	Updated to reflect the introduction of the HEPMA system	

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When reading this policy please consult the NHS Consent Policy when considering any aspect of consent

1. Purpose and Scope

This policy describes the responsibilities of clinical staff when considering the use of covert medication. The policy sets out a series of conditions that must be satisfied before administering covert medication and defines the process to be followed.

This policy must be used in conjunction with any appropriate national guidance from an appropriate professional body as well as local policies and procedures NHS Greater Glasgow & Clyde (NHSGG&C) have in place for safe and secure handling of medicines. Clinical staff involved with covert medication will have read & understood the guidance published by the Mental Welfare Commission for Scotland's *"Good Practice Guide Covert Medication"* (February 2017) regarding the legal & practical issues in relation to covert medication. In conjunction with this clinical staff will also have read NHSGG&C MHS MRG 02 *"Safe & Cost Effective Administration for Covert Medication & in Dysphagia*" (2022)

2. Statement of Policy

This policy has been developed from existing good practice statements and the requirements of Scottish Law.

There is current guidance from the Royal College of Psychiatrists (2004) and the Nursing and Midwifery Council. The Mental Welfare Commission for Scotland has issued guidance on treatment of physical health problems in people who lack the capacity to consent *("Right to Treat? Feb 2022*), and on consent for the treatment of mental disorder (Consent to Treatment, January 2017).

Part 5 of the Adults with Incapacity (Scotland) Act 2000 provides authority to give medical treatment to a person who lacks capacity, by means of a completed incapacity certificate. Where appropriate the decision to give treatment must be discussed with a Welfare Attorney, Welfare Guardian or someone who holds an intervention order about treatment as specified in Appendix IV.

Covert medication must never be given to someone who is capable of deciding about their medical treatment. In most circumstances it is unlawful to administer medication without consent. Where the individual is capable of consenting, all other alternatives must have been explored & found to be impracticable. Investigation into the individual's pervious concerns & wishes must also be made & taken into account during the decision making process. Staff must not give medication in a disguised form unless the adult has refused to take medication & their health is at risk because of this. Staff must record the health risk and the patient's refusal to take medication in the patient's records. Documentation must be completed as directed in the pathway shown in Appendix 1 ("*Initial Covert Medication Pathway"*) to ensure patient safety and effective continuity of care. The Responsible Medical Officer has the responsibility for ensuring the completion of the documentation, which must be kept in the main medical record. It is for local agreement in individual cases, following discussion with team members, if copies are required in other records.

The use of Covert Medication must be included in the patient's care plan.

3. Definitions

The following definitions apply to this document:

Clinical Staff refers to all health care staff, directly or indirectly, involved in administrating covert medication, including employees, bank, locum or agency staff working within NHS Greater Glasgow and Clyde.
Covert Medication is the administration of any medical treatment in disguised form. Therefore an injectable medication or patch cannot by definition be 'covert'. The commonest way is via liquid or foodstuffs
Incapacity under the 2000 Act, is defined as incapable of:

- acting ; or
- making decisions; or
- communicating decisions; or
- understanding decisions; or

- retaining the memory of decisions

This must be because of a mental disorder, or an inability to communicate due to a physical disorder.

Mental disorder is described in the *"Mental Health (Care & treatment) (Scotland) Act 2003*" as including:

- Mental illness
- Learning disability
- Personality disorder

Inability to communicate only results in incapacity if it cannot be overcome by translation or communication aids.

All clinical staff must recognize that capacity may change or fluctuate over time.

With regard to children, capacity develops according to their age. Any views expressed by a child must have that view taken into account in any decision making.

4. The Law and Covert Medication

In Scotland the mechanisms for giving medical treatment to people who lack capacity is covered by two significant pieces of legislation which are:

- The Adults with Incapacity (Scotland) Act 2000 (AWI)
- The Mental Health (Care and Treatment) (Scotland) Act 2003 (MHA)

The 2000 Act (**AWI**) covers a variety of interventions for adults who lack capacity. It is based on a firm set of principles that govern all interventions, including covert treatment, these are:

- The intervention must be of benefit to the adult.
- The intervention must be the least restrictive in relation to the person's freedom in order to achieve the desired benefit.
- Interventions will take account of the past & present wishes of the adult.
- Interventions will take account of the views of relevant other parties.
- Interventions will encourage the adult to use existing skills & develop new skills.

5. Deciding Whether to Give Covert Medication

It is essential to consider the necessity of treatment, which would be critical to the patient's care that the only alternative is that the medication is given by deception. Clinical staff must base their decision on clinical evidence. Any benefit of covert medication needs to be balanced with the risk of giving medication covertly. Advanced statements & in all cases the person's past and present wishes will be taken into account. If the person has capacity to decide about medical treatment, then covert medication must not be considered.

If the person lacks capacity, the Responsible Medical Officer must certify incapacity on a Section 47 certificate (as required by the **AWI** Act 2000), or use appropriate documentation where the person is being treated under the **MHA** Act 2003.

The decision to use covert medication must be a multidisciplinary discussion which includes all clinical staff directly or indirectly involved in covert medication, and never without the expert guidance of a pharmacist. Practitioners who may be required to administer covert medication must make themselves fully aware of guidance from their own Professional Body. If the person has a welfare proxy (welfare attorney or guardian), that person must be consulted unless impracticable. Treatment cannot proceed if that person objects. If there is no welfare proxy, relatives & friends most closely involved must be consulted.

6. Covert Medication in Practice

If covert medication is considered the NHS GG&C "Initial Covert Medication Pathway" must be used (Appendix I). The medical practitioner primarily responsible for the person's care will take responsibility for documenting the care pathway in consultation with: the Multidisciplinary Team, welfare proxy &/or relatives & friends.

Pharmacists must be consulted as any alteration to the licensed dispensing guidance from the pharmaceutical manufacturers could result in harm & requires specialist advice.

With the introduction of HEPMA it is essential to indicate clearly on the patient's HEPMA record that they are subject to covert treatment and to describe for each drug the appropriate method of administration. This is achieved by adding

- Adding a patient note entitled 'Covert pathway' with the note detail indicating when the pathway was approved and when it is due for review
- Drug specific notes detailing how each drug is to be administered.

Information on how to create notes can found on the HEPMA support pages HEPMA (scot.nhs.uk)

NHSGG&C Covert Medication Care Pathway Review (Appendix II) must be utilised when the need for covert medication is reviewed.

The Royal College of Psychiatrists' Statement on Covert Administration of Medicines (2004) suggests weekly review.

The Mental Welfare Commission guidance refers to reviews being dependant on individual circumstances (P. 10, 2017), but states that the first review must happen within 1 week, which NHS GG&C will implement.

Any further, reviews must not be less frequently than every 4 weeks, or prior as circumstances dictate.

Appendix I

Initial Covert Medication Care Pathway

Name of Patient	**Date of Birth**
Location	**CHI**
Responsible Medical Officer	**Name**
What treatment is being considered for covert administration?	
Why is this treatment necessary? Where appropriate, refer to clinical guidelines e.g. SIGN	
What alternatives did the team consider? (e.g. other ways to manage the individual or other ways to administer treatment)	
Why were these alternatives rejected?	
Treatment may only be considered for a person who lacks capacity. Outline the assessment of capacity	**Assessed by -** **Designation –**
Treatment may only be administered under a certificate of incapacity (Section 47, AWI) or appropriate Mental Health Act documentation. What legal steps were followed?	**Legal Documentation Completed –** Adults With Incapacity Act, Section 47 Mental Health Care Treatment Act 2003 Date
Treatment may only be given if it is likely to benefit the person. What are the perceived benefits the person will receive? Is this the least restrictive way to treat the person? Give reasons	

What are the person's present views on the proposed treatment, if known? Do they have an advanced statement or living will? If yes, detail any reference to covert medication (i.e. – refusal to life prolonging treatment, antibiotics, etc.)	
Has the person expressed views in the past that are relevant to present treatment? If so what are those views?	
Who was involved in the decision The prescribing practitioner **must** ensure exact directions regarding the method of administration of medicines; (i.e. mixed with/crushing/disguising in food or drink) are clearly documented on the HEPMA system. A pharmacist **MUST** give advice on administration if this involves crushing tablets or combining with food and drink NB – If there is any person with power to consent (welfare attorney, welfare guardian), then the treatment may only be administered covertly with that person's consent, unless this is impracticable	**Clinical staff involved** **Name of pharmacist consulted** **Relatives or other carers involved.** **Do they have power of attorney**
Covert medication plan: Outline the method of covert administration for each medication. Medication 1 _____ Medication 2 _____ Medication 3 _____ Medication 4 _____ Medication 5 _____	**Method 1** _____ **Method 2** _____ **Method 3** _____ **Method 4** _____ **Method 5** _____ (Add more if necessary)
Do any of those involved disagree with the proposed use of covert medication? If so they must be informed of their right to challenge the treatment by the Responsible Medical Officer.	**Yes/No** **Date informed**
When will the need for covert medication be reviewed	**Date of first planned review**
Name – please print	Signature
Designation	Date

Appendix II

Covert Medication Care Pathway Review

Name of Patient	**Date of Birth**
Location	**CHI**
Responsible Medical Officer	**Name**
Has the patient's capacity changed? Specify Yes / No*	
Has the patient benefited from the treatment? Yes / No*	
Is the treatment still necessary? Yes / No* If so, explain why	
Is covert medication still necessary? Yes/ No* If so, explain why	
Is the method of administration still appropriate for patient compliance? Yes/ No*	
The prescribing practitioner **must** ensure exact directions regarding the method of administration of medicines; (i.e. mixed with/crushing/disguising in food or drink) are clearly documented on the HEPMA system	
Is legal documentation still in place and valid? Yes / No*	
Who was consulted as part of the review?	
Date of next review	
Name – please print	Signature
Designation	Date

(*circle appropriate response)

Appendix III

References

SCSWIS (2011)
Health Guidance Authorisation to Administer Medicines, Social Care and Social Work Inspection Scotland, 2011

Mental Welfare Commission for Scotland (2017)
Good Practice Guide. Covert Medication
https://www.mwcscot.org.uk/media/140485/covert_medication.pdf

NHS Quality Improvement Scotland (2007),
Management of patients with dementia, NHS Quality Improvement Scotland,
http//www.sign.ac.uk/pdf/sign86.pdf

Nursing & Midwifery Council (2015)
The NMC Code: Professional Standards & Behaviour for Nurses & Midwives. NMC: London

Nursing & Midwifery Council (2006)
Standards of Proficiency for Nurse & Midwife Prescribers, NMC: London

Nursing & Midwifery Council (2007)
Standards for Medicines Management, NMC: London

Royal Pharmaceutical Society of Great Britain (2007)
The Handling of Medicines in Social Care, RPSGB: London

Royal College of Psychiatrists' (2004)
Statement on Covert Administration of Medicines: Published online 02.01.2011

Scottish Executive (2000)
The Adults with incapacity (Scotland) Act 2000, Scottish Executive: Edinburgh

Scottish Executive (2003)
Mental Health (Care & Treatment) (Scotland) Act 2003, Stationery Office, Edinburgh

Scottish Executive (2006)
Rights, Relationships & Recovery: The Report of the National Review of Mental Health Nursing in Scotland, Scottish Executive: Edinburgh

General Pharmaceutical Council (2010)
Standards of conduct, ethics and performance, May 2017

Mental Welfare Commission (2017)
Consent to Treatment, a guide for mental health practitioners

22Mental Welfare Commission (2011)
Right to Treat? Delivering physical health care to people who lack capacity and refuse or resist treatment.

NHS Greater Glasgow & Clyde (2022)
Safe & Cost Effective Administration for Cover Medication & in Dysphagia

NHS Greater Glasgow and Clyde

CLINICAL GUIDELINE

Depression Treatment, for Adults, in Primary Care

A guideline is intended to assist healthcare professionals in the choice of disease-specific treatments.

Clinical judgement should be exercised on the applicability of any guideline, influenced by individual patient characteristics. Clinicians should be mindful of the potential for harmful polypharmacy and increased susceptibility to adverse drug reactions in patients with multiple morbidities or frailty.

If, after discussion with the patient or carer, there are good reasons for not following a guideline, it is good practice to record these and communicate them to others involved in the care of the patient.

Version Number:	*5*
Are there changes to the clinical advice in this version?:	*Yes*
Date Approved:	*17th December 2020*
Date of Next Review:	*17th December 2023*
Lead Author:	*Chris F Johnson*
Approval Group:	*Prescribing Management Group – Primary Care*

Important Note:

The Intranet version of this document is the only version that is maintained.
Any printed copies should therefore be viewed as 'Uncontrolled' and as such, may not necessarily contain the latest updates and amendments.

Integrated Care Pathway (Appendix 1)

Holistic Assessment

- Symptoms present for 2 weeks or more (as per ICD-10 classification).
- Patient centred biopsychosocial assessment.
- Consider: PHQ-9 (see accompanying notes), CORE 10 or other suitable assessment tool.
- Consider: alcohol (FAST tool), substance misuse, significant life events (e.g. bereavement, etc) exclude organic disease, etc.
- **Assess risk of self-harm, suicide and risk to others**.

Consider Bipolar Disorder: Assessment and Management - NICE 185. Please consider:

- Past history of manic symptoms: over activity; decreased need for sleep; euphoria/elation; inflated self-esteem/grandiosity; pressured speech/racing thoughts, distractibility, social disinhibition, excessive spending.
- Strong family history of bipolar disorder or psychosis.
- Referral: Community Mental Health Team (CMHT).
- Antidepressant monotherapy is not recommended for bipolar illness.

Consider Anxiety Disorders – NICE 113

Diagnosis Depression[1]

- Read Code depressive episode.
- If severe depression (including psychotic symptoms) or suicide risk, consider CMHT referral or out of hours review at CMHT hub; referral either by practitioner or patient by contacting 0845 650 1730.
- Depressive symptoms in adolescents refer for specialist assessment.

Treatment

- **Mild:** Self-help, stress and wellbeing education, psychoeducation groups and classes, Computerised CBT (via SCI gateway), Websites: Wellbeing, Lifelink. Watch, Wait and Review.
- **Recurrence:** Start previous effective antidepressant (increasing to previously effective dose) & self help.
- **Moderate/Severe:** Antidepressant & self-help +/- referral (psychological therapy or further assessment).

Frequency of review will vary with individuals needs, for example every 2–4 weeks (or more frequently if self-harm or suicide risk) within the first 3 months and then at longer intervals if good response.

For the first episode of depression the majority of patients will remit within 6 to 12 months.

Low mood due to adjustment and reactive effects; social factors and life events associated with symptoms, consider: Lifelink; Citizens Advice; Glasgow Help on Wellbeing menu bar

Self-help and Non-pharmacological Therapy

Consider a range of approaches for all forms of depression

- **Life-style:** Structured day, exercise, alcohol and/or drug use, diet, sleep hygiene; caffeine intake, etc.
- **Exercise:** Structured exercise programme: Live Active.
- **Self-help:** *Information websites & telephone numbers* (Appendix 2)
  - Health reading section in libraries.
  - Computerised Cognitive Behavioural Therapy (CBT), refer via SCI gateway.
  - Websites Wellbeing-Glasgow information and downloadable resources. Other useful sites: Choose Life, Living Life to the Full and apps Headspace
- Signposting to support services Wellbeing-Glasgow-Help
- **Support** patients to problem solve: *Information websites & telephone numbers*. (Appendix 2)
- **Primary Care Mental Health Team (PCMHT):** consider referral if: symptoms meet diagnostic criteria, individual is motivated and able to engage in structured psychological therapy e.g. CBT

Review Regularly to Support Patients and Improve Outcomes

Self-help and Non-pharmacological Therapy plus Antidepressant

- Spontaneous remission: about 50% of patients recover from first episode within 3 months.[2]
- All antidepressants are equally efficacious when treatment doses are taken regularly.
- Consider: co-morbidities, pregnancy, interacting medicines, etc.
- Consider: limit antidepressant supply where risk of suicide.
- There is a slight increased risk of suicide when initiating antidepressants (see below).

Information which may be of use to patients, carers and family

- Have realistic expectations. You will still have bad days and setbacks.
- Antidepressants are not addictive. But may cause withdrawal/discontinuation symptoms for some.
- Any thoughts of self-harm please contact your practice, out of hours service (NHS 24, Tel: 111), friend or a family member.
- You may feel benefit when first starting an antidepressant but it can take 2 to 4 weeks to provide its full effect.
- If symptoms are not improving the antidepressant or antidepressant dose might have to be changed.
- You should take your antidepressant for at least 6 months after you feel better. If you have had 2 or more episodes in the recent past the antidepressant may be continued for up to 2 years.
- Side effects can be short lived; reducing within a few weeks of starting an antidepressant.
  - SSRIs: nausea, vomiting, diarrhoea, anxiety, weight loss/gain, headache, insomnia
    Agitation is a common side effect associated with starting and increasing SSRIs doses which normally resolves within 7-10 days, but can contribute to suicidal ideation. If this occurs please contact your practice.
  - TCAs: dry mouth, constipation, drowsiness, dizziness, increased appetite, weight gain, confusion.
  - Mirtazapine: sedation (especially at lower doses: 15mg daily), increased appetite, weight gain.
  - Trazodone: sedation, headache, nausea, vomiting, hypotension, priapism.
  - Venlafaxine: constipation, nausea, vomiting, weight loss, palpitations, hypertension.

  If side effects continue or are troublesome please discuss alternative treatment options with your GP.
- Discontinuation symptoms may occur on stopping, missing doses or when reducing the dose; these are usually mild and self-limiting but can be severe when antidepressants are stopped abruptly.
- More medicines information is available at NHS Choices Antidepressants
- Avoid alcohol and recreational drugs.
- Self-help: *Information websites & telephone numbers* (Appendix 2) Healthy reading section in local libraries.
- For the first episode of depression the majority of patients will remit within 6 to 12 months.
- Have realistic expectations. You will still have bad days and setbacks.

Check – Do they want to take an antidepressant?
Discuss starting and stopping treatment

Mild depression

Watch, Wait & Review

Antidepressants demonstrate poor benefit.

Non-pharmacological therapy and self-help: sign-posting, psychoeducation.

Recurrence

Mild, moderate or severe

Start previous effective antidepressant. Increase to previously effective dose

Plus non-pharmacological therapy and self-help.

Moderate/Severe depression

Sertraline or fluoxetine or citalopram or mirtazapine

Trial therapeutic dose: 50mg sertraline, 20mg fluoxetine/citalopram or mirtazapine 30mg daily. Assess efficacy at 2-4 weeks.

SSRIs demonstrate a flat dose response curve for the treatment of depression[2-4]
Plus non-pharmacological therapy & self-help.

Review Regularly to Support Patients and Improve Outcomes

Review biopsychosocial assessment and progress (PHQ-9, CORE-10). Review treatment efficacy.

Watch & Wait: Assess response and severity. A large proportion of patients will spontaneously remit.
No response at 4 weeks with therapeutic dose taken regularly.

- Check concordance. Review diagnosis: exclude organic cause, bipolar illness, etc.
- A lack of significant improvement in concordant patients after 2-4 weeks of treatment reduces the probability of an eventual response.
- Consider increasing to therapeutic daily dose: ***'50's enough'*** for sertraline, ***'20's plenty'*** for fluoxetine/citalopram, or 30mg of mirtazapine where night-time sedation is required. Higher doses increases avoidable adverse drug effects with little clinical benefit [2-5].
- Consider switch to alternative SSRI or mirtazapine. **Lofepramine** increasing to 140mg daily may also be an appropriate Formulary option.
- Consider referring to PCMHT, if symptoms meet diagnostic criteria, individual is motivated and able to engage in structured psychological therapy e.g. CBT, and antidepressant and dose are stable.

Partial response at 4 weeks with therapeutic dose taken regularly.

- Check concordance.
- Consider switching antidepressant or increasing current antidepressant dose (evidence is lacking to support increasing SSRI doses[3]) and review efficacy 2-4 weeks.
- If residual symptoms persist after increasing the dose consider switch to an alternative antidepressant, see NHSGGC Formulary.
- Consider referring to PCMHT as outlined above.

Do NOT combine antidepressants unless directed by consultant psychiatrist.

Full response: Maintain current antidepressant and dose after remission achieved.

- First episode: continue for **6 months** after remission achieved; reviewing according to need.
- Recurrent episodes: consider number of relapses and tailor treatment to patients needs with regular review: at least **1 year** of treatment after full remission for those at increased risk and at least **2 years** in higher risk patients (i.e. >5 lifetime episodes and/or 2 episodes in the last few years[3,7]).
- Long-term use: review regularly every 6-12 months; consider adding review date to prescription.
- **Review ongoing need.** Consider reducing and stopping after patient has completed the course.

Third line choices: **venlafaxine** is restricted to use as third line agent for depression. The MR preparation is restricted to initiation on the advice of a consultant only, as MR/XL preparations lack clear clinical advantages over standard release. Increase to 225mg if appropriate, and tolerated, for dual effect. Regularly monitor BP as clinically appropriate.

Duloxetine restricted to psychiatrist initiation as third line therapy for major depressive episodes.

Avoid St John's wort (Hypericum). Due to drug-interactions and lack of standardised dose.

Depression with anxiety

- Consider relaxation resources Wellbeing
- Consider referral to PCMHT, if co-morbid anxiety disorder.
- Agitation is a common side effect associated with starting and increasing SSRIs doses which normally resolves within 10 days, but can contribute to suicidal ideation.
- If a patient is very anxious or agitated, consider the use of benzodiazepines as an adjunct for a maximum of 2 weeks. Use lowest possible dose.
- Avoid long-term (>4 weeks) benzodiazepines or z-hypnotics as they can increase anxiety and worsen depressive symptoms.

General antidepressant information:

- **Switching antidepressants:** When changing antidepressants a wash out period may be required Clinical Knowledge Summaries (CKS), See Prescribing Information, Switching. When switching, including within class, response rates vary widely from 12–70% in different studies.
- **Stopping**: All classes of antidepressants can cause discontinuation/withdrawal symptoms, when abruptly stopped or after missing or reducing doses. Encourage patients to discuss stopping before doing so. Discontinuation symptoms more commonly occur with higher doses and longer duration of treatment. Symptoms begin within a few days of stopping and generally subside within 7-10 days, but a minority of patients may experience severe or prolonged symptoms (flu-like, electric shocks, vivid dreams, insomnia, etc). The optimum rate of taper to prevent withdrawals is unknown. Withdrawal reactions may be mistaken for relapse. Slow reduction over ≥4 weeks, or months may be needed Speed of reduction should be guided by the patient's wishes and needs. (Reducing and stopping schedules and advice – Appendix 3).
- **Dose response:** Evidence is lacking for better SSRI and mirtazapine efficacy with higher daily doses: **'20's plenty',** citalopram/fluoxetine/paroxetine, **'50's enough'** for sertraline and 30mg of mirtazapine.[3-6] Higher TCA and venlafaxine doses can be more effective.[3-6]
- **Fluoxetine preparations:** Fluoxetine 20mg capsules are the preferred presentation in NHSGGC. Other strengths (e.g. 10mg, 60mg capsules) should not be prescribed routinely, as these are commonly 40-50 times more expensive. Where 10mg daily doses are needed, 20mg dispersible tablets can be halved or alternate day dosing with 20mg capsules can be used.

Co-morbidity and special groups.

- **Cardiovascular disease:**
  - Arrhythmias: Avoid TCAs. Citalopram is contraindicated in people with known QT prolongation or in combination with drugs known to prolong QT: QT prolongation more information. Venlafaxine is contraindicated in people with an identified high risk of serious cardiac ventricular arrhythmia
  - Hypertension: venlafaxine and duloxetine are contraindicated for people with uncontrolled hypertension. For people who experience a sustained increase in blood pressure while receiving venlafaxine, either dose reduction or discontinuation should be considered.
  - Left ventricular systolic dysfunction (LVSD): avoid TCAs, venlafaxine, trazodone. Sertraline or mirtazapine likely to be safe[8]
  - Post MI: use sertraline post recent MI or unstable angina. Mirtazapine and other SSRIs are also likely to be safe.[4]
  - **Anticoagulants:** Warfarin: monitor INR when antidepressants are initiated, doses changed and after discontinuing. Increased bleeding risk with SSRIs and all anticoagulants, due to SSRI antiplatelet effects.
- **Dementia:** Although depression may be a common feature in early dementia, with antidepressants having moderate effect[s3], patients should be routinely reviewed to assess ongoing need**.**
- **Diabetes:** SSRI first line choice[3]. Mirtazapine may be considered as an alternative but is associated with weight gain. Avoid TCAs and MAOIs. Monitor blood glucose carefully when antidepressants are initiated, doses are changed and after discontinuation.
- **Elderly:** May require lower starting dose increasing to therapeutic dose. Avoid TCAs where possible due to anticholinergic, cardiovascular and sedative effects.
- **Epilepsy:** Sertraline or mirtazapine may be appropriate for less complex cases. However seek specialist advice for more complex individuals. Medicines Information Tel:0141 211 4407

- **Post stroke:** consider fluoxetine or citalopram or mirtazapine in ischaemic stroke; avoid SSRIs in haemorrhagic stroke due to increased bleeding risk.[4]
- **Pregnant or breast feeding:** Seek specialist advice for individual cases: Perinatal Mental Health Service: 0141 211 6500. Background information available at CKS – Antenatal and Postnatal. Management of perinatal mood disorders – SIGN 127.

Antidepressant Adverse Effects: Some effects mimic signs and symptoms of depression e.g. SSRIs: insomnia, hypersomnia or anxiety; venlafaxine: anxiety, palpitations and weight loss.

- **Bleeding and SSRIs (see anticoagulants above):** SSRIs are associated with an increased risk of GI bleed. Concomitant NSAID and/or antiplatelets significantly increasing bleed risk, therefore consider patients risk factors (age, previous GI history, current medicines) and if gastro-protection is required[3,7] Omeprazole and lansoprazole capsules are NHSGGC formulary preferred PPIs.
- **Falls risk:** Increased risk for elderly: TCAs having the highest risk followed by SSRIs and mirtazapine. Higher SSRIs doses are associated with a three-fold increase in falls risk.
- **Hyponatraemia** is a potentially serious adverse effect (dizziness, nausea, lethargy, confusion, cramps, seizures) associated with most antidepressants; onset with 30 days of starting treatment. Higher risk with one or more of the following: previous hyponatraemia, elderly (>80 years), female, reduced renal function (GFR <50ml/min), co-morbidities (hypothyroid, diabetes, COPD, hypertension, CVA, etc) and other medicines (diuretics, carbamazepine, NSAIDs, tramadol, omeprazole or trimethoprim). Consider monitoring at baseline, 2 and 4 weeks, and then 3 monthly.[4]
- **Sexual dysfunction:** Consider asking patients if this is problematic as this is usually under reported (More information – Appendix 4) Both depression and antidepressants can cause disorders of desire, arousal and orgasm. Antidepressant induced sexual dysfunction spontaneously remits for 10% and partially remits for 11%. If problematic consider dose reduction, switching (CKS - see menu, Prescribing Information), or stopping (Reducing and stopping schedules and advice).
- **Suicide and antidepressants:** There is a slight increased risk of suicide when initiating antidepressants, especially in ≤30 year old. The benefits of antidepressant use outweigh the risk for their licensed indications(More information – Appendix 4) .
- **Weight changes** may be experienced by patients with antidepressant use (More information – Appendix 4) .

Managing adverse effects:

- Where appropriate give patient permission to stop the drug causing side effects e.g. akasthisia, aggression, etc.
- Dose reduction may help where tolerance to the adverse effect does not develop e.g. sexual dysfunction, insomnia or hypersomnia.
- Switching antidepressant to one with potentially less side effects.
- Drug holidays or cessation may also be considered as an option.

Other links which may be useful

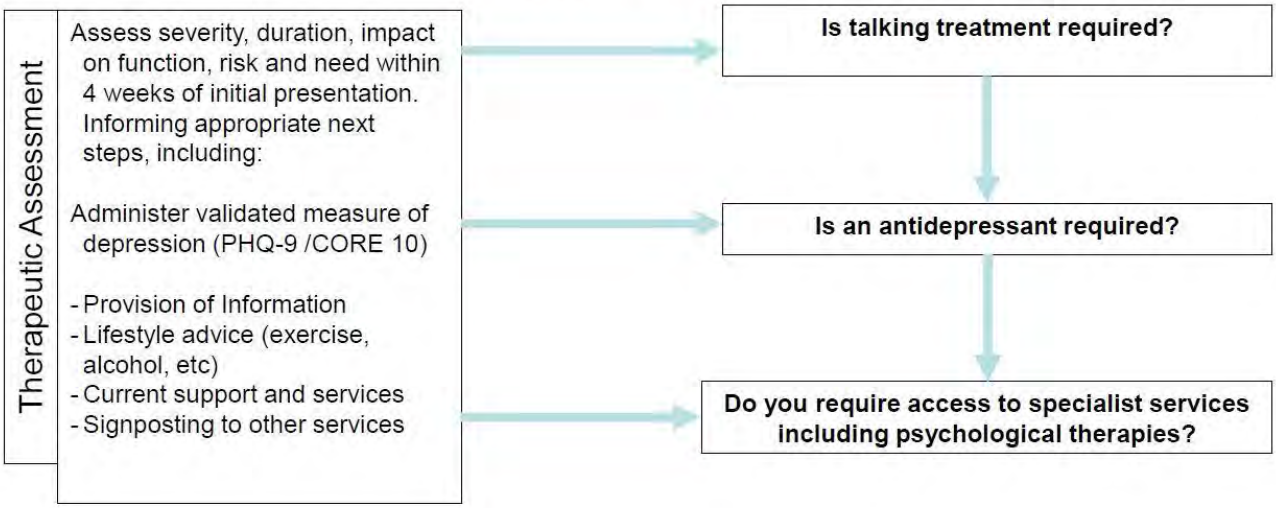
Choice and Medication
British Association for Psychopharmacology www.bap.org.uk
NICE 90 Depression in Adults www.nice.org
NICE 91 Depression in Adults with a Chronic Physical Health Problem www.nice.org

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1. Ferenchick EK, Ramanuj P, Pincus HA. Depression in primary care: part 1— screening and diagnosis. BMJ 2019;365:l794 doi: 10.1136/bmj.l794
2. Spijker J, et al. Duration of major depressive episodes in the general population. Brit J Psych 2002;181:208-213.
3. Cleare A, Pariante CM, Young AH, et al. Evidence-based guidelines for treating depressive disorders with antidepressants: A revision of the 2008 British Association for Psychopharmacology guidelines. J Psychopharmacol 2015;29(5):459-525.
4. Taylor D, Paton C, Kapur S. The Maudsley Prescribing Guidelines13th ed. Wiley-Blackwell; 2018.
5. Adli M, Baethge C, Heinz A, et al. Is dose escalation of antidepressants a rational strategy after a medium-dose treatment has failed? A systematic review. Eur Arch Psychiatry Clin Neurosci 2005;255(6):387-400.
6. Furukawa TA, Cipriani A, Cowen PJ, Leucht S, Egger M, Salanti G. Optimal dose of selective serotonin reuptake inhibitors, venlafaxine, and mirtazapine in major depression: a systematic review and dose-response meta-analysis. Lancet Psychiatry 2019;6(7):601-609.
7. NICE. Treatment and management of depression in Adults. Clinical Guideline 90. 2009
8. NICE. Depression in adults with chronic physical health problems. CG 91. 2009

Basic Diagram

Appendix 1



Issues / Barriers	Outcomes
View All Detail	

Appendix 2 - Mental Health Support Resources and Information

Other services may be available in your area.

Helplines	NHS 24	111	24 hour
	Samaritans	116 123	24 hour
	Child Line	0800 11 11	24 hour
	Scottish Domestic Abuse Helpline (For anyone affected by domestic abuse)	0800 027 1234	24 hour
	Breathing Space	0800 83 85 87	Mon to Thurs 6pm-2am, Fri 6pm to Mon 6am
	Saneline	0300 304 7000	4.30pm-10.30pm Daily
	Rape Crisis Scotland (For anyone affected by sexual violence)	08088 010203	6pm-Midnight
	Parent line Scotland (For anyone caring for or concerned about a child)	0800 028 22 33	Mon-Fri 9am-9pm, Sat-Sun, 9am to 12pm
	Renfrew Association for Mental Health (RAMH) (Residents of Renfrewshire only)	0800 221 8929 0141 848 9090	Crisis contact Mon- Fri 9am-8pm Sat-Sun 9am- 5pm

Other Support	Scottish Association for Mental Health (SAMH)	0141 530 1000	www.samh.org.uk	Mon-Fri 9am to 5pm
	Glasgow Association for Mental Health (GAMH)	0141 552 5592	www.gamh.org.uk/	Mon-Thurs 9am-5pm, Fri 9am-4:30pm
	Renfrew Association for Mental Health (RAMH) (Residents of Renfrewshire only)	0141 847 8900	https://ramh.org/	Mon- Fri 9am-5pm
	Lifelink (Counselling & Resources)	0141 552 4434	www.lifelink.org.uk/	Mon - Fri 8:30am -5pm
	Living Life : Guided self- help and Cognitive Behavioural Therapy (CBT) telephone service	0800 328 9655	www.breathingspace.scot/living-life	Mon-Fri 1pm -9pm
	Scottish Care and Information on Miscarriage	0141 552 5070	www.miscarriagesupport.org.uk	Sometimes answer machine - can leave contact detail for a phone back
	Relationship Scotland	0345 119 2020	www.relationships-scotland.org.uk	Mon-Fri 9.30am to 4.30pm
	Glasgow Council on Alcohol	0800 802 9000	www.glasgowcouncilonalcohol.org	Mon-Wed 9am-9pm, Thur-Fri 9am-5pm, Sat 9am-1pm
	Al-Anon (For anyone affected by someone else's drinking)	0800 0086 811	www.al-anonuk.org.uk	10am- 10pm daily
	Cruse Bereavement Care Scotland	0845 600 2227	www.crusescotland.org.uk	Mon-Thurs 10am-8pm Fri 10am- 4pm
	Gamblers Anonymous Scotland	0370 050 8881	www.gascotland.org/	24 hour
	Know the Score (Drug use and addiction)	0333 230 9468	www.knowthescore.info/	Mon-Fri 9am-11pm & Sat-Sun 11am-4pm

Online Support

Self-help	Action on Depression	Support Information	http://www.elament.org.uk/finding-a-service/action-on-depression/
	Living Life to the Full	Support Information	www.llttf.com
	Beating the Blues	Online programme of Cognitive Behavioural Therapy	www.beatingtheblues.co.uk
	Wellbeing Glasgow	Support Information	www.wellbeing-glasgow.org.uk
	NHS Inform Mental Health and Wellbeing	Support information	https://www.nhsinform.scot/illnesses-and-conditions/mental-health
Other support	Wellbeing-Glasgow-Help	Provides contact details and information on mental health and non-mental health services	http://wellbeing-glasgow.org.uk/help/
	NHS Choices	Support Information	www.nhs.uk/pages/home.aspx
	Citizens Advice	Information and advice to resolve money, legal and other problem	www.cas.org.uk
Apps	Headspace	Guided meditation and Mindfulness. Advice, tips and tools to let go of stress, to help relaxation and improve sleep.	www.headspace.com
	WellMind	Advice, tips and tools to improve your mental health and boost your wellbeing	WellMind – available on App Store and Google Play

Antidepressants: Information which may be of use to patients, carers and family

- Have realistic expectations. You will still have bad days and setbacks
- Antidepressants are not addictive.
- Any thoughts of self harm please contact your practice, out of hours service (NHS 24, Tel: 111), friend or a family member.
- You may feel benefit when first starting an antidepressant but it can take 2 to 4 weeks to provide its full effect.
- If symptoms are not improving, the antidepressant or antidepressant dose might have to be changed.
- You should take your antidepressant for at least 6 months after you feel better. If you have had 2 or more depressive episodes in the recent past, the antidepressant may be continued for up to 2 years.
- Side effects can be short lived and reduce within a few weeks of starting an antidepressant.
    - Selective serotonin re-uptake inhibitors (SSRIs) such as citalopram, fluoxetine, sertraline: nausea, vomiting, diarrhoea, anxiety, weight loss/gain, headache, insomnia. Agitation is a common side effect associated with starting and increasing SSRIs doses which normally resolves within 7-10 days, but can contribute to suicidal ideation. If this occurs please contact your practice.
    - Tricyclic antidepressants (lofepramine, amitriptyline, etc): dry mouth, constipation, drowsiness, dizziness, increased appetite, weight gain, confusion.
    - Mirtazapine: sedation (especially at lower doses: 15mg daily), increased appetite, weight gain.
    - Trazodone: sedation, headache, nausea, vomiting, hypotension, priapism.
    - Venlafaxine: constipation, nausea, vomiting, weight loss, palpitations, hypertension.

If side effects continue or are troublesome please discuss alternative treatment options with your GP.

- Discontinuation symptoms may occur on stopping, missing doses or when reducing the dose; these are usually mild and self-limiting but can be severe when antidepressants are stopped abruptly. When considering stopping antidepressants please discuss with your GP or other healthcare professional to ensure appropriate managed reduction and stopping.
- More medicines information is available at NHS Choices Antidepressants (http://www.nhs.uk/conditions/Antidepressant-drugs/pages/introduction.aspx)
- Avoid alcohol and recreational drugs.
- Self-help: as outlined above and healthy reading section in local libraries.
- For the first episode of depression, the majority of people will experience remission within 6 to 12 months.
- Have realistic expectations. You will still have bad days and setbacks.

Appendix 3

Antidepressant Reduction Advice
Background
All classes of antidepressants can cause discontinuation/withdrawal symptoms, especially when stopped abruptly. Withdrawals may also occur to a lesser extent when doses are missed or reduced. Some people may be more sensitive to withdrawals than others, and unfortunately it is difficult to know who will or will not experience withdrawal effects.

The optimum rate of taper to prevent withdrawals is also unknown. Therefore, the prescriber and individual should discuss and agree the most appropriate approach to reducing the dose and reviewing progress. Reducing over 4-6 weeks may be appropriate for people receiving antidepressant treatment for 9 months or less, whereas slower reduction over a period of months may be required due to longer term (>9 months) use, or for people that are anxious/distressed about reducing and/or stopping. Where people experience significant or unbearable withdrawal effects, increasing back to the previous dose that did not cause withdrawals, and stablising, and then considering a slower rate of reduction may help.

Current evidence indicates that withdrawals more commonly occur with paroxetine and venlafaxine, as well as higher antidepressant doses and longer duration of treatment with other antidepressants. Therefore, this advice is intended to provide prescribers and patients with a range of options to appropriately support and enable successful antidepressant reduction and discontinuation.

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1. Considerations for reducing and/or stop antidepressants (Return to top)

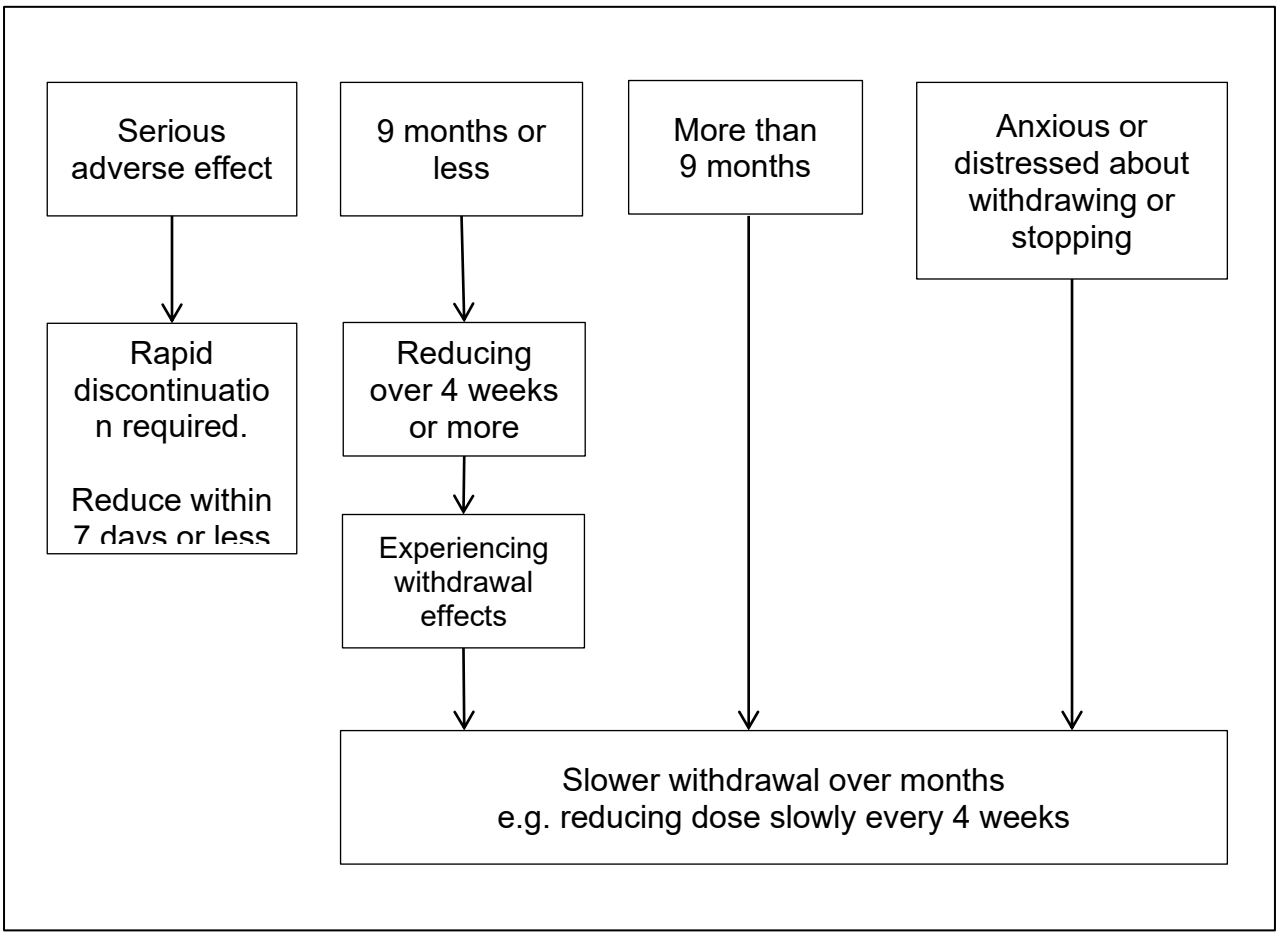


Figure 1, Reducing and stopping antidepressants

Consider the clinical situation when reviewing and discussing reducing/stopping antidepressants, and encourage individuals' to discuss stopping with their prescriber before doing so. By discussing and planning withdrawals the most appropriate rate of reduction can be agreed and planned with the individual according to their preferences and needs:

- Experiencing serious adverse effects; may require rapid discontinuation within 7 days or less (Table 1).
- Completed a 6-9 month course of antidepressant treatment e.g. first episode of moderate to severe depression – reduce over a minimum of 4 weeks, but some individuals may need a slower reduction.
- Completed a longer course (9 months or more) of antidepressant treatment, and/or a history of recurrent depression or anxiety. Reducing and tapering the dose at a slower rate over months may be more appropriate.
- Anxious about reducing/withdrawing antidepressant or history of experiencing discontinuation effects. Reducing and tapering the dose at a slower rate over months may be more appropriate.

The strategy for reducing/stopping antidepressants should be guided and informed by the individual's preferences and needs.

Table 1 Serious adverse effects which may require rapid discontinuation

Adverse effect	Drugs	Symptoms/Signs
Serotonin syndrome (very rarely occurs)	SSRI, SNRI, clomipramine, moclobemide, and other medicines e.g. triptans, tramadol, fentanyl, etc.	**Mild** (patient may/may not be concerned): insomnia, anxiety, nausea, diarrhoea, hypertension, tachycardia, hyper-reflexia. **Moderate** (causes distress): agitation, myoclonus, tremor, mydriasis, flushing, diaphoresis, low fever (<38.5°C) **Severe** (medical emergency): severe hyperthermia, confusion, rigidity, respiratory, coma, death
QTc interval prolongation	Citalopram, escitalopram, TCAs, and other medicines e.g. quinine, methadone, antipsychotics, antibiotics etc.	ECG changes in QTc interval

Note: Serotonin syndrome, for more detail see Buckley et al 2014 and Isbister 2007, QTc prolongation is of concern as it is associated with ventricular tachycardia and sudden cardiac death, see Kallergis et al 2012.

2. Discontinuation/withdrawal symptoms (Return to top)

These may begin within a few days of stopping an antidepressant and generally subside within 7-10 days, but a minority of people may experience severe or prolonged symptoms (Table 2).

Table 2. Antidepressant discontinuation/withdrawal symptoms

Antidepressant class	Most commonly associated[a]	Symptoms[b]	
		Common	**Occasional**
SSRI, Clomipramine (TCA)	Paroxetine	Flu-like symptoms (chills, myalgia, excess sweating, nausea, headache), 'shock like' sensations, dizziness exacerbated by movement, insomnia, excess (vivid) dreaming, irritability, crying spells	Movement disorders, concentration, memory difficulties
SNRIs	Venlafaxine	Same as above, due to serotonin effects	Same as above
TCAs	Amitriptyline, Imipramine	Flu-like symptoms, insomnia, excess dreaming. *Anticholinergic rebound* – more common in the elderly: headache, restlessness, diarrhoea, nausea and vomiting	Movement disorders, mania, cardiac arrhythmias.
Other	Mirtazapine[c]	Anxiety, panic attacks, insomnia, irritability, nausea	
	Agomelatine		No discontinuation symptoms have been reported[d]
	Trazodone		Rarely SSRI type withdrawals[e]
	Vortioxetine		No discontinuation symptoms have been reported[f]

a. Although most commonly associated with the listed medicines, other medicines in the group may cause similar symptoms.
b. Symptoms: As individuals may or may not experience discontinuation/withdrawal symptom, and the intensity and range of symptoms may vary by individual, people may experience or identify symptoms not listed above.
c. Limited data: mirtazapine case studies, see Cosci et al 2017.
d. Agomelatine and vortioxetine are rarely used. At time of writing no case reports in literature.
e. See Haddad et al 2001. and Otani et al 1994. for more detail.
f. Adapted from and informed by Maudsley and Psychotropic Drug Directory.

3. Standard reduction approaches (Return to top)

Appropriate for patients taking antidepressants that have no past history of distressing withdrawal, and no particular fear of withdrawing and/or stopping antidepressants over 4 to 6 weeks.

Review and reduce dose every 1 to 4 weeks or as guided by the individual's needs and/or preferences. However reducing every 4 weeks may be more practical for individuals due to their carer, family and work commitments, as well as for collecting prescriptions and enabling appropriate face-to-face or phone review follow up.

3.1 Selective serotonin reuptake inhibitors (SSRI) (Return to top)

Due to the long half-life, the following can be stopped at standard daily doses: citalopram 20mg, escitalopram 10mg, fluoxetine 20mg and sertraline 50mg per day. However, individuals may prefer or require a slower reduction with lower doses.

SSRIs	Step 1	Step 2	Step 3	Step 4	Step 5	Step 6
Citalopram	**40mg**	**30mg**	**20mg**	**10mg**	**Stop**	
Escitalopram	**20mg**	**15mg**	**10mg**	**5mg**	**Stop**	
Fluoxetine	**40mg**	**30mg***	**20mg**	**10mg****	**Stop**	
Fluvoxamine	**300mg**	**200mg**	**100mg**	**50mg**	**Stop**	
Sertraline	**200mg**	**150mg**	**100mg**	**50mg**	**25mg*****	**Stop**
Paroxetine†	**40mg**	**30mg**	**20mg**	**10mg**	**5mg**	**Stop**

Steps: the rate of withdrawal will vary with individual's needs e.g. weekly to 4 weekly reductions for some.
All doses are single daily doses
*Alternate day dosing 40mg/20mg
**Alternate day dosing with 20mg capsule, or consider using fluoxetine liquid
***Alternate day dosing with 50mg tablet
† Some people may require to be switched to an alternative SSRI if experiencing significant withdrawals, see below.

3.2 Serotonin and noradrenaline reuptake inhibitors (SNRI) (Return to top)

Most individuals will be able to slowly withdraw and discontinue duloxetine and venlafaxine without any adverse effects. Where individuals experience discontinuation/withdrawal effects after stopping, it may be appropriate to restart the antidepressant at the previous dose and frequency for 7 days then switch to a long acting SSRI, interactions and contra-indications allowing (section 4).

SNRI	Step 1	Step 2	Step 3	Step 4	Step 5	Step 6
Duloxteine[a]	**120mg**	**90mg**	**60mg**	**30mg**	**Stop**	
Venlafaxine MR[b]	**300mg**	**225mg**	**150mg**	**75mg**	**37.5mg**	**Stop**
Venlafaxine[c]	**150mg twice daily**	**150mg morning 75mg night**	**75mg twice daily**	**37.5mg twice daily**	**Stop[d]**	

Steps: the rate of withdrawal will vary with individual's needs e.g. weekly to 4 weekly reductions for some.
Note: Venlafaxine 300mg daily used as example, as individuals on higher doses are usually under the care of community mental health teams who should be involved in decisions to reduce or withdraw.

a. BNF only has 60mg dose listed for treatment of major depressive order, but duloxetine SmPC (data sheet) quotes up to 120mg daily.
b. If receiving modified release (MR) preparations as split dose e.g. twice daily, please consider that MR preparations are intended as once daily preparations.
c. Some individuals may have a preference for reducing the night-time or morning dose first.
d. Ordinary release. If needed the 37.5mg MR daily could be used for another step before stopping.

3.3 Tricyclic antidepressants (TCAs) (Return to top)

Older adults and more frail individuals may require and need slower reduction to minimise the risk of cholinergic rebound (nausea, vomiting, headache, restlessness). Therefore slow reduction over longer than 6 weeks, or months, may be needed for some individuals depending on their preference and/or needs.

TCAs	Step 1	Step 2	Step 3	Step 4	Step 5	Step 6	Step 7	Step 8
Amitriptyline[a]	**150mg**	**100mg**	**50mg**	**Stop**				
Amitripyline[a,b]	**150mg**	**125mg**	**100mg**	**75mg**	**50mg**	**25mg**	**10mg[c]**	**Stop**
Lofepramine[d]	**210mg**	**140mg**	**70mg**	**35mg[e]**	**Stop**			

a. The same reduction schedule would be advised for:

Clomipramine	Dosulepin (dotheipin)	Doxepin
Imipramine	Nortriptyline	Trimipramine

b. Older adults and some individuals may require reductions using smaller dose increments to minimise the risk of adverse withdrawal effects.
c. Dosulepin and doxepin not available as 10mg dose, therefore consider if necessary using 25mg capsules on alternate days, then stop.
d. If dose is split morning and night, consider reducing and stopping morning dose first, and then continuing reduction with night time dose.
e. Tablets are less suitable for halving as they have a film coating. If necessary, a 35mg dose can be given using lofepramine 70mg/5ml oral suspension.

3.4 Other antidepressants and monoamine oxidase inhibitors (MAOIs) (Return to top)

Other		Step 1	Step 2	Step 3	Step 4	Step 5	Step 6	Step 7
Agomelatine		50mg	25mg	Stop				
Mirtazapine		45mg	30mg	15mg[a]	Stop			
Trazodone		300mg[b]	250mg	200mg	150mg	100mg	50mg	Stop
Vortioxetine		20mg	10mg	Stop				
Isocarboxazid[c]	Morning	60mg	50mg	40mg	30mg	20mg	10mg	Stop
Moclobemide[d]	Morning	300mg	300mg	150mg	150mg	Stop		
	Night	300mg	150mg	150mg	Stop			
Phenelzine[c]	Morning	30mg	30mg	30mg	15mg	15mg	15mg	Stop
	Afternoon	30mg	15mg	15mg	15mg	Stop	Stop	
	Night	30mg	30mg	15mg	15mg	15mg	Stop	
Tranylcypromine[c]	Morning	30mg	20mg	10mg	Stop			

Steps: the rate of withdrawal will vary with individual's needs e.g. weekly to 4 weekly reductions for some.

a. Some people may find the 15mg dose more sedating than higher doses due more antihistamine effects.
b. For higher doses consider reducing at each step by 50mg. However, clinical need and/or individual's preferences may require larger reduction steps e.g. 100mg.
c. Isocaboxazid, phenelzine and tranylcypromine inhibit monoamine oxidase A and B for up to 2 weeks after stopping. Consider risk of interactions for 2 weeks after stopping.
d. Moclobemide is a reversible inhibitor of monoamine oxidase A.

4. Difficulty withdrawing SSRI/SNRI or fearful (Return to top)

For individuals who have had or are having difficulty withdrawing and stopping short half-life antidepressants: paroxetine, venlafaxine or duloxetine. Switching to a longer half-life SSRI may enable reduction and stopping, as venlafaxine and duloxetine act as SSRIs at low doses.

Convert to long acting SSRI and stop

Reduce the total daily dose in a stepwise fashion to: paroxetine 20mg, venlafaxine 75mg, duloxetine 30mg daily (see 3.1 SSRIs and 3.2 SNRI). Then convert to an approximate dose equivalent* of fluoxetine, citalopram or sertraline (Step 1), using standard capsules, tablets or liquid, and stabilise on that dose for 3-7 days then stop.

For example, duloxetine 30mg daily changed to fluoxetine 20mg daily and continued for 3-7 days then stopped.

Convert to long acting SSRI and reduce slowly

As some individuals may prefer or need slower reductions.

Daily dose		Step 1*	Step 2	Step 3	Step 4	Step 5	Step 6
Duloxetine 30mg Or Paroxetine 20mg Or Venlafaxine MR 75mg (37.5mg twice daily)	To any of these SSRIs	Fluoxetine 20mg	20mg alternate days	20mg every third day	Stop		
		Citalopram 20mg	10mg	10mg alternate days	Stop		
		Sertraline 50mg	50mg alternate days	50mg every third day	Stop		
		Fluoxetine liquid[a,b,c] (20mg in 5ml)	16mg (4ml)	12mg (3ml)	8mg (2ml)	4mg (1ml)	Stop

Steps: the rate of withdrawal will vary with individual's needs e.g. weekly to 4 weekly reductions for some.

* Approximate dose equivalents

a. Some community pharmacies may not stock 1ml graduated 5ml oral syringes, but they can order these if given some warning.
b. Citalopram 40mg/ml and escitalopram 20mg/ml liquid are not recommended due to the difficulty with accurately measuring small doses.
c. Sertraline liquid is not recommended as it is unlicensed in the UK, and individuals may experience oral numbness on their tongue and mouth due to the anaesthetic effects of non-tablet formulations.

***Approximate dose equivalents and switching considerations:**

- Due to inter-patient variability and differing half-lives, this means that these are approximate dose equivalents, not exact equivalence.
- The drug and dose equivalents can never be exact, and should be interpreted considering your clinical knowledge and the individual patient's needs.
- Drug interactions and drug-disease interactions.

Fluoxetine liquid may be required for a few individuals that require or prefer a slower reduction at weekly to 4 weekly intervals.

5. Significant difficulty or fears withdrawing SSRI/SNRI (Return to top)

For a very small minority of individuals, slower graduated reduction may be appropriate:

- Where standard reduction (SSRI section 3.1 or SNRI section 3.2) and/or
- Difficulty discontinuing/withdrawing SSRI/SNRI (section 4),

have been tried and are unsuccessful. This approach will help flatten the reductions in plasma drug concentrations at lower doses (Figure 2).

First, reduce current antidepressant to standard dose as per SSRI 3.1 or SNRI 3.2. Then convert to an approximate dose equivalent of fluoxetine 20mg/5ml liquid.

Fluoxetine 20mg is approximately dose equivalent* to:

- Citalopram 20mg
- Escitalopram 10mg
- Fluvoxamine 50mg
- Paroxetine 20mg
- Sertraline 50mg
- Duloxetine 30mg
- Venlafaxine 75mg

***Approximate dose equivalents and switching considerations:**

- Due to inter-patient variability and differing half-lives, this means that these are approximate dose equivalents, not exact equivalence.
- The drug and dose equivalents can never be exact, and should be interpreted considering your clinical knowledge and the individual patient's needs.
- Drug interactions and drug-disease interactions.

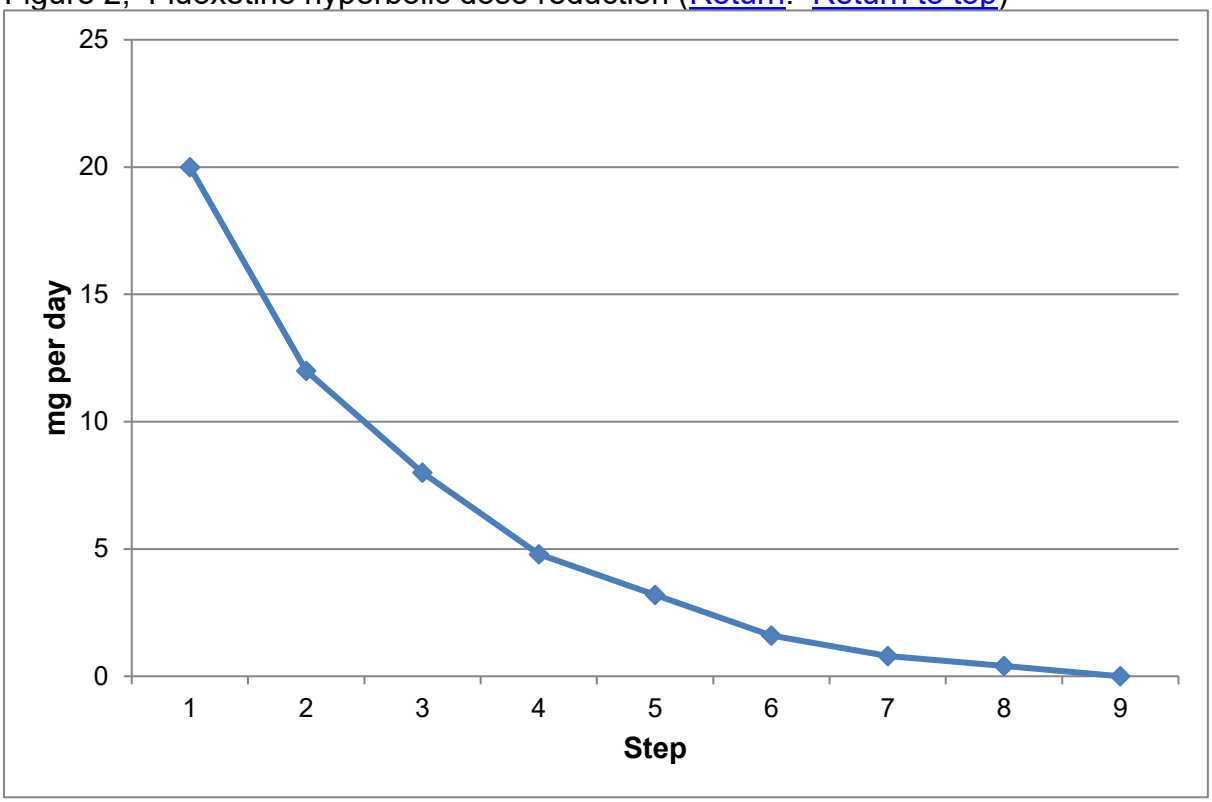
For example: paroxetine 20mg daily to fluoxetine 20mg daily, or paroxetine 10mg daily to fluoxetine 8mg daily (Step 3 below). Switch by taking last dose of paroxetine today and starting new dose of fluoxetine tomorrow at the same time of day. Agree an appropriate rate of reduction e.g. weekly or monthly, agree face-to-face or phone review follow up.

Note:

Fluoxetine liquid 20mg/5ml			
Step	**mg/d**	**ml/d**	**Step down Difference (mg)**
1	20	5	
2	12	3	8
3	8	2	4
4	4.8	1.2	3.2
5	3.2	0.8	1.6
6	1.6	0.4	1.6
7	0.8	0.2	0.8
8	0.4	0.1	0.4
9	Then stop	0	0.4

- Steps: the rate of withdrawal will vary with individual's needs e.g. weekly to 4 weekly reductions for some.
- Citalopram 40mg/ml and escitalopram 20mg/ml liquid are not recommended due to the difficulty with accurately measuring small doses.
- Sertraline liquid is not recommended as it is unlicensed in the UK, and individual's may experience oral numbness on their tongue and mouth due to the anaesthetic effects of non-tablet formulations

Figure 2, Fluoxetine hyperbolic dose reduction (Return. Return to top)



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Appendix 4 – Antidepressant side effects

Sexual dysfunction

Severity of sexual dysfunction increases with severity of depression. Antidepressant induced sexual dysfunction is commonly under reported (3-8% of patients spontaneously reporting such side effects and 34-75% reporting side effects on direct questioning[1]) with patient presenting with a variety of side effects: reduced libido, arousal dysfunction and orgasmic disorders.[1-3] Antidepressant induced sexual dysfunction spontaneously remits in approximately 10% of cases with partial remission in a further 11%.[3] All effects are reversible.

Antidepressant	Approximate prevalence of sexual dysfunction
Venlafaxine	70%
SSRIs	60-70%
Duloxetine	46%
Tricyclic antidepressants	30%
Mirtazapine	25%
Placebo	14%
Trazodone	Unknown
Adapted from Maudsley 2015[3] and Serretti & Chiesa 2009.[1]	

Consider other causes such as alcohol, benzodiazepines, beta-blockers, co-morbidity, relationship difficulties, etc. Spontaneously remits for 10% and partially remits for 11%. If this does not occur consider dose reduction, switching or discontinuing antidepressant where appropriate.

Suicide, akasthisia and aggression.

Akasthisia or restless over activity experienced by some patients when initiating or increasing SSRI doses is usually short lived (settles within the first 10 days) but can contribute to suicidal ideation,[4,5] with under 30's being at higher risk of suicidality associated with a variety of antidepressants.[6] Aggressive behaviours are also associated with antidepressant use with greatest associated risk being observed for children and adolescents (<18 years old).[7] If this occurs please ask the patient to contact the practice for advice or consider giving advice to stop and attend for review if appropriate. TCAs (excluding lofepramine) and venlafaxine have greatest risk of death in overdose.

Weight changes

Patients may experience weight changes during antidepressant treatment. Weight gain may be associated with depression recovery and improved appetite on one hand and undesirable antidepressant effects on the other;[8] however, many placebo controlled studies report no weight data making it difficult to accurately estimate weight changes.[2] SSRIs have been seen as weight neutral, or in some cases associated with weight loss in the short-term (≤8wk studies) and weight gain in the long-term.[8]

Antidepressant	**% Patient with Weight gain**
Amitriptyline	22%
Imipramine	13.3%
Mirtazapine	12.7%
Fluoxetine	4.8-6.8%
Sertraline	4.2%
Citalopram	3.9%
Placebo	2.6-6.3%
Venlafaxine	Weight loss.
Weight gain can vary from 0.5-1kg with SSRIs[8] to 2.5-3.3kg with mirtazapine[9]	
Summarised from review articles[2,8]	

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Desirable drug- procedure for ordering and reconciling (MHS MRG 38)

Warning: This guideline is 19626913 day(s) past its review date.

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Reviewer Name(s):

Lead clinical pharmacist, Clinical effectiveness pharmacist

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EMERGENCY DRUG CUPBOARD LISTS & PROCEDURE FOR OUT OF HOURS ACCESS

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Parkinson's meds	page 5
Misc (creams, inhalers, powders)	Page 6
Procedure	page 7

The site page holders/response nurses can be contacted via the following numbers

Glasgow 01412118300 and ask for the relevant site page-holder (nursing)
Dykebar 01418845122 and ask for the site response nurse

Tablets and Capsules

DRUG	STRENGTH	FORM	LEV	GRH	STO	DYK	ROW
ACICLOVIR	400MG	TABS				1	
AMLODIPINE	5MG	TABS			1	1	
AMOXYCILLIN	250MG	CAPS	2	2	2	2	2
APIXABAN	2.5MG	TABS			1		
ATENOLOL	25MG	TABS				1	
BENDROFLUMETHAZIDE	2.5MG	TABS			1	1	
BISOPROLOL	2.5MG	TABS				1	
CARBAMAZEPINE	100MG	TABS			1		
CARBAMAZEPINE RETARD	200MG	TABS			1		
CHLORDIAZEPOXIDE	10MG	CAPS			1	1	
CHLORDIAZEPOXIDE	5MG	CAPS				1	
CHLORPHENAMINE	4MG	TABS	1	1	1	1	1
CHLORPROMAZINE	25MG	TABS			1		
CIPROFLOXACIN	250MG	TABS	2	2	2	2	2
CLARITHROMYCIN	250MG	TABS	2		1	1	1
CLOMIPRAMINE	25MG	CAPS			1		
CLONAZEPAM	500MCG	TABS			1		
CLOPIDOGREL	75MG	TABS	1	1	1	1	1
CO-AMOXICLAV	375MG	TABS	1	1	1	1	1
CO-AMOXICLAV	625MG	TABS	1		1	1	
CO-TRIMOXAZOLE	480	TABS			1	1	
CODEINE PHOSPHATE	30MG	TABS			1		
CREON	10,000IU	CAPS			1		
CYCLIZINE	50MG	TABS			1		
DIGOXIN	62.5MCG	TABS	1	1	1	1	1
DEXAMETHASONE	2MG	TABS	2	2	2	2	2
DIHYDROCODEINE	30MG	TABS	1		1	1	
DOXYCYCLINE	100MG	CAPS	1		1		
DOXYCYCLINE	100MG	DISP TABS	2			2	
EDOXABAN	15MG	TABS				1	
ERYTHROMYCIN	250MG	CAPS	1		1	1	
FLUCLOXACILLIN	250MG	CAPS	1	1	1	1	1
FLUCONAZOLE	50MG	CAPS				1	
FLUPENTIXOL	3MG	TABS			1		
FUROSEMIDE	20MG	TABS				1	
GABAPENTIN	100MG	CAPS				1	
GLICLAZIDE	80MG	TABS			1	1	
HYDROCORTISONE	10MG	TABS				1	
ISOSORBIDE MONONITRATE	10MG	TABS			1	1	
HYOSCINE	10MG	TABS				1	
LAMOTRIGINE	25MG	TABS			1	1	
LEVETIRACETAM	250MG	TABS			1		
LEVONELLE	1500MCG	TABS	2	2	2	2	2
LEVOTHYROXINE	25MCG	TABS				1	
LINAGLIPTIN	5MG	TABS				1	
LISINOPRIL	5MG	TABS				1	
LOPERAMIDE	2MG	CAPS		1	1		

LEV = LEVERNDALE, GRH = GARTNAVEL ROYAL, STO = STOBHILL, DYK = DYKEBAR, ROW = ROWANBANK

DRUG	STRENGTH	FORM	LEV	GRH	STO	DYK	ROW
MAGNESIUM GLYCEROPHOSPHATE (NEOMAG)	4MMOL	TABS	1		1		
METFORMIN	500MG	TABS			1	1	
METFORMIN	850MG	TABS				1	
METOCLOPERAMIDE	10MG	TABS				2	
METRONIDAZOLE	200MG	TABS	1	1	1	1	1
NITROFURANTOIN	50MG	TABS			1		
ONDANSETRON	8MG	TABS				1	
PAROXETINE	20MG	TABS				1	
PHOSPHATE SANDOZ		TABS		1			
PHENOXYMETHYL PENICILLIN	250MG	TABS	1	1	1	1	1
PHENOBARBITAL	30MG	TABS	1				
PHENYTOIN	50MG	CAPS			1		
PIVMECILLINAM	200MG	TABS			1	1	
PREDNISOLONE	5MG	TABS	1	1	1	1	1
PREDNISOLONE	20MG	TABS	1	1	1	1	1
PREGABALIN	25MG	CAPS	1				
PREGABALIN	100MG	CAPS	1				
PROCHLORPERAZINE	5MG	TABS			1		
PROMETHAZINE	25MG	TABS	1		1		
RAMIPRIL	2.5MG	TABS			1	1	
RIVAROXABAN	10MG	TABS				1	
SANDO K	******	TABS			1		
SANDOCAL 1000	******	TABS			1		
SODIUM VALPROATE EC	200MG	TABS			1		
SPIRONOLACTONE	25MG	TABS			1		
SUMATRIPTAN	50MG	TABS				1	
TICAGRELOR	60MG	TABS				1	
TOPIRAMATE	25MG	TABS			1		
TRIFLUOPERAZINE	1MG	TABS				1	
TRIMETHOPRIM	100MG	TABS	1	1	1	1	1
WARFARIN	1MG	TABS			1	1	
ZUCLOPENTHIXOL	2MG	TABS				1	

Clozapine
A small supply of clozapine tablets will be kept in each emergency cupboard (1x 84 pack of both 25mg & 100mg tablets). These may only be accessed if authorization is given by the oncall mental health pharmacist.

Covid anti-viral drugs
The emergency cupboards at Gartnavel Royal, Leverndale and Stobhill will each hold **1 x 40 monupiravir capsules and 1 x 30 Paxlovid tablets** for the urgent treatment of Covid for eligible patients.

LIQUIDS

DRUG	STRENGTH	FORM	LEV	GRH	STO	DYK	ROW
AMOXYCILLIN	250MG/5ML	LIQUID	1	1	1	1	1
CHLORPROMAZINE	25MG/5ML	LIQUID	1		1		
CLARITHROMYCIN	250MG	LIQUID	1	1	1	1	1
ERYTHROMYCIN	250MG/5ML	LIQUID	1	1	1	1	1
FLUCLOXACILLIN	250MG/5ML	LIQUID	1	1	1	1	1
METOCLOPERAMIDE	5MG/5ML	LIQUID			1		
METRONIDAZOLE	200MG/5ML	LIQUID				2	
MIDAZOLAM (BUCCAL)	10MG/ML	LIQUID	1	1	1	1	
MORPHINE SULPHATE	10MG/5ML	LIQUID		1	1	1	
NYSTATIN SUSP	100,000IU/ ML	LIQUID	1	1	1	1	1
PHENOXYMETHYL PENICILLIN	250MG/5ML	LIQUID	1	1	1	1	1
SODIUM VALPROATE	200MG/5ML	LIQUID			1		
TRIMETHOPRIM	50MG/5ML	LIQUID	1	1	1	1	1

INJECTIONS

DRUG	STRENGTH	FORM	LEV	GRH	STO	DYK	ROW
AMOXICILLIN	500MG	INJECTION				5	
ARIPIPRAZOLE	7.5MG	INJECTION			5		
CLARITHROMYCIN	500MG	INJECTION				5	
CHLORPHENAMINE	10MG/ML	INJECTION	**5**	**5**	**5**	**5**	**5**
CYCLIZINE	50MG/ML	INJECTION			1		
DALTEPARIN	7500units	INJECTION			**1**		
DALTEPARIN	10,000units	INJECTION			**1**		
DALTEPARIN	12,500units	INJECTION			**1**		
DALTEPARIN	15,000units	INJECTION			**1**		
DALTEPARIN	18,000units	INJECTION			**1**		
DIAMORPHINE*	5MG	INJECTION		**0**	**0**	**0**	
ENOXAPARIN	20MG	INJECTION	10	10	10	10	10
ENOXAPARIN	40MG	INJECTION	10	10	10	10	10
ENOXAPARIN	100MG	INJECTION				**10**	**10**
ENOXAPARIN	150MG	INJECTION	10				
HYDROCORTISONE	100MG	INJECTION	5	5	5	5	5
HYOSCINE	400MCG	INJECTION	10				
HYOSCINE BUTYLBROMIDE	20MG/ML	INJECTION			10		
LEVETIRACETAM	500MG	INJECTION				10	
LEVOMEPROMAZINE	25MG/ML	INJECTION			**10**		
LIDOCAINE	1%	INJECTION			10	10	10
METOCLOPERAMIDE	10MG	INJECTION			10	10	10
MIDAZOLAM (CD)	10MG/2ML	INJECTION			**10 (CD) Armadale**		
MORPHINE SULPHATE	10MG	INJECTION			**10 CD (ISLA)**		
OLANZAPINE	10MG	INJECTION	**5**		**5**		**3**
PHYTOMENADIONE IV (Paediatric)	2MG	INJECTION		**5**	**5**		
PROCHLORPERAZINE	12.5MG	INJECTION	10		10		
PROCYCLIDINE	10MG	INJECTION	5	5	5	5	5
PROMETHAZINE	25mg/ml	INJECTION	1	1	1	1	1
SODIUM CHLORIDE	0.9%	INJECTION			10		
WATER FOR INJECTION	5ML	INJECTION	10	10	10	10	10
ZUCLOPENTIXOL ACETATE	50MG	INJECTION			5		5

*** Unavailable due to long term manufacturing problem.**

LEV = LEVERNDALE, GRH = GARTNAVEL ROYAL, STO = STOBHILL, DYK = DYKEBAR, ROW = ROWANBANK

The drugs highlighted in yellow are recommended for 'just in case' patients at end of life care.

INFUSIONS

DRUG	STRENGTH	FORM	LEV	GRH	STO	DYK	ROW
GLUCOSE	5%	I.V INF		**10**	**2**	**20**	**2**
GLUCOSE 5% & POT.CHL 0.3%	*******	I.V INF		**2**	**2**	**20**	**2**
SOD.CHL 0.9%	500ML	I.V INF		**10**	**2**	**20**	**2**
SOD.CHL 0.9%	100ML	I.V INF			**6**		
SOD.CHL 0.9% & POT.CHL 0.3%	*******	I.V INF	**2**	**2**	**2**	**20**	

SPECIALIST PARKISONS DRUGS

DRUG	STRENGTH	FORM	LEV	GRH	STO	DYK	ROW
CO-CARELDOPA	50/12.5	TABLETS	1	1	1	1	1
CO-BENELDOPA	50/12.5	CAPSULES	1	1	1	1	1
CO-BENELDOPA	50/12.5	DISPERSIBLE TABLETS	1	1	1	1	1
PRAMIPEXOLE	180MCG	TABLETS	1	1	1	1	1
PRAMIPEXOLE MR	260MCG	TABLETS	1	1	1	1	1
ROTIGOTINE	2MG	PATCHES	1	1	1	1	1
ROTIGOTINE	4MG	PATCHES	1	1	1	1	1
ROTIGOTINE	8MG	PATCHES	1	1	1	1	1
ROPINIROLE	1MG	TABLETS	1	1	1	1	1
ROPINIROLE XL	2MG	TABLETS	1	1	1	1	1

FRIDGE ITEMS

DRUG	STRENGTH	LEV	GRH	STO	DYK	ROW
CHLORAMPHENICOL EYES DROPS	0.50%	2	2	2		2
GLUCAGON	********		1	1	1	1
INSULIN HUMAN ACTRAPID 100IU	********	1	1	1	1	1
INSULIN LANTUS	VIALS	1	1	1	1	1
HUMULIN M3	VIALS	1	1	1	1	1
PABRINEX IMHP	********			10		
PHENELZINE	15MG TABS	1				
TETANUS & DIPTHERIA P/F SYRINGE	0.5ML	2			2	

Note: fridge items at Stobhill are in Portree Ward

Methadone holding wards – South Ward, Dykebar; Rutherford, Gartnavel Royal, Broadford, Stobhill

Suboxone and Pabrinex IVHP may be obtained via addictions at Eriskay house

Hepatitis C drugs are co-ordinated by the Hepatitis C pharmacy team at GGH. **It is essential that they do not miss doses of their therapy to avoid resistance, so we must ensure continuity of supply.** If the patient's own supply is not available during OOH/Weekends, supply should be coordinated via GGH staff on a Saturday morning (9-12). Outwith this time, drugs are available in the GGH emergency cupboard via the GGH co-ordinator and staff should arrange transport.

LEV = LEVERNDALE, GRH = GARTNAVEL ROYAL, STO = STOBHILL, DYK = DYKEBAR, ROW = ROWANBANK

CREAMS/OINTMENTS/MISC

DRUG	STRENGTH	FORM	LEV	GRH	STO	DYK	ROW
ACTIVATED CHARCOAL (CARBOMIX)	********	MISC	1		1		
AQUASOL		100ML	5			10	
BECLOMETHASONE(CLENIL Modulite)	100MCG	MISC	1	1	1	1	3
BETAMETASONE EYE/EAR DROPS	********	MISC			1		
CALCIUM RESONIUM	300GM	MISC	1			1	
CHLORAMPHENICOL EYE OINT.	1%	MISC			2	2	
CLOTRIMAZOLE	1%	MISC			1	1	
CLOTRIMAZOLE	500MG	PESSARY			1		
DIORALYTE SACHETS	********	MISC		1	1		
EMERGENCY TRAY**						1	
FOSFOMYCIN	3G	SACHET			2		
GENTAMYCIN EAR DROPS	********	MISC			1		
GLYCERYL TRINITRATE SPRAY	400MCG	MISC		1	2	2	2
HEDRIN	4%	Lotion			1		
HYPOSTOP		GEL			1	1	
INSTILLAGEL	2%	MISC		1	1		
MAGNASPARTATE		SACHETS			1		
OXYGEN CYLINDER	F					2	
PERMETHRIN (LYCLEAR)	30GM	CREAM			1		
SALBUTAMOL INH	100MCG	MISC	1	1	1	1	1
SPACER			1				
TIOTROPIUM INH	10MCG	MISC	1	1	1	1	1
BLANK ADDITIVE LABELS	*******	MISC					
SKILLETS D75	*******	MISC					
TABLET BOTTLE 25ML	*******	MISC					
BLANK LABELS	*******	MISC					
CONSIGNMENT NOTE	*******	MISC	10	10	10	10	
ENVOPAK	*******	MISC	10	10	10	10	

LEV = LEVERNDALE, GRH = GARTNAVEL ROYAL, STO = STOBHILL, DYK = DYKEBAR, ROW = ROWANBANK

**** For use at Dykebar only**

Standard operating procedure
Accessing Medication Out of Hours

Emergency drug cupboards are a shared resource provided by pharmacy to allow in-patient wards access to a range of drugs they may need to obtain out with normal pharmacy hours but which they do not usually keep as ward stock. The procedure below describes how this operates.

If a ward requires an item(s) out of hours they do not have in stock they should take the following actions

1. Use patients own supply if appropriate
2. Attempt to obtain it from the emergency drug cupboard on their site via the locally agreed process. Then if that fails
3. Attempt to borrow it from another ward on their site. Then if that fails
4. The site page holder/response nurse should examine the service wide emergency drug cupboard list to determine if the required item(s) are held in another site's emergency cupboard. If they are they should then take the following actions:

- Contact the page holder/response nurse for the site with the required item(s).
- Explain the need and ask for the items to be made available.
- The page holder/response nurse for the site with the required item will check the emergency cupboard to make sure the items are available and confirm that they will supply them to the unit that needs them.
- On receipt of that confirmation the page holder/response nurse for the site that needs the items will arrange for a taxi to go the site that is lending them.
- The page holder/response nurse for the site with the required item will then take the following steps:
    - Complete local documentation for removing an item from the emergency cupboard as per usual practice.
    - Place the item(s) into a grey plastic envopak (supply available in emergency cupboard) & seal up, write destination on outside of envopak.
    - Fill in consignment note (supply available in emergency cupboard) with date, time & exact address & post code for delivery.
    - Take sealed envopak & consignment note to appropriate reception area (each site will determine the precise location) for uplift by taxi
    - On uplift the taxi driver will be required to sign the consignment note and endorse with their taxi 'call number'. The white copy of the consignment note will be sent with the goods and the green copy sent to the pharmacy on or associated with the site.
    - On receipt of the package the receiving site nurse will sign the white copy of the consignment note and return it to pharmacy.
    - The receiving unit will confirm the successful delivery of the required items with the lending unit.
- The contents of emergency cupboards will be checked up on a regular basis by local pharmacy technical services.
- Where there are emergency stocks of controlled drugs within Emergency Cupboards, a CD order must be written by the ward requiring these items and

it and a copy of the prescription sheet must be provided to the staff releasing stock from the emergency cupboard stock before any supply can be made.

5. Saturday & Sunday 9am - 12noon obtain from the relevant Acute Sector dispensary as follows **if authorised to do so by the mental health on call pharmacist:**

   Dykebar, Leverndale, Blythswood House,– RAH Pharmacy (Saturday only)

   Rowanbank, Gartnavel Royal, Netherton & Stobhill – GRI Pharmacy

Note: The ability of mental health wards to obtain medicines from Acute dispensaries on Saturday & Sunday mornings is at the discretion of the dispensary staff. **Only medicines deemed as genuinely necessary will be supplied i.e. this is not a service to compensate for poor stock management during the normal working week**. Mental Health wards must phone the mental health on-call pharmacist first to discuss the need for any medicines required and will be responsible for arranging the transport to collect the required items.

6. Steps 1 – 4 must be undertaken by wards & services before contacting the mental pharmacy on call team via switchboard.

Extrapyramidal side effects- Managment (MHS MRG 43)

Warning: This guideline is 19627401 day(s) past its review date.

Resources

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NHS Greater Glasgow & Clyde
Mental Health Services

Protocol for the use of Unlicensed Fluphenazine Decanoate Injection

Indication

Sanofi the manufacturer of Modecate injection (Fluphenazine decanoate) ceased production of the preparation in 2018 and all licensed stock will cease to be available by August 2020. An unlicensed version can be imported from Germany to enable treatment to be maintained for those legacy patients unable to switch to a licensed alternative long acting injection.

Fluphenazine decanoate was licensed for the treatment and maintenance of patients with schizophrenia and paranoid psychoses[5].

Informed consent

Due to its unlicensed status, explanation for the rationale of treatment choice should be given at a suitable time during the patient's treatment. Patient information explaining unlicensed medication in general terms is available via the Choice and Medication portal[2], as is a specific fluphenazine decanoate leaflet.

Documentation

The consultant psychiatrist must make a clear record of the rationale for prescribing an unlicensed medication within the patient's case notes and document the discussion with the patient[1]. Nursing staff in the ward must be informed of the medicine's unlicensed status and ward clinical pharmacists must ensure that staff are aware of the unlicensed status.

When ordering fluphenazine decanoate injection, the patient's initials and CHI should be included on the requisition as well as the phrase "as per protocol" for the order to be processed.

A record of administration of unlicensed medication must be kept (as per unlicensed medication policy[3]). When entering administration on HEPMA, the drug batch number and expiry date should be recorded when prompted. It is the responsibility of the nurse in charge to ensure this occurs.

When supplying fluphenazine decanoate injection from pharmacy, pharmacy staff must ensure that batch numbers are documented on the requisition.

Review & Monitoring

Patients must be reviewed and monitored in accordance with NHS GG&C Policy, MHS 30-Good Practice Statement for the use of Depot and Long Acting Antipsychotic Injections[4].

Dose range[5]

- **Adults:** a test dose of 12.5mg should be administered by deep intramuscular injection into the gluteal region. The onset of action generally appears between 24 and 72 hours after injection and the effects of the drug on psychotic symptoms become significant within 48 to 96 hours. Subsequent injections and the dosage interval are determined in accordance with the patient's response. When administered as maintenance therapy, a single injection may be effective in controlling schizophrenic symptoms for up to four weeks or longer.

  It is desirable to be as flexible in the dose as possible to achieve the best therapeutic response with the least side effects. Most patients are successfully maintained within the dose range **12.5 – 100mg** given at an interval of **2 to 5 weeks.**

  Patients suffering a relapse following cessation of fluphenazine decanoate may be restarted on their previous dose although the frequency of injections may need to be increased in the early weeks of treatment until satisfactory control is obtained.

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- **Elderly:** elderly patients may be particularly susceptible to extra-pyramidal reactions. Consequently a reduced initial dose (6.25mg) and a lower maintenance dose may be required.

Side effects[2,5]

Very common (>1 in 10)

- Sleepiness
- Extra-pyramidal movement disorders
- Constipation
- Dry mouth
- Blurred vision
- Weight gain
- Pain at the injection site

Common (> 1 in 100)

- Hyperprolactinaemia
- Postural hypotension
- Sexual dysfunction

Rare (> 1 in 1000)

- Urinary retention
- Venous thrombomembolism
- Neuroleptic Malignant Syndrome (NMS)
- Tardive Dykinesia
- QTc prolongation

Contraindications[5]

- Hypersensitivity to fluphenazine decanoate or any other excipients in the injection.
- Comatose states
- Marked cerebral atherosclerosis
- Phaeochromocytoma
- Renal failure
- Liver failure
- Severe cardiac insufficiency
- Severely depressed states
- Existing blood dyscrasias

Cautions[5]

- Liver disease
- Renal impairment
- Cardiac arrhythmias, cardiac disease
- Thyrotoxicosis
- Severe respiratory depression
- Epilepsy and conditions predisposing to epilepsy (e.g. alcohol withdrawal or brain damage)
- Parkinson’s disease
- Patients with known sensitivity to phenothiazines
- Personal or family history of narrow angle glaucoma
- Hypothyroidism
- Myasthenia gravis
- Prostatic hypertrophy

Interactions[5]

- Other drugs that produce CNS depression e.g. alcohol, general anaesthetics, hypnotics, sedatives or strong analgesics
- Antagonise the action adrenaline and other sympathomimetic agents
- Impair the effect of levodopa
- Impair the effect of anti-convulsants
- Increase the effect of anticoagulants and antidepressants
- Lithium
- Other drugs known to prolong QTc
- MAOIs

References

1. GMC Good practice in prescribing and managing medicines and devices. Updated Apr 21

2. Choice and Medication. Unlicensed medications handy fact sheet and fluphenazine PIL

3. NHS Greater Glasgow and Clyde Area Drug and Therapeutics Committee Policies Relating to the Management of Medicines Section 9.1

4. NHS GG&C MHS 30 Good Practice Statement for the use of Depot and Long Acting Antipsychotic Injections

5. Electronic Medicines Compendium Modecate SPC 2015

Glasgow Antipsychotic Side-effect Scale (GASS)

Warning: This guideline is 19626793 day(s) past its review date.

Abstract

Due to a change in licence terms the GASS has been temporarily removed from this page. If you are a member of NHSGGC staff and require a copy of the scale please contact mypsych@ggc.scot.nhs.uk - thank you.

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Haloperidol and QTc Interval Prolongation

Following a review by the European Medicines Agency (EMA) the Summaries of Product Characteristics (SmPC) for all haloperidol formulations (oral, intramuscular/intravenous immediate release injections & intramuscular long acting injections) have been harmonised.

A significant change has been made to the contra-indications for haloperidol.

The use of haloperidol is now contra-indicated in combination with other drugs known to prolong the QTc interval.

That haloperidol can prolong the QTc interval has been known for many years and this was a clear caution within previous SmPCs. The EMA review has concluded that the risks are such that the combination of haloperidol with other drugs known to prolong QTc is high enough to warrant contra-indication and a recommendation that such combinations are avoided.

(Details of drugs that are known to be associated with QT prolongation can be found in Table 9, page 1266 BNF 74 and https://www.crediblemeds.org/ [The 'Quick Scan' scan function can be used to search for drugs on the QT Drugs lists. Access to download the combined QTdrugs lists requires registration (free)] Alternatively, users with an Athens password can access a table from Stockley's Drug Interactions at https://www.medicinescomplete.com/mc/stockley/current/Table9.2.htm[6] Ensure that you have logged in to your Athens account before following this link.)

Haloperidol has a wide range of indications within mental health and acute care e.g. acute and maintenance treatment of psychosis, short term treatment of disturbed behaviour and delirium, and nausea in palliative care. Therefore the implications of this contra-indication affect treatment across all healthcare settings. It is recognised that in some circumstances the use of such combinations may be clinically appropriate and unavoidable.

Clinicians are advised to take the following actions

1. Review the medication of all patients prescribed haloperidol on a regular basis. If treatment with haloperidol is essential, where possible discontinue any other medicines known to prolong QTc.
2. Review the medication of all patients prescribed haloperidol on an 'as required' basis for the management of disturbed behaviour. If intermittent use of an antipsychotic for this purpose is still required discontinue haloperidol and prescribe an alternative antipsychotic.
3. If on review, the use of haloperidol in combination with other drugs is clinically appropriate and therefore unavoidable ensure that the rationale for treatment and relevant patient consents are obtained and documented.
4. Do not prescribe haloperidol to patients whose cardiac status is unknown or unstable.

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Monitoring

- The SmPCs all recommend pre-treatment ECG for all patients prior to use of haloperidol. If circumstances make this impractical either do not use haloperidol or if use is unavoidable, a clear justification must be recorded in the chronological account of care.
- SmPCs further recommend that during therapy, the need for ECG monitoring for QTc interval prolongation and for ventricular arrhythmias must be assessed in all patients. For patients on long term treatment an annual ECG as part of routine physical health monitoring is recommended. More frequent ECG monitoring may be necessary on a case by case basis.
- Electrolyte disturbances (e.g. hypokalaemia, hypocalcaemia and hypomagnesaemia) should be corrected before treatment with haloperidol. If circumstances make this impractical either do not use haloperidol or if use is unavoidable a clear justification must be recorded in the chronological account of care.
- If cardiovascular symptoms suggestive of arrhythmias develop, such as palpitations, dizziness, syncope or seizures during treatment, cardiac evaluation including an ECG should be undertaken to exclude a possible malignant cardiac arrhythmia. If the QTc interval is >500 milliseconds treatment should be stopped.

The following section describes actions to be taken in scenarios where use of haloperidol is common.

Managing a patient on regular oral haloperidol or on haloperidol decanoate (depot) and a contraindicated medication known to prolong QTc interval

- Review ongoing need for haloperidol or concurrent contraindicated medication. Consider changing one or other medications to a medication with no effect on QTc interval.
- If combination cannot be avoided;
    - Assess risk factors for QTc prolongation
    - Consider increased monitoring and do an ECG and biochemical monitoring if not recently performed
    - Obtain and document consent. Or ensure a DMP second opinion is obtained.
    - Ensure the rationale for continuing the combination is clearly documented within the individual's chronological account of care.
    - Ensure ongoing review of combination, including review of physical risk factors and close monitoring of ECG and biochemical parameters.

Managing a patient who requires 'as required' psychotropic medication and is already on a medication that would be contraindicated with haloperidol e.g. a regular antipsychotic

- Consider all options available for managing for acute psychiatric disturbance including non-medication options.
- Avoid the use of 'as required' haloperidol in individuals who are already receiving medications known to prolong QTc interval.
- Where 'as required' medication is deemed to be appropriate, develop a clear individualised treatment plan which incorporates the use of oral and if appropriate, IM 'as required' medication.
- Oral 'as required' medication- consider the use of;
    - Benzodiazepines

    - Using a small dose of the individual's regular antipsychotic as an as required treatment being mindful of the potential for this to breach high dose antipsychotic therapy e.g. the use of 2.5mg olanzapine or 25mg quetiapine.
    - promethazine
- IM 'as required' medication- consider the use of;
    - Benzodiazepines- lorazepam or midazolam
    - Alternative IM antipsychotics e.g. aripiprazole or olanzapine (NB olanzapine IM is an unlicensed preparation in the UK) GG&C MHS protocol for the use of unlicensed olanzapine injection
    - IM promethazine IM guidelines
- If it is felt to be clinically appropriate to consider the use of 'as required' haloperidol in an individual who is prescribed a contraindicated combination, e.g. due to previous good response, or because alternatives are not appropriate, the following advice should be adhered to;
    - Assess risk factors for QTc prolongation
    - Consider increased monitoring and do an ECG and biochemical monitoring if not recently performed
    - Obtain and document consent. Or ensure a DMP second opinion is obtained.
    - Ensure the rationale for continuing the combination is clearly documented within the individual's care plan.
    - Ensure ongoing review of combination, including review of physical risk factors and close monitoring of ECG and biochemical parameters.

Prescribing Management Group – Mental Health

May 2023

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In-patient controlled drug administration SOP (MHS MRG 39)

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In-patient medication administration SOP (MHS MRG 40)

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NHS Greater Glasgow & Clyde
Mental Health Service
Management of Insomnia Guideline

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NHS GG&C Mental Health Services
Management of Insomnia Guideline

Revision Information

Please record brief details of the changes made alongside the next version number. If the procedural document has been reviewed **without change**, this information will still need to be recorded although the version number will remain the same.

Version	Date	Brief Summary of Changes	Author(s)
1.0	Apr 2015	Consultation Draft	P Davies
2.0	Apr 2018	Title of guideline changed from Hypnotic Prescribing to Management of Insomnia Page 2,4,6. NICE CKS 2015 Insomnia added as reference Page 3. Sleep hygiene advice tabulated and updated Page 3. Choice and medication Insomnia guide and sleep hygiene handy fact sheet added Page 4. Potential adverse effects (including falls risk) and long term complications of hypnotics added under general principles Page 4,6. NICE CKS Benzodiazepine and Z-drug withdrawal 2015 added as reference Page 5,6. GG&C formulary site added as reference Page 5 Diazepam and nitrazepam not recommended due to their long half lives	L Templeton L Burns
3.0	Jan 2022	Page 5. Addition of melatonin prescribing information	S Burke

NHS GG&C Mental Health Services
Management of Insomnia Guideline.

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Introduction & Background

Insomnia can often be poorly managed therefore this guideline describes best practice around the promotion of sleep hygiene and appropriate pharmacological intervention. This guideline was originally produced by consolidating the best practice from the existing set of guidelines in use within NHS GG&C. This guideline has been updated to take into account NICE CKS Insomnia 2015[1] and NICE Technology Appraisal No77, 2004[2], Guidance for the short term management of insomnia.

Scope

Application – all clinical settings across Mental Health Services, NHS GG&C.

Non-pharmacological Interventions

Before treating insomnia with drugs, prescribers should consider:

- Managing any underlying cause for insomnia
- Substance misuse or dietary issues
- Ensure appropriate timing of potentially stimulating drugs
- Ensure realistic expectation of sleep and sleep duration
- Encourage sleep hygiene approaches, as indicated within the table below;

Sleep Hygiene Advice * Sleep hygiene is a variety of different practices and habits intended to promote better quality sleep
Maintain a regular sleep-wake schedule. Go to bed and rise at the same time each day
Avoid sleeping in after a poor night
Do not nap, especially close to bedtime
Keep the environment dark, quiet (use earplugs if necessary) and at a comfortable temperature
Avoid using backlit screens e.g. smart phones, tablets, computer screens, television for an hour before bedtime
Avoid watching the clock
Do not lie in bed for prolonged periods awake. If unable to fall asleep (or back to sleep) within 20 minutes, get out of bed. Engage in relaxing activity until drowsy then return to bed and repeat this action as necessary
Avoid excessive liquids or heavy evening meals
Minimise or avoid caffeine (N.B. contained in many soft drinks), alcohol, tobacco, stimulants, especially after noon
Warm milk-based drinks before bed can help. Milk contains tryptophan, a precursor to serotonin, which aids sleep.
Exercise regularly but not within 3-4 hours of bedtime
Go outside for at least half an hour each day (especially late afternoon). Exposure to natural light helps restore circadian rhythm

For further information on sleep hygiene and handy fact sheets for patients please refer to the Choice and medication website hosted via the NHS Inform portal[3]:

http://www.choiceandmedication.org/nhs24/condition/insomnia/
Sleep hygiene handy fact sheet

If these approaches fail or are impractical, a pharmacological intervention may be appropriate.

Pharmacological Interventions

1) *General Principles*

<u>Hypnotic use is for short term use only</u>

- Be aware of (and advise patients of) interactions with alcohol and other drugs (prescribed and non-prescribed)
- Be aware of potential 'hangover' effects of hypnotics
- Potential adverse effects of hypnotics include daytime sedation, poor coordination, cognitive impairment, and related concerns about the increased risk of driving accidents and falls especially in the elderly
- Avoid hypnotics in patients at risk of respiratory depression
- Avoid hypnotics in patients with a severe hepatic impairment
- Avoid hypnotics in addiction-prone individuals
- As required hypnotics should not be administered routinely and ideally not at a fixed time. A clear need should be evident e.g. patient fails to sleep despite an adequate time in bed
- Long-term use of hypnotics can lead to the development of tolerance, physical or behavioural dependence, adverse effects on withdrawal, rebound insomnia, and increased mortality [1]

2) *New presentation of a sleep disorder*

- Use the recommended formulary option [4] i.e. zopiclone unless an alternative is clinically indicated
- Use the lowest effective dose
- Use intermittent dosing e.g. alternate nights or lower frequency of use
- Prescribe as an 'as required' medication. The prescribing and administration of regular hypnotics at a fixed time is inappropriate
- Prescription should be for short term use (no more than four weeks duration)
- Prescriptions must be reviewed regularly (at least weekly)
- If a hypnotic is commenced as an inpatient, this must be discontinued prior to patient's discharge if possible

3) *Pre-existing prescription of a hypnotic for a sleep disorder*

- Assess the current requirement for a hypnotic;
    - Evidence of an existing sleep disorder
    - Consider factors contributing to a sleep disorder
    - Appropriate dose and duration of treatment
    - Appropriate timing of dose
- If the prescription is no longer appropriate, discontinue slowly to minimise the risk of rebound insomnia and withdrawal symptoms. For further information, refer to the NICE CKS on benzodiazepine and z-dug withdrawal[5] or seek advice from a specialist mental health pharmacist
- If a hypnotic is still required
    - Ensure formulary choice
    - Switch if necessary and optimise dose
- Prescriptions must be reviewed regularly (at least weekly)
- At resolution of sleep disorder, consider slow withdrawal of treatment

Choice of Hypnotic

From NICE Technology Appraisal No77 2004[2];

> *"It is recommended that, because of the lack of compelling evidence to distinguish between zaleplon, zolpidem, zopiclone or the shorter-acting benzodiazepine hypnotics, the drug with the lowest purchase cost (taking into account daily required dose and product price per dose) should be prescribed."*

Patients who have not responded to one of these hypnotic drugs should not routinely be prescribed any of the others. Although, consideration may be given to alternatives in situations where there is an incidence of z-drug or benzodiazepine abuse, where alternatives may be appropriate.

The Formulary Preferred List hypnotic in NHSGG&C is zopiclone.[4]

If zopiclone is inappropriate, another formulary hypnotic should be prescribed.[4,6] Diazepam and nitrazepam are not recommended because their long half-life commonly gives rise to next day residual effects, and repeated doses tend to be cumulative.[1]

Melatonin

Melatonin is not included within the GGC adult formulary. However, we recognize that melatonin is used to aid sleep within MH services especially CAMHS and Learning Disabilities. Zopiclone remains the first line choice within Adult MHS. Where melatonin is prescribed it should be part of a package of sleep hygiene and altered sleep behaviour as detailed above.

For further information on dosing and prescribing, refer to the adult or children shared care agreement here or the table below. Maximum duration of treatment is 13 weeks or until sleep pattern normalizes (unless used for REM sleep disorders).

Dosing advice in GGC shared care guidelines for melatonin	**MR 2mg tablets**		**Immediate release 3mg tablets**		**Oral solution**	
	Adults	**Children**	**Adults**	**Children**	**Adults**	**Children**
Recommended starting dose	2 mg	2 mg	3 mg	3 mg	2 mg	2-3 mg
Titration (depending on response)	Increase by 2 mg every 7-14 days	Increase by 2 mg every 7-14 days	Increase to 6 mg after 7-14 days	Increase to 6 mg after 7-14 days	Increase to 6 mg after 7-14 days	Increase to 4-6 mg after 7-14 days
Maximum dose	12 mg	8 mg	12 mg but additional benefits above 6-9 mg are uncertain	12 mg but additional benefits above 6-9 mg are uncertain	8 mg	10 mg but additional benefits above 6-9 mg are uncertain

Management of Insomnia Guideline: Audit Criteria

Criterion Statement	Standard	Exceptions
Is there a documented assessment indicating a sleep disorder	100%	None
Non-pharmacological interventions have been attempted	100%	None
Where a hypnotic is indicated, zopiclone is prescribed	100%	Intolerance or previous/potential misuse of zopiclone Prescriber has documented rationale for alternative choice of hypnotic.
Evidence of regular (weekly) review	100%	None
New hypnotic prescriptions are discontinued prior to discharge if commenced as an inpatient	100%	None

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2. National Institute for Health and Care Excellence (NICE) Technology Appraisal No 77. Guidance on the use of zaleplon, zolpidem and zopiclone for the short-terms management of insomnia. April 2004 (reviewed 2010) https://www.nice.org.uk/guidance/ta77 Accessed online 21st February 2018.

3. NHS Choice and Medication http://www.choiceandmedication.org/nhs24/

4. NHS GG&C Formulary. http://www.ggcmedicines.org.uk/

5. National Institute for Health and Care Excellence (NICE) Clinical Knowledge Summaries (CKS). Benzodiazepine and Z-drug withdrawal. January 2019 https://cks.nice.org.uk/benzodiazepine-and-z-drug-withdrawal Accessed online 26th June 2021

6. British National Formulary (BNF) eBNF

NHS Greater Glasgow & Clyde
Mental Health Partnership
Safer Use of Medicine Group

Safer Use of Insulin

Background

Diabetes mellitus is a growing problem in the general population and the incidence is higher in people with mental health problems than the general population. In addition, many of the drugs we use in mental health settings are linked to effects on blood glucose and to the development of diabetes mellitus. Consequently, there is likely to be an increase in the number of people admitted to our services with a co-morbid diagnosis of diabetes mellitus and a significant subset of those people will be using insulin.

There have been a number of serious incidents involving insulin within mental health services. The increasing range of insulin preparations and delivery devices for the drug add to risks of incidents.

This advice note has been developed by the Mental Health Safer Use of Medicines group to make staff aware of the risks surrounding the use of insulin and to advise on good practice in this area.

1. Prescribing Insulin

It is essential that insulin is prescribed correctly. Prescribing will generally fall into two categories: initiating new insulin therapy (very uncommon in our setting) or continuing existing therapy on admission. If initiating insulin therapy always seek specialist advice.

- **Obtain an accurate history for all patients on insulin**. That should include the name and strength of the preparation used, the delivery device used, the dose and timing of each insulin dose. Standard medicines reconciliation processes should be followed to correctly identify the insulin preparations used on admission.

- **Prescriptions for insulin should be prescribed on HEPMA** by brand name, paying attention to ensure selection of the correct device and strength. All insulin doses should be prescribed on the Insulin Prescription and Administration form. This form should be kept within the treatment room and be available at the time of administration whilst in use then filed in case notes when complete.

2. Labelling Insulin Preparations

In most instances insulin preparations will be prescribed for routine use in individual patients. To aid product and patient selection insulin preparations should be appropriately labelled with the patient's name & CHI number, labels are available from Leverndale pharmacy.

- **Label insulin pens/devices and vials with the full patient identification** i.e. name & CHI number

- **Cartridges, vials and disposable pens must be labelled with the date of first use.**

3. Storage of Insulin Preparations

To maintain efficacy, insulin preparations must be stored correctly. The package insert and container will have advice on the correct storage of insulin preparations.

- Prior to initial use all insulin preparations must be stored in a refrigerator.

- All insulin preparations should be kept at room temperature while in use.

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- Non-disposable pens must not be kept in the fridge as the plastics and mechanism may be damaged by temperature changes.

- If a patient's own insulin preparations are to be used on admission attempt to ascertain how they have been stored and when they were first used. Only use them if you are sure they have been stored appropriately. For any unused cartridges or vials ensure they have been stored in a refrigerator.

- All in-use insulin pens should be stored in a segregated area of the drug trolley or patient's medicines locker.

- Insulin must be discarded ONE MONTH after first use.

3. Administering Insulin

There are a wide variety of insulin preparations and devices available. Where insulin is in use staff administering it must understand the type of preparation being used (short, medium or long acting) and know how to correctly operate the relevant delivery device. Any new or temporary staff to the ward must receive proper instruction on the use of any delivery devices as part of their induction.

- Blood glucose monitoring should always be performed prior to the administration of insulin. Refer to the NHS GG&C guideline: Diabetes, Self Monitoring of Blood Glucose

- Only administer insulin if the prescription is clear and unambiguous.

- Carefully check that the preparation name and device match those on the prescription.

- Carefully check that the patient's name and CHI number on the pen/device/cartridge match those on the prescription. The principles described in the Patient Identification Policy must be observed.

- Select the dose correctly and ensure the prescription, preparation, device and dose are checked independently by a second nurse prior to administration. The two practitioners must witness all aspects of the administration process i.e. preparation selection, drawing up the dose and the administration of the dose.

- Where the dose is being drawn up from an insulin vial, only insulin syringes designed for the purpose should be used.

- Patients may self-administer insulin if their mental state allows and only as part of a formal self-medication programme. If self-administration is appropriate, a nurse must check the prescription, preparation, device and dose before the patient administers the insulin.

The advice above is intended to provide a framework to support safer use of insulin with mental health settings. Use of insulin can be complex and is associated with significant risks for patients. Contact your local pharmacy or specialist diabetic service for advice and help. For more detailed information on the administration and use of insulin, the e-learning package Diabetes Think Check Act (5 modules) is available via learnPro

The following resource is also provides comprehensive advice on the management of diabetes in a mental health context LE Mental Health & Diabetes

Further information on acute management of diabetes can be found here

MHS SUM Group
March 2023

NHS GGC Mental Health Service

Guideline for use of Intramuscular Medication for Acutely Disturbed Behaviour in Mental Health and Associated Services

Important Note:
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Guideline for use of Intramuscular Medication for Acutely Disturbed Behaviour in Mental Health and Associated Services.

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Appendix 1:

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When reading this policy please consult the NHS Consent Policy when considering any aspect of consent

Revision/Amendment Information

Please record brief details of the changes made alongside the next version number. If the procedural document has been reviewed **without change**, this information will still need to be recorded although the version number will remain the same.

Version	Date	Brief Summary of Changes	Author(s)
		MHS Rapid Tranquillisation Guideline	
1.0		Guideline for use of Intramuscular Medication for Acutely Disturbed Behaviour in Mental Health and Associated Services	
2.0	Jan 2018	1. Page 3, section 1, 5th bullet point amended to make reference to the haloperidol contra-indication. 2. Page 4, section 4, first paragraph the e.g. part is new 3. Page 4/5, section 6, under midazolam new link to guidance added. 4. Page 5, 'Benzodiazepine notes' new 2nd bullet point added. 5. Page 5, section 7, 1st sentence new maximum cumulative haloperidol dose added. 6. Page 5, section 7, new text box added explaining the haloperidol contra-indication. 7. Page 6, new link added to olanzapine protocol. 8. Page 6, Risk Associated with Antipsychotics section, 1st bullet point amended with regards to haloperidol. 9. Page 7, Monitoring every 15 minutes section, 5th bullet point new. 10. Page 9, item 14 added to the bibliography. 11. Page 10, audit criteria, new item added regarding haloperidol	
2.1	24/10/2018	Addition of information and link to GGC Consent policy	C Sellar
2.2	04/2021	1. Midazolam added as the benzodiazepine of choice 2. Appendix 2 added- Pharmacokinetic properties of IM medication	S Burke

1. Introduction

Emergency Intramuscular Sedation (rapid tranquillisation) in this guideline refers to the use of medication by the intramuscular route when the oral route is not possible or appropriate and urgent treatment with medication is needed.

Treatment with intramuscular medication should be seen as the culmination of an approach that incorporates individualised care planning, anticipatory care, de-escalation and oral treatment; as such it is anticipated that the majority of patients will not require it.

When considering the use of intramuscular medication the following factors must be taken into account:

- The service user's preferences or advance statements and decisions
- Pre-existing physical health problems or pregnancy
- Consider intoxication including intoxication with a novel psychoactive substance. If intoxication with a novel psychoactive substance is suspected, contact a consultant psychiatrist for advice and consider transfer to an ED department.
- Previous response to these medications, including adverse effects
- Potential for interactions with other medications especially in the case of haloperidol where the use in combination with drugs known to cause QTc prolongation is a contra-indication. (see section 4)
- The total daily dose of medications prescribed and administered.

2. Scope

The guideline is applicable to all Mental Health and Learning Disability settings across NHSGGC.

This guideline supersedes all pre-existing rapid tranquillisation guidelines.

This guideline is intended to assist healthcare professionals in the choice of disease-specific treatments.

Clinical judgment should be exercised on the applicability of any guideline, influenced by individual patient characteristics. Clinicians should be mindful of the potential for harmful polypharmacy and increased susceptibility to adverse drug reactions in patients with multiple morbidities or frailty.

If, after discussion with the patient or carer, there are good reasons for not following a guideline, it is good practice to record these and communicate them to others involved in the care of the patient.

3. Prerequisites to Intramuscular Medicine Use

Each patient will have an individualised as required treatment plan incorporating the use of de-escalation techniques and as required or discretionary oral medication as appropriate for the patient (See Appendix I: Best practice points for the prescribing & administration of as required psychotropic drugs). The plan should cover the choice of IM medication where necessary.

Where necessary, completion of relevant MHA documentation i.e. a T3/T4 form may be required in the event that intramuscular medication is administered (see Advice Notes, Medical Treatment under part 16 of the Mental Health (Care and Treatment) (Scotland) Act 2003; Mental Welfare Commission for Scotland). It should be noted that treatment under the Adults with Incapacity (Scotland) Act 2000 does not authorise the use of restraint and therefore the use of IM medication for management of acutely disturbed behaviour. If IM administration is required

the appropriate MHA documentation should be completed.

When IM sedation is administered, a doctor should be informed and available to attend the patient within 30 minutes if required[1,2].

Consider the potential for inadvertent high-dose antipsychotic therapy when prescribing IM antipsychotics.

When prescribing medication for use intramuscularly, write the initial prescription as a once-only dose, do not repeat it until the effect of the initial dose has been reviewed.

4. Choice of Intramuscular Medication

Recommended Treatment Choices, *NICE Guidance (NG10 2015)*
Midazolam (or lorazepam, if used locally)
or
Haloperidol +/- promethazine
NB: NICE and SIGN recommend combining haloperidol and promethazine (not in the same syringe), however current practice in Scotland is to use haloperidol alone.

Alternative Medication Options

The following medicines are alternative options not recommended by NICE for the purpose of emergency IM treatment in acutely disturbed patients but may be considered where the use of haloperidol is inappropriate e.g. where a patient is already prescribed a regular medication known to prolong the QTc interval.

- Aripiprazole
- Olanzapine

Promethazine may be a useful option in a benzodiazepine-tolerant patient or where there is concern over the use of an antipsychotic medication.

Appendix 2 gives a summary of the pharmacokinetic properties of IM medication.

Intramuscular Medication Doses in Adults

5. Benzodiazepines

Have flumazenil IV available in case of benzodiazepine-induced respiratory depression.

1st choice: Midazolam 5mg-7.5mg

Maximum cumulative dose over 24 hours: 15mg

¼- ½ adult dose- In elderly (>60), physically ill or debilitated patients, individuals with renal, hepatic or cardiac function or chronic respiratory insufficiency.

Monitoring for excessive sedation, respiratory depression, hypotension for at least 4 hours after last dose.

Midazolam 10mg/2ml ampoules should be used for this indication, as it is a controlled drug (CD), it must be ordered in the ward CD order book, stored in CD cupboard and receipt/administration recorded in the CD register.

Midazolam is considered 1st choice due to significant increase in the cost of lorazepam injection.

2nd Choice: Lorazepam 2mg
Maximum cumulative dose (oral and/or IM) over 24 hours: 8mg.
Note: This dose exceeds the recommended BNF maximum licensed dose for the treatment of anxiety (4mg)

Risks associated with benzodiazepines

- Respiratory depression or arrest.
- Loss of consciousness.

Benzodiazepine are useful if:

- There is insufficient information to guide the choice of medication, or the patient has not taken antipsychotic medication before
- The patient is already on a regular antipsychotic and the use of haloperidol is contraindicated.
- There is evidence of cardiovascular disease, including a prolonged QT interval, or no electrocardiogram has been carried out, use an intramuscular benzodiazepine
- If olanzapine IM administered, wait one hour before administering an IM benzodiazepine

6. Antipsychotics

Haloperidol 5mg

Have procyclidine IM available to treat acute dystonias (including oculogyric crises).

Maximum cumulative dose over 24 hours: 20mg IM/Oral. It is anticipated that most patients will not require more than 15mg cumulatively per day.

Where a patient is benzodiazepine tolerant or prescribed regular benzodiazepines, consider the use of haloperidol +/- promethazine first.

Do not give haloperidol to patients whose cardiac status is not known

The SPC recommends a pre-treatment ECG. If a pre-treatment ECG is not possible, there must be careful consideration given to the appropriateness of haloperidol as a treatment choice.

The contra-indications and maximum daily doses of haloperidol have changed. The use of haloperidol is contra-indicated in combination with drugs that prolong the QTc interval (https://www.crediblemeds.org/).

Consequently, where possible such combinations should be avoided. The use of haloperidol in such a combination renders treatment unlicensed[14]. In the event that clinical circumstances make the use of such combinations unavoidable and all other options have been considered ensure the following actions are taken;

- Ensure the rationale for treatment is clearly documented and reflected in the patient's as required care plan.
- Obtain and document consent. If informed consent is not possible ensure a Designated Medical Practitioner (DMP) second opinion is obtained.
- Ensure modifiable risk factors for QTc prolongation are minimised e.g. electrolyte abnormalities (hypokalaemia, hypomagnesaemia, hypocalcaemia), extreme physical exertion, discontinue other drugs known to prolong QTc if possible
- Consider populations that are at higher risk of QTc prolongation e.g. women, children, elderly, those with known cardiac disease, known substance misusers, extremes of weight
- Consider increased monitoring e.g. U&Es, LFTs, ECG monitoring

The implication of all of the above information is that the use of haloperidol in combination with any other antipsychotic should be avoided where possible

Olanzapine 10mg

Maximum cumulative dose (oral and/or IM combined): 20mg

If olanzapine IM administered, wait one hour before administering an IM benzodiazepine

If an IM benzodiazepine administered, the clinical status of the patient should be assessed and consultant advice obtained prior to IM olanzapine being administered.

See the olanzapine IM (Short Acting Injection) Prescribing Guidance document for more information.

Aripiprazole 9.75mg

Maximum cumulative dose (oral and/or IM combined): 30mg

Risks Associated With Antipsychotic Drugs

- Cardiovascular complications, QTc prolongation especially if haloperidol is used in combination with other drugs known to prolong QTc.
- Reduction in seizure threshold.
- Adverse side effects: subjective experience of restlessness (akathisia), acute rigidity (dystonia) and involuntary movements (dyskinesia).
- Altered consciousness.
- Neuroleptic malignant syndrome: Increased temperature, sweating, restlessness, altered consciousness or marked muscular rigidity should alert staff to the possibility of neuroleptic malignant syndrome (NMS). Such signs require cessation of all antipsychotic drugs, cooling of the patient and urgent medical assessment.

NOTE: Zuclopenthixol acetate (Clopixol Acuphase) is NOT recommended for immediate IM sedation. Further guidance on it use is available here.

7. Antihistamine

Promethazine 50mg
Maximum cumulative dose over 24 hours: 100mg (wait 1-2 hours between doses to assess response)

Note: May be a useful option in a benzodiazepine-tolerant patient or if there is concern over the use of an antipsychotic medication.

Risks Associated With Promethazine

- Promethazine is contraindicated in people with central nervous system depression and those who have taken monoamine oxidase inhibitors within the past 14 days.
- Cautions include respiratory conditions, coronary artery disease, epilepsy and hepatic and renal insufficiency.
- Possibility of QTc prolongation (if administered via i/v)
- Reduction in seizure threshold

8. General guidance

- Use lower doses in other patient groups e.g. elderly or debilitated.
- Care must be taken in struggling patients to avoid inadvertent IV administration.

After an initial IM Administration:

- Nursing staff commence physical monitoring immediately after administration
- Repeat after 30-60 minutes if insufficient effect (**exception**: wait 1-2 hours after promethazine and 2 hours after olanzapine IM).
- Response to each dose should be documented in the patients' care record.
- Be aware of the total dose of medication administered over the last 24 hour period.

9. Monitoring Requirements

After the administration of intramuscular sedation, monitor side effects and the patient's pulse, blood pressure, respiratory rate, temperature, level of hydration and level of consciousness **at least every hour** until the patient is ambulatory and there are no further concerns about their physical health status. Where full monitoring is impractical, document clearly the reasons why and ensure a minimum observation of respiration and level of consciousness.

Monitor every 15 minutes:

- **If the BNF maximum dose has been exceeded OR**
- **The patient:**
    - Appears to be asleep or sedated
    - Has taken illicit drugs or alcohol
    - Has a pre-existing physical health problem
    - Has experienced any harm as a result of any restrictive intervention
    - Has been given haloperidol in combination with other drugs known to prolong QTc

10. Management of Problems Occurring During the use of Intramuscular Medication:

Problem	Remedial Measures:
Contact Duty Doctor	
Acute dystonias (including oculogyric crises)	**Give procyclidine 5-10mg IM**
Reduced respiratory rate <10 / minute or oxygen saturation <90%	**Give Oxygen.** Give **flumazenil** if benzodiazepine-induced ▪ Initially 200mcg IV over 15 seconds – if required level of consciousness not achieved after 60 seconds then: ▪ Subsequent dose: 100mcg over 10 seconds, repeated after 60 seconds if necessary. ▪ Maximum dose: 1mg in 24 hours (one initial dose and eight subsequent doses) Monitor respiration until rate returns to baseline level. If **induced by other agent** patient may require mechanical ventilation – **arrange transfer to ITU immediately.**
Reduced respiratory rate <5 / minute	Medical Emergency – institute emergency treatment, use a bag-mask or pocket mask to improve oxygenation and ventilation, whilst calling for expert help and arrange immediate transfer.
Tachycardia (>140min)	Refer to specialist medical care immediately
Irregular pulse or bradycardia (<50 / min)	Refer to specialist medical care immediately
Orthostatic hypotension	Lie patient flat, raise legs if possible, monitor closely including blood pressure
Fall in blood pressure (systolic <90mmHg or diastolic <50mmHg)	Urgent medical assessment Lie patient flat, raise legs if possible
Increased temperature (>37.5^{0}C)	Urgent medical assessment Withhold antipsychotics due to potential risk of NMS and arrhythmias
Activate the local emergency protocol In Hospital Dial 2222 **Dial 999/appropriate local emergency number for learning disability in-patient units and Forensic Units**	

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12. High Dose and Multiple Antipsychotic Prescribing Guideline (NHSGGC)
13. BNF No74 September 2017
14. Use of licensed medicines for unlicensed applications in psychiatric practice RCPsych December 2017

12. Audit Criteria: Guideline for use of Intramuscular Medication for Acutely Disturbed Behaviour in Mental Health and Associated Services

Criterion Statement	Standard	Exceptions
There is evidence of an individualized treatment plan incorporating the use of de- escalation techniques and 'PRN' oral medication within 7 days of admission.	100%	None
The rationale for initiating the use of intramuscular medication using this guideline is documented in the care record.	100%	None
If haloperidol is prescribed in combination with other drugs known to prolong QTc the rationale is fully documented.	100%	None
Drugs used for the use of intramuscular medication are used within the doses specified.	100%	Clinically appropriate to use lower/higher doses
There is a record of medication administered for the use of intramuscular medication.	100%	None
Doses or total daily dose outwith those advised in the guideline are recorded in the care record.	100%	None
All relevant physical monitoring during a period of the use of intramuscular medication is undertaken and documented.	100%	Patient refuses to allow physical monitoring to take place
The patient's experience of the use of intramuscular medication is recorded.	100%	Patient refuses to contribute
If no response to the first injection during a period of the use of intramuscular medication, decision to administer a second dose is documented.	100%	None

Appendix 1:

Best Practice Points for the Prescribing & Administration of as Required Psychotropic Drugs

Psychotropic drugs are frequently prescribed on an 'as required' basis when patients are admitted to mental health wards. They are intended to be available for nursing staff to administer at their discretion to patients as part of the management of acute psychiatric symptoms e.g. agitation, anxiety and distress. Local and national audits have identified on many occasions that these drugs are often prescribed without appropriate care, administered unnecessarily and the details surrounding their use is often inadequately documented. There is often lack of review leading to almost open ended prescriptions.

This document describes best practices points to support the best use of this valuable intervention.

Prescribing

1. Where possible as required psychotropic drugs must not be prescribed routinely on admission.
2. Ideally the need for acute as required medication must be individually assessed and if deemed appropriate once only doses should be prescribed initially. In areas with limited medical support especially out of hours it may be appropriate to prescribe as required psychotropic drugs on admission if there is a high likelihood the patient will require them.
3. If once only doses are used then the need for a routine as required prescription should be considered.
4. If routine as required psychotropic drugs are prescribed the individual dose, route of administration, frequency of administration and maximum dose to be given in any 24 hour period must be clearly expressed on the prescription sheet.
5. With the exception of clozapine, the patient's regular antipsychotic may be an appropriate choice for as required use.
6. Do not prescribe as required antipsychotics to antipsychotic naive patients. Prescribing benzodiazepines is preferable until the clinical situation becomes clear.
7. The indication should be expressed as clearly as possible, i.e. try and avoid simply stating 'agitation'.
8. An appropriate entry should be made in the medical notes detailing the reason for the prescription and providing a context for the indication expressed.
9. For patients detained under the terms of the Mental Health Act who are prescribed oral as required psychotropics, an appropriate entry may be required on any T2/T3 form. Intramuscular as required antipsychotics may only be included in a T3 treatment plan.
10. The need for an on-going as required psychotropic prescription should be reviewed frequently. If it has not been administered for more than 4 weeks discontinuation is recommended.
11. If haloperidol is to be prescribed consider the patient's cardiac status and if practical do an ECG to exclude prolonged QTc before prescribing. Avoid combination with other drugs known to prolong QTc.
12. If prescribing any antipsychotic as required be aware to the potential of inadvertent high dose in combination with any regular antipsychotic prescription.

13. For in-patients, the use of all as required psychotropics should be reviewed at each MDT and an individualised as required care plan developed.

Administration

14. Nurses should only administer as required psychotropic drugs for the prescribed indication and then only if non-pharmacological approaches have failed or are inappropriate.
15. If a patient is prescribed more than one as required psychotropic drug for the same indication, avoid administering combinations if possible and always allow sufficient time for one drug to take effect e.g. 30-60 minutes before administering a second drug.

Recording

16. All details pertaining to each administration should be recorded in the patient's case record i.e. the chronological account of care on the in-patient EMIS record. The details recorded must include:

    - Date & time given
    - Reason for administration
    - Details of non-pharmacological approaches attempted
    - Drug & dose given
    - Details of response including any side effects noted
    - For intramuscular doses, details of any physical health monitoring undertaken (pulse, blood pressure, respiration, level of consciousness).

A template within EMIS has been developed to support this. All use of as required psychotropic drugs should be recorded on this EMIS template.

17. Feedback on cumulative as required psychotropic use will be included in the discussion of each patient at each multi-disciplinary team meeting. This will facilitate appropriate review of the treatment plan.

Appendix 2-

Pharmacokinetic properties of IM medication

Medication	Usual adult doses	Max dose in 24 hours	Time to peak concentration (Tmax)	Elimination half-life (T1/2)	Licensed administration site
Midazolam	5-7.5mg	15mg	30 mins	1-5-2.5 hours	Deltoid, lateral thigh, gluteus
Lorazepam	1-2mg	4mg*	60-90 mins	12-16 hours	Deltoid, lateral thigh, gluteus
Haloperidol	2.5-5mg	15mg**	20 mins	20 hours	Deltoid, lateral thigh, gluteus
Olanzapine	5-10mg	20mg	15-45 mins	30 hours	Deltoid, lateral thigh, gluteus
Aripiprazole	9.75mg	30mg	60 mins	75-146 hours	Deltoid, gluteus
Promethazine	25-50mg	100mg	2-3 hours	5-14 hours	Deltoid, lateral thigh, gluteus

*** BNF maximum is 4mg/ 24 hours - higher doses of up to 8mg/ 24 hours should only be considered following consultation with a senior psychiatrist**

**** In the majority of patients, doses of up to 15 mg/day are sufficient. The maximum dose is 20 mg/day.**

Lithium- community bundle (MHS MRG 45)

Warning: This guideline is 19627278 day(s) past its review date.

Resources

Use the button below to access this resource item.

Access this resource

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PMG-MH

Reviewer Name(s):

Lead Clinical Pharmacist, Clinical Effectiveness Pharmacist

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Good Practice Standards

Safe Lithium Treatment

Scope

This document is intended to support the safe use of lithium in mental health services including Forensic and Learning Disability services across NHS Greater Glasgow & Clyde.

Key Documents/bibliography

NICE; Bipolar in Adults (QS95), July 2015

NICE; Bipolar disorder: assessment and management (CG185), September 2015

NHS GG&C; Mental Health Service – Physical Healthcare Policy

Maudsley Prescribing Guidelines, 12th Edition 2015

Psychotropic Drug Directory 2018

National guidance for monitoring lithium – SGHD/CMO (2019)4

Introduction

Lithium is a useful drug, particularly in the maintenance treatment of bipolar affective disorder, recurrent depression and self-injurious behaviour. It is widely used and most patients prescribed lithium are in the community. It has a narrow therapeutic index, with a high potential for toxicity and therefore careful monitoring is required for safe use. This document replaces previous guidance that was developed within the Mental Health Partnership in response to problems and potential problems in managing lithium treatment.

The narrow therapeutic index of lithium and the potential for acute and chronic side effects place an absolute requirement to establish clear systems of work that protect patient safety. This should include robust systems in place to ensure monitoring is carried out irrespective of setting.

The document contains the following sections

1. Treatment initiation
2. Maintenance treatment and routine monitoring
3. Early identification and management of lithium toxicity
4. Patient and staff education
5. Stopping lithium
6. Use in special populations
7. Appendices

Some sections will contain detailed procedural information whereas others are more general guidelines.

Approved date: August 2021
Review date: August 2023

Care planning

Each patient prescribed lithium will have lithium treatment identified as a need/risk within their care plan. The care plan will ensure all the clinical and safety aspects are identified and managed for each patient.

1. Treatment initiation

Baseline pre-treatment tests

When initiating lithium treatment it is important to ensure that appropriate baseline physical health checks are undertaken to ensure treatment can be safely established. It is often useful to undertake a full physical assessment before starting lithium. The following table describes the baseline checks that must be undertaken before initiating treatment.

Baseline Parameter/checks	Comments
ECG	For patients with known cardiac disorders or cardiac risk factors including those on medications known to prolong QTc e.g. antipsychotics, citalopram
U&Es	Include Sodium, Potassium, Urea, Creatinine & eGFR. Patients must have adequate renal function (eGFR>60ml/min) before commencing lithium. Note in some populations the eGFR may over estimate renal function and therefore calculation of creatinine clearance would be more appropriate. For further advice see impaired renal function section.
Thyroid function	
Calcium	Request via bone profile from biochemistry
Weight	Lithium can cause significant weight gain. Baseline weight is useful to support on-going physical health monitoring
Review for potential drug interactions	NSAIDs including COX-2 inhibitors, diuretics, ACE inhibitors and other drugs that may adversely affect renal function or increase lithium levels. **Note** there is an increased risk of neurotoxicity when lithium is combined with antipsychotics.

Initial patient education

Patients will be provided with appropriate education prior to commencing lithium treatment. This should focus on

- The indication – i.e. what it is for
- What to expect in terms of outcome
- Risk of relapse or worsening outcome with poor compliance
- Likely dose
- The need for, and rationale of, regular monitoring including blood tests
- Side effects which occur within the normal blood levels
- Signs of toxicity
- Drug interactions especially with regards to ‘over the counter’ medications
- Need for adequate and consistent hydration and consistent dietary salt intake

The Choice and Medication website is recommended, www.choiceandmedication.org/nhs24/

Initial prescribing

Priadel, as either lithium carbonate (tablets) or lithium citrate (liquid) is the recommended lithium preparation in NHS Greater Glasgow & Clyde. Different preparations may vary in bioavailability.

The recommended starting dose is 200 – 400mg* once daily (100 – 200mg daily in older adults) in the case of the tablets or in divided doses in the case of the liquid preparation. **Note:** 5ml (520mg) of Priadel liquid is considered equivalent to 200mg of Priadel tablets.

Lithium tablets should be prescribed once daily at night to enable morning trough plasma levels to be conveniently taken (see below). Lithium liquid is usually prescribed twice daily.

*Note the SPC for Priadel and the BNF entry make reference to dosing by patient weight and allow a starting dose range of 0.2 – 1.2g daily. However accepted practice is to start low for all patients and titrate the dose upwards depending on response, level measurements and adverse effects.

Initial monitoring

A lithium level should be taken no earlier than 5-7 days after starting treatment. The level should be a 12 hour trough i.e. taken approximately 12 hours after the last dose of lithium (In twice daily dosing the morning dose should be withheld until the level has been taken.)

Subsequent levels should then be taken no earlier than 5-7 days after every dose change until the patient is stable and the target level is achieved.

The target level for new lithium patients is between 0.6 – 0.8mmol/L.

Please note some patients will respond adequately at levels below the target range, therefore the full clinical situation should always be considered. For people who have relapsed previously while taking lithium or who still have sub-threshold symptoms with functional impairment while receiving lithium, a trial of at least 6 months with lithium levels between 0.8 – 1mmol/L should be considered.

The lower end of the range is usually target for treatment and maintenance therapy of older adults and special populations.

2. Maintenance treatment and routine monitoring

Once a stable dose has been achieved a programme of routine monitoring of levels, side effects and physical health monitoring should be established. The table below summarises the appropriate schedule;

Test or measurement	Frequency	Comments
Lithium levels	3 monthly	Additional levels should be taken 5-7 days after any dose change or if there is a suspicion of toxicity[a]
Thyroid function	6 monthly	Monitor more frequently if evidence of deterioration
Renal function (including urea & electrolytes, creatinine and calcium)	6 monthly	Monitor more frequently e.g. monthly if evidence of deterioration or if patient starts taking drugs known to affect renal function[b]. If eGFR falls rapidly to <45ml/min review lithium treatment and refer to renal medicine. Investigate & correct for hyponatraemia or hypernatraemia.
Routine side effect monitoring [c]	At every blood test	See appendix for side effect rating scale
Weight	6 monthly minimum and as necessary	Monitor pro-actively if patient gains weight rapidly
Drug interactions	Every clinical contact.	Review and discontinue if possible drugs that may induce lithium toxicity.

a. Toxic effects may develop within the normal range especially in older people. Toxicity should be considered if there are signs of suggestive of dehydration, any change in mental or physical state e.g. confusion, falls or increased tremor.

Symptoms of toxicity include; coarse tremor, muscle twitches, gastric upset including diarrhoea, muscle weakness, unsteady gait/falls, slurred speech, blurred vision, drowsiness and confusion

Services should have a low threshold of suspicion for toxicity and undertake additional levels to confirm or discount toxicity as a matter of urgency.

b. Drugs that may affect renal function and/or lithium clearance and potentially result in toxicity if used with lithium include;

- NSAIDs e.g. ibuprofen, naproxen, celecoxib
- ACE inhibitors e.g. ramipril, enalapril
- Angiotensin 2 antagonists e.g. losartan
- Diuretics, especially thiazides (bendroflumethiazide)

Avoid the use of these drugs if possible and monitor lithium levels more frequently if use is unavoidable.

c. Common side effects seen within normal therapeutic dosing include
    - polyuria,
    - polydipsia,
    - nocturia,
    - diabetes insipidus,
    - metallic taste
    - fine tremor.

3. Early identification and management of lithium toxicity

Services should adopt a pro-active systematic approach to the early identification and management of lithium toxicity. Patient, carer and staff education are key.

In community settings patients and/or their carers should be provided with education that gives advice on the signs and symptoms of toxicity and details of situations and issues that might lead to toxicity.

Patients and carers should be advised to see a doctor as soon as possible if any of the signs and symptoms in Note a. above emerge. They should also be advised to avoid purchasing any over the counter medicines without seeking the advice of a pharmacist in order to avoid potential drug interactions. They should also be advised to maintain adequate hydration especially if on holiday in a hot climate and to seek medical advice if they develop diarrhoea or vomiting that lasts more than 24 hours.

In hospital setting the pre-administration factors to consider, which are part of the Lithium Bundle (appendix 1), will be adopted to support early detection and management of lithium toxicity.

If lithium toxicity develops, stop lithium immediately and provide supportive medical treatment as necessary. Moderate and severe cases (levels 1.5mmol or higher) would be considered a medical emergency and admission to an Acute hospital may be required. **Be aware that lithium levels may continue to rise for 24 to 48 hours after stopping lithium**.

Lithium treatment can only be re-introduced once toxicity has resolved and if restoration is then deemed clinically appropriate.

4. Patient, carer and staff education

All patients and where appropriate their carers will be given education tailored to their needs to support the safe and effective use of lithium. This should include both verbal and written information. Details of the information provided should be documented. Educational messages will be reinforced at appropriate intervals e.g. during physical health monitoring or during routine out-patient appointments. A record of consent by the patient or designated other should be documented following agreement to initiate treatment.

Education should cover

- The purpose and potential outcomes of treatment
- Preparation and dose
- The potential side effects and risks

- Signs and symptoms of toxicity and what to do about them
- Common drug interactions and how to avoid them
- The importance of ongoing compliance
- The need for adequate hydration
- The need for and purpose of regular blood tests
- The need to inform healthcare professionals that they take lithium
- How to get help if problems occur

The following resources are recommended

www.choiceandmedication.org/nhs24/

http://www.rcpsych.ac.uk/mentalhealthinfo/problems/bipolardisorder/bipolardisorder.aspx

http://www.rcpsych.ac.uk/pdf/Lithium%20ld%20final.pdf

http://www.birmingham.ac.uk/research/activity/ld-medication-guide/index.aspx -provides easy read information for people with cognitive deficits.

All staff involved in the prescribing, dispensing or administration of lithium will receive appropriate lithium training. This will include the Key Facts from the Lithium Bundle and where appropriate the face to face Lithium Training Package (a presentation has been developed).

5. Stopping lithium

A lithium trial should continue for at least 6 months to establish effectiveness. If stopping lithium, reduce the dose gradually over at least 4 weeks, and preferably up to 3 months, even if the person has started taking another anti-manic agent. Continue monitoring whilst reducing the dose. Abrupt discontinuation of lithium increases the risk of relapse.

6. Use in special populations

Pregnancy

For all women of childbearing potential undertake a discussion of childbearing intentions and contraception status. This must include, advice on risks and benefits in relation to childbearing and advice/signposting on contraception (incl. LARC). Informed consent must be recorded in writing. The 'BUMPS' website should be used to reinforce verbal information. www.medicinesinpregnancy.org.

Ideally lithium should be avoided in pregnancy due to known risk of teratogenic effects.

If a woman on lithium is planning a pregnancy they should be fully advised of the risks of remaining on or coming off lithium. A treatment plan should be developed to support the patient and their consent to that should be recorded.

If a patient on lithium becomes pregnant consider the following steps

- Confirm the pregnancy as early as possible.
- Seek advice on management from the Peri-natal Service (see appendix 3).

- If pregnancy is confirmed in the first trimester and the woman is stable, consider stopping lithium gradually over 4 weeks and inform the woman that this may not remove the risk of cardiac defects in the foetus.
- If lithium treatment is to continue, check lithium levels every 4 weeks, then weekly from the 36th week and less than 24 hours after child birth. The dose should be adjusted to keep levels within the therapeutic range. The woman should maintain adequate fluid intake.
- Consider offering an antipsychotic as prophylactic medication
- Offer appropriate screening and counselling about the continuation of pregnancy, the need for additional monitoring and the risk to the foetus if the woman stays on medication. Record details of all advice given and the woman's consent to the treatment plan developed.
- The newborn baby should have a full paediatric assessment and social and medical help should be provided for the mother and child.

More information on the use of lithium in pregnancy is available in appendix 3.

Breastfeeding

Women on lithium who wish to breast feed should

- Be given advice on the risks and benefits of breast feeding
- Should be advised not to if taking lithium and an alternative prophylactic agent should be offered.

Impaired renal function

Lithium is nephrotoxic and contraindicated in severe renal impairment. It may only be considered in renal impairment with extreme care, close monitoring, reduced dosing and following consultation with renal medicine and biochemistry. In all cases of renal impairment a full discussion of the additional risks must be undertaken with the patient and ongoing consent obtained and documented. If lithium is used in renal impairment, toxicity is more likely. In addition, the following renal markers should prompt a referral to renal medicine during lithium treatment;

- eGFR falling rapidly to <45ml/min
- Significant proteinuria (identified by albumin creatinine ratio)
- A steady or persistent fall in eGFR
- Stages 4 or 5 of chronic kidney disease

Lithium levels and renal function should be monitored more frequently and at least monthly for patients with altered renal function.

Prescribing Management Group – Mental Health
August 2021

Appendix 1

Lithium Ward Bundle

A Lithium Ward Bundle has been developed to help ward based staff implement the standards for patients prescribed lithium.

It contains the following elements

- Key facts document for staff
- Principles for safe lithium use – to support effective care planning
- Multi-disciplinary Team check list which will be used at ward MDT meetings to ensure the standards are being met.
- Clinical factors to consider before administering a dose of lithium. This is intended to flag up early signs of lithium toxicity.
- Educational tool for staff using lithium.

The full bundle is available here.

Lithium Side Effect Checklist (LiSEC) Appendix 2

Patient name		CHI number	
Date of Assessment		**Name of assessor**	

Over the past week, have you experienced any of the following possible side effects and if so, to what extent?		Never	Mild	Moderate	Severe	Tick if this is distressing
1.	I have been very thirsty and/or passing urine more frequently					
2.	I have woken during the night because I needed to pass urine					
3.	I have felt more hungry than usual or have gained weight					
4.	I have a metallic taste in my mouth					
5.	My mouth has been dry					
6.	I have felt like I am going to be sick					
7.	My ankles have been swollen					
8.	I have had difficulty remembering things and/or concentrating					
9.	I have developed a rash/ skin problem or an existing skin problem has got worse					
10.	I am tired *					
11.	My skin/ hair is drier than usual *					
12.	I have had problems opening my bowels (constipation) *					
13.	**My hands or arms have been shaky *[1]**					
14.	**My vision has been blurry**					
15.	**My speech is slurred**					
16.	**I have felt very sleepy during the day**					
17.	**I have vomited and/or had diarrhoea**					
18.	**My muscles have felt weak and/or my muscles have been twitching**					
19.	**I have been unsteady on my feet**					
20.	**I feel confused**					

Actions taken:

Notes for staff:

Side effects in bold indicate the possibility of lithium toxicity, an urgent lithium level should be obtained if any of these symptoms are reported.

* these side effects may indicate hypothyroidism. Check TFTs if not done in past month.

*[1] a coarse hand tremor is potentially indicative of lithium toxicity, where as a fine tremor can be reported at therapeutic levels.

Further questioning may be required to ascertain significance and /or severity of a reported side effect and whether this is new problem related to lithium therapy.

Discussion of the results of the checklist should provide an opportunity to remind patients of key points of safe lithium therapy e.g.

- importance of keeping well hydrated especially if there is any evidence of dehydration (vomiting, diarrhoea, perspiration)
- importance of regular blood monitoring
- avoiding interacting medicines
- what to do in the event of experiencing side effects including toxic side effects

All side effects identified must be reported to the patient's Responsible Medical Officer (RMO) as soon as possible and discussed at the next multi-disciplinary team meeting.

If potential toxic effects are identified report these immediately to medical staff.

Appendix 3

Glasgow Perinatal Mental Health Service

Lithium in pregnancy – information for healthcare staff

Lithium is a mood stabilising drug used in the management of bipolar affective disorder, mania and recurrent depression. It is rarely used in pregnancy because of teratogenicity and neonatal complications. However, it may be prescribed under specialist supervision.

It has a narrow therapeutic to toxic ratio and must be monitored regularly by blood sampling,. Dose range to achieve therapeutic blood levels is usually between 400mg – 1200mg/d, but this is less important than the blood level. The dose required to achieve therapeutic levels may increase from mid-pregnancy, but high levels at delivery can be associated with toxicity in the mother and neonate. For this reason, the dose is usually reduced in advance of delivery. Lithium should not be administered once labour has commenced.

Any woman taking lithium in pregnancy should have an individualised psychiatric care plan for lithium management throughout pregnancy and the peripartum.

Lithium levels

- Routine Lithium levels should be taken 12 hours after last dose and no sooner than 5-7 days after a dose change (unless there are concerns about toxicity)

- **Therapeutic levels** are usually within the range **0.6 – 0.8 mmol/l**

- **Toxicity** is usually evident **above 1.5 mmol/l**

Toxicity

Symptoms of lithium toxicity include:

- Early - restlessness, apathy, nausea, coarse tremor
- Later - vomiting, diarrhoea, ataxia, dysarthria, confusion
- Leading to - convulsions, renal failure, coma, death

If lithium toxicity is suspected:

- Immediately take a blood sample for urgent lithium level. Do not use a lithium heparinised blood tube. Note the time when the sample was taken and the time and amount of the last dose.
- Seek medical/psychiatric advice.
- Withhold further lithium until a satisfactory blood result is obtained.
- Moderate-severe toxicity (levels 1.5mmol or higher) would be considered a medical emergency and medical admission may be required.

Toxicity can be precipitated by:

- Dehydration
- Impaired renal function
- Sodium-restricted diet
- Overdose
- Drug interactions

Drugs that interact with lithium to cause toxicity include:

- NSAIDs e.g. ibuprofen, naproxen, celecoxib
- ACE inhibitors e.g. ramipril, enalapril
- Angiotensin 2 antagonists e.g. losartan
- Diuretics, especially thiazides e.g. bendroflumethiazide

  Avoid the use of these drugs if possible and monitor lithium levels more frequently if use is unavoidable.

Pregnancy-related conditions that increase the risk of lithium toxicity include:

- Fluid loss at delivery
- Hyperemesis
- Pre-eclampsia

(Note: Lithium levels may be reduced in later pregnancy due to increased clearance)

Risk of lithium use in pregnancy

The majority of studies have not suggested an overall increased risk of congenital malformation, although a possible increased risk of cardiac defects has been found in some studies. An early retrospective study suggested an association between *in utero* lithium exposure and Ebstein's anomaly. This has not been replicated by other studies, and as the expected background rate of Ebstein's anomaly is 1 in 20,000, even with the hypothesized increased risk following lithium exposure, the estimated absolute risk to an exposed fetus remains very low (1 in 1,500).

There is no compelling evidence of increased rates of spontaneous abortion, intrauterine death, or adverse neurodevelopmental outcome, following lithium exposure in utero, however the data are currently too limited to completely exclude an increased risk of these outcomes.

An increased risk of preterm delivery and neonatal complications (which is likely related to infant blood levels and may include reduced Apgar scores, hypotonia, CNS and neuromuscular complications) has been identified.

NICE clinical guideline 192 - Antenatal and postnatal mental health: clinical management and service guidance

Do not offer lithium to women who are planning a pregnancy or pregnant, unless antipsychotic medication has not been effective.

Preconception advice	If antipsychotic medication has not been effective and lithium is offered to a woman who is planning a pregnancy or pregnant, ensure: • the woman knows that there is a risk of fetal heart malformations when lithium is taken in the first trimester, but the size of the risk is uncertain • the woman knows that lithium levels may be high in breast milk with a risk of toxicity for the baby • lithium levels are monitored more frequently throughout pregnancy and the postnatal period.
On Lithium → becomes pregnant + is well	If a woman taking lithium becomes pregnant, consider stopping the drug gradually over 4 weeks if she is well. Explain to her that: • stopping medication may not remove the risk of fetal heart malformations • there is a risk of relapse, particularly in the postnatal period, if she has bipolar disorder.
On Lithium → becomes pregnant + is unwell or high risk of relapse	If a woman taking lithium becomes pregnant and is not well or is at high risk of relapse, consider: • switching gradually to an antipsychotic or • stopping lithium and restarting it in the second trimester (if the woman is not planning to breastfeed and her symptoms have responded better to lithium than to other drugs in the past) or • continuing with lithium if she is at high risk of relapse and an antipsychotic is unlikely to be effective.

Taking Lithium in pregnancy

If a woman continues taking lithium during pregnancy:

- check plasma lithium levels every 4 weeks, then weekly from the 36th week
- adjust the dose to keep plasma lithium levels in the woman's therapeutic range
- ensure the woman maintains an adequate fluid balance to avoid dehydration
- ensure the woman gives birth in hospital
- detailed ultrasound anomaly scanning by obstetricians

Labour and postnatal management

- Due to the risk of neonatal lithium toxicity and the need for monitoring during labour, delivery in hospital is advised.

- Once labour has started, lithium should be stopped and plasma lithium levels (12hr post dose) and fluid balance should be checked regularly until baby has been delivered, due to the risk of dehydration and toxicity in mother and child.

- Consider the option of induction of labour with suspension of lithium administration 24-48 hours beforehand (similar guidance on lithium management if having planned caesarean section).

- Recommence maternal lithium postnatally (usually at pre-conception dose) once heamodynamically stable.

- All neonates exposed to lithium in utero should have their serum lithium level measured shortly after delivery.

- Follow the management plan of the PEPP (Pregnancy and early postnatal mental health care plan)

Breastfeeding

- As general guidance, breastfeeding is usually not recommended when on lithium therapy.

- Caution is advised, particularly when infant elimination is impaired, or in newborn or premature infants.

- It is estimated that a fully breastfed infant would receive approximately 26% (range 11 to 42%) of the weight-adjusted maternal dose of lithium.

- Case reports have identified lithium toxicity in breastfed infants of women on lithium therapy.

- The long-term effects of lithium on infants are not known but limited data indicate no obvious problems in growth and development.

Lithium Ward Bundle

Lithium is a useful drug, particularly in the maintenance treatment of bipolar affective disorder, recurrent depression and self injurious behaviour. It is widely used and most patients prescribed lithium are in the community. It has a narrow therapeutic index, with a high potential for toxicity and therefore careful monitoring is required for safe use. Consequently if lithium treatment is not managed properly there is a potential risk of significant harm.

At times of crises and occasionally to start treatment lithium patients come into hospital. This document provides a bundle of interventions which if implemented in wards will enhance patient safety with lithium treatment. This bundle is intended to support wards to comply with the Good Practice Standards- using lithium safely.

The document consists of the following elements

1. Key Lithium Facts – to provide staff with a basic understanding of lithium treatment.
2. Principles of safe lithium treatment – to support the development of appropriate care plans.
3. Multi-disciplinary team (MDT) check list for patients prescribed lithium – to ensure the bundle and standards are applied to all lithium patients.
4. Clinical Factors to consider before administering a dose of Lithium – to identify and prevent potential or actual lithium toxicity.
5. Common lithium drug interactions
6. Information sources
7. Sample care plans

How to use this bundle

When a patient is started on lithium in a ward or is admitted to a ward already taking lithium the bundle should be activated and monitored within the multi-disciplinary team. The following steps should be followed

- Access the bundle via the following link
- Print off the Key Lithium Facts document and issue it to junior medical staff and all trained nurses in the ward.
- Begin the development of a lithium nursing care plan.
- Ensure the lithium MDT checklist is put in place at the next MDT meeting.
- Ensure all nurses adopt the clinical factors to consider before administering a dose of Lithium
- Provide the patient with appropriate education following the lithium patient information standards

Bundle Measures

The following measures will be audited for every in-patient prescribed lithium;

1. When a patient is prescribed lithium all staff are issued with the key facts document (record %)
2. All patients prescribed lithium have a care plan based on the lithium safety principles (record %)
3. The MDT checklist is reviewed at each MDT meeting (record %)
4. There is evidence that the clinical factors prior to administration are considered before each dose (record %)

Lithium Key Facts

1. Lithium is a very useful drug used to stabilise mood, manage treatment resistant depression and help self injurious behaviour.

2. Lithium brands are not interchangeable. Medicines reconciliation should identify the brand of lithium the patient is taking. Patients should remain on the same brand. When prescribing please state brand name and generic name in brackets e.g. PRIADEL (LITHIUM CARBONATE).

3. Lithium has a narrow therapeutic index i.e. the dose required for a therapeutic effect is often not much lower than the dose that will cause a toxic effect. The risk of lithium toxicity is increased by reduced kidney excretion of the drug causing increased blood serum levels. This can be caused by a variety of factors;
   - Dehydration
   - Deterioration of kidney function
   - Infections
   - Co-administration of interacting medications e.g. diuretics, or anti-inflammatory analgesics (ibuprofen, naproxen, celecoxib)

   If toxicity is suspected take a level immediately and withhold the dose until level confirmed.

4. Serum blood levels of lithium should be checked;
   - on admission to a ward, including transfers from other wards and hospitals
   - 5- 7 days after a dose change has been prescribed
   - If patients become physically unwell
   - In stable patients on a 3 monthly basis
   - If there is any suspicion of toxicity a level should be taken immediately, regardless of when the last dose was taken

   This should be a trough level taken 12 hours after the last dose. Renal function, thyroid function, calcium levels and weight should be checked every 6 months (Good Practice Standards- using lithium safely). ECG should be checked annually if clinically indicated

5. Serum Lithium concentrations above 1.0mmol/L may have potentially serious adverse effects and levels over 1.5mmol/litre may be fatal and require immediate medical treatment. Early clinical features of toxicity are non-specific and may include apathy and restlessness which may be confused with a patient's underlying mental state. Other symptoms include;
   - Vomiting/diarrhoea
   - Loss of appetite
   - Confusion, slurred speech, abnormal drowsiness/sluggishness
   - Severe tremor or twitching
   - Muscle weakness
   - Blurred vision, ringing in the ear
   - Dizziness/loss of balance, clumsiness

For more information contact a senior clinician or clinical pharmacist.

Principles of Safe Lithium Treatment

The safe use of Lithium is an identified care need for patients receiving this treatment. All patients using lithium should have a person centred care plan for this.

This document identifies the principles which support safe lithium care. It lists elements which should be used to support safe care within the multi-disciplinary team and may be used to inform the creation of care plans (an example of a care plan is included as an appendix).

1. Staff knowledge & education
   - All relevant MDT staff, working with the patient should have a basic knowledge of lithium. All staff should know the Key Facts about lithium (included in Lithium Bundle) and read the Choice & Medication patient information leaflet on Lithium. A lithium training presentation is available from Pharmacy.

2. Preventing & managing toxicity
   - Nursing (registered and unregistered) should inform the nurse in charge should there be any concerns that a patient is lithium toxic. If there is any suspicion of toxicity inform medical staff.
   - Staff should be aware of the increased risk of toxicity if the patient becomes dehydrated for any reason. Care plans should contain guidance on how to assess and manage dehydration.
   - Ensure that the relevant clinical factors are considered before administering lithium.

3. Routine monitoring
   - The monitoring recommendations contained in the Key Facts document and the Good Practice Standards- using lithium safely document must be followed. Care plans should contain details of the monitoring schedule for each patient.
   - Ward staff must have a system of recording and reporting to the Nurse in charge and medical staff lithium levels received over the telephone. This should include proactive follow up of pending results. All staff must be aware of the importance of communicating this information.

4. Communication
   - Sharing information and good communication is essential for safe lithium treatment. This is particularly important in the following situation
     - within MDT e.g. high levels
     - ward and hospital transfers
     - primary care on discharge from hospital

   - The information to be shared includes
     - Lithium brand and dose
     - Last lithium level results
     - Target lithium levels
     - Dates of next routine monitoring

5. Patient & carer education
   - Patients and carers should not be discharged without being fully aware of the risks associated with lithium and how to manage those risks.

MDT Lithium Checklist

This checklist is designed to support the safe use of lithium treatment and should be considered at every MDT for patients prescribed lithium. All patients prescribed lithium must have the following warning added to their EMIS record 'On lithium treatment- check for drug interactions with any change to medication '.

Action items:

1. **For new prescriptions, pre-treatment baseline checks complete** – all baseline pre-treatment checks have been done to support safe lithium prescribing e.g. ECG (when clinically indicated), U&Es, renal function, thyroid function, weight.

2. **For established patients, Medicines Reconciliation –** the correct dose and formulation has been identified on admission and has been appropriately prescribed taking into account compliance, drug interactions, recent lithium level and current physical health.

3. **Lithium is correctly prescribed –** the appropriate starting dose (usually 200-400mg) is prescribed on the in-patient prescription sheet. Prescribe by brand name with generic name in brackets e.g. Priadel (Lithium Carbonate).

4. **Potential drug interactions –** any existing drugs with significant potential for interaction are reviewed e.g. NSAIDs including COX-2 inhibitors, ACE inhibitors, Diuretics.

5. **Education –** appropriate education and appropriate written information on lithium is available for patients, carers and staff.

6. **Lithium level monitoring –** an initial lithium level is taken (as a 12 hour trough) 5 -7 days after starting lithium and a plan for on-going monitoring has been established. This will include appropriate monitoring after any dose change or where there is a suspicion of toxicity or a worsening in the patient's physical health.

7. **Lithium care planning –** the use of lithium has been identified as a need within the care plan.

8. **Side effect monitoring –** a systematic approach to lithium side effect monitoring has been established and monitored through the care plan and reported to the MDT. The side effect check list in the Good Practice Standards-using lithium safely is recommended.

9. **Lithium Clinical Factors are considered –** system in place to identify and implement actions to prevent or treat emerging lithium toxicity. Indicate in the additional comments section of the prescription recording sheet that the factors are considered before the administration of each dose.

10. **Physical health care –** all relevant physical health monitoring for lithium patients described in the Mental Health Services Physical Health Policy is undertaken.

11. **Discharge/transfer plan in place –** a clear and well communicated plan is in place to ensure relevant information is shared with all relevant parties when a patient on lithium is discharged from hospital or transferred to another care setting. Consider whether the environment the patient is returning to will be able to safely support lithium treatment. Provide education as appropriate.

Clinical Factors to consider before administering a dose of Lithium

The onset of lithium toxicity can be insidious and therefore nursing staff need to be vigilant for the signs and symptoms of potential toxicity before administering lithium to a patient.

The factors to consider

In the last 24 hours the patient has experienced:

- Increasing gastrointestinal disturbances (vomiting, diarrhoea etc.)
- Inadequate fluid intake(infection, hot weather, alcohol use)
- Muscle weakness/lack of co-ordination
- Muscle twitches
- Slurring of words
- Severe tremor
- Blurred vision
- Confusion
- Unusual drowsiness

If there are concerns contact the duty doctor for further advice.

Has the patient been prescribed any new medicines?

The following list details some of the common drugs with interactions that are associated with causing lithium toxicity. It is not a comprehensive list so please refer to the current BNF or to pharmacy for more information if you are concerned about a possible interaction.

- Thiazide or related diuretics e.g. bendroflumethiazide
- Non-steroidal anti-inflammatory drugs (NSAIDs/COX-2 inhibitors) e.g. ibuprofen, diclofenac, naproxen, celecoxib
- Angiotensin Converting Enzyme (ACE) inhibitors e.g. enalapril, lisinopril, ramipril
- Angiotensin- II receptor antagonists e.g. candesartan, losartan
- Loop diuretics e.g. furosemide
- Potassium-sparing diuretics & Aldosterone antagonists e.g. spironolactone
- Metronidazole

There is a potential increased risk of neurotoxic effects from other psychotropic drugs although the combination of lithium with other psychotropic drugs is common.

If the patient has been prescribed any new medicine from this list contact the duty doctor or pharmacy for further advice. The new medicine should be withheld until clarification is given that both medicines are to be used in combination and additional monitoring is being put in place.

Useful Resources

Good Practice Standards- using lithium safely
Lithium patient information standards
www.choiceandmedication.org/nhs24/
http://www.medicines.org.uk/emc/

Bundle Development Group

Dr Lucy Carrick, General Adult Consultant Psychiatrist, Leverndale Hospital

Tracey Gaughan, Learning Disability Specialist Pharmacist, Gartnavel Royal Hospital

Karyn Hamilton, Practice Development Nurse, Gartnavel Royal Hospital

Vivienne Hogan, Learning Disability Service Manager/Lead Nurse, Blythswood House

Stephen McGinness, Professional Nurse Advisor, Leverndale

Dr Laura Nicholson, Learning Disability Consultant Psychiatrist, West Dun, ALDT.

Christine Pacitti, Learning Disability Specialist Pharmacist, Leverndale

Andrew Walker, Lead Clinical Pharmacist, Leverndale

Appendix 1- **Sample Care Plan**

Please note this sample care plan has been included for illustrative purposes only. An individualised care plan will be prepared for each patient.

Name		CHI No.	

Identified need
Mary has been on lithium treatment for several years however recently stopped taking this at home and has been admitted to hospital following deterioration in her mood. Mary is ambivalent about taking her prescribed lithium.

Date	Intervention	Frequency Of Intervention	Sign and Print Name & Designation
	Lithium prescribed as ------ by medical team and will be reviewed weekly at the MDT.	One week	
	Initial lithium levels received and within normal range. Lithium levels to be repeated on ----- (5 days after commenced).	5 days	
	Staff to deliver psycho-education to Mary to support Mary's concordance with prescribed medication. Pharmacy to be contacted to provide additional information for Mary on the use of lithium	One week	
	Mary to be aware of the potential side effects of lithium toxicity and encouraged to report to staff any symptoms she may experience.	One week	
	Staff to monitor for lithium toxicity and communicate any side effects to medical staff with holding administration of lithium if concerns raised.	One week	
	Routine lithium levels checked every three months. Bloods taken 12 hours after the last dose is taken.	One week	
	Staff to record blood results (written or receive over the phone) and all physical healthcare monitoring in the case notes. These will be reviewed urgently if required or routinely at each MDT.	One week	
	On discharge relevant primary care and community mental health services to be updated on lithium care as required.	One week	

Patient/Carer's view/understanding of needs & interventions
Mary is unsure why she needs to take lithium at this time however is agree able to do so.
Mary's mother is her identified carer and is keen for Mary to be re-commenced on Lithium as she believes this has kept Mary well for a long time.

Staff Signature:……..……. Date:……

Patient/Carer Signature:…….. Date:……

NHS Greater Glasgow & Clyde
Mental Health Services
Prescribing Management Group
Lithium Patient Information Standards

Lithium is an effective but potentially high risk medicine. The NHS GG&C Lithium Standards require services to provide patients and carers with information that allows patients to make an informed choice about lithium treatment and to continue to take it safely. The purpose of this document is to make mental health staff aware of the sources of information available to them and to define the responsibilities of staff in providing information.

Information standards

1. All new patients for whom lithium treatment is being considered will be given appropriate information to allow them to make an informed choice. Where patients lack capacity or are to receive compulsory treatment via a T2 or T3, information will be provided commensurate to their needs and capability.
2. At regular intervals (minimum annually) throughout lithium treatment, patients information needs will be assessed and appropriate information provided.

Information Resources

The information needs of patients will vary over time and often need to be tailored to their capacity and mental state at different stages of their illness. The principle of the recent Montgomery ruling[1], is that patients are provided with information regarding material risks of treatment sufficient to allow a 'reasonable' person to make an informed choice. Alternative treatments should also be discussed. In the context of lithium such information will cover

What it is

What it is for

How it works

How long treatment is likely to last

Benefits of treatment

The need and rationale for regular blood tests (explaining the frequency and purpose) and physical health checks

How to take it including what to do about missed doses

Very common and common side effects and what to do about them

Signs, symptoms and causes of toxicity

Lifestyle advice

Significant interactions especially NSAIDs and anti-hypertensives

Family planning and pregnancy where appropriate

Compliance advice

Approved by PMG-MH: April 2023
Review date: April 2026

With these topics in mind the following resources are recommended to clinical staff to use to provide information to potential patients or existing patients prescribed lithium.

Recommended sources of Information

1. Choice and Medication website

This includes a variety of patient information leaflets (in a variety of formats and languages), handy fact sheets and handy charts. These will be used to provide detailed information and reinforce verbal counselling to all prospective lithium patients and on specific issues for existing patients.

http://www.choiceandmedication.org/nhs24/

2. Bipolar Scotland

Provides a range of support materials and information for people with Bipolar disorder

https://www.bipolarscotland.org.uk/

3. Royal College of Psychiatrists

Provides a range of support materials and information for people with Bipolar disorder

https://www.rcpsych.ac.uk/mental-health/problems-disorders/bipolar-disorder

4. Birmingham University

Provides a range of leaflets specifically for people with reading or learning difficulties.

https://www.birmingham.ac.uk/Documents/college-les/psych/ld/medicine-information/Lithium.pdf

NHS GG&C lithium information leaflets

These leaflets were developed jointly by mental health services and Bipolar Scotland as part of the development work for the Bipolar Hub project. The following topics are covered

- The importance of taking lithium regularly
- The need for regular blood tests
- Common interactions that affect lithium
- Other factors that affect lithium levels
- Common lithium side effects and what to do about them
- Signs of toxicity

These leaflets will be issued to all prospective patients and be given to each patient prescribed lithium with their discharge prescriptions. Ward clinical pharmacists will use them to support one to one patient education. The leaflets are available from Leverndale Pharmacy.

Information produced by lithium manufacturers

The UK manufacturers provide a variety of patient information resources on lithium tailored to their product. These can be used to compliment the resources above if necessary. Contact Leverndale Pharmacy for advice.

Responsibilities of Healthcare Professionals

All healthcare professionals directly involved in the care of patients prescribed lithium have duty to supply appropriate information as necessary.

Prospective patients

For all patients for whom lithium treatment is being considered it is the duty of the ward or CMHT multi-disciplinary team to ensure each patient's information needs are assessed and met. Ideally all prospective patients will have the opportunity to discuss treatment with a clinical pharmacist prior to treatment starting. However this may not always be possible in which case appropriate members of the MDT will provide the information as outlined in the information resources section above. Consideration with regards to the level of initial information provided may depend on the patient's mental state at the time.

Patients already prescribed lithium

Appropriate members of the MDT whether that be in hospital wards or community mental health teams will regularly assess and meet the information needs of patients prescribed lithium under their care. They will use the resources outlined above to meet those needs.

Record keeping

A clear record of information provided to patient including salient points discussed must be documented in the chronological account of care.

Developed by: Mental Health Pharmacy

Approved by: Prescribing Management Group- Mental Health

References:

1. https://www.supremecourt.uk/cases/docs/uksc-2013-0136-press-summary.pdf

NHS GG&C Mental Health Services
Safer Use of Medicines

Administration and Recording of Medication Given Out With Prescribed Times

This document provides advice for nursing staff to help manage situations where patients initially refuse medication but subsequently agree to take it.

The introduction of HEPMA which replaces the paper prescription sheet changes the original advice and the document has been updated to reflect that.

HEPMA process

If a medication is marked as non-administered in HEPMA you cannot go back and administer at a later time.

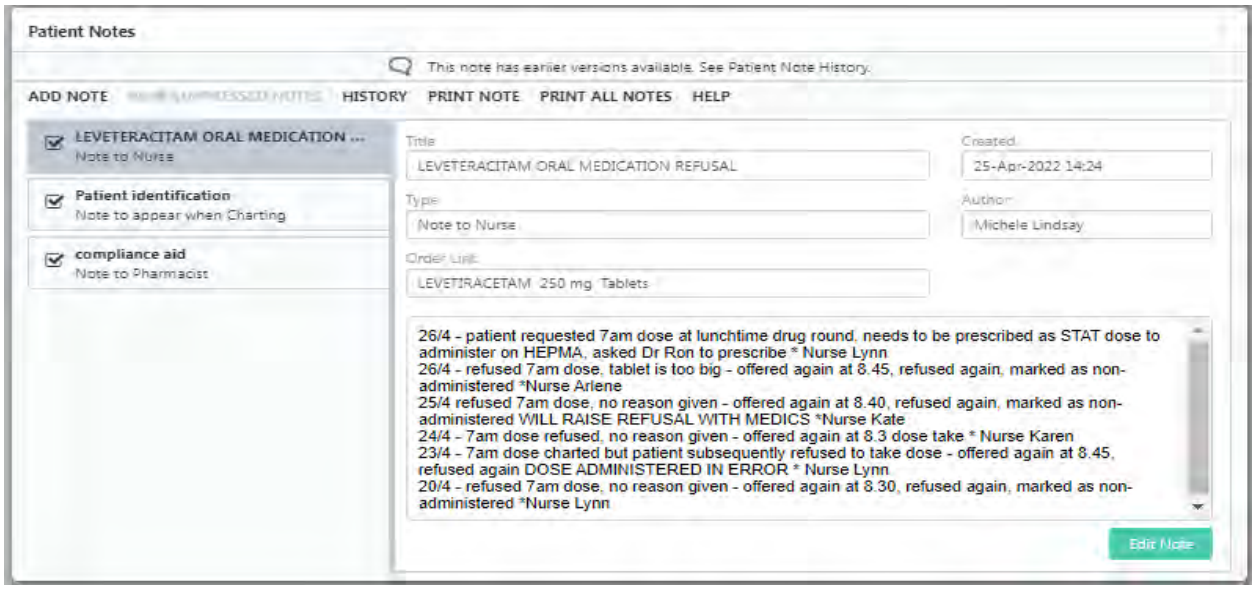
If a patient refuses a dose of medication and you intend to offer at a later point, **do not chart as non-administered in HEPMA**. The Patient Notes function can used to record refused doses, with information noted for other staff to use if needed - examples of how the Notes can be used below.

Options for future offered doses are as follows:

If a second offer of medication is refused, mark as non-administered at this point; but if patient decides later they do wish to take the dose it will need to be re-prescribed as a STAT dose.

To manage the recording of refusal information you can use the Order Notes function. Add an Order Note titled '*DRUG NAME* REFUSED MEDICATION' when needed linked to the specific medication. Use the same order note to record all dose refusals and related information. As any amendments to the notes then are marked with the last users' name, each addition should have the nurse's name added to easily refer to if needed, rather than having to scan the previous versions to see who added the earlier comments.

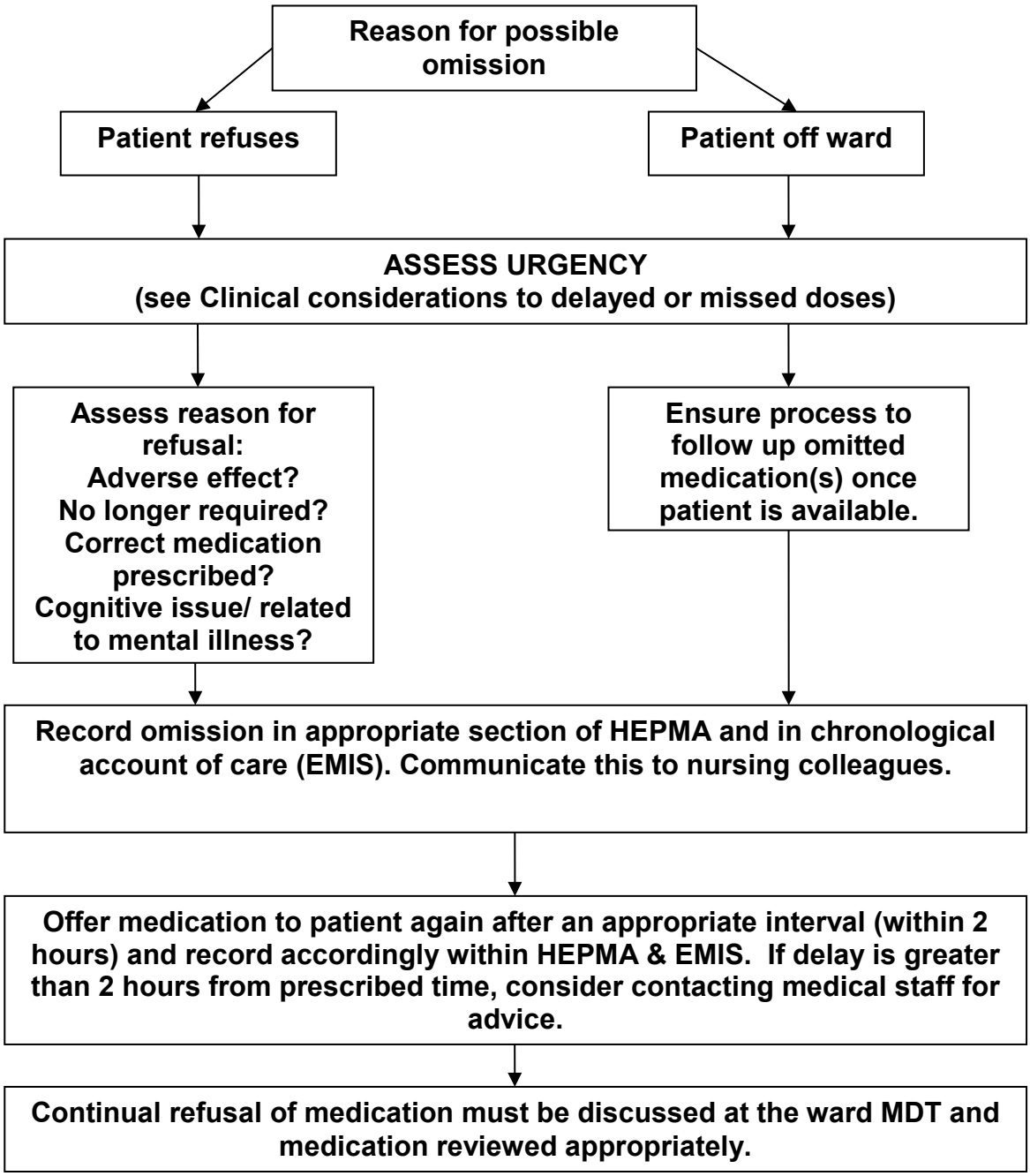
How Patient Notes can look:



How Patient Notes history will be recorded:



The flowchart and notes on pages 3 & 4 provide advice on the process to follow and factors to consider



Clinical considerations to delayed or missed doses

1. The following medications should always be given within 2 hours of prescribed time (this list is not exhaustive, but includes medications more likely to be prescribed within mental health settings)

    - Regular opiate analgesics
    - Parenteral doses of insulin
    - Regular Parkinson's medicines should be given as close to the usual prescribed time as possible, a delay of greater than 30 minutes can result in a significant worsening of symptoms.

2. If the delayed medication is due to be administered at the next scheduled medicine round, nursing staff must seek medical advice to ensure an appropriate dosage interval is maintained (and whether it would be appropriate to withhold completely).

3. If the delayed medication includes paracetamol containing products, the minimum dosage interval is 4 hours, therefore where there has been deviation from the original prescribed administration time, it will be necessary to withhold or delay the next scheduled dose.

4. With medication that is to be administered only once per day, there is likely to be more leeway with regards to administering this later in the day. Contact medical staff for advice.

5. If a delayed dose has to be re-prescribed use the 'stat dose' function within HEPMA.

Every patient/clinical situation is different. Consider the risk to patient of delayed/missed doses e.g. treatment failure, withdrawal effects, etc. Contact medical/pharmacy staff for advice about delayed or missed medications.

References:

1. Prevention of Missed Doses. Safer Use of Medicines of Area Drug and Therapeutics Committee. NHS GG&C. March 2012

Mental Health Services Safer Use of Medicines Group

Approved by PMG(MH) October 2022
Review date October 2023

Mental Health Services
Prescribing Management Group

Neuroleptic Malignant Syndrome (NMS)

Background

Neuroleptic Malignant Syndrome (NMS) is a rare, acute and life threatening disorder of thermoregulation and neuromotor control. It is characterised by muscle rigidity, hyperthermia, altered consciousness and autonomic dysfunction through dopamine blockage following exposure to antipsychotic medication. It can range from mild with few signs and symptoms to an acute, severe syndrome that should be considered a medical emergency.[1] NMS generally develops within the first 2 weeks of an antipsychotic drug being initiated or after a change of dose.[2]

Incidence

Incidence of NMS is difficult to estimate as antipsychotic use has changed over time and awareness of the condition has increased. Incidence rates have decreased from 3% since it was first described in 1960 to around 0.01%-0.02% in patients treated with antipsychotics.[2]

Aetiology

The exact cause of NMS is unknown, but it is likely primarily related to central inhibition of dopaminergic transmission giving rise to autonomic instability and dysregulation.[3,4] All antipsychotics, both first generation (FGAs) and second generation (SGAs) can cause NMS at any dose, although it is more likely with high dose, rapid dose escalation and first generation antipsychotics (FGAs).[1,5] Neurotransmitter depletion occurs with FGA & SGA treatment and abrupt withdrawal of any dopamine agonists such as anti-Parkinson's agents.[5,6]

The concurrent use of other medications which can affect dopamine concentrations (e.g. tricyclic antidepressants, selective serotonin reuptake inhibitors, domperidone, metoclopramide and lithium) have also be implicated.[6] Combinations of antipsychotics with SSRIs or cholinesterase inhibitors may increase the risk of NMS; NMS–type syndromes induced by SGA/SSRI combinations may share their symptoms and pathogenesis with serotonin syndrome.[1] Conditions where central dopamine handling is affected can also predispose individuals to the syndrome, such as Parkinson's Disease or Wilson's disease.[7]

Summary of risk factors [1,5,7]

Strong	Weak	Other
High potency FGAs	Older age	Abrupt withdrawal of anticholinergic agents
Recent or rapid dose increase	Pre-existing agitation	Organic brain disease
Antipsychotic polypharmacy	Male gender	Alcoholism
Intramuscular administration	Pre-existing dehydration	Parkinson's disease or Wilson's disease
Abrupt withdrawal of domaminergic drugs	Exposure to other dopamine antagonists e.g. metoclopramide, lithium, certain antidepressants	Hyperthyroidism
Structural brain abnormality	Catatonia	Younger age

Diagnosis of NMS

The "classic" picture of NMS consists of a tetrad of symptoms: altered mental state, fever, extrapyramidal symptoms, and autonomic instability, although there can be a significant heterogeneity in the presentation.[8] SGA-induced NMS may present without some (if not all) of these symptoms and there have been 'atypical' NMS cases where hyperthermia and muscle rigidity has developed either much slower or been completely absent.[9,10] It is therefore paramount that all possible symptoms are considered (see table 1) when making a diagnosis.[2]

Altered Mental State	Hyperthermia	Autonomic Instability	Muscle Rigidity
Confusion	Temperatures >38.5°C	Fluctuating Blood Pressure	Creatinine Kinase markedly raised (>200 – 100,000 IU/L)
Delirium		Tachycardia	Extrapyramidal symptoms (Muscle stiffness)
Stupor		Excessive Sweating (Diaphoresis)	Trismus (jaw contraction)
Coma		Tachypnoea	'Lead pipe' rigidity
Grand mal seizures		Excessive Saliva Production (sialorrhea)	Rhabdomyolysis
Drowsiness		High arterial pressure	Opisthotonus (spinal contraction)
		Incontinence	Babinski's sign (abnormal flexion of the toes)
			Chorea

Table 1: *Groups of symptoms and signs of Neuroleptic Malignant Syndrome.*

Differential diagnoses[2,7]

Although a positive diagnosis is primarily symptom-based, NMS can mirror other conditions with little variation in presentation, and so these must be excluded before a definitive diagnosis is made (Table 2).

Laboratory findings[1,2,7]

- Raised creatinine kinase (CK) at least four times upper limit of normal (can be asymptomatic[1])
- Abnormal LFTs
- Leucocytosis
- ECG abnormalities
- Electrolyte disturbances may also be present.

Temperatures above 40°C or renal failure secondary to rhabdomyolysis are indicators of **severe NMS** and are associated with a poorer prognosis and **urgent** medical attention is required. Further complications can include seizures, disseminated intravascular coagulation, respiratory failure, and aspiration pneumonia.[8,11]

Differential diagnosis	Distinguishing features
Serotonin syndrome	Rapid onset after administration of a serotonergic drug, hyperreflexia, clonus, diarrhoea. (See SS guideline) *hyperlink*
Malignant hyperthermia	Usually after exposure to anaesthetics or depolarising muscle relaxants in genetically susceptible people; rapid onset, trismus (lockjaw)
Catatonia	Withdrawal, predominance of motor abnormalities, absence of hyperthermia, gradual evolution of presentation
Infection/sepsis	CNS or systemic signs and symptoms of infection
Heat stroke	Rapid onset, occurs during prolonged elevations in ambient temperatures; diaphoresis; muscle rigidity usually not present
Toxicity/overdose of other drugs e.g MAOIs, lithium	
Drug abuse/adverse reactions e.g. cocaine, amphetamines, CNS stimulants	History of drug abuse, overdose symptoms
Alcohol or sedative withdrawal	History of alcohol or sedative abuse
Metabolic conditions e.g. dehydration, hyponatraemia, hypokalaemia	Signs and symptoms of dehydration, abnormal U&Es

Table 2: *Differential diagnosis*

Treatment

The first step of treatment is to immediately withdraw **all potential** causative medicines. Subsequent management depends on the patient's presentation:

- Correct dehydration and hyperthermia
- Monitor temperature, pulse and blood pressure
- Sedate with benzodiazepines as necessary
- Measure WCC, U&Es, LFTs and CK
- In case of a medical emergency, transfer patient to acute medical care
- Treat acute symptoms: dantrolene, a muscle relaxant and/or bromocriptine, a dopaminergic agent and/or artificial ventilation may be required[1]

Reintroduction of Antipsychotics

- Risk of recurrence of NMS can be as high as 30%[12]
- Allow symptoms to **completely** resolve before re-introducing antipsychotic, leave a gap of at least 2 weeks and avoid causative agent
- Establish if any there is any previous history of similar reaction

- Document NMS and causative agent within clinical notes as an adverse drug reaction
- Document clearly indications for antipsychotics
- Reduce any modifiable risk factors
- Choose an antipsychotic structurally unrelated to the causative agent or a drug with low dopamine affinity (quetiapine or clozapine)
- Avoid depot/LAI antipsychotic preparations and high potency FGAs
- Begin with a low dose and titrated slowly with close monitoring of physical and biochemical parameters e.g. temperature, BP, pulse, muscle tone, and CK

KEY SUMMARY

- **NMS is a rare but potentially fatal adverse reaction, most commonly seen with antipsychotic agents**
- **SGAs may have a lower incidence of NMS than FGAs**
- **Combinations of antipsychotics or antipsychotics with lithium or antidepressants may increase the risk of NMS**
- **Rarely associated with withdrawal or reduction of dose of dopamine agonists and use of metoclopramide and domepridone**
- **Symptoms include hyperthermia, autonomic instability, altered consciousness and muscle rigidity**
- **Laboratory findings include elevated CK, leucocytosis and impaired LFTs**
- **NMS is a diagnosis of exclusion, so differential diagnoses must be ruled out**

If NMS is suspected, discuss with senior colleagues and if clinically unwell, refer to acute hospital.

Reintroduction of all antipsychotics should only be initiated by senior medical staff.

References

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2. UKMi Medicines Q&As. What is Neuroleptic Malignant Syndrome? February 2014. Q&A 309.3 www.evidence.nhs.uk Accessed online 27.12.18
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4. Maule E. Management of Neuroleptic Malignant Syndrome. Clinical Pharmacy. 2009; **1**(7): 203-205.
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6. Troller JN, Chen X, Sachdev PS. Neuroleptic Malignant Syndrome Associated with Atypical Antipsychotic Drugs. 2009; **23** (6): 477-492.
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10. Belvederi Murri *et al.* Second-generation antipsychotics and neuroleptic malignant syndrome: systematic review and case report analysis. Drugs R. D. 2015; **15**: 45-62.
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Mental Health Services
Prescribing Management Group

Advice on accessing non-formulary and unlicensed medicines in GGC Mental Health Services

Non-formulary

The following medicines are currently non-formulary within NHS GGC Mental Health Services (MHS) and are subject to mental health non-formulary (MHS-NF) requests;

- agomelatine
- asenapine
- paliperidone (oral)
- quetiapine MR
- vortioxetine

PACS2

Peer Approved Clinical System tier 2 (PACS2) is the process that has replaced Individualised Patient Treatment Requests (IPTRs) in most situations. Within MHS, the only medicine that is currently subject to the PACS2 process (on cost grounds and non-SMC status) is;

- olanzapine long-acting injection (Zypadera ®)

Guidance for use of olanzapine embonate long acting injection (Zypadhera) in GGC is available here.

Unlicensed medicines

Medicines that do not have a marketing authorisation (or product licence) in the UK are subject to unlicensed medicine (ULM) requests and require completion of a ULM form.
A number of blanket unlicensed protocols exist within MHS to allow use of some ULMs in certain clinical situations without submitting a full ULM form. These are;

- pirenzepine for clozapine-related hypersalivation — Protocol for unlicensed pirenzepine
- benzatropine for clozapine-related hypersalivation — Protocol for unlicensed benzatropine
- short-acting IM olanzapine — Protocol for unlicensed IM olanzapine
- thioridazine for legacy patients — Protocol for unlicensed thioridazine

Off-label use of medicines occurs when medication is used outside the terms of its marketing authorisation. Where the off-label use is supported by evidence-based texts, the use is generally considered low risk and a ULM form will not be required. Where the off-label use is higher risk, a ULM form may be required. Please contact the Mental Health Prescribing Management Group (PMG-MH) for further advice.

Prior to prescribing any medicine subject to restrictions within GGC MHS, the appropriate form must be completed and sent to the PMG-MH for consideration. Feedback regarding approval or otherwise from the PMG-MH will be provided to the requesting clinician within an agreed timescale.

Medicines subject to NF, PACS2 or ULM processes within MHS and forms to complete		
NF	**PACS2**	**ULM** *not exhaustive
MHS NF request form	PACS2 form	ULM form
agomelatine	olanzapine LAI	sertindole
asenapine		ziprasidone
paliperidone (oral)		clozapine IM
quetiapine MR		
vortioxetine		

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Mental Health Services
Prescribing Management Group

Feedback requests

Following approval of medicines subject to NF, PACS2 or ULM processes, PMG-MH will retain a copy of the form for audit purposes and may request feedback after a period of time in order to evaluate local clinical experience.

PrescribingManagementGroup.MentalHealth@ggc.scot.nhs.uk

Approved: April 2022
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MHS MRG 14

Procedure for Nurse Dispensing Outwith Pharmacy Hours

Background

Joint guidance from the Royal College of Nursing and The Royal Pharmaceutical Society (2019) states:

'It is preferable for the actions of prescribing, dispensing/supply and administration to be separated and performed by different health care professionals. Where clinical circumstances make it necessary and in the interests of the patient, the same health care professional can be responsible for the prescribing and supply/administration of medicines. Where this occurs, processes should be in place to limit errors along with an audit trail and clinical documentation.'

This procedure is to provide guidance for nursing staff on dispensing outwith pharmacy hours. Nursing staff are accountable for all aspects of their practice whilst operating this procedure.

Routine prescriptions must be ordered from pharmacy, as must any prescriptions that staff may anticipate will be required. Ward teams should endeavour to order all pass medications prior to 4pm on a Friday. Nurse dispensing must not become routine practice. Examples where this procedure may apply include:

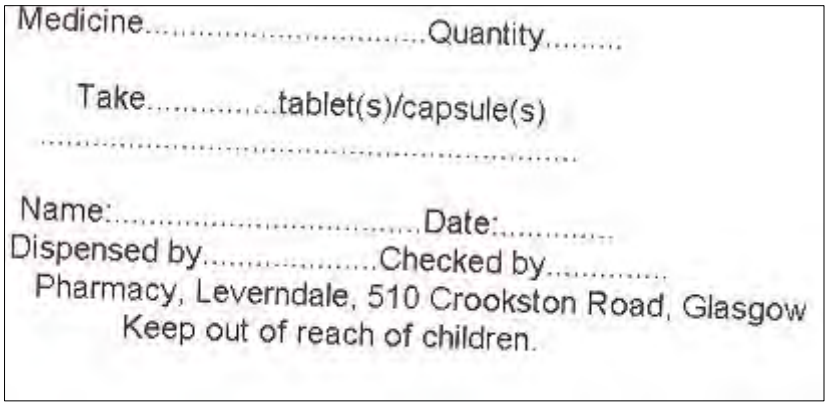
- A patient requests an urgent pass out of hours due to a family emergency
- A patient already out on pass from Friday to Sunday contacts the ward on Saturday with an appropriate request for an extension of the pass until Monday
- A patient discharging themselves against medical advice out of hours or at weekends

Note: This procedure only applies to hospital in-patients

Procedure

1. During normal pharmacy hours (Monday to Friday 8.30am to 4.30pm) all prescriptions **must** be dispensed by pharmacy. Pharmacy departments have a cut of time of 2:30pm for prescriptions to ensure delivery before the end of the working day. If medication is being requested after this time, the pharmacy should be contacted to discuss whether they are able to fulfill the request.
2. Out with these times, if a patient requires a prescription, suitable containers (bottles or plastic bags) and labels for that purpose will be held in the emergency cupboard or appropriate wards on each site. As this procedure will only occur infrequently, only a small amount of stock will be kept.
3. The response nurse or site nursing page holder, the duty doctor and if necessary the duty consultant should be contacted for advice regarding the appropriateness of the pass or prescription.
4. The nurse will obtain the appropriate amount of containers and labels (one container and one label per item). The number of containers and labels issued should be noted on the out of hours issue form (appendix 1) for audit purposes.
5. The precise number of doses required of each medicine will be dispensed from ward stock into the appropriately labelled container.
6. The label for each item must be completed with the name, strength, form and quantity of the medicine; clear dosage instructions; the patient's name and the date of supply. Each label will

be written in indelible ink (see example below).



7. Two suitably experienced registered nurses, band 5 or above, must complete the “dispense” and “check” section of each label.
8. The details of all medication supplied must be recorded on an out-of-hours pass form (see appendix 1) and filed in the integrated health record. This should include the total number of tablets/ capsules which have been dispensed. The nurse should then suspend the patients HEPMA prescription as described in the Procedure for Ordering Pass Medication
9. The nurse will discuss the prescription with the patient and/or carer to ensure that they know why the medicine has been prescribed; when and how to take the medication; details of any potential side effects and adverse reactions; advice on what to do if a dose is missed. Details of this discussion, the authorisation for the pass and the agreed pass period must be recorded in the patient’s integrated health record.
10. The maximum period of any out-of-hours pass must not exceed 72hours.
11. This procedure is for use in **exceptional circumstances only.**

Appendix 1- Out Of Hours Pass Medication Issues Form

This form must be completed in full for every out-of-hours pass dispensed by nursing staff.

Patients Name _____ CHI Number _
Ward _____ Date _
Pass from _____ Pass Until _
Reason for pass _____ N° of containers & labels issued _
Authorised by _____ Patient's signature _

Medicine Supplied

Drug	Strength	Quantity	Manufacturer	Expiry date	Dispensed by	Checked by

Please file the completed form in the integrated care record.

Approved: June 2020
Review date: June 2023

Guidance on Off-label and Unlicensed Prescribing in Mental Health Services

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Robust record-keeping and documentation is fundamental to all prescribing practice. When commencing new treatments, patients should be provided with sufficient information to allow them to make an informed decision.

Remember to **RECoRD**……

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Background and definitions

In the UK, **licensed medicines** are those products that have received a 'marketing authorisation' previously referred to as a 'product licence'.

A **marketing authorisation** (MA) is required in order for a manufacturer to sell, advertise and promote a medicine for a defined population. Licensing arrangements are determined by the Human Medicines Regulations 2012 (a consolidation of legislation including the Medicines Act 1968) and implemented through the MHRA (Medicines and Healthcare products Regulatory Agency).

A summary of product characteristics (SPC) is a description of a medicinal product's properties and the conditions attached to its use.

Off-label and **unlicensed prescribing** are often used interchangeably, however, for the purpose of this guidance, the definitions are;

- **Off-label prescribing** occurs when medication use falls outside the terms of the Marketing Authorisation.
- **Unlicensed prescribing** is where a medicine has no Marketing Authorisation in the UK or the Marketing Authorisation has been withdrawn.

Off-label prescribing occurs when medication use falls outside the scope of the marketing authorisation with respect to one of five key domains[1];

1. Demographic. The age of the patient may lie outwith the recommended range
   e.g. the use of sertraline for depression in a 16 year old

2. Disorder. Prescribing for a condition which is outwith the marketing authorisation
   e.g. the use of hyoscine hydrobromide for clozapine-related hypersalivation

3. Dosage. Prescribing at a dose that is higher than recommended
   e.g. olanzapine prescribed at 30mg daily

4. Duration. Prescribing for a longer period of time than is recommended
   e.g. a benzodiazepine prescribed for longer than 4 weeks

5. Domain. Where a drug is licensed for a particular indication in one country and not another
   e.g. in some EU member states, valproate salts have a licence for prevention of migraine

In addition, the following situations would also constitute **off-label prescribing**;

1. Prescribing a medicine in a circumstance that is specified as contraindicated
   e.g. the use of haloperidol in combination with another mediation known to prolong the QTc interval

2. Where the form of a preparation is changed before administration e.g. crushing tablets and mixing with yoghurt as part of a covert medication pathway

3. Administering medication via a route not specified within the SPC e.g. down a nasogastric tube

Within mental health services, the vast majority of **unlicensed prescribing** occurs when;

1. The UK marketing authorisation has been suspended (usually for commercial reasons) with the product now imported from abroad e.g. pirenzepine for clozapine-related hypersalivation

2. The UK marketing authorisation has been suspended but where the company continues to make product available for named individuals e.g. sertindole

3. There has never been a UK marketing authorisation and the product needs imported from abroad e.g. ziprasidone

Outwith the regulatory framework of the marketing authorisation can be a body of literature related to off-label uses of a certain medication. Often the literature includes robust evidence including published RCTs. Modification of an existing marketing authorisation is a complex and costly process, therefore, pharmaceutical companies may be reluctant to pursue authorisation for potential additional indications due to commercial reasons even when there is sufficient evidence of efficacy and safety. The licensed uses of a medicine are therefore simply those for which formal approval has been sought and obtained by the manufacturer. The absence of a licence does not necessarily indicate an absence of evidence for the proposed treatment, neither is the prescribing of medicines within the terms of their marketing authorisation a guarantee of safety or efficacy.

Spectrum of off-label and unlicensed prescribing

It is helpful to consider off-label and unlicensed prescribing on a spectrum with some prescribing 'near-label' lower risk and others 'very far off-label' or unlicensed and potentially higher risk.

Medications whose off-label use is supported by evidence-based texts (e.g. BNF, BNF for Children, SIGN, NICE or BAP Guidelines) are generally considered lower risk provided the prescribing information in that text is followed.

The risks associated with some off-label medicine use may be due to poor evidence base or to the risk of adverse effects associated with the off-label treatment.

Examples of off-label medicine use		
Near label Lower risk	**Off-label Intermediate risk**	**Off-label Higher risk**
Sertraline in GAD	Olanzapine > 20mg/day	Rechallenge with clozapine following neutropenia
Initiation of methylphenidate in an adult	Use of SGA for anxiety or in managing core symptoms of personality disorder	Combination of clozapine and carbamazepine
Semisodium valproate for maintenance of BPAD	Lorazepam IM for acute behavioural disturbance	IM ketamine for depression
Sodium valproate for treatment of hypomania	Bupropion for depression	Combination of haloperidol and citalopram
Metformin for antipsychotic-induced weight gain		
Amitriptyline for neuropathic pain		

Examples of unlicensed medicine use		
Unlicensed Lower risk	**Unlicensed Intermediate risk**	**Unlicensed Higher risk**
Pirenzepine for clozapine-related hypersalivation	Short-acting IM olanzapine	IM clozapine
Benzatropine for clozapine-related hypersalivation	Ziprasidone	Sertindole

Scope of off-label prescribing

A recent local audit within a GGC mental health rehab ward suggested that around 25% of prescribing was off-label .[2] Audit in other areas has suggested that up to 40% of all prescriptions of psychotropic drugs are off-label. [3] This may be even higher with specific psychotropic medications, for example, over 60% of risperidone use in a primary care study was for off-label uses. [4]

Medico-legal implications of off-label prescribing

Independent prescribers can prescribe any medication (licensed, off-label or unlicensed) so long as prescribing would be supported by a reasonable body of medical opinion.[5]

In general, off-label prescribing would not be deemed a breach of duty of care provided that the treatment was supported by a respected body of medical opinion (Bolam *v Friern Hospital Management Committee, 1957*). In addition, that medical opinion needs to withstand logical analysis (*Bolitho v City and Hackney health Authority*, *1997*). It is therefore essential to consider risks and benefits of various treatment options with regard to the evidence that is available and the nature of the clinical case. [6]

There is no legal requirement to disclose the off-label use of a drug to a patient but such disclosure is advocated strongly [1] and the GMC advice on prescribing states that sufficient information **must** be given to enable informed consent to be made to **any treatment**, including explaining the off-label nature of prescribing to the patient (or carer as appropriate) and the reasons for doing so.[5, 7]

Prescribers must now ensure that patients (or their carers if the patient lacks legal capacity) are aware of any 'material risks' involved in a proposed treatment, and of reasonable alternatives, following the judgment in the Montgomery case (*Montgomery* v *Lanarkshire Health Board 2015)*. 'The test of materiality is whether, in the circumstances of the particular case, a reasonable person in the patient's position would be likely to attach significance to the risk, or the doctor is or should reasonably be aware that the particular patient would be likely to attach significance to it.'

In emergencies or where there is no realistic alternative treatment to an off-label treatment and such information is likely to cause distress, it may not be practical or necessary to draw attention to the licence. In other cases, where prescribing unlicensed medicines is supported by published clinical guidance, it may be sufficient to describe in general terms why the medicine is not licensed for the proposed use or patient population. [7] However, in circumstances where the evidence base is less clear cut then it would be sensible to seek a second opinion to support the prescribing decision. [5]

Liability

Prescribing unlicensed medicines or medicines outside the recommendations of their marketing authorisation alters (and probably increases) the prescriber's professional responsibility and potential liability.[5] The prescriber is always responsible for the use of a medicine and the patient's welfare and in the event of adverse reactions may be called upon to justify the decisions that they have made. [8]

Consent & Documentation

Good record-keeping and documentation is fundamental to all prescribing practice. When prescribing is off-label or unlicensed, it is even more important to document the rationale for treatment, the evidence-base where appropriate, record the key elements of discussion with the patient and/or carer and consider ongoing review of the treatment.

Patients should be provided with sufficient information about the proposed treatment to allow them to make an informed decision. General advice about the off-label use of licensed medicines or use of unlicensed medicines from the Choice and Medication website[9] may be useful in aiding discussions with patients. Off-label (unlicensed) use fact sheet & Unlicensed medicines fact sheet. Choice and Medication also has some specific medicine information leaflets on off-label medicine use e.g. metformin for weight gain and for some unlicensed medicines e.g. pirenzepine, ziprasidone, sertindole. In addition, the use of off-label or unlicensed medicines in children is discussed in the following resource; Medicines for children unlicensed medicine advice

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Advice for T2 & T3 certificates in relation to off-label and unlicensed medicine use[10]

In general, T3 treatment plans should record the class of drug and route of administration and state that dose and frequency are within BNF guidelines; however, it is best practice for T2 certificates to specify the actual medication(s) rather than a class of medicines. [11]
It may be appropriate for the treatment plan to refer to guidelines or local protocols for off-label medication use e.g. dosing of lorazepam up to 8mg/24 hours in line with GGC guidance for acutely disturbed behaviour.[12] High dose antipsychotic therapy should state a requirement for monitoring in accordance with guidance from RCPsych or local GGC high dose antipsychotic monitoring policy.[13]
Where a proposed treatment plan contains novel treatments (including some higher risk off-label or unlicensed medicine use), it is the responsibility of the referring RMO to ensure that any relevant literature or references are available for the DMP to refer to and a clear rationale for the use of the medication is recorded in the casenotes. For full unlicensed medication, the specific medication and the fact that it is unlicensed should be included in the treatment plan (referring to the BNF in this case would be irrelevant).

Communication with other prescribers

The legal responsibility for prescribing falls to the clinician who signs the prescription. It is therefore essential that there is clear communication between a recommending specialist and the patient's GP about the rationale for use of an off-label or unlicensed medication over a licensed alternative. Offering information to GP colleagues on indication, evidence-base, safety, patient need etc with the prescribing request is important in order for the patient's GP to be adequately satisfied with the clinical decision. Note: as a rule, the majority of full unlicensed medicines (i.e. with no UK marketing authorisation) used in mental health services, e.g. pirenzepine for clozapine-related hypersalivation, named-patient sertindole, ziprasidone will be supplied by MHS for patients in primary care.

Process for unlicensed medicine use in GGC MHS

GGC MHS have blanket unlicensed medicine protocols for the following medications[14];

- Short-acting intramuscular olanzapine Protocol for olanzapine IM
- Pirenzepine for clozapine-related hypersalivation Protocol for pirenzepine
- Benzatropine for clozapine-related hypersalivation Protocol for benzatropine
- Thioridazine for 'legacy' patients Protocol for thioridazine

Any other unlicensed medicine request need a full unlicensed medicine form completed and submitted to the MH Prescribing Management Group for consideration. GGC ULM form

In the main, the off-label use of medication does not require any supplementary documentation. However, where the off-label use is considered higher risk, a full ULM form should be completed and submitted to MH-PMG for consideration.

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Appendix I: excerpt from GMC guidance Good practice in prescribing and managing medicines and devices GMC Good practice in prescribing and managing medicines and devices

67. The term 'unlicensed medicine' is used to describe medicines that are used outside the terms of their UK licence or which have no licence for use in the UK. Unlicensed medicines are commonly used in some areas of medicine such as in paediatrics, psychiatry and palliative care. They are also used, less frequently, in other areas of medicine.
68. You should usually prescribe licensed medicines in accordance with the terms of their licence. However, you may prescribe unlicensed medicines where, on the basis of an assessment of the individual patient, you conclude, for medical reasons, that it is necessary to do so to meet the specific needs of the patient.
69. Prescribing unlicensed medicines may be necessary where:
    a) There is no suitably licensed medicine that will meet the patient's need. Examples include (but are not limited to), for example, where:
        i) there is no licensed medicine applicable to the particular patient. For example, if the patient is a child and a medicine licensed only for adult patients would meet the needs of the child; or
        ii) a medicine licensed to treat a condition or symptom in children would nonetheless not meet the specific assessed needs of the particular child patient, but a medicine licensed for the same condition or symptom in adults would do so; or
        iii) the dosage specified for a licensed medicine would not meet the patient's need; or
        iv) the patient needs a medicine in a formulation that is not specified in an applicable licence.
    b) Or where a suitably licensed medicine that would meet the patient's need is not available. This may arise where, for example, there is a temporary shortage in supply; or
    c) The prescribing forms part of a properly approved research project.
70. When prescribing an unlicensed medicine you must:
    a) be satisfied that there is sufficient evidence or experience of using the medicine to demonstrate its safety and efficacy
    b) take responsibility for prescribing the medicine and for overseeing the patient's care, monitoring, and any follow up treatment, or ensure that arrangements are made for another suitable doctor to do so
    c) make a clear, accurate and legible record of all medicines prescribed and, where you are not following common practice, your reasons for prescribing an unlicensed medicine.

Information for patients about the licence for their medicines

71. You must give patients (or their parents or carers) sufficient information about the medicines you propose to prescribe to allow them to make an informed decision.
72. Some medicines are routinely used outside the terms of their licence, for example in treating children. In emergencies or where there is no realistic alternative treatment and such information is likely to cause distress, it may not be practical or necessary to draw attention to the licence. In other cases, where prescribing unlicensed medicines is supported by authoritative clinical guidance, it may be sufficient to describe in general terms why the medicine is not licensed for the proposed use or patient population. You must always answer questions from patients (or their parents or carers) about medicines fully and honestly.
73. If you intend to prescribe unlicensed medicines where that is not routine or if there are suitably licensed alternatives available, you should explain this to the patient, and your reasons for doing so.

Appendix II: excerpt from RCPsych CR210 Use of licensed medicines for unlicensed applications in psychiatric practice RCPsych CR210

Recommendations

1. First check that medicines with a licence (market authorisation) for the particular indication have either had an adequate therapeutic trial or have been considered carefully but excluded on clinical grounds (such as treatment contraindications or risk of drug–drug interactions).
2. Become familiar and be satisfied with the evidence base for the proposed pharmacological intervention, including its probable effectiveness, acceptability, treatment-emergent adverse effects, and drug interactions.
3. Obtain the advice of another prescribing clinician (and possibly a specialist pharmacist) with greater experience or expertise if the medicine to be used does not have an extensive evidence base to support its use for the proposed indication, or if you have particular concerns, or if you feel insufficiently expert in this field.
4. Consider the anticipated risks and benefits of treatment, giving particular thought in vulnerable groups such as children and adolescents, women of child-bearing age, elderly patients, physically ill patients, and patients with impaired insight and judgement; and document your thoughts on the likely balance of risk and benefit.
5. Explain fully the anticipated benefits and potential risks of the proposed medication to the patient (and if possible their relative or partner) stating that the medicine will be used outside the restricted terms of its product licence and make a record of this explanation.
6. In a situation where prescribing an unlicensed medicine is supported by authorative guidance, describe in general terms why the medicine is not licensed for the proposed indication, but if you intend to prescribe an unlicensed medicine where that is not routine, provide the patient with a more detailed explanation.
7. Record the agreement of the patient to the proposed intervention. If the patient is unable to provide consent to a necessary treatment, document that it has not been possible to obtain formal consent.
8. Start the medicine at low dose and monitor its effects carefully. If it is well tolerated but not effective, give thought to cautiously increasing the dose, with further careful monitoring of its effects.
9. Tell other health professionals involved in the care of the patient that the medicine is being prescribed outside the terms of its licence and encourage them to discuss their observations of its beneficial and untoward effects.
10. If the medicine has no beneficial effects or the emergent risks and hazards outweigh the benefits, withdraw it (generally, best done gradually) and document the reasons why it is being withdrawn. If there is a persistent need for further treatment, consider possible alternatives (using the process described above) and after a suitable ‘wash-out’ cautiously introduce the next medicine.

Appendix III: excerpt from GG&C Unlicensed Medicines Policy GG&C ULM policy

HEALTH BOARD
It is the responsibility of the Health Board to ensure that medicines are prepared and administered correctly. While any liability associated with the use of unlicensed or off label medicines will be accepted by the employing authority. This policy describes best practice for employees of the acute division NHSGG&C.

PRESCRIBER
The prescriber is always responsible for the use of a medicine and the patient's welfare and in the event of adverse reactions may be called upon to justify the decisions that they have made. (see GMC advice, appendix 4). In the case of unlicensed/ off label medicine prescribing it is important to be aware that information regarding efficacy and safety may be less robust and this should be considered where there is a licensed alternative.

PHARMACIST
A pharmacist assumes professional responsibility as purchaser of the medicine, particularly if this involves specifying an unlicensed medicine to be purchased.

MANUFACTURER
If an untoward incident occurs with:-

- a licensed medicine prescribed and administered according to the Marketing Authorisation, liability rests with the manufacturer.
- off label use of a licensed medicine i.e. prescribed or administered out with Marketing Authorisation then the manufacturer is unlikely to be found liable for any harm caused by that medicine, unless harm is directly attributable to a defect in it, rather than the way it was prescribed.
- an unlicensed medicine with no Marketing Authorisation within the UK then the manufacturer is not liable (unless the medicine is shown to be defective).

Olanzapine- guidance for the use of olanzapine embonate LAI (MHS MRG 37)

Warning: This guideline is 19627278 day(s) past its review date.

Resources

Use the button below to access this resource item.

Access this resource

Last reviewed:

10 May 2022

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Approved By:

PMG-MH

Reviewer Name(s):

Lead clincial pharmacist, Clinical effectiveness pharmacist

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NHS Greater Glasgow & Clyde
Mental Health Services

Protocol for the use of Unlicensed Olanzapine Injection

Indication

Eli Lilly ceased marketing Olanzapine intramuscular injection (Zyprexa) in the UK for commercial reasons in 2013. The preparation retains marketing authorisation throughout the rest of the EU. Consequently, it has to be imported from Europe making the version used technically unlicensed in the UK.

The licensed indications for the original UK version of olanzapine injection still apply i.e. the rapid control of agitation and disturbed behaviour in patients with schizophrenia or in mania, when oral therapy is inappropriate[1] and it remains a treatment option within GG&C's Guideline for use of Intramuscular Medication for Acutely Disturbed Behaviour.[2]

PMG(MH) produced guidelines for the use of olanzapine injection in 2008.[3] This protocol replaces those guidelines.

Informed consent

As a treatment option for acutely disturbed behaviour, it is unlikely that prior consent for the use of intramuscular olanzapine could be obtained. In fact, it is the view of the Mental Welfare Commission for Scotland that individuals cannot give advance consent to the potential use of intramuscular medication.[4] Adherence to the principles contained in the Adults with Incapacity (Scotland) Act, 2000 and/or Mental Health (Care and Treatment) (Scotland) Act 2003 is mandatory in the case of intramuscular medication for acutely disturbed behaviour.

Due to its unlicensed status, explanation for the rationale of treatment choice should be given at a suitable time during the patient's treatment.[5] Patient information explaining unlicensed medication in general terms is available via the Choice and Medication portal, as is a specific olanzapine leaflet. [6]

Documentation

The consultant psychiatrist must make a clear record of the rationale for prescribing an unlicensed medication within the patient's case notes and document the discussion with the patient. Nursing staff in the ward must be informed of the medicine's unlicensed status and ward clinical pharmacists must ensure that staff are aware of the unlicensed status.

When ordering olanzapine intramuscular injection, the patient's initials and CHI should be included on the requisition as well as the phrase "as per protocol" for the order to be processed.

A record of administration of unlicensed medication must be kept (as per unlicensed medication policy).[7] When entering administration on HEPMA, the drug batch number and expiry date should be recorded when prompted. It is the responsibility of the nurse in charge to ensure this occurs.

When supplying olanzapine intramuscular injection from pharmacy, pharmacy staff must ensure that batch numbers are documented on the requisition.

Review

It is recommended that this preparation only be prescribed as a STAT dose on HEPMA as it is not anticipated to be required on an on-going basis.

Monitoring

- Blood pressure (lying & standing)
- Pulse
- Respiration
- Temperature
- Level of hydration
- Level of consciousness

Approved by Prescribing Management Group (Mental Health)
Updated October 2020
Review date Oct 2023

At least hourly until the patient is ambulatory and there are no concerns about physical health. Monitor more regularly if the patient appears to be asleep or sedated, has taken illicit drugs or alcohol, has a pre-existing physical health problem or has experienced any harm as a result of any restrictive intervention. [2]

Dose range [1,8,9,10]

- **Adults:** 5 – 10mg by intramuscular injection. A repeat dose of 5 – 10mg may be given after a minimum of 2 hours. **Maximum daily dose** is 20mg (includes any oral olanzapine), with not more than 3 injections in 24 hours. Maximum treatment course is 3 days.

- **Elderly:** 2.5 – 5mg by intramuscular injection. A repeat dose of 2.5 – 5mg may be given after a minimum of 2 hours. **Maximum daily dose** is 20mg (includes any oral olanzapine), with not more than 3 injections in 24 hours. Maximum treatment course is 3 days

- **Adolescents:**[10] 2.5 - 5mg by intramuscular injection (depending on age, weight, previous exposure to antipsychotic medication, and whether has underlying neurodevelopmental disorder/LD). A repeat dose of 2.5 - 5mg may be given after a minimum of 2 hours. **Maximum daily dose** is 10mg - 20 mg (again dependent on above parameters and including any oral olanzapine), with not more than 3 injections in 24 hours. Maximum treatment course is 3 days.

Side effects

Common (<1/10 and >1/100)	sedation, altered heart rate (tachy and bradycardia), hypotension, postural hypotension, discomfort at the injection site
Uncommon (<1/100 and >1/1000)	reduced respiratory rate, abnormal heart rhythms

In addition, the injection shares side effects associated with oral olanzapine (see latest Summary of Product Characteristics for full details[11])

Contraindications

- Hypersensitivity to olanzapine or any other excipients in Zyprexa injection.
- Known narrow angle glaucoma

Cautions

- Unstable medical conditions e.g. acute MI, unstable angina, severe hypotension
- Concomitant use of benzodiazepines - **If the patient is considered to need parenteral benzodiazepine treatment, this should not be given until at least one hour after IM olanzapine administration. If the patient has received parenteral benzodiazepine, IM olanzapine administration should only be considered after careful evaluation of clinical status, and the patient should be closely monitored for excessive sedation and cardio-respiratory depression.**
- Hypotension
- Dementia related psychosis and/or behavioural disturbance
- Parkinson's disease
- Neuroleptic Malignant Syndrome
- Hyperglycaemia & diabetes
- Lipid alterations
- Prostatic hypertrophy
- Paralytic ileus
- Hepatic function
- Neutropenia

- Prolonged QT interval
- Thromboembolism
- Seizures
- Tardive dyskinesia
- Postural Hypotension
- Pregnancy

Interactions

- Caution should be exercised in patients who consume alcohol or take medicines that can induce hypotension, bradycardia, respiratory or CNS depression
- Benzodiazepines – see above
- CYP1A2 inducers e.g. smoking, carbamazepine. May lead to reduced olanzapine concentrations.
- CYP1A2 inhibitors e.g. fluvoxamine. May lead to increased olanzapine concentrations.
- Drugs known to prolong QT interval

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NHS Greater Glasgow & Clyde
Mental Health Partnership
Safer Use of Medicines Group

Safer Use of Opioids

The purpose of this guidance is to make staff aware of best practice in the use of opioids.

Opioids are a group of drugs primarily used to treat moderate or severe pain in either acute or palliative circumstances. Examples in common use include

- Diamorphine (also used in acute cardiac/ MI pain for therapeutic purposes)
- Dihydrocodeine injection
- Morphine
- Fentanyl
- Buprenorphine
- Oxycodone
- Methadone (more frequently used as a substitute for illicit opioid use. Detailed guidance on this use can be found in GGC Medicines Adult Therapeutics Handbook)

This is not an exhaustive list. A full list can be found in the BNF.

Used inappropriately these drugs have resulted in patient harm including death. It is important therefore that they are prescribed, dispensed and administered safely. This is especially true in mental health settings where use can be infrequent.

Guidance

1. **General points (**Source: NHS GG&C SUM group Organisational learning report 2009)

    - **Confirm recent opioid dose –** including formulation and frequency of administration, plus any other analgesics. Be alert for any anomalies such as unexpected dose increases or mix-up between modified release and ordinary-release preparations.

    - **Where the dose is to be increased, confirm the calculated dose increase is safe for the patient – check if in doubt.** E.g. for oral morphine or oxycodone in an adult patient, not normally more than 50% higher than the previous dose.

    - **Be familiar with the medicine being prescribed, dispensed or administered** – including usual starting dose, frequency of administration, standard dosage increments, symptoms of overdose & common side-effects.

    - **There is a difference in bioavailability if changing from oral morphine to the parenteral route.** If changing from oral morphine to intramuscular or subcutaneous morphine, the equivalent parenteral dose over 24 hours is half the total 24 hour oral dose. For diamorphine IM or SC, the dose over 24 hours is a third of the total daily oral morphine dose. **Further advice can be found in the Prescribing in Palliative care section of the BNF, GGC Medicines Adult Therapeutics Handbook or Scottish Palliative Care Guidelines**

2. **Prescribing.**

    Out with medical emergencies opioids (such as acute Myocardial Infarction/ Congestive Cardiac Failure) should be prescribed as part of a clear treatment plan. For pain management this should generally be part of a stepped approach as

describe in the W.H.O pain ladder. Advice on pain management can be obtained from local palliative care services. Doses should start low and be increased incrementally until pain control is achieved. In substance misuse treatment should be part of a plan supported by Addiction Services.

Care should be taken to clearly distinguish between different formulations of the same drug e.g. Shortec (ordinary release oxycodone) & Oxypro (modified release oxycodone)

3. Administration.

- Staff administering opioids should have knowledge of the usual dose range and common side effects of these drugs. The BNF will provide basic information and further information may be obtained from pharmacy as necessary.
- Where possible administration of opioids should be undertaken by two members of staff. This allows for all aspects of the process to be cross-checked.
- There are frequent incident reports involving controlled drug patches e.g. fentanyl. Most often the reports detail incidents where patches are no longer in situ when the time comes to change them. It is recommended that services adopt a standard process of checking that patches are in situ at every shift change.

4. Storage and record keeping.

Most of the drugs listed above are controlled drugs and are subject to the storage and record keeping requirements of the relevant national legislation (for advice on this contact pharmacy). As mentioned above use of these drugs in a mental health setting is infrequent. Consequently, it is expected that most mental health wards would not routinely keeps these as stock items. A limited number of wards may keep a small stock for urgent access out of hours.

5. Signs of overdose.

Overdose with opioids can lead to fatal respiratory depression. Other signs include drowsiness and slurred speech. Where patients are newly prescribed opioids or are on high doses it would be prudent to consider monitoring respiratory function e.g. number, depth and O_2 saturation. There is guidance in GGC Medicines Adult Therapeutics Handbook on the reversal of opioid induced respiratory depression).

MHP Safer Use of Medicines Group

May 2020

NHS Greater Glasgow & Clyde

Mental Health Services

Safer Use of Medicines Group

MHS MRG 17- Paracetamol overdose

Key messages

Treat **ALL** reported paracetamol overdoses as a potential emergency. All actual or suspected paracetamol overdoses should be referred to hospital (Accident & Emergency) for assessment, including blood tests.

Due to the ease of access, paracetamol is frequently used in overdose in self-harm attempts. Paracetamol is both acutely and accumulatively toxic. Toxic doses of paracetamol may cause severe hepatocellular necrosis that may ultimately be fatal. Liver damage is maximal 3 – 4 days after paracetamol overdose. Therefore, even if there are no significant early symptoms, patients who report taking a paracetamol overdose should be transferred to an acute hospital urgently.

Community Psychiatric Nurses (CPNs)

When a CPN takes someone with a suspected overdose of paracetamol to the emergency department they should have a handover discussion with the receiving service, indicating what the follow up management should be if the person is deemed medically fit, including psychiatric hospital admission.

TOXBASE

The following advice is taken from the TOXBASE entry for paracetamol:

Management: Management of paracetamol overdose depends on the type of overdose involved. The NPIS has defined different types of paracetamol overdose as follows:

- **Paracetamol overdose over a period of one hour or less:** Excessive amounts of paracetamol are ingested over a period of less than one hour, usually in the context of self-harm.
- **Staggered paracetamol overdose (non-therapeutic ingestions of excessive paracetamol over a period of more than one hour):** Excessive amounts of paracetamol are ingested over longer than one hour, usually in the context of self-harm.
- **Therapeutic excess (ingestions of excessive paracetamol with intent to treat pain or fever and without self-harm intent):** Therapeutic paracetamol excess, where patients ingest paracetamol at a dose greater than the licensed daily dose AND more than or equal to 75 mg/kg/24hrs, for the treatment of pain or fever without self-harm intent is common. This usually occurs over more than 24 hours but may occur over less than 24 hours. Therapeutic excess can involve use of excessive doses of the same paracetamol product or inadvertent use of more than one paracetamol-containing product at the same time.

Approved date: April 2023

Review date: April 2026

DRAFT

NHS Greater Glasgow & Clyde

Mental Health Services

Safer Use of Medicines Group

All patients who meet any of the following criteria should be referred to hospital for medical assessment:

- Patients who have ingested paracetamol in the context of self-harm (irrespective of reported dose)
- Symptomatic patients
- Patients who have ingested 75 mg/kg* or more paracetamol over a period of one hour or less
- Patients where the time of ingestion is uncertain but the dose ingested is 75 mg/kg* or more

*For a 60kg individual 75mg/kg equates to 9 tablets.

MHRA advice is that treatment with acetylcysteine should be commenced without delay in **ALL** patients who have ingested a staggered overdose.

Further reading

BNF - Paracetamol

GGC Medicines - Adult Therapeutics Handbook: Treatment of paracetamol overdose

DRAFT

Approved date: April 2023

Review date: April 2026

Pass medication- procedure for ordering with HEPMA (MHS 37b)

Warning: This guideline is 19627828 day(s) past its review date.

Resources

Use the button below to access this resource item.

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Last reviewed:

01 September 2022

Next review:

01 August 2023

Version:

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Approved By:

MHSCGG

Reviewer Name(s):

Lead clinical pharmacist, Clinical effectiveness pharmacist

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NHS GG&C Mental Health Services

Procedure for the Use of the Patients Own Drugs

Important Note:
The Intranet version of this document is the only version that is maintained. Any printed copies should therefore be viewed as 'Uncontrolled' and as such, may not necessarily contain the latest updates and amendments.

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Author:	A Walker, Lead Pharmacist on behalf of the MH SUM
Responsible Director:	Nurse Director Partnerships & Lead Associate Medical Director Mental Health
Approved by:	Mental Health Prescribing Management Group
Data approved:	April 2022
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Replaces previous version:	Version 2

Procedure for the use of Patients Own Drugs

Introduction

On admission to hospital, we ask patients to bring any medication they are prescribed with them. There are occasions when some of these prescribed items are not available in the hospital and as an interim measure, the patient's own supply is used. The purpose of this procedure is to ensure any patient's own medicines used in this way are properly assessed and are fit for purpose.

Scope

This procedure applies to all In-patient areas of NHS Greater Glasgow and Clyde, Adult & Older Adult Mental Health & Learning Disabilities Services

Procedure

1. Obtaining supplies

a. During normal pharmacy hours, **Monday-Friday 8.30am - 4.30pm,** if a patient is admitted and is prescribed a medicine, which the ward does not stock, an indent must be sent to pharmacy. Pharmacy will supply the item or if it is not in stock, advise the ward when it is likely to be available. If the patient requires medication before this the ward may use the patient's own supply (if one is available) provided it is fit for purpose until Pharmacy are able to supply a replacement.

b. Outwith pharmacy hours, wards should:

- Use the patient's own supply **if** it is fit for use
- Attempt to borrow from another ward
- Obtain from an emergency cupboard
- If unsuccessful, contact the out-of-hours pharmacy service.

2. Assessment of patients own drugs

Patients own medicines brought into hospital remain the property of the patient and we cannot legally use or destroy them without their consent. On admission, a registered nurse will list, record and sign brought to hospital by the patient on POM 1 forms (Record of Patients Medicines Brought into Hospital – ***PECOS*** code 0366621). This procedure may also be used to assess patients own insulin pens, needles and glucose meters where appropriate. Patients and if possible relatives/carers should be questioned to determine if insulin preparations have been stored correctly and are therefore fit for use on admission.

If patient's own drugs are to be used a doctor, pharmacist, pharmacy technician or senior nurse must assess them as fit for use. The following criteria are to be used:

a. Only medicines, which can be positively identified, can be used. This automatically excludes all dispensed bottled liquids and white unmarked tablets. In other words anything not in its original container (excluding compliance devices see later).

b. Patient's own controlled drugs may be considered for use on the ward. The guidance contained in **section 11.2.4 – 11.2.10 of the NHS GG&C Safe & Secure Handling of Medicines Policy 2008** must be followed.

c. Medicines must have been dispensed within the last 3 months, unless a shorter expiry date is stated on the container. Ophthalmic preparations must have been in use for less than 4 weeks. If the eyes are infected, fresh supplies must be obtained.

d. Medication must be correctly labelled with the **patient's name, product name and strength, dispensing pharmacy's address, date of dispensing, special storage instructions** and all legal criteria present.

e. Each container must hold only one type or brand of preparation from a single supply (i.e. the same batch number and expiry date). Containers holding several different drugs or dosage strengths will be discarded.

f. Tablets and capsules may only be used if they are foil packed or loose in their original container.

g. The member of staff assessing the general condition of the product, its packaging and labeling must be satisfied of its suitability. Patient safety and professional discretion must remain the over-riding factors in assessing suitability.

h. Medicines **must never** be used if:
   - More than one type of drug is in the container (except compliance aids see below)
   - Special storage requirements apply
   - Present as loose tablets or capsules either outwith their original manufacturer's container or in the original manufacturer's container with no foil-packed ones to compare with for identification.
   - Short shelf life once opened
   - No label present
   - Opened jars or tubs of creams, ointments or lotions
   - Expired or were dispensed more than 6 months ago

i. Patient's own drugs **must** only be used for the patient named on the label.

j. A checklist (appendix 1) must be completed for all patient's own medicines used and these forms returned to pharmacy. These are available as word documents only and should be printed off as necessary.

Only if these criteria are met may patient's own medicines be used and then only until a replacement supply is received from pharmacy.

3. Compliance Devices

Please note – this is an exception to the current NHS GG&C Safe & Secure Handling of Medicines Policy and has been approved by Mental Health Prescribing Management Group (PMG MH).

This procedure applies to mental health and learning disability in-patient wards only.

Patient's compliance devices may only be used if the following criteria are met:

- Only sealed disposable compliance devices may be considered for use. Medicines presented in Medidose boxes or similar must not be used.
- The compliance device has been prepared in a pharmacy within the preceding 6 weeks
- The device must be clearly labeled or have information attached to it detailing the patient's name and the quantity, name, form, strength and administration frequency of each medicine it contains.
- Count the tablets contained in the device to ensure the quantity corresponds with the label.

- The in-patient prescription has been compared with the labels on the device, and all the medicines in the compliance device are prescribed on the in-patient prescription and the dose, route and frequency match exactly.
- No medicine in the compliance device is to be withheld, changed or discontinued
- If a decision is made to use the compliance device, it will be used to deliver all the drugs contained within in it until such time as stock is received from pharmacy. If the prescription sheet has other medicines prescribed in addition to those contained in the compliance device, then the device may still be used with the additional items administered from stock.
- If in doubt please contact the on call pharmacy service for advice.
- The patient gives consent for their compliance device to be used

Each compliance device must be assessed as suitable before it may be used. An assessment form (appendix 2) must be completed.

When administering medicines from a compliance device:

- Check the patient details on the in-patient prescription against the compliance device to ensure that it is for the correct person and that all medicines contained in it are recorded in an identical manner on the in-patient prescription
- Confirm the patient's identity as per policy before administering any medicine
- Ensure any additional medicines prescribed on the in-patient prescription sheet are administered

4. Consent to use or destroy patient's own medicines

Patient's medicines brought into hospital remain the property of that patient. Consent must therefore be obtained before they are used or destroyed. POM 1 forms (Record of Patients Medicines Brought into Hospital – PECOS code 0366621) should be used to document consent and to list the medicines. Once medicines have been obtained from patients, they should be placed in sealed, named bags and either:

- Sent to pharmacy for destruction – detail the exact quantities of any 'desirable drugs'.
- Given to patients relatives to take home
- Held on the ward and given to the patient on discharge, with any changed, discontinued or unsuitable medicines removed. Note: if the patient's own medicines are within a compliance device and any of the medication has changed before discharge, the whole container must be returned to pharmacy for destruction.

Clearly returning all medication to some patients may be clinically inappropriate in which case they should be advised that for clinical reasons their medicines have been destroyed.

5. Receipt of patients own drugs

When a patient's own drugs have been received by ward staff a POM1 form should be completed as soon as possible. One copy should be filed in the patient's record of care immediately and the other copies held with the drugs until disposal.

6. Storage of patients own drugs

Any patient's own drugs should be stored in accordance with the Safe & Secure Handling Medicines Policy in either:

- The drug trolley if they are to be used
- A locked drug cupboard if they are not to be used.

7. Implementation and audit.

It will be the responsibility of nursing staff to implement and audit compliance with this procedure.

Appendix 1

RE-USE OF PATIENTS OWN DRUGS CRITERIA

This form should be used to assess patients own drugs that are **not** in compliance aids. To re-use patients own drugs **all** the following criteria must be met

	Drug 1		Drug 2		Drug 3		Drug 4		Drug 5	
Insert name of drug being assessed at top of column										
1. Dispensed within the last 6 months	Y	N	Y	N	Y	N	Y	N	Y	N
2. Not past any expiry date present	Y	N	Y	N	Y	N	Y	N	Y	N
3. Dispensed for that patient	Y	N	Y	N	Y	N	Y	N	Y	N
4. Positive identification of product (not unmarked tablets or liquids dispensed from bulk)	Y	N	Y	N	Y	N	Y	N	Y	N
5. Clearly labelled with a pharmacy label	Y	N	Y	N	Y	N	Y	N	Y	N
6. Product in good condition with no visible signs of deterioration.	Y	N	Y	N	Y	N	Y	N	Y	N
7. Product in a suitable container	Y	N	Y	N	Y	N	Y	N	Y	N
8. Eye preparations less than 2 weeks old	Y	N	Y	N	Y	N	Y	N	Y	N
Do not use if any of the following apply										
More than 1 type of drug in same container	Y	N	Y	N	Y	N	Y	N	Y	N
Special storage conditions required e.g. fridge	Y	N	Y	N	Y	N	Y	N	Y	N
Short shelf life once opened	Y	N	Y	N	Y	N	Y	N	Y	N
No label present	Y	N	Y	N	Y	N	Y	N	Y	N
Topicals and liquids if opened	Y	N	Y	N	Y	N	Y	N	Y	N
MEDICATION SUITABLE FOR RE-USE (circle as appropriate)	Yes No		Yes No		Yes No		Yes No		Yes No	

ASSESSED BY (print name)……DATE……

Signature:……Designation:……..

Appendix 2

Compliance Device Assessment Form

To use a patients own compliance device **all** the following criteria must be met

Criteria	Met (circle as appropriate)	
1. The device is a sealed disposable compliance aid	yes	no
2. It has been prepared by a pharmacy within the last 6 weeks	yes	no
3. It is clearly labeled with the patient's name	yes	no
4. There is a pharmacy label or instructions for each individual drug contained in the device	yes	no
5. The name of each drug is clearly indicated	yes	no
6. The form (tablet, capsule etc.) of each drug is clearly indicated	yes	no
7. The strength of each drug is clearly indicated	yes	no
8. The dosage instructions for each drug are clearly indicated	yes	no
9. The frequency of administration of each drug is clearly indicated	yes	no
10. There are no obvious signs of damage or tampering	yes	no
11. All medicines contained in the device have been prescribed on the in-patient prescription sheet exactly as they are on the compliance device.	yes	no
12. No medicine in the compliance device is to be withheld, changed or discontinued	yes	no
13. The patient has given consent for their compliance device to be used	yes	no
All of the above criteria have been met and the compliance device is fit for use	**yes**	**no**

ASSESSED BY (print name)……DATE……

Signature:……Designation:……..

NHS Greater Glasgow and Clyde

NHS GG&C Mental Health Service

Physical Healthcare Policy

Important Note:
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Responsible Director:	**Dr M Smith, Associate Medical Director MHS**
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Date for Review:	**Oct 2021**
Replaces previous version: [if applicable]	Version 1 & 2 - 2014 to Oct 2017

Physical Healthcare Policy

Please record brief details of the changes made alongside the next version number. If the procedural document has been reviewed **without change**, this information will still need to be recorded although the version number will remain the same.

Version	Date	Brief Summary of Changes	Author(s)
1.0	2014	Version 1	M Connolly
2.0	2017	Foreword • Foreword to policy mentions parity of esteem for mental health as described by Mental Health Foundation	Dr M Connolly Consultant Psychiatrist Stephen McGinness Professional Nurse Advisor
2.0	2017	Introduction • The introduction of the policy has been updated to include more recent Scottish and UK national policies. • Results of the Mental Health and Learning Disability In-Patient Bed Census (March 2016) are included.	Dr M Connolly Consultant Psychiatrist Stephen McGinness Professional Nurse Advisor
2.0	2017	Policy Statement & Scope of Policy • The policy statement and Scope of Policy now includes a reference to the Equality Act 2010.	Dr M Connolly Consultant Psychiatrist Stephen McGinness Professional Nurse Advisor
2.0	2017	Health Improvement • Previous reference to 'Health Promotion' has been removed and now referred to as 'Health Improvement.'	Dr M Connolly Consultant Psychiatrist Stephen McGinness Professional Nurse Advisor
2.0	2017	Standards of Physical Healthcare • Physical health screen now includes lifestyle and behaviours enquiry, nutritional screening assessment and chronic disease management.	Dr M Connolly Consultant Psychiatrist Stephen McGinness Professional Nurse Advisor
2.0	2017	Hospital In-patients in Mental Health Services • This now includes a table specifying the physical health assessments that are required on admission for all patients. • This includes a separate table of recommended blood tests for all patients admitted to hospital. • There is a new section 'Recognising the acutely deteriorating patient.' • Revisions include latest medicine related guidance.	Dr M Connolly Consultant Psychiatrist Stephen McGinness Professional Nurse Advisor

2.0	2017	'Working with Particular Clinical Groups' • This replaces the previous 'Special Clinical Groups' section • This includes the following new sections o Patients with Learning Disabilities o Patients with SMI or learning disabilities within the prison population	Dr M Connolly Consultant Psychiatrist Stephen McGinness Professional Nurse Advisor
2.0	2017	Special Treatments • The special treatments section has been revised and now appears in tabular form. • Tables 3; 4; 5; 6; and 7 reference specific medications used in mental health practice and include the appropriate parameters, frequencies and actions to be taken if outside the reference range for these medications.	Dr M Connolly Consultant Psychiatrist Stephen McGinness Professional Nurse Advisor
2.0	2017	Appendix B. Physical Health Form • This has been updated to reflect guidelines including on alcohol, physical activity , diet and smoking Screening Programmes information has been updated including the addition of Abdominal Aortic Aneurysm Screening and Diabetic Retinopathy Screening (DRS)	Dr M Connolly Consultant Psychiatrist Stephen McGinness Professional Nurse Advisor
2.0	2017	Appendix C Physical Health Examination Guide on Admission to Hospital • Revised	Dr M Connolly Consultant Psychiatrist Stephen McGinness Professional Nurse Advisor
2.0	2017	Appendix E. Evidence, Sources and Supporting Materials • This has been updated July 2017 to reflect all new guidelines, policies, standards and research publications since the last policy was published in March 2014.	Dr M Connolly Consultant Psychiatrist Stephen McGinness Professional Nurse Advisor
2.1	Oct 2018	**Section 5.1** Inclusion of consent issues Re Montgomery rules **Section 6.4** Inclusion of checking date of last menstrual period at admission **Section 7.1** Inclusion of child & adolescent patients **Section 7.9** All staff must attend NHS GGC mandatory BLS & Anaphylaxis training **Section 8.11** National Children's Inpatient unit is now on Ward 4, Royal Hospital for Children **Section 8.16** Involvement of agencies to support the patient's access to appropriate healthcare e.g. Acute & Community Paediatrics, Education & Social Work post-discharge **Section 8.30** Protocols involving particular drugs e.g Sodium Valproate should be followed	Dr A Addo Consultant Psychiatrist Stephen McGinness Professional Nurse Advisor

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Foreword

In recent years, there has been increasing focus on the notion of 'parity of esteem' for mental health, that emotional and mental healthcare should be deserving of equal status with physical healthcare, as highlighted in this description from the Mental Health Foundation;

A 'parity approach' enables NHS and local authority health and social care services to provide a holistic, 'whole-person' response to each individual in need of care and support, with their physical and mental health needs treated equally. The relationship between physical and mental health is such that poor mental health is linked with a higher risk of physical health problems, and poor physical health is linked with poor mental health.[1] *:*

The push for parity of esteem comes from the recognition that people with long-term mental health problems experience a major inequality in terms of life expectancy and have often failed to receive a truly joined up approach to care. But the need to remove silos and promote holistic service responses is a key part of the way ahead. As the 2016 Kings Fund report "Bringing Together Physical and Mental Health" demonstrated, the cost to the NHS from not creating integration between physical and mental health is staggering. They highlighted a range of recommendations that could drive real improvements in the health prospects for people with mental health problems and other long-term conditions. The sub-title of this report: "A New Frontier for Integrated Care" also resonates with the advent of Health and Social Care Partnerships and further opportunities to create fully integrated approaches to health and social care.[2]

Within Greater Glasgow and Clyde, we have been embarked for some time on a policy-led improvement approach to physical healthcare for people with mental health problems. In simple terms, this policy aims to support best practice in securing better health outcomes for our patients and enabling them to live longer and healthier lives.

There is increasing interest from our patients in having their physical health assessed as part of a holistic approach to their care. We hear this from focus groups and from patients' representatives who have worked with us on developing this policy.

For clinicians, it is as important to know where clinical responsibility lies as it is to know what should be done. At times, misunderstanding about "whose responsibility" it is to test, refer or initiate treatment can and does arise. In producing this policy, we have attempted to be clear on the issue of clinical responsibility where possible, but have had to concede that, at times, some degree of ambiguity remains. Healthcare professionals all share a duty of care towards improving the physical health of people with mental illness.

Just as the number of external drivers to improve physical healthcare for people with mental illness increases so too does our knowledge on how well we are doing in response to these drivers. We have our academic and research colleagues to thank for that, as well as those responsible for creating and maintaining our health informatics systems which help to drive up the standard of care we deliver.

Dr Moira Connolly, Dr Kerri Neylon, Dr Trevor Lakey, Mr. Colin McCormack

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[1] Mental Health Foundation. Parity of Esteem. [Last accessed 05.07.17]

[2] The King's Fund. Bringing together physical and mental health: a new frontier for integrated care. (2016) [Last accessed 05.07.17]

Executive Summary

PHYSICAL HEALTH IN MENTAL HEALTH SERVICES



NHS Greater Glasgow and Clyde Mental Health Services

***P**hysical health using **Q**uality improvement, **R**eliably and **S**ystematically every **T**ime*

- Evidence clearly indicates that the physical health care needs of people with a Serious Mental Illness (SMI) are as important as the individual's mental health care needs. Both must be considered **and** addressed as part of a person-centered package of care to reduce health inequality and premature mortality in this patient group.

- This policy is intended to assist mental health care practitioners to assess physical health care needs of patients in our care, particularly those illnesses most likely to affect their general wellbeing and quality of life.

- Physical health checks should pay particular attention to endocrine disorders, such as diabetes and hyperprolactinaemia, cardiovascular risk factors such as blood pressure and lipids, metabolic syndrome, side effects of medication and lifestyle factors such as smoking, alcohol, illicit substance use, physical inactivity and diet.

- Once identified, physical health care needs must be included within the individual's care plan and other health care records. Any action taken must also be recorded within the care plan and included in discharge or care transfer documentation.

- The Mental Health Service must work closely with patients, community based and acute care services to ensure that people with a SMI have their physical health monitored and managed effectively with no barriers to healthcare access.

- The Mental Health Service is committed to a programme of training and development for its staff to ensure that the delivery of physical healthcare meets current standards

1. Introduction

1.1 This policy sets the context and establishes minimum standards for the physical healthcare of service users across NHS Greater Glasgow & Clyde (NHS GG&C) Mental Health Service.

1.2 Mental health service users have a right to expect the same quality physical health care as the general population. The requirement to improve standards of physical health care for those with mental illness is supported by a number of Scottish and UK national policies: -

- Realising Potential – An Action Plan for Allied Health Professionals (Scottish Government 2010),
- No Health Without Mental Health Implementation Framework (Centre for mental health 2012)
- Five year forward view for Mental Health (Mental Health Task Force 2016)
- Bringing Together Physical and Mental Health: A New Frontier for Integrated Care (King's Fund 2016)
- Improving the Physical health of People with Mental Conditions: Action for Mental Health Nurses (Nursing, Midwifery and Allied Health Professions Policy Unit, 2016)
- Improving the Physical Health of Adults with Severe Mental Illness: Essential Actions (Academy of Medical Royal Colleges 2016)
- The Mental Health Strategy for Scotland 2017-2027

1.3 People with mental health problems have high levels of physical ill health. It is now well recognised that individuals with severe mental illness (SMI) have high levels of physical health problems and substantial premature mortality, dying around 15-20 years earlier than the general population.

1.4 The March 2017 Mental Health & Learning Disability Inpatient Bed Census reported that 58% of all inpatients in mental health services in Scotland had at least one physical health co-morbidity. In 2016 31% of NHS GG&C inpatients had two or more physical health problems.

1.5 Multimorbidity is common. They are more likely to have had Adverse Childhood Experiences. They tend to develop heart disease, diabetes and cancer at a younger age than the general population. In general, they are more likely to live in socially deprived areas, eat a less nutritionally rich diet, and lead more sedentary lifestyles. They are more likely to have difficulties with tobacco, alcohol and drug dependence. These issues are compounded by the side-effects of some prescribed medications, which can increase the risk of obesity, cardiovascular disease and diabetes.

1.6 Non-modifiable risk factors include ethnicity and family history of physical health problems such as heart disease and diabetes. Of particular note in this regard is the substantially increased risk of Type II Diabetes in individuals of South Asian background.

1.7 People with SMI experience a range of health inequalities, including poorer access to physical health screening, fewer preventative interventions and lower engagement with specialist and primary medical care.

1.8 In keeping with the 'Rights for Life' agenda, people with mental health problems should have "the right to the highest attainable standard of physical and mental health, (including) timely access to a range of quality care and treatment, without discrimination."[3]

1.9 Systematic assessment of mental and physical health and the health improvement needs of patients must be embedded in the provision of inpatient and community mental health services and address issues appropriate to the individual's quality of life and well being.

1.10 Women with SMI are more likely to have pregnancies that are unplanned or unwanted, and pregnancy outcomes may be less favourable for both mother and infant. They are less likely to be offered appropriate contraceptive and pregnancy planning advice.

2. Policy Statement & Scope of Policy

General

2.1 NHSGG&C Mental Health Service include a group of services which provide physical and mental health care across a diverse range of settings including inpatient and community settings. This policy establishes standards to ensure the appropriate and equitable delivery of physical health care across those settings.

2.2 These standards will apply to all inpatient services and community and forensic mental health services for children, young people, adults of working age, individuals with substance misuse problems, older people and people with learning disabilities. The use of the term "patient" throughout this policy refers to patient, client, resident or service user.

2.3 All patients will be given the opportunity to have a physical assessment and receive physical healthcare provision in line with the requirements of this policy. Stage of illness, complexity of comorbidity, place of treatment and patient choice must be considered when making such arrangements.

2.4 Approaches to physical health and wellbeing must comply with the Equality Act 2010 with regard to all protected characteristics and should pay particular attention to socially excluded groups.

3. Patients at the Interface of Mental Health and Primary Care

3.1 All individuals are entitled to receive primary health care from their registered GP surgery whether they have a mental health problem, a physical illness or are generally in good health. This policy is not intended to replace such care.

[3] Rights for Life [Last accessed 05.07.17]

3.2 Mental health services will work collaboratively with other local providers to ensure people with mental health needs access general medical services, health promotion advice and health screening appropriate to need, age and gender. If necessary, their attendance could be facilitated by Community Adult/Older People's Mental Health Team (CMHT) members or social care support workers. Where people opt not to participate this should be clearly documented.

3.3 Under the extant General Medical Services Contract most GP practices in NHS GG&C offered annual health screens for patients on their practice based severe mental illness registers. With the new contract, from 2017/18 GPs will work to locally agreed priorities aligning with agreed Quality Standards and are likely to include a focus on;

- people whose health status is characterized by co-morbidity and often polypharmacy
- people who experience both health and general deprivation
- people who could benefit from anticipatory care planning
- or who might otherwise be considered 'hard to reach'.
- The onus to work in collaboration with Primary Care is therefore greater than ever.

3.4 Several guidelines emphasise the importance of information sharing between Mental Health services and Primary Care[4]. Significant findings from GP annual health screens should be communicated to all interests to ensure appropriate follow up. The outcome of annual reviews may be requested from GPs by Mental Health services, and the sharing of relevant clinical information with Primary Care including care plans is encouraged.

3.5 There will be evidence in Mental Health service patient records of an annual physical health assessment for patients with severe mental illness or confirmation that a review in Primary Care is appropriate for individual needs and that this has been organised and followed up.

4. Health Improvement

(refer also to NHS GG&C Health Improvement Service Directory)

4.1 Many of the risks associated with physical morbidity and premature mortality are modifiable. Such risks include behavioural factors (e.g. diet, physical inactivity, tobacco use, alcohol consumption); biological factors (e.g. dyslipidemia, hypertension, overweight, hyperinsulinaemia); and finally, societal factors, which include a complex mixture of interacting socioeconomic, cultural and other environmental parameters.

4.2 This policy supports the Health Promoting Health Service (HPHS) vision that every contact is a health improvement opportunity by including the promotion of healthier behaviours and discouraging detrimental ones.

[4] Integrated Physical Health Pathway (2014) [Last accessed 05.07.17]

4.3 Where possible a brief intervention approach should be used to identify any behaviour requiring to be addressed;

- Work through lifestyle questions on the physical health screen to determine whether or not a patient is meeting the recommended guidelines for each topic
- Find common ground on what you consider to be a priority for the patient and what the patient wishes to discuss. It is important to limit the number of topics for discussion to 1 or 2 in one contact.
- Signpost/refer to appropriate service for support

5. Standards of Physical Health Care

Consent

5.1 Health professionals must ensure that before they commence any treatment or intervention that they discuss:

- The prognosis.
- The various treatment options and their benefits (including the option of not to treat).
- The individual circumstances and preferences of the patient (Montgomery).
- The risks associated with the intervention (consider significant risks, risks which are less severe, but which occur frequently and risks which this patient may attach significance to (Montgomery).
- The alternatives available.
- Additional procedures, including those which may become evident at a later stage.

Environment

5.2 Community mental health teams and in-patient units must identify accessible areas within which physical examinations and investigations can be carried out while maintaining the patient's dignity and privacy with the offer of a chaperone as appropriate.

Equipment

5.3 Appendix A lists equipment, laboratory and referral forms to meet recommended standards for physical healthcare in mental health services.

Physical Health Screen

5.4 A core health screen should include attention to the following, repeated at appropriate intervals e.g annually;

- A medical history including record of all medication, including regular Over the Counter medications and supplements
- Family History
- Physical systems enquiry
- Lifestyle and behaviours enquiry – smoking, alcohol, drugs, physical activity

- Sexual health enquiry, including, for all women, menstrual cycle, pregnancy and contraception status.
- Usual population screening of relevance to age and sex
- Nutritional Screening Assessment guided by HIS (2014) Food, Fluid and Nutritional Care Standards
- Brief physical findings (psychiatric outpatients or immediate on admission)
- Extended physical check (within 24 hours of admission or where clinical concerns arise – see Section 6)
- Medication side effects (e.g. using Glasgow antipsychotic side effect scale – GASS)
- Relevant investigations (See table 2)
- Chronic disease management where significant comorbidity exists (e.g. diabetes)

5.5 The NHS GG&C Mental Health Services Physical Health and Wellbeing group have developed **The Physical Health Form (**Appendix B). This tool supports mental health practitioners in meeting standards of physical healthcare and will be incorporated into EMIS web.

6. Hospital In-Patients in Mental Health Services

6.1 Primary medical responsibility for hospital inpatients lies with the patient's treating consultant. All patients must have a full physical health examination within 24 hours of admission to hospital. Exclusions must be documented while continued attempts are made to complete the examination.

6.2 In keeping with the Health Promoting Health Service (HPHS) CMO letter 2015 the admission of a psychiatric patient must always be accompanied by a detailed physical assessment and follow-up using the locally agreed examination template. (See table 1 and Appendix C)

Table 1: Physical health of acute inpatients: assessments required on admission

ADMISSION[5]		
What needs to be completed?	**Who is responsible?**	**Time Scale[6]**
Physical Examination	Admitting Doctor	Within 24 hours
Routine bloods	Admitting Doctor	Within 24 hours
ECG	Admitting Doctor	Within 24 hours
Dipstick Urinalysis	Nursing Staff	Within 24 hours
Urine Drug Screen/Alcometer	Nursing Staff	If Indicated
Assessment of readiness for programmed physical activity	Physiotherapy Team or Junior Doctor	Within 72 hours

[5] Any exceptions due to mental state must be documented and followed up
[6] Timescale for review to be indicated in care plan

ADMISSION[5]		
Physical Health Careplan	Nursing Staff	Within 24 hours
GGC local physical healthcare Measure or Lester screen]	Named Nurse/Team Doctor	If indicated via Care Plan
MUST – record height, weight and MUST score	Nursing Staff	Within 24 hours
VTE* assessment	Admitting Doctor	Within 24 hours
Falls Assessment	Started by Nursing Team, in liaison with Physiotherapy Team	Within 24 hours

*Venous thromboembolism

6.3 All patients will have their blood pressure, pulse, temperature, respiratory rate, oxygen saturation and ward urinalysis recorded on admission. An ongoing monitoring plan and actions taken for any abnormal findings should form part of the care plan.

6.4 Investigations carried out on admission must include metabolic parameters and any blood tests for medication monitoring as a patient safety requirement. Pregnancy, last menstrual period or suspicion of pregnancy must be noted. (See table 2)

Table 2 Blood tests recommended on admission to hospital

Blood Test	Suggested for
U&E, LFT, Bone Profile, TFT, CRP, glucose, lipid profile, FBC	All inpatients
Lithium Levels	For all patients on lithium
Prolactin	• At baseline for patients who are starting antipsychotic medication and thereafter for patients who are prescribed medicines known to increase prolactin, and where clinically indicated
B12 & Folate	• In patient groups which have increased prevalence of deficiency, for example, in older adults, poor diet, malabsorption, alcohol excess • In acute psychosis patients • If otherwise indicated (including but not exclusively, blood markers that may indicate deficiency, neurological symptoms/ signs)
Vitamin D[7][8]	• Only for patients with low adjusted serum calcium (< 2.1 mmol/L) and / or where other blood results suggest possible osteomalacia • Patients with malabsorption syndromes • As per GGC guidelines: See link below

[7] NHSGGC. Vitamin D: Prevention & Treatment of Deficiency in Adults (2016) [Last accessed 05.07.17]
[8] Scottish Government. Vitamin D. [Last accessed 05.07.17]

6.5 All patients should have an ECG carried out within 24 hours of admission. This should be done at ward level by suitably trained staff with access to a regularly maintained ECG machine.

6.6 Annual reviews for patients, whose admission has exceeded 12 months, should include an update of the admission physical examination, additional monitoring and access to national health screening programmes as required. Importantly, patients must continue to be offered health improvement advice in keeping with HPHS recommendations.

6.7 Discharge letters to GPs should include a section on physical health noting clinical findings, results of investigations, ongoing needs, referrals made and any follow-up plans or requirements. These should be copied to Acute Care services as appropriate.

Recognising the acutely deteriorating patient

6.8 Efforts should be made to screen for risk factors for delirium, intervene early to prevent delirium and manage conditions that may be contributing to delirium.

6.9 Systematic application of tools such as the NEWS (used in acute services and implemented in Older Peoples MH wards) can assist in the recognition of the acutely deteriorating patient. Where no such tool is in use, the care plan must be clear about when to escalate the care of a patient and who to involve in intervening.

Inpatients Requiring Acute Specialties Input or Advice

6.10 When advice is needed from Acute Care Specialists for an acutely deteriorating patient, contact must be made by either the Charge nurse (for specialist nursing advice) or the ward doctor. The consultant psychiatrist should be included in decisions about continuing to treat within MH services or transferring for other specialist care.

6.11 In an emergency, ward staff will arrange for the immediate transfer of acutely ill patients for specialist care. Ward and duty medical staff must ensure that a copy of the careplan outlining how to contact the named nurse, referring doctor or consultant and full details of treatments underway are sent with or as soon as possible after the patient.

6.12 An acutely sick patient who is too psychiatrically unwell for immediate transfer to an acute specialties service must have their care reviewed by an appropriate specialist within the time-frame requested by their nominated consultant psychiatrist and agreed with an acute care specialist. A consultant to consultant discussion is required.

6.13 Before receiving patients back from acute care services, MH medical and nursing staff must ensure that full details of treatment needs are communicated to them and details recorded of who to contact within acute services for any ongoing treatment queries. The local careplan must be updated to reflect and meet these needs.

7. Medical Emergency & Resuscitation

7.1 Patients in mental health, addictions, psychiatry of old age, child & adolescent and learning disability inpatient settings are at risk of rapid physical deterioration and cardiac or respiratory arrest due to coexisting physical illness, the effects of medications, self-harm or disturbed behaviour. Patients are also vulnerable to choking, due to physical illness or harmful behaviours.

7.2 NICE Guideline 25 requires that any setting where physical intervention may be used have staff who are trained to immediate life support (ILS) standards level and have appropriate equipment for ILS provision including an automated external defibrillator (AED).

7.3 The Medical Emergency Training (MET) programme emphasises the need to be alert to deteriorating physical status and avert a catastrophic event by getting help early while continuously assessing patients using the Systematic Approach to acute physical illness (ABCDE).

7.4 The response ward model delivers additional skills and resuscitation equipment to the scene of an emergency, triggered by a 2222 call. A paramedical response is also provided, with time from call to arrival being no longer than 8 minutes.

7.5 Cardiopulmonary resuscitation is always carried out unless a 'Do Not Attempt CPR (DNA CPR)' decision has been made and clearly documented.

Resuscitation Equipment

7.6 Resuscitation equipment across inpatient settings is standardised and a list of all equipment is kept on the response wards.

7.7 Resuscitation equipment for community mental health settings is of a basic level (Appendix D) with a focus on a Basic Life Support approach.

7.8 Nursing staff have the responsibility to ensure that all medical equipment held at ward or community level:

- is available and accessible
- is demonstrated to all new clinical staff, orientating to the equipment, its purpose and use for that area.
- is regularly maintained and checked to be in functioning order.
- and that drugs and sterile equipment on the resuscitation trolley are in date.

7.9 All new clinical staff, should be introduced to the Medical Emergency Response Procedure, response ward model and equipment available as part of their mandatory induction. All staff must be familiar with the location, content and uses of emergency resuscitation equipment and undertake MET training within agreed frequency intervals. All staff must attend NHS GGC mandatory BLS & Anaphylaxis training.

8. Working with Particular Clinical Groups

People experiencing a first episode of psychosis (Refer also to the 'Esteem' Physical Health and Lifestyle Assessment Booklet' available on request from 'Esteem early intervention in psychosis service')

8.1 Within NHS GG&C, most patients in the age range 16 - 35 years presenting with a first episode of psychosis are under the care of the ESTEEM early intervention team. The ESTEEM Service co-ordinates an initial core health screen in collaboration with primary care as part of the Integrated Care Pathway (ICP), for those patients not admitted to hospital.

8.2 In keeping with the internationally agreed 'Health Active Lives' (HeAL) standards[9], patients with first episode psychosis or first treatment with antipsychotics must be made aware of the potential for metabolic side effects and the importance of avoiding weight gain, maintaining exercise and reducing smoking right from the outset of their illness and its treatment.

People with long term conditions

8.3 The presence of depression in individuals who have diabetes or cardiovascular disease can worsen outcome. Chronic disease management processes in Greater Glasgow & Clyde increasingly take account of this however, severe depressive illness is recognised as an independent risk factor for significant physical illness. This and the likelihood of co-morbid physical illness need to be considered when treating individuals with severe depression.

8.4 Where a patient is known to have a long-term condition such as diabetes or cardiovascular disease, staff should ensure that they are facilitated in their efforts to manage their physical health and that there are no barriers to access to appropriate healthcare. Mental health services are included in the Diabetes 'Think Check Act' initiative.

People Over 65

8.5 The management of physical health care of older patients differs to that of a younger population for the following reasons;

- Bioavailability of medication
- An increase in the sensitivity to medication effects
- Increased frailty and multi-morbidity.

The older adult patient should receive the same standard of physical health care as that of the younger adult, paying attention to these special features.

[9] International Physical Health in Youth (iphYs) working group. Healthy Active Lives (HeAL) consensus statement (2013) [Last accessed 05.07.17]

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People with Eating Disorders
(refer also to MHS 02 - Adult Eating Disorder Service Operational Policy)

8.6 The Adult Eating Disorder Service (AEDS) operates as a tertiary service supporting adult CMHTs in the management of people with moderate to severe eating disorders. The service has access to 4 specialist beds, in Armadale Ward, Stobhill Hospital however, patients may also be admitted to locality psychiatric wards and acute medical wards across NHS GG&C.

8.7 Patients with eating disorders may require physical health monitoring, including physical observations, blood investigations and ECGs. AEDS provide medical monitoring for patients under their care, however, due to limited resources are unable to meet all demands for this. AEDS will liaise with the patient's GP and CMHT to discuss who will medically monitor the patient. This decision will be made on an individual basis and take into account factors including the patient's engagement with services, their illness severity and level of medical risk, and proximity to AEDS. AEDS will provide guidance around physical risk assessment and management for patients under their care.

8.8 Patients admitted with eating disorders often present a significant risk of both physical complications as a result of their eating disorder and refeeding risk. Patients require a dietetically prescribed menu plan to reduce the risk of refeeding problems and an individualised care plan, taking account of the nature and severity of their eating disorder and the degree of risk (physical complications, refeeding risk, self harm/ suicide). Armadale ward staff and AEDS can provide guidance on care and treatment plans for patients with moderate to severe eating disorders admitted to both psychiatric and acute medical wards. Detailed guidance can be found in the RCPsych 'MARSIPAN' document.[10]

Children and Adolescents in mental health services

8.9 The day-to-day healthcare of children and adolescents is the responsibility of the GP. Where Child and Adolescent Mental Health service (CAMHS) Teams initiate drug treatments, they must take a full developmental and medical history and liaise with the GP and where appropriate, Children's Services or Adult Medical Services should this be required. Where specialist monitoring is indicated for the safe initiation of treatment, this should be organised by the Child and Adolescent Mental Health Team.

8.10 Some treatments require specific types of monitoring and national guidelines on the management of ADHD, Eating Disorders and the Maudsley Guidelines chapter on child and adolescent prescribing may be a useful reference. Lines of clinical responsibility must be clearly documented.

[10] Royal College of Psychiatrists. MARSIPAN: Management of really sick patients with Anorexia Nervosa (2014) [Last accessed 05.07.17]

8.11 Children admitted to Ward 4, The Royal Hospital for Children and adolescents admitted to Skye House, Stobhill Hospital or other mental health services inpatient site should have a full physical assessment on the day of admission including full history, physical examination and investigations as indicated including liaison with paediatric or adult health services as appropriate.

8.12 Prescribing for children and adolescents is very specialised and proper physical assessment including investigations relevant to the drugs prescribed should be completed on every patient prior to prescribing any psychotropic medication. Reasons for any exclusions should be documented. Side effects monitoring is essential and regular review of all medications should be undertaken (weekly if an inpatient).

8.13 Where patients are aggressive or violent, developmentally appropriate child and adolescent protocols should be used and medication should only be prescribed under the guidance of a doctor who has experience of working with children and adolescents. Very careful monitoring needs to take place. Children and adolescents are still growing and restraint may cause damage to their epiphyses.

8.14 Patients presenting with psychosis should have a full and thorough investigation for organic psychoses according to the adolescent service protocols.

8.15 Inpatients with Anorexia should be managed according to the Child and Adolescent Re-feeding Policy (available from Skye House inpatient unit).

8.16 All discharge summaries of inpatients in child and adolescent psychiatry should include a summary of the patient's medical wellbeing and be sent to the community psychiatry team as well as the General Practitioner. This may also include alerting other agencies to support the patient's access to appropriate healthcare e.g Acute & Community Paediatrics, Education & Social Work.

Patients with Learning disabilities

8.17 People with learning disabilities experience high rates of physical and mental ill health, are more likely to die prematurely and are less likely to receive effective treatment for medical problems. Gastroesophageal reflux disorder, epilepsy, constipation, sensory impairments, osteoporosis, dental disease, accidents and nutritional problems are all thought to be much more commonly experienced in adults with learning disabilities with a high rate of multi-morbidity and polypharmacy.

8.18 People with learning disabilities often experience diagnostic overshadowing, where behavioural change is attributed to the person's learning disability rather than to physical health (such as pain or constipation) or poor mental health. If patients with learning disabilities are admitted under non-specialist services, all clinicians should be aware of the risk of diagnostic overshadowing and the high prevalence of physical morbidity. They should link with specialist services for support as soon as possible.

8.19 Due to the differing pattern of multi-morbidity in adults with learning disabilities, all patients admitted to the Specialist Learning Disability Assessment & Treatment Units should have a C21st Health Check (a comprehensive learning disability specific health check that includes review of primary care notes) in addition to the admission physical health assessment as described in section 6, and annually thereafter for those whose admission exceeds 12 months.
(http://www.staffnet.ggc.scot.nhs.uk/Partnerships/Learning%20Disability/Nursing/Pages/Nursing.aspx)

8.20 As recommended by NICE (NG54, Sept 2016)[11], annual physical health checks for all people with learning disabilities should be undertaken within primary care with support from the Community Learning Disability Teams where needed. There is a learning disability specific annual health check template available to GP's/Practice Nurses for this. Appropriate alternatives would be the NHS GGC Learning Disabilities Nursing Assessment, the NHS GCC Mental Health Service Physical Health Measure or, for those with the most complex health needs, the C21st Health Check.

8.21 There is no current evidence to suggest that adults with learning disabilities and serious mental illness have higher physical health needs than adults with learning disabilities who do not have serious mental illness and thus all adults with learning disabilities should receive the same standard of physical health care.

Patients with SMI or Learning Disabilities within the prison population

8.22 Prisoners, including those with SMI or Learning difficulties are at increased risk of long-term conditions and co-morbid addictions problems, and have higher rates of blood borne viruses. They warrant the same core screening as community-based patients with SMI (see sections 5.3 and Appendix B).

8.23 It is acknowledged that loss of continuity of care and the loss of autonomy which comes with being imprisoned can make it difficult for services to deliver healthcare and health improvement opportunities appropriate to the needs of prisoners. Therefore, to ensure that the specific health needs of prisoners with SMI or Learning disabilities are met, clarity of roles and collaboration must be established within prison-based healthcare teams.

Women who are of childbearing potential, pregnant or postpartum

8.24 The management of pregnant and postnatal women with mental ill health is usually carried out by the Perinatal Mental Health Service (PMHS), although care may be jointly managed with the local, or other specialty, team based on clinical need.

[11] NICE Guideline. Mental health problems in people with learning disabilities: prevention, assessment and management (2016) [Last accessed 06.07.17]

8.25 The service can admit mothers and babies to the 6-bed Mother and Baby Unit at Leverndale Hospital. The physical healthcare of babies on the MBU is the responsibility of a contracted GP practice.

8.26 Women of childbearing potential may be taking psychotropic medications that are teratogenic. They should have the expectation that they will receive appropriate information to help them make informed choices about medication in relation to childbearing *in advance* of a pregnancy. This information should be provided at the time of prescribing.

8.27 Discussion of pregnancy plans and contraceptive choice should be part of the routine assessment for all women of childbearing potential.

8.28 Women with SMI are more likely to have pregnancies which are unplanned and unwanted, are less likely to engage in routine ante/postnatal care and are more likely to have adverse outcomes of pregnancy.

8.29 Late pregnancy and the early postpartum period is a time of increased risk of physical disorder, including hypertension, pre-eclampsia, sepsis, DVT and pulmonary embolism. A guide to symptom presentations and appropriate investigation can be found in Oates et al (2011)[12].

8.30 Protocols involving particular drugs e.g Sodium Valproate should be followed.

9. Special Treatments

ECT (Refer also to NHS GG&C ECT Staffnet site)

9.1 Electroconvulsive therapy (ECT) is delivered at 3 sites in GG&C; Leverndale Hospital, Stobhill Hospital and Inverclyde Royal Hospital. Each ECT suite follows the guidance of the Scottish ECT Accreditation Network (SEAN). This treatment is most often offered for severe depression and is performed under a general anaesthetic.

9.2 Prior to treatment, screening for physical health problems must be completed by the referring team in discussion with an anaesthetist. Information is available on Staffnet where a referral form and physical investigation sheet can be found which cover the necessary pretreatment screening and ongoing assessment.

Medications specific to mental health – antipsychotics (Tables 3-4)

9.3 All prescribers have responsibility for physical health monitoring in long term therapy. Prescribers must actively monitor patients for physical side effects of medicines in the short and long term.

[12] Back to Basics *in* Centre for Maternal and Child Enquiries (CMACE). Saving Mothers' Lives: reviewing maternal deaths to make motherhood safer: 2006–08. The Eighth Report on Confidential Enquiries into Maternal Deaths in the United Kingdom. BJOG 2011; 118 (Suppl. 1): 16-21. (http://onlinelibrary.wiley.com/doi/10.1111/j.1471-0528.2010.02847.x/epdf)

9.4 Psychiatrists in NHSGG&C Mental Health Service should take a personal and family history of cardiovascular problems and diabetes and define ethnicity prior to recommending any antipsychotics for any treatment indication.

9.5 The prescriber should ensure that physical screening has taken place. GPs should be asked to ensure the patient is on their mental health register and care plans should include details of how monitoring for any emergent metabolic side effects will take place in keeping with relevant guidelines and accepted arrangements within GG&C.

9.6 It is especially important that psychiatrists follow up and inform patients about the results of investigations ordered in secondary care. Where results indicate abnormalities which are ordinarily managed within primary care it is the psychiatrist's responsibility to draw this to the attention of the patient's general practitioner. This is a professional responsibility, and an important patient safety issue.

9.7 The preferred community-based pathway for ECGs is by referral to local open-access ECG department. Abnormal ECG results or medication-related concerns must be discussed with Pharmacy, Cardiology or the GP as appropriate.

9.8 Enquiry as to medication-related sexual dysfunction is desirable, and Prolactin levels checked where raised Prolactin is suspected. Abnormal levels should prompt a medication review. Standard rating scales like GASS may help identify sexual related side-effects.

9.9 In the main, arrangements for high dose antipsychotic monitoring sit with secondary care. Outcomes should be discussed with Primary Care on an individual patient basis.

9.10 Clozapine prescribing is almost exclusively carried out in secondary care and is accompanied by mandatory Full Blood Count (FBC) checks in view of the small but serious risk of fatal blood dyscrasias.

9.11 The measurement of Troponin and CRP at initiation is aimed at reducing the risk of Clozapine induced myocarditis and associated cardiotoxicity in line with national standards.

9.12 Clozapine induced constipation is a potentially fatal complication of treatment. The risk should be clearly identified in the care plan and patients assessed for constipation frequently during the initial titration and stabilisation phase and at every visit for their FBC using a tool such as the Bristol Stool Chart.

Table 3: Antipsychotics - Clozapine

Parameter/test	Frequency	Action if outside reference range
Full Blood Count	Follow manufacturer's mandatory protocol	
BMI	Baseline, 1 month then 3 monthly up to 1 year, then annually.	Offer lifestyle advice.
HbA1c/Glucose	Baseline, 1 month then 3 monthly up to 1 year, then 6 monthly.	Offer lifestyle advice. Consult with GP and/or specialist as appropriate.
Blood lipids	Baseline, 1, month then 3 monthly for 1 year, and then 6 monthly.	Offer lifestyle advice and consult with GP and/or specialist for consideration of treatment e.g. statin therapy as appropriate.
Blood pressure	Baseline, as per initiation protocol, 3 monthly for 1 year, then annually. Also following dose changes.	If hypotensive: Consider slower titration or dose reduction. If hypertensive: Offer lifestyle advice and consult with GP and/or specialist for consideration of treatment.
Pulse	Baseline and as per initiation protocol, at 3 months, then annually	Consider slower titration or dose reduction. If tachycardia persistent, observe for other indicators of myocarditis or cardiomyopathy.
ECG	Baseline, 3 weeks, at 3 months and then annually. Additional ECGs should be performed as clinically indicated (see actions)	Act on abnormality according to significance, clinical indication. Refer to Cardiology if in doubt. Continue Clozapine with daily CRP and troponin monitoring and request echocardiography if: • Signs or symptoms of unidentified illness OR • HR ≥ 120bpm or increased by >30bpm over 24 hours OR • CRP 50 – 100 mg/l OR • Mild elevation of troponin I ≤ 2 x Upper limit of normal <u>Stop Clozapine</u>, consult a cardiologist and request echocardiogram if: • Troponin > 2 x upper limit of normal OR • CRP >100mg/l
Troponin I	Baseline, day 7, 14, 21 & 28	
CRP	Baseline, day 7, 14, 21 & 28	
Urea & electrolytes	Baseline then as clinically indicated.	Investigate as clinically appropriate.

Parameter/test	Frequency	Action if outside reference range
Liver function tests	Baseline, 6 months then annually or more frequently if clinically indicated.	Investigate as clinically appropriate.
Side-effects	"GASS for Clozapine" or other recognised side-effect questionnaire for antipsychotic medication during initiation and regularly thereafter, with general side-effect enquiry at least at any point of blood sampling.	As clinically appropriate.
Constipation	Assess bowel habits at baseline, any point of blood sampling and ideally at every point of contact. Ensure patients and carers are aware of the risks associated with Clozapine induced constipation.	Treat symptomatically and seek help from physicians if complete obstruction or poor response to conservative laxative treatment.
Smoking status	On initiation and at regular intervals thereafter, at least annually. Warn patient regarding effect of changes in smoking status on Clozapine levels and side-effects	Check Clozapine level and GASS for Clozapine if change of status.
Women of reproductive age	Pregnancy/contraceptive status on initiation and at regular intervals thereafter, at least annually	In all cases: Pre-pregnancy discussion of pregnancy intentions. Offer advice/signposting on contraception. Early discussion of options if unplanned pregnancy.

Table 4: Antipsychotics - General

(see also above advice regarding clozapine)

Parameter/test	Frequency	Action if outside reference range
Side-effects	GASS or other recognised side effect questionnaire for antipsychotic medication during initiation and regularly thereafter	As clinically appropriate
Weight, BMI, waist circumference	Weight • Baseline • Weekly for first 6 weeks • At 12 weeks • Annually (Refer to Lester Tool)[13] Waist Circumference • Baseline • Annually	Review including modifiable risk factors
Full blood count	Baseline, then annually or as clinically indicated	Investigate as clinically appropriate.
HbA1c/Glucose	Baseline, then 4-6 monthly	Offer lifestyle advice. Consult with GP and/or specialist as appropriate.
Blood lipids	Baseline, every 3 months for 1 year then annually	Offer lifestyle advice and consult with GP and/or specialist for consideration of treatment e.g. statin therapy as appropriate.
Urea & Electrolytes	Baseline, then annually or as clinically indicated	Investigate as clinically appropriate.
Liver function tests	Baseline, then annually or as clinically indicated	Investigate as clinically appropriate.
Prolactin	Baseline, at 6 months then annually or as clinically indicated.	Investigate as clinically appropriate. Consider switch if antipsychotic implicated in raised levels
ECG	Baseline and thereafter when clinically indicated.	Act on abnormality according to significance and clinical indication. Consult with cardiologist if in doubt.
Blood pressure	Baseline, during titration and general physical health monitoring	
Women of reproductive age	Pregnancy/contraceptive status on initiation and at regular intervals thereafter, at least annually	In all cases: Pre-pregnancy discussion of pregnancy intentions. Offer advice/signposting on contraception. Early discussion of options if unplanned pregnancy.

[13] http://www.rcpsych.ac.uk/quality/nationalclinicalaudits/schizophrenia/nationalschizophreniaaudit/nasresources.aspx

Medications specific to mental health – lithium and mood stabilisers (Tables 5-7)

9.13 Local arrangements should be explicitly agreed and maintained to determine who takes responsibility for checking the lithium level. Psychiatrists within CMHTs should ensure arrangements for lithium monitoring are explicitly agreed with primary care and with their patients.

9.14 Access to the results of lithium checks may be via the Clinical Portal, or by phone call to the local laboratory if needed urgently. Response to toxicity should be from the clinician ordering the blood levels who should take appropriate action and share this information across primary/secondary care.

9.15 Valproate *should not be prescribed for women of childbearing potential*. Where no effective alternative to valproate can be identified effective contraception, which in general means a form of long acting reversible contraception must be used. The risks of taking valproate during pregnancy should be explained. Specific written informed consent should be obtained using the MHRA valproate toolkit, and consent documented. The routine measurement of valproate levels is not recommended unless evidence of ineffectiveness, poor adherence or toxicity. MHRA Toolkit on the risks of valproate medicines in female patients https://www.gov.uk/government/publications/toolkit-on-the-risks-of-valproate-medicines-in-female-patients

9.16 Prescribers should be aware that carbamazepine has a greater potential for drug interactions than other drugs used to treat Bipolar Disorder. When offering carbamazepine to women taking oral contraceptives, it must be explained that the drug may decrease their effectiveness and alternative methods of contraception discussed.

9.17 The dose of lamotrigine should be titrated gradually to minimise the risk of skin rashes including Stevens-Johnson syndrome. Patients should be advised to seek medical attention urgently if a rash develops. Patients should have an annual health check but no special monitoring tests are needed.

Table 5: Mood Stabilisers - Lithium

Parameter/test	Frequency	Action if outside reference range
Urea & Electrolytes	Baseline (Include Creatinine & eGFR. Patients must have adequate renal function (eGFR>60ml/min) before commencing lithium. Note in some populations the eGFR may over estimate renal function and therefore calculation of creatinine clearance would be more appropriate), 6 monthly. Monitor more frequently if evidence of deterioration or if the patient is prescribed or takes medicines known to affect renal function.	If eGFR falls rapidly to <45ml/min review Lithium treatment and refer to renal medicine.
Thyroid function	Baseline & 6 monthly	Treat as necessary
ECG	Baseline & 6 monthly especially for patients with known cardiac disorders or risk factors for arrhythmia including drugs known to prolong QTc interval on ECG. The timescale for ECG is under review nationally (December 2017)	Review Lithium treatment
Calcium	Baseline & 6 monthly	
Weight, BMI, and waist circumference	Weight • Baseline • Weekly for first 6 weeks • At 12 weeks • Annually Waist circumference • Baseline • Annually	Review including modifiable risk factors
Side effects	At every clinical contact	Review lithium treatment if problematic
Signs & symptoms of toxicity	At every clinical contact	Under take an urgent lithium level and suspend lithium treatment.
Lithium levels	Weekly until level stabilisation then 3 monthly	On admission, if there is any deterioration in the patient's physical health.and if there is any suspicion of toxicity.
Interacting drugs	At every clinical contact	Review all drugs known to affect renal function

Parameter/test	Frequency	Action if outside reference range
Women of reproductive age	**Baseline and yearly** Lithium is a known teratogen. In severe mental illness up to 80% of pregnancies are unplanned. Risks and benefits in relation to childbearing must be discussed fully with all women of childbearing potential prior to prescription and consent appropriately recorded. This should be revisited at least annually. Discussion should include regular review of contraception status and advice/signposting on effective contraception for the duration of prescribing, with preference for long-acting reversible methods.	For all women of childbearing potential: Discussion of childbearing intentions and contraception status. Advice on risks and benefits in relation to childbearing. Advice/signposting on contraception (incl. LARC). Informed consent provided in writing. The 'BUMPS' website should be used to reinforce verbal information. www.medicinesinpregnancy.org For women who become pregnant on lithium: Review risks and benefits of continuing treatment or discontinuation. Seek specialist advice regarding ongoing prescribing
Patient & care education	Baseline and as necessary	Provide patients with the education necessary to support informed choice and suited to their individual needs. The Choice and Medication website is recommended http://www.choiceandmedication.org/nhs24/

Table 6: Mood Stabilisers - Sodium Valproate

Parameter/test	Frequency	Action if outside reference range
Weight, BMI,and waist circumference	Weight • Baseline • At6 weeks • At 12 weeks • Annually Waist circumference • Baseline • Annually	Review including modifiable risk factors
Full blood count	Baseline, then at 6 months	Investigate as clinically appropriate.
Liver function tests	Baseline, at 6 months, then annually	Investigate as clinically appropriate
Women of reproductive age	**Valproate should not be prescribed for women of childbearing potential.**	

Table 7: Mood Stabilisers - Carbamazepine

Parameter/test	Frequency	Action if outside reference range
Weight, BMI and waist circumference	Weight • Baseline • At 12 weeks • Annually Waist circumference • Baseline • Annually	Review including modifiable risk factors
Urea & Electrolytes	Baseline, then at 6 months	Investigate as clinically appropriate.
Full blood count	Baseline, then at 6 months	Investigate as clinically appropriate.
Liver function tests	Baseline, then at 6 months	Investigate as clinically appropriate.
Women of reproductive age	Pregnancy/contraceptive status before initiation and at regular intervals thereafter, at least annually	In all cases: Pre-pregnancy discussion of pregnancy intentions. Offer advice/signposting on contraception. Early discussion of options if unplanned pregnancy.

1.
- NHS Scotland National standard for monitoring the physical health of people being treated with clozapine (2017) [Last accessed 05.07.17]

2.
- NHS Scotland National standard for monitoring the physical health of people being treated with lithium (2017) [Last accessed 05.07.17]

Medications specific to Mental Health - Stimulant medications for ADHD

9.18 Pre-treatment screening should include height, weight (bmi or centiled), heart rate, blood pressure and sleeping pattern. Weight (bmi or centiled), blood pressure and heart rate in addition to side-effect monitoring should be completed at each dose titration review and once stabilised every 6 months.

Medications specific to Mental Health - Methadone and Buprenorphine (refer also to NHS GG&C guideline on Clinical Management of Drug Misusing patients)

9.19 A standard physical health assessment and physical examination must be carried out on all patients entering methadone maintenance treatment and care taken in view of the risk of toxicity when initiating methadone treatment. Clinical assessment must cover assessment of heart or liver disease, especially presence of current or past infection with blood-borne viruses, HIV and risk factors for QT interval prolongation such as concomitant treatment with CYP 3A4 inhibitors, other drugs

with the potential to cause QT interval prolongation and the presence of electrolyte abnormalities.

9.20 Testing for the presence of hepatitis C, hepatitis B and HIV, and hepatitis B immunisation should be offered where appropriate (i.e. if not immune or already a carrier). Buprenorphine should not normally be used in people with liver dysfunction.

9.21 A baseline ECG must be considered in patients who have risk factors for QT interval prolongation. Patients with risk factors for QT interval prolongation requiring more than 100 mg of methadone per day must have ongoing cardiac monitoring.

Medications specific to Mental Health - Disulfiram (Antabuse)

9.22 Risk factors that would contraindicate use of disulfiram should be excluded before initiating treatment. These include heart or liver disease, previous cerebrovascular accident and hypertension. An ECG should be performed if there is a cardiac history or the patient is over 40. Baseline Liver & Kidney Function tests should be obtained and repeated after 3-4 weeks due to rare reports of hepatitis on initiation, mostly in women. Regular liver function tests for those maintained on disulfiram are also recommended.

10. Mental Health Legislation

Adults with Incapacity (Scotland) Act 2000, Part 5 Medical Treatment and Research

10.1 The law in Scotland generally presumes that adults (aged 16 or over) legally have capacity to make personal decisions and manage their own affairs, this includes the right to give or withhold consent to treatment.

10.2 For those persons under 16 years section 2(4) Age of Legal Capacity (Scotland) Act 1991 applies:

"A person under the age of 16 years shall have legal capacity to consent on his own behalf where, in the opinion of a qualified medical practitioner attending him, he is capable of understanding the nature and possible consequences of the procedure or treatment."

10.3 Lack of decision-making capacity, as regards healthcare treatment, is verified by an assessment of the adult. An adult who lacks capacity is defined as being incapable of:

- Acting; or
- Making decisions; or
- Communicating decisions; or
- Understanding decisions; or
- Retaining memory of decisions

By reason of mental disorder or an inability to communicate due to a physical disability

10.4 Any person carrying out an assessment and further treatment must follow the principles of the Act, any intervention must:

- benefit the adult
- take account of the adult's wishes both past and present if these can be ascertained
- take account of the views of relevant others as far as it is reasonable and practicable
- minimise the restriction of the adult's freedom while achieving the desired benefit
- encourage the adult to use existing skills or develop new skills

10.5 Where a healthcare practitioner responsible for providing the proposed treatment determines that the adult lacks capacity to give or refuse consent, they will complete a Certificate of Incapacity under Section 47 of the Adults with Incapacity (Scotland) Act 2000.

This certificate provides a general authority to treat an adult the scope of which is to:

"Do what is reasonable in the circumstances to safeguard or promote physical or mental health of the adult".

10.6 In patients with complex healthcare who need multiple medical interventions for single or multiple conditions then a Treatment Plan will often be appropriate. The Section 47 Certificate can authorise this treatment plan by simply saying "see attached treatment plan" under the section on proposed treatments.

The Treatment Plan must indicate for each condition or treatment whether the adult is capable or Incapable of consenting. The term "Fundamental Healthcare Procedures" may be used in the Treatment Plan to include all measures relating to nutrition, hydration, hygiene, skin care and integrity, elimination, relief of pain and discomfort, mobility, communication, eyesight, hearing and simple oral hygiene.

Name of Patient ……..…….. Date of Birth / /

Address ……

……

I have examined the patient named above on ….. /……/ …….. (Date) and consider that he/she needs to undergo procedures to safeguard or promote physical or mental health in relation to the treatment plan below. I have assessed his/her capacity to consent to treatment in relation to each area of intervention.

Disorder/intervention (see note A)	Capacity C = Capable I = Incapable
• Fundamental healthcare procedures include all measures to promote or safeguard the following: Nutrition, hydration, hygiene, skin care and integrity, elimination, relief of pain and discomfort, mobility, communication, eyesight, hearing and simple oral hygiene. • Immunisation in accordance with the guidance issued annually by the Chief Medical Officer. • NHS Screening Programmes. • Dental assessment & treatment. • Additional treatment/conditions •	

I have consulted the following people over this treatment plan and over the patient's capacity.

Name ……..……..…..... Designation ….……..……

Address …….

Name ……..……..…..... Designation ….……..……

Address …….

Signed ……..

Mental Health (Care and Treatment) (Scotland) Act 2003

10.7 The 2003 Act is about securing benefits for, and protecting the rights of, people with mental disorder. Its primary objective is to make sure people with mental disorder can receive effective care and treatment.

10.8 Part 16 of the Act provides a framework of powers, safeguards and restrictions in relation to medical treatment for patients with mental disorder who are the subject of certain orders[14] within the 2003 Act or the Criminal Procedures (Scotland) Act 1995 (1995 Act). This part of the act only applies to **treatment for mental disorder**. Any patient not capable of giving or refusing consent to treatment offered for anything other than the mental disorder would be subject to the provisions of Part 5 of the Adults with Incapacity (Scotland) Act 2000.

10.9 Medical treatment for the patient's mental disorder has a broad definition with the 2003 Act, this may include:

- Nursing
- Care
- Psychological intervention
- Habilitation (including education, and training in work, social and independent living skills)
- Rehabilitation.
- Pharmacological interventions
- Physical interventions, ECT Neurosurgery

10.10 Certain treatments for mental disorder may attract "special protections" these protections are consent in writing or a second opinion from an independent Designated Medical Practitioner appointed by the Mental Welfare Commission.

11. Training and Development – evidence base and competencies

11.1 Evidence used in producing this policy is listed at Appendix E and includes a range of source materials and on-line resources. All staff are encouraged to draw from this rich resource in support of their individual Educational or Personal Development Plans.

Medical

11.2 Early career training and ongoing continuing professional development should equip psychiatrists to be able to deliver their responsibilities as outlined by the Academy of Medical Royal Colleges in 2016

11.3 Responsibilities of a psychiatrist include competence in;

- The identification of physical causes of illnesses which can present as psychiatric
- Investigation for physical causes and refer on when appropriate

[14] The use of the term orders covers all certificates, court or Mental Health Tribunal orders.

- Obtaining a medical history and functional enquiry
- Recognising the onset of acute illness
- Safe prescribing and recognition of side effects of all medications administered to patients
- Long term conditions monitoring and treatment
- In co-morbidity such as with drug or alcohol addiction, recognising factors which may affect patients' physical health
- Disease prevention and health promotion
- Use of screening tools on admission to hospital to minimise harm (nutrition etc.)
- Managing specific population needs (e.g. refugees)
- Involving other specialists in the rehabilitation of the patient's physical health

Nursing and Allied Health Professionals (AHPs)

11.4 Mental Health Nurses are responsible for the assessment, identification, monitoring and management of the physical needs of the patients they care for.

11.5 Mental Health Nurses and AHPs are ideally placed to engage with and educate patients in relation to their physical health needs and how they are inextricably linked to their mental health and wellbeing.

11.6 Mental health Nurses and AHPs recognise the importance of using psychological approaches to facilitate health behaviour change within a recovery-based model of care.

11.7 Mental health nurses and AHPs have a critical role in the promotion of physical and mental well being including the importance and benefits of Nutrition care, regular physical exercise, alcohol consumption within national limits harmful effects of smoking and meaningful occupation.

11.8 Mental Health Nurses who are qualified Nurse Prescribers bring an increased expertise to the care and treatment of the physical health care needs of patients. They possess an increased knowledge of the effects of commonly used medication on the physical health of patients. NHSGGC Mental Health services offer supervision and guidance to all non-medical prescribers.

11.9 Mental Health Nurses and AHPs will be supported to continually improve their knowledge, skills and competencies in performing physical health care assessments, interventions and the development of treatment plans.

11.10 The physical health care policy implementation group has identified a need for continued education of Mental Health Nurses and AHPs in the management of long-term conditions and strategies to promote behavioural change. A supporting education package is currently being developed.

11.11 Clinical supervision and continued professional development for Mental Health Nurses and AHPs underpins the delivery of effective assessment and treatment of

physical health care conditions and will help achieve improved health outcomes for patients.

11.12 The role of employment/or voluntary work is recognised as important in maintaining health & well being and is considered an appropriate area of inquiry undertaken by Mental Health Nurses and AHPs.

12. Monitoring and Review Arrangements

12.1 The Primary Care and Mental Health Interface Group continues to work towards emerging consensus with primary care on the shape, character and recording of information about annual physical reviews and about how this information is shared.

12.2 There is a need for feedback and ongoing audit of the revised NHS GG&C Mental Health Service Physical Health Measure via EMIS reporting and linking to and collaborating with primary care.

12.3 The PsyCIS Team is committed to maintaining the PsyCIS register, providing summary reports for Consultants and assisting with clinical audit. It is important that psychiatrists review and update the PsyCIS record for patients to ensure accuracy, maintain ongoing links to primary care, and facilitate outcomes monitoring via local audit and Safe Haven for this particular patient group.

12.4 The assessment and management of patients' physical health care needs both in hospital and in the community will be subject to clinical audit. This will be undertaken by the Practice Development Nurse staff at least annually.

12.5 There is a need for reviewing and updating the policy in response to feedback, with results of audit and to take account of other policy, guideline and systems changes. This should occur within 1 year of implementation and 2 yearly thereafter.

Appendix A

Proposed Equipment to Meet Standards for Physical Health Care in Inpatient & Community Mental Health Service Areas

- 1 set portable wheelchair beams, power unit and carrying bags (Calibrated annually)
- 1 set stand on scales and carrying bag (calibrated annually)
- 1 Diagnostic Set
- 1 Electronic Sphygmomanometer
- 1 Manual Sphygmomanometer
- Various sizes of Sphygmomanometer cuffs (small, medium & large)
- 1 Stethoscope
- 1 Glucose meter, test strips and lancets
- Ear thermometer & disposable covers
- Peak Flow meter and disposable mouthpieces (if applicable)
- 1 BMI calculator
- NHSGGC BMI MUST Charts
- 1 flexible measuring tape
- Tourniquet – Various sizes
- 1 Pen torch
- Blood specimen equipment – e.g. Bottles & Needles (Butterfly & standard), sharps disposal container, tourniquet
- Rubber gloves - Latex free
- Various sundries items e.g. micropore, cotton wool, mediswabs, foil bowls, disposal bags and plasters
- 1 sanitising hand disinfectant gel
- Height / Weight conversion chart
- (LD) Pictorial aids*****
- Health promotional materials (pictorial format)
- Urine testing strips
- Assorted blood forms and specimen bags
- ECG referral forms
- Core resuscitation equipment and drugs
- ECG machine (In-patients only

* Learning Disabilities only.

Appendix B

PHYSICAL HEALTH FORM

Parameter/Topic	Guidance	Recommendations
Annual health and wellbeing review.	All community patients must receive an Annual Review that sufficiently meets their needs.	If yes, either (a) check if any follow-up health improvement advice needed and offer to facilitate or do, (b) Check if any specific extra screening required and offer to facilitate or do. (See high dose prescribing, Lithium) If no, offer to arrange with GP or do at CMHT. (Proceed to full screen below if patient refuses to attend GP and is on antipsychotic medication, especially Clozapine)
	In-patient > 12 months	If yes, proceed to full health and wellbeing review.
	If patient chooses NOT to proceed with review at this point:	Record patient's wishes in care plan including willingness to be approached at a future date.
Admission to psychiatric unit.	Patients have full system examination and clinically appropriate investigations in addition to health and wellbeing review.	Complete all sections and enter additional details of physical examination in free text box at end. Make note in care plan of any follow-up or referrals required.
Satisfactory level of activity	Aim for at least 150 minutes of physical activity per week	Provide general advice and consider referral to a local exercise scheme (e.g. local health walks, GP exercise referral scheme)
Satisfactory Diet	Eat a balanced diet, with at least 5 portions of fruit and vegetables per day and adequate water intake and limit caffeine (≤ 5 cups of coffee or ≤ 10 cups of tea per day)	General dietary advice. Consider referral to local dietitian if required
Smoking	Aim to be non-smoker	• Assess nicotine need and encourage patient to be tobacco-free • General advice re harm from tobacco and refer to Quit Your Way Services local to patient. • Educate patient re change in **Clozapine** uptake. • Monitor **Clozapine** serum levels when tobacco use changes
Alcohol	No more than 14 units per week for men and women spread over a minimum of 3 days with several alcohol-free days each week. In pregnancy, the safest choice is to avoid alcohol completely.	General advice and consider referral to local community addiction services as required or provide information about basic alcohol screening and signposting for brief interventions
Illicit drugs	Aim for abstinence	General advice and consider referral to local community addiction services as required
Sleep	Ask if any problems with sleep pattern, such as insomnia, snoring, daytime sleepiness	If problems noted, give general sleep hygiene advice. If sleep apnoea suspected, refer to GP

Parameter/Topic	Guidance	Recommendations
Urinary function	Ask if any problems (especially any change in function such as hesitancy, increased frequency &/or incontinence)	If problems noted, refer to GP (inpatient Medical staff)
Bowel function & Bowel Screening	Ask if any problems (especially change of bowel habit, unexplained weight loss &/or rectal bleeding/blood in stool) ***Assess bowel function at every visit if on clozapine.*** Bowel Screening invitations are sent to individuals' homes every 2 years between the ages of 50 and 74 yrs.	If problems noted, refer to GP/inpatient medical staff irrespective of screening results. If patient has not returned a screening kit that was sent to them, a new one can be requested by filling in an online form (https://www.nhsinform.scot/healthy-living/screening/bowel-screening/request-a-bowel-screening-test-kit), phoning 0800 0121 833 or emailing bowelscreening.tayside@nhs.net
Menstrual function	Ask if any problems. Regular cycle of approx 28 days (24-35 days range)	If problems noted, refer to GP (or Psychiatrist if psychotropic drug side-effect suspected)
Currently or potential for pregnancy	Every 3 years for females 20-60 yrs	Give advice about risks of relapse in relation to pregnancy and postnatal period (particularly for bipolar illness and schizophrenia). Give advice about pros and cons of medication in pregnancy and consideration of change of medication, if indicated, prior to pregnancy
Contraception	Every 3 years for females 20-60 yrs	Give advice regarding contraception (may include referral to GP or family planning clinic, e.g. Sandyford Sexual Health Clinic/ Hub) and risks of unplanned pregnancy while on medication
Cervical screening	GP will arrange screening for women aged 25-64 years then- every 3 years from age 25-49 and every 5 years from age 50-64 yrs	Refer to GP/inpatient medical staff if any genito-urinary symptoms, irrespective of screening results. If patient has not taken part in screening but is willing to do so, contact GP
Breast & Breast screening	Breast Screening Unit will send out invitations to women aged 50-70 yrs every 3 yrs.	Advice should be given on self examination https://www.breastcancercare.org.uk/information-support/have-i-got-breast-cancer/checking-your-breasts Refer to GP/ inpatient medical staff if any breast symptoms, irrespective of screening results. If patient has not responded to a screening invitation but is willing to do so, contact the Breast Screening Unit (phone 0141 800 8800)
Abdominal Aortic Aneurism (AAA) screening	AAA screening invitations are sent to men aged 65 yrs will be invited to take part in abdominal aortic aneurysm screening	If patient has not responded to a screening invitation but is willing to do so, contact Screening Unit (phone 0141 277 7677)

Parameter/Topic	Guidance	Recommendations
Diabetic Retinopathy Screening (DRS)	DRS screening invitations are sent to anyone with diabetes over the age 12 yrs are invited to have an annual eye health check	If patient has not responded to a screening invitation but is willing to do so, contact Screening Unit (phone 0141 277 7417)
Sexual wellbeing	Use opportunity to discuss general sexual health issues and sexual side effects of medications.	Refer to GP (or Psychiatrist if psychotropic drug side-effect suspected)
Safe sex	Always	Provide advice on sexual health. Identify if the patient is in high risk category for STI and consider referral to Sandyford Clinic or Sandyford Hub
Vision	Aim for a check-up at least every 2 years	Consider referral to optician. Inform patient of free annual eye tests
Hearing	Ask if any problems	Refer to GP as required
Teeth	Aim for a check-up once a year	General advice and refer to local dental service as required
Feet	Ask if any problems Patients with diabetes • Screened annually in line with the Scottish Diabetes Foot Action Group risk stratification algorithm on SCI Diabetes. • Refer to NHSGGC Clinical Guideline Diabetes, Prevention and Management of Associated Complications	General advice and refer to podiatry service as required http://www.nhsggc.org.uk/your-health/health-services/podiatry/# Patients with diabetes • NHSGGC Diabetes Clinical Guidelines Podiatry
Nutrition	Ask if any recent weight loss/gain, decrease in appetite, speech or swallowing problems and refer to NHSGGC Community MUST nutritional profile(s) or inpatient MUST nutritional profile. Note within NHSGGC Mental Health Forensic wards The State Hospital Nutritional Screening Tool is used.	• Weigh patient on set of recommended NHSGGC calibrated scales, note weight and refer to inpatient Nutritional Profile or Community MUST Nutritional Profile(s) includes Community Learning Disability MUST profile also. • Carry out a full Nutritional screen and document Nutritional score according to specific area Nutritional Profile(s) guideline - update regularly within the Nutritional Profile and each patient care plan accordingly

Parameter/Topic	Guidance	Recommendations
Height, weight and BMI	Aim for BMI of 18.5 – 24.9	**If outcome is between 25-29.9 (overweight) Give** general advice about diet & exercise **BMI < 45 and no co-morbidities or decline weight management service** Consider referral to Live Active or other local weight management opportunities **If outcome is between ≥180 kg, BMI ≥ 45 or ≥ 25 with co-morbidities** Consider referral to Glasgow Weight Management Service
Waist circumference	Aim for no more than 35" for females and 40" for males	Follow recommendations for BMI as above
Pulse	60 – 100 bpm	If <60 or >100 bpm, repeat and refer for ECG and medical review
B.P.	Diastolic < 90 Systolic <140 As per clozapine standards Patients with diabetes target BP <130/80 (NHSGGC Clinical Guidelines Hypertension Management; and Diabetes, Prevention and Management of Associated Complications)	If diastolic >90 &/or systolic >140 refer to GP For patients with diabetes: If blood pressure >130/80 refer to GP/diabetes specialist
MUST score	To be completed within 24 hours of admission	Repeat MUST screening as per MUST Nutritional profile Management Plan
Concordance	Fully informed and agreeable to taking medication as prescribed	If any problems, general advice and refer for medical review as required
Medicines Reconciliation	Medication the patient should be prescribed is correctly identified at admission and discharge	If any problems, general advice and refer for medical review as required
Side effects	Use side effects rating scales e.g. GASS (clozapine) and LUNSERS	General advice and consider medical review
High dose prescribing and Clozapine	Refer to existing guidelines	
Glucose	≤ 11.1 mmol/L (random) or ≤ 7.0 mmol/L (fasting)	If >11.1 (random) or ≥7.0 mmol/L (fasting) diagnosis of diabetes is highly likely - refer to GP Refer to GP if patient identified as high risk of diabetes (fasting glucose 6.1-6.9 mmol/L)

Parameter/Topic	Guidance	Recommendations
Lipids	Cardiovascular Risk Score ASSIGN • NHS Scotland ASSIGN Cardiovascular Risk Score Refer to NHSGGC Clinical Guideline: Coronary Heart Disease and Stroke, Primary and Secondary Prevention Guideline (Cholesterol)	Refer to ASSIGN
FBC	If anaemia or infection etc suspected	Any abnormalities, refer for medical review
U&E	If dehydration etc suspected or concerns about kidney function. Every 6months as per lithium standards	Any abnormalities, refer for medical review
LFT	If alcohol problems etc are suspected. Annually if prescribed Sodium Valproate	Any abnormalities, refer for medical review
Calcium	Baseline and every 6 months if on lithium	Any abnormalities, refer for medical review
TFT	In cases of anxiety &/or depression etc Every 6 months as per lithium standards	Any abnormalities, refer for medical review
Troponin	Refer to NHSGGC clozapine standards	
CRP	If an inflammatory process is suspected e.g. sepsis Refer to NHSGC Clozapine Standards	Any abnormalities, refer for medical review
Prolactin	If sexual dysfunction, amenorrhoea or galactorrhoea.	Any problems, refer for medical review
Lithium	Every 3 months if on stable dose (range 0.4-1.0) and on admission to hospital	Any problems, refer for review by psychiatrist
ECG	If on clozapine or high dose anti-psychotics (see guidelines)	Refer to guidelines

Explanatory notes;

1. There is a higher morbidity and mortality risk in Asian populations for BMIs even at levels below the usual 30 kg/m^2 "cut off". The definitions for "overweight" and "obese" in this patient group has been modified to BMIs of ≥23 kg/m^2 and ≥25 kg/m^2. This needs to be taken into account for prescribing and monitoring for people with mental health problems from BME groups
2. This table does not replace the need for particular monitoring at the point of admission to hospital, initial diagnosis or when initiating new treatments

Appendix C

Patients Name		CHI No.	

Chaperone Required – yes/no **Potential safety issues regarding risk if restraint necessary** **General Impression / End of Bed examination**	**Neuro response** ☐ Alert ☐ Verbal ☐ Pain ☐ Unresponsive

Systematic enquiry:

CVS:	Chest pain	Palpitations	S.O.B.	Ankle Swelling			Normal
Resp:	Cough	Wheeze	Sputum	Haemoptysis			Normal
Gastro:	Abdo pain	Dyspepsia	Constipation	Diarrhoea	Nausea	Vomiting	Normal
CNS:	Headache	Dizziness	Vision	Hearing	Numbness	Fits/Faints	Normal
GU:	Dysuria	Frequency	Haematuria	Nocturia	Incontinence	Discharge	Normal
MS:	Joint pain	Swelling	Weakness	Stiffness	Restlessness		Normal
Endocrine:	Thirst	Polyuria	Weight loss/Gain	Heat/Cold Intolerance	Sweating		Normal

Temperature:	**Pallor** **+ / -**
Pulse rate:	**Oedema** **+ / -**
BP:	**Clubbing** **+ / -**
Respiratory rate:	**Goitre** **+ / -**
SaO2:	**Jaundice** **+ / -**
NEWS score:	**Cyanosis** **+ / -**
WEIGHT **HEIGHT** **BMI** **WAIST CIRCUMFERENCE** **MUST SCORE ON ADMISSION**	

Admission ECG - Date _____

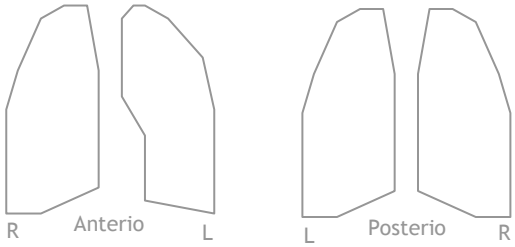
Result:

QTc result……..ms

Normal	
Males	**Females**
< 440 ms	< 470 ms

At 500ms seek urgent advice

Respiratory



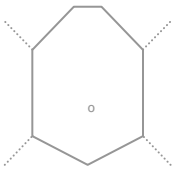
Cardiovascular

Heart Sounds:

Peripheral Pulses:

Peripheral Oedema:

Abdominal



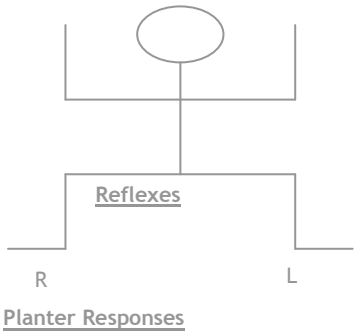
Neurological and Musculoskeletal Exam

Gait:

Cranial nerves (including pupils and eye movements)

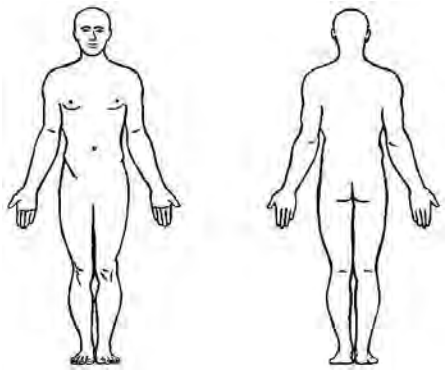
	LUL	RUL	LLL	RLL
Tone				
Power				
Sensation				

Limbs



Co-ordination (including any cerebellar signs, tremor and abnormal movements)

Musculoskeletal System/Skin/Other



Antipsychotic naïve?

Possibility of Pregnancy?

Urine drug screen requested?

Admission bloods sent?

If it is not possible to carry out full physical, ECG or bloods at admission the reason must be documented here

Appendix D

CMHT Resuscitation Equipment

RESUSCITATION PROVISION

A Basic Life Support (BLS) approach should be employed within community settings in a collapsed, unconscious victim. This implies correct application of:-

- Assessment of consciousness
- Getting help immediately (999 call)
- Opening the airway using the head tilt/ chin lift technique
- Checking breathing
- Giving 30 compressions
- Open airway and giving 2 breaths with a pocket mask.
- Continue cycle of 30 compressions to 2 breaths until help arrives

EQUIPMENT:

The only equipment required for the BLS procedure is a pocket mask available from central stores. It is advisable for each base to have at least 3 masks available at any given time to ensure availability/ accessibility at all times.

MINIMAL DRUGS:-

The recommended minimal 'resuscitation' drugs are:

Adrenaline 1 in 1,000 for IM injection. 0.5 mg of Adrenaline is the immediate first line treatment recommended in Anaphylaxis. Two x 1 ml amps should be available. Dose of 0.5 mg (0.5 ml) can be repeated after 5 minutes if no clinical improvement.

NHSGGC MHS Clinical Guideline 32 Recognition and Management of Anaphylaxis

Naloxone (Narcan) for IM injection in known opiate overdose. Dose is 400 micrograms. Can be repeated after 2 minutes if no clinical improvement. 3 x amps available.

Hypostop (Glucogel) x 2 (25g) tubes for hypoglycaemia in a known diabetic. Insert 1 tube content into oral cavity, inside of cheeks for mucous membrane absorption. Second tube can be used if required.

Appropriate syringes and needles (Blue-23G / 25mm and Green-21G/ 38mm) should be available for IM drug delivery and stored with these drugs.

RESPONSIBILITIES:

All resource centres/ bases must identify one nurse with overall responsibility for:-

- Setting up and maintaining a weekly checking system for equipment/ drugs location maintenance and expiry dates.
- Signposting the location of pocket mask/ drugs and communicating this to all staff.

NB: Those services that currently have an emergency tray with more drugs than described above please contact your local mental health dispensary to arrange for its withdrawal from use.

ADDITIONAL ITEMS/ DRUGS:

Where local areas have access to other emergency equipment e.g. Magill's forceps for high risk of choking or Emergency Defibrillator training in their use must be available for staff.

Any further detail or information that may be required should be communicated to:

jonathan.kerr@ggc.scot.nhs.uk
Donald.fraser2@ggc.scot.nhs.uk

Appendix E

Evidence Sources and Supporting Materials [Last updated 06.07.17]

NHSGGC Guidelines, Policies & Standards

Food, Fluid and Nutritional Care

- NHSGGC Nutrition Resource Manual
- NHSGGC Food, Fluid and Nutritional Care (Partnership) Homepage
- NHSGCC Food, Fluid and Nutritional Care Policy (2015)
- NHSGGC Hydration Policy (2012)
- Nutritional Profile including Malnutrition Universal Screening Tool (MUST)
- Guidance and considerations for using the 'Malnutrition Universal Screening Tool' ('MUST')
- Charts and Alternative Measurements for using the 'Malnutrition Universal Screening Tool' ('MUST')
- NHSGGC Community MUST Patient Pathway

NHSGGC Mental Health Services – Suggested Policies, Guidelines and Medicine Related Guidance

- NHSGGC MHS 40 Guideline for the use of Intramuscular Medication for Acutely Disturbed Behaviour in Mental Health and Associated Service (2018)
- NHSGGC MHS 32 Guidance and Management of Anaphylaxis (2017)
- NHSGGC MHS 02 Adult Eating Disorder Service (AEDS) Operational Policy (2016)
- NHSGGC MHS MRG 26 Lithium Good Practice Standards (2017)
- NHSGGC Mental Health Partnership Non-Medical Prescribing Strategy & Implementation Recommendations (2008)
- NHSGGC MHS 34 High Dose Antipsychotic Therapy Guideline (2016)
- NHSGGC MHS MRG 03.01 Clozapine Service Standards (2016)
- NHSGGC MHS MRG 3.02 Clozapine Side Effects Monitoring Care Plan (2016)
- NHSGGC MHS MRG 03.08 Assessment and Treatment of Clozapine Induced Constipation (2017)
- NHSGGC Guidelines on the management of Drug Misusers in Glasgow and Clyde Acute Hospitals (2013)
- Glasgow Addiction Services Guidelines for the prescription and supervision of Disulfiram (2007)
- NHSGGC Mental Health Service ECT Services
- NHSGGC MHS 14 Hospital Smoking Cessation Service Guidance (2017)

NHSGGC Clinical Information Homepage

- NHSGGC Clinical Guidelines
    - NHSGGC Diabetes Guidelines
    - NHSGGC Vitamin D: Prevention & Treatment of Deficiency in Adults (2016)
    - NHSGGC Guidance on the use of electronic cigarettes (2017)
    - NHSGGC Smoke Free Policy (2017)

NHSGGC Policy Manual

NHSGGC Health & Wellbeing Directory

NHSGGC Public Health Screening Unit

Sandyford Sexual Health Services

NHSGGC Long Term Condition Managed Clinical Networks

NHSGGC MH Services Medical Emergency Training Course Manual - available from local hospital Medical Emergency Trainers.

Service User Groups

- ACUMEN
- Mental Health Network Greater Glasgow
- Glasgow Carers Forum

National Guidelines, Policies & Standards

Scottish Government

- Mental Health Strategy: 2017 – 2021 – a 10 year vision
- National standard for monitoring the physical health of people being treated with clozapine (2017)
- National standard for monitoring the physical health of people being treated with lithium (2017)
- Decisions about Cardiopulmonary Resuscitation - Integrated Adult Policy (2016)
- Vitamin D
- Health Behaviour Change Competency Framework (2010)
- Health Promoting Health Service
    - SGHD/CMO(2015) 19
- National Physical Activity Policy
- Realising Potential: An Action Plan for Allied Health Professionals (2010)
- Department of Health (England) and the devolved administrations - Drug Misuse and Dependence: UK Guidelines on Clinical Management (2007)
- Adults with Incapacity (Scotland) Act 2000: Code of Practice (Third Edition): For Practitioners Authorised to Carry Out Medical Treatment or Research Under Part 5 of the Act (2010)
- Age of Legal Capacity (Scotland) Act 1991

Healthcare Improvement Scotland

- Scottish Patient Safety Programme – Deteriorating patient (including cardiac arrest and sepsis)
- NHS Scotland Diabetes Think Check Act Toolkit
- NHS Quality Improvement Standard, Heart Disease, Clinical Standards (2010)

SIGN Guidelines

- NHS Scotland ASSIGN Cardiovascular Risk Score
- SIGN Guideline - Care of Deteriorating Patient (2014)
- SIGN Guideline - Management of Schizophrenia (2013)
- SIGN Guideline - Management of Diabetes (2010)
- SIGN Guideline - Management of attention deficit and hyperkinetic disorders in children and young people (2009)
- SIGN Guideline - Risk estimation and the prevention of cardiovascular disease (2017)
- SIGN Guideline - Pharmacological management of glycaemic control in people with type 2 diabetes (2017)

NICE Guidelines

- NICE Guideline - Eating Disorders: recognition and treatment (2017)
- NICE Guideline - Violence and aggression: short-term management in mental health, health and community settings (2015)
- NICE Guideline – Physical health of people in prison (2016)
- NICE Guideline - Mental health problems in people with learning disabilities: prevention, assessment and management (2016)
- NICE Guideline - Attention deficit hyperactivity disorder: diagnosis and management (2016)
- NICE Guideline - Psychosis and schizophrenia in children and young people: recognition and management (2016)
- NICE Clinical Guideline - Psychosis and schizophrenia in adults: prevention and management (2014)
- NICE Clinical Guideline - Acutely ill adults in hospital: recognising and responding to deterioration (2007)

National Patient Safety Alerts

- National Patient Safety Agency – Patient Safety Alert 2009/ PSA005; Safer Lithium Therapy.
- National Patient Safety Agency Rapid Response Report – Resuscitation in Mental Health and Learning Disabilities (2008)

Other Guidelines and Resources

- Resuscitation Council (UK) Adult Basic & Advanced Life Support Guidelines (2015)

- Lester UK Adaptation Positive Cardiometabolic Health Resource (2014)
    - Ward Poster
- Royal College of Psychiatrists - Integrated Physical Health Pathway (2014)
- Royal College of Psychiatrists - MARSIPAN: Management of really sick patients with Anorexia Nervosa (2014)
- International Physical Health in Youth (iphYs) working group. Healthy Active Lives (HeAL) consensus statement (2013)
- Royal College of Physicians - National Early Warning Score (NEWS): standardising the assessment of acute illness severity in the NHS (2012)
- Mental Health Foundation - Primary Care Guidance: Early intervention in psychosis – Looking after bodies as well as minds (2009)
- Health and Social Care Alliance Scotland
- ALISS (A Local Information System for Scotland)

Research Publications

Academy of Medical Royal Colleges and Royal College of Psychiatrists - No health without mental health: the supporting evidence (2010) and Summary Report (2009)

Academy of Medical Royal Colleges – Exercise: the miracle cure and the role of the doctor in promoting it (2015)

Annual Report of the Chief Medical Officer 2013 – Chapter 13: Physical Health and Mental Illness (2013)

British Medical Association - Recognising the importance of physical health in mental health and learning disability: achieving parity of outcomes (2014)

Centre for Mental Health - No Health Without Mental Health Implementation Framework (2012)

Diabetes UK and South Asian Health Foundation - Recommendations on diabetes research priorities for British South Asians (2009)

Glasgow Centre for Population Health - Let Glasgow Flourish (2006)

GMS contract, Quality and Outcomes Framework

Mental Health Taskforce - Five year forward view for Mental Health (2016)

NHS England – Improving the physical health of people with mental health problems: actions for mental health nurses (2016)

Scottish Public Health Observatory: Amenable mortality

Scottish Public Health Network – 'Polishing the diamonds' addressing adverse childhood experiences in Scotland (2016)

The King's Fund - Bringing together physical and mental health: a new frontier for integrated care (2016)

Working Group for Improving the Physical Health of People with SMI - Improving the physical health of adults with severe mental illness: essential actions (OP100) (2016)

GRAY, R., et al, 2009. Physical health and severe mental illness: If we don't do something about it, who will? *International Journal of Mental Health Nursing,* 18(5), pp. 299-300.

JONES, A. and HARBORNE, G.C., 2009. Independent mental health nurse prescribing. *Journal of psychiatric and mental health nursing,* 16(6), pp. 508-515.

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GOURNAY, K., 2005. The changing face of psychiatric nursing.

CORMAC, I., et al, 2004. Improving the physical health of long-stay psychiatric in-patients. *Advances in Psychiatric Treatment,* 10(2), pp. 107-115.

GRAHAM, I., 2003. Leading the development of nursing within a Nursing Development Unit: The perspectives of leadership by the team leader and a professor of nursing. *International journal of nursing practice,* 9(4), pp. 213-222.

HARRIS, E.C. and BARRACLOUGH, B., 1998. Excess mortality of mental disorder. *The British Journal of Psychiatry,* 173(1), pp. 11-53.

BROWN, S., 1997. Excess mortality of schizophrenia. A meta-analysis. *The British Journal of Psychiatry,* 171(6), pp. 502-508.

CHICK, J., 1996. Medication in the Treatment of Alcohol Dependence. *Advances in Psychiatric Treatment,* 2(6), pp. 249-257.

Educational Resources

NHSGGC Mental Health Services Physical Health Challenges in Mental Health Practice Bulletin

NHSGGC Managed Clinical Network Diabetes – Education

NHSGGC eHealth Information on Clinical Applications Training (TrakCare, Clinical Portal etc.)

NHSGGC Health Improvement Training Information & Calendar

NHS Scotland Learn Pro Modules (search under all courses)

- Alcohol awareness
- Chronic pain
- Diabetes Think Check Act Modules
- Nutritional screening: a MUST for all healthcare
- Oral health
- Raising the issue of physical activity
- Tobacco awareness
- Weight management awareness

Chest Heart & Stroke Scotland Training and Education

- STARs Stroke Training and Awareness Resources
- HEARTe Heart Education Awareness Resource and Training through E-learning

Diabetes UK - Diabetes in Healthcare online training course (accredited by RCN)

Mental Health Foundation - Parity of Esteem

National Early Warning Score (NEWS) online training resource

Rights for Life

ReThink E-learning Module on Physical Health Care

Royal College of Psychiatrists' website – Improving physical & mental health

Update on ECG Skills for Psychiatrists

NHS Greater Glasgow & Clyde
Mental Health Services

Protocol for the use of Unlicensed Pirenzepine

Indication

Pirenzepine is an unlicensed medicine indicated for use as an alternative treatment of hypersalivation secondary to clozapine treatment in patients for whom an adequate trial of hyoscine hydrobromide (both tablets and transdermal patches) and trihexyphenidyl have been unsuccessful either due to lack of efficacy or side effects. Pirenzepine was previously licensed in the UK for the management of duodenal ulcers but its use for this indication was superseded by the H2 antagonists and proton pump inhibitors. It was not withdrawn in the UK on safety grounds. It must not be used first line for clozapine-induced hypersalivation due to the unlicensed status.

Informed consent

Due to its unlicensed status, informed consent and explanation for the rationale of treatment choice must be obtained prior to treatment initiation.[1] Patient information explaining unlicensed medication in general terms is available via the Choice and Medication portal, as is a specific pirenzepine for hypersalivation leaflet.[2] Where there is a lack of capacity, adherence to the principles contained in the Adults with Incapacity (Scotland) Act, 2000 is mandatory.

Documentation

The consultant psychiatrist must make a clear record of the rationale for prescribing an unlicensed medication within the patient's case notes and document the discussion regarding consent.[1]

In-patient prescribing and administration

Nursing staff in the ward must be informed of the medicine's unlicensed status by the prescriber and ward clinical pharmacists must ensure that staff are aware of the unlicensed status.

When ordering pirenzepine, the patient's initials and CHI should be included on the requisition as well as the phrase "as per protocol" for the order to be processed. A record of administration of unlicensed medication must be kept (as per unlicensed medication policy).[3] When entering administration on HEPMA, the drug batch number and expiry date should be recorded when prompted. It is the responsibility of the nurse in charge to ensure this occurs.

When supplying pirenzepine from pharmacy, pharmacy staff must ensure that batch numbers are documented on the prescription or requisition.

Out-patient prescribing

The clozapine dispensary at Leverndale will supply pirenzepine prescriptions after discharge to outpatients. The standard clozapine out-patient prescription form will be used to prescribe pirenzepine in addition to the patient's regular clozapine dose.

Review

Need for ongoing prescription of an unlicensed medicine should be assessed on a 6 monthly basis

Monitoring

There is no requirement for any specific monitoring. Close monitoring of bowel function is mandatory with the combination of clozapine and pirenzepine and should be reflected within the clozapine side effect monitoring care plan. Refer to the Guidelines for assessment and management of clozapine induced constipation for further information.

Approved by Prescribing Management Group (Mental Health)
Updated October 2020
Review date Oct 2023

Dose range[4,5,6,7]
25-100mg/day.(150mg in exceptional circumstances)

The limited published evidence available to support the use of pirenzepine for clozapine-induced hypersalivation has suggested a usual maximum of 100mg daily, although in practice 150mg daily is often used without issue. NB when pirenzepine had a product licence for duodenal ulcers, its maximum licensed dose was 150mg daily.

Evidence base
One randomised trial demonstrated no effect[4], however extensive clinical experience suggests efficacy in some individuals. The use of pirenzepine is recommended in both the Maudsley Guidelines & Psychotropic Drug Directory.[5,6]

Proposed mode of action
Selective anticholinergic at M_1, M_4 receptors

Side effects [7,8,9]

Very common	(> 1 in 10);	dry mouth
Common	(<1/10 and >1/100);	headache, blurred vision, constipation, diarrhoea, skin rash
Uncommon	(<1/100 and >1/1000);	urinary retention
Very rare	(<1/10,000):	confusional states
Not known		anaphylactic reactions, hypersensitivity reactions

If visual disturbance or urinary retention occurs the pirenzepine must be discontinued. [8]

Contraindications[8]
- Hypersensitivity to pirenzepine or any excipients
- Paralytic ileus
- Pregnancy

Cautions[8]
- Renal impairment (CrCl< 30ml/min)
- Glaucoma
- Prostatic hypertrophy
- Tachycardia

Interactions
May exacerbate the anticholinergic effects of other drugs including clozapine, especially constipation.

References:

1. GMC Good practice in prescribing and managing medicines and devices. Updated Dec14 http://www.gmc-uk.org/guidance/ethical_guidance/14316.asp

2. Choice and Medication. Handy Fact Sheets. Unlicensed medications and pirenzepine PIL http://www.choiceandmedication.org/nhs24/

3. NHS Greater Glasgow and Clyde Area Drug and Therapeutics Committee Policies Relating to the Management of Medicines Section 9.1 Acute Unlicensed Medicines Policy (ULM Policy)

4. UKMi Medicines Q&A. Drug-induced hypersalivation- what treatment options are available? May17

5. Bazire S. Psychotropic Drug Directory 2016; Lloyd Reinhold Publications

6. Taylor D, Paton C, Kapur S. The Maudsley Prescribing Guidelines in Psychiatry; 13th edition: Wiley Blackwell

7. Patient Information Leaflet Gastrozepin (Translation). Boehringer Ingelheim. January 2019

8. Summary of Product Characteristics Gastrozepin. Boehringer Ingelheim. July 2013. (obtained from Mawdsley Brooks & Co)

9. Martindale. The Complete Drug Reference. https://www.medicinescomplete.com/mc/martindale/2009/ Accessed 4/8/17

NHS Greater Glasgow & Clyde
Mental Health Services

Best practice points for the prescribing, administration and recording of

as required psychotropic drugs

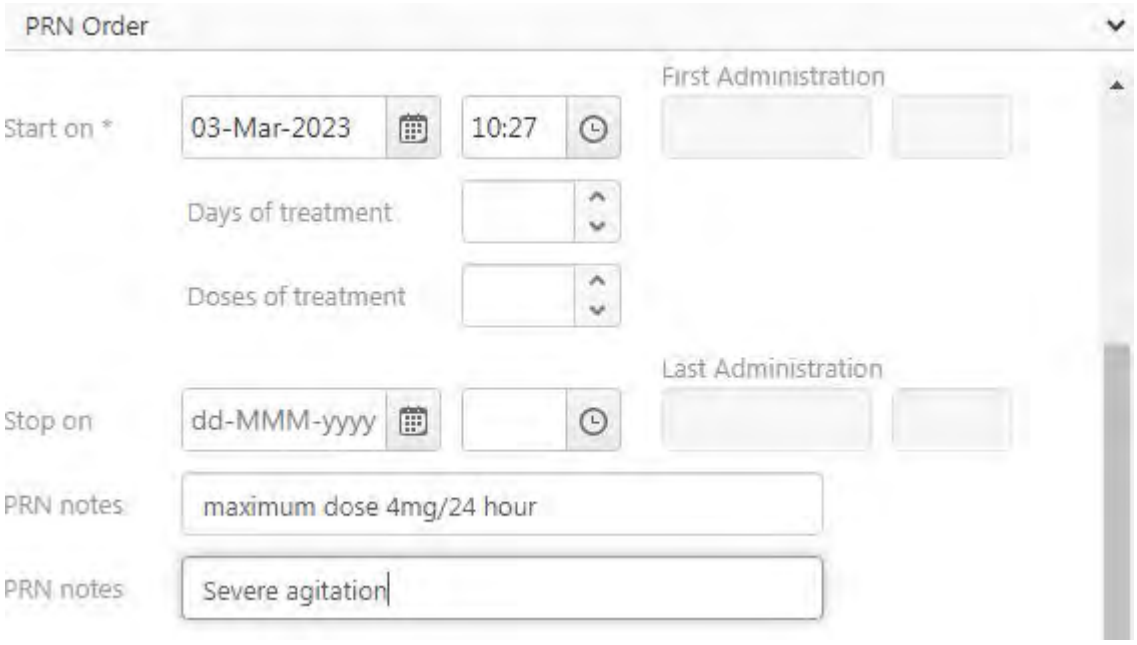
Psychotropic drugs are frequently prescribed on an 'as required' basis when patients are admitted to mental health wards. They are intended to be available for nursing staff to administer at their discretion to patients as part of the management of acute psychiatric symptoms e.g. agitation, anxiety and distress. Local and national audits have identified on many occasions that these drugs are often prescribed without appropriate care, administered unnecessarily and the details surrounding their use is often inadequately documented. There is often lack of review leading to almost open ended prescriptions.

This document describes best practices points to support the best use of this valuable intervention and provides context for the use of the SPSP MH as required bundle.

Prescribing

1. Where possible as required psychotropic drugs should not be prescribed routinely on admission.
2. Ideally the need for acute as required medication must be individually assessed and if deemed appropriate once only doses should be prescribed initially. In areas with limited medical support especially out of hours it may be appropriate to prescribe as required psychotropic drugs on admission if there is a high likelihood the patient will require them.
3. If once only doses are used then the need for a routine as required prescription should be considered.
4. If routine as required psychotropic drugs are prescribed the individual dose, route of administration, frequency of administration and maximum dose to be given in any 24 hour period must be clearly expressed on HEPMA. Maximum dose in 24 hours should be added as a PRN note at the time of prescribing (see screenshot below).
5. With the exception of clozapine, the patient's regular antipsychotic may be an appropriate choice for as required use.
6. Do not prescribe as required antipsychotics to antipsychotic naive patients. Prescribing benzodiazepines is preferable until the clinical situation becomes clear.
7. The indication should be expressed as clearly as possible i.e. try and avoid simply stating 'agitation'. This should be added as a PRN note at the time of prescribing (see screenshot below)
8. An appropriate entry should be made in the medical notes detailing the reason for the prescription and providing a context for the indication expressed.
9. For patients detained under the terms of the Mental Health Act an appropriate entry may be required on any T2/T3 form.
10. The need for an on-going as required psychotropic prescription should be reviewed frequently. If it has not been administered for more than 4 weeks discontinuation is recommended.
11. If haloperidol is to be prescribed consider potentially contra-indicated interactions, the patient's cardiac status and if practical do an ECG to exclude prolonged QTc before prescribing.
12. If prescribing any antipsychotic as required be aware to the potential of inadvertent high dose in combination with any regular antipsychotic prescription.
13. For in-patients, the use of all as required psychotropics should be reviewed at each MDT and an individualised as required care plan developed.

Approved by PMG (MH) January 2021
Review Date February 2024.



Administration

14. Nurses should only administer as required psychotropic drugs for the prescribed indication and then only if non-pharmacological approaches have failed or are inappropriate.
15. If a patient is prescribed more than one as required psychotropic drug for the same indication, avoid administering combinations if possible and always allow sufficient time for one drug to take effect e.g. 30-60 minutes before administering a second drug.

Recording

16. All details pertaining to each administration should be recorded in the patient's case record i.e. the chronological account of care on the in-patient EMIS record. The details recorded must include;

    Date & time given
    Reason for administration
    Details of non-pharmacological approaches attempted
    Drug & dose given
    Details of response including any side effects noted
    For intramuscular doses, the details of any physical health monitoring undertaken (pulse, blood pressure, respiration, level of consciousness).

    A template within EMIS has been developed to support this. All use of as required psychotropic drugs should be recorded on this EMIS template.

17. Feedback on cumulative as required psychotropic use will be included in the discussion of each patient at each multi-disciplinary team meeting. This will facilitate appropriate review of the treatment plan.

Prescribing Management Group – Mental Health

March 2023

Approved by PMG (MH) January 2021
Review Date February 2024.

NHS
Greater Glasgow and Clyde

CLINICAL GUIDELINE

Problematic Drug Users In GGC, Acute Hospitals - Adult Inpatients (Management of)

A guideline is intended to assist healthcare professionals in the choice of disease-specific treatments.

Clinical judgement should be exercised on the applicability of any guideline, influenced by individual patient characteristics. Clinicians should be mindful of the potential for harmful polypharmacy and increased susceptibility to adverse drug reactions in patients with multiple morbidities or frailty.

If, after discussion with the patient or carer, there are good reasons for not following a guideline, it is good practice to record these and communicate them to others involved in the care of the patient.

Version Number:	6
Does this version include changes to clinical advice:	No
Date Approved:	13th November 2019
Date of Next Review:	1st November 2022
Lead Author:	Samantha Perry
Approval Group:	Medicines Utilisation Subcommittee of ADTC

Important Note:

The Intranet version of this document is the only version that is maintained.
Any printed copies should therefore be viewed as 'Uncontrolled' and as such, may not necessarily contain the latest updates and amendments.

Acute Services Division

GUIDELINES ON THE MANAGEMENT OF PROBLEMATIC DRUG USERS IN GLASGOW AND CLYDE ACUTE HOSPITALS

2019-2022

Ratified by: NHS Greater Glasgow & Clyde Drug and Therapeutics Committee

Approved November 2019
Review November 2022

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INTRODUCTION

These guidelines relate to the management of patients who have problematic drug use admitted to hospital principally for other reasons than primary drug use.

Opiates (heroin) and benzodiazepines are the substances most associated with problematic drug use in Greater Glasgow & Clyde (GGC) and therefore feature most prominently in this guidance. The diagnosis of serotonin syndrome related to New Psychoactive Substances (NPSs) is included on page 15 / **Appendix 9**. Primary problematic alcohol use is not covered by these guidelines, but in co-dependent users (heroin +/- benzodiazepines + alcohol) **Appendix 3** can be used to cover alcohol withdrawal. Patients admitted with problematic stimulant use should be discussed on an individual case basis with GGC Acute Addiction Liaison Nurses or Alcohol & Drug Recovery Services medical staff, contact details in **Appendix 1**. These Guidelines also advise on the management of individuals on Methadone, or Buprenorphine treatment who are admitted to Glasgow and Clyde acute hospitals.

These are intended as Guidelines only and cannot be comprehensive. Patients with complex needs and challenging behaviour should also be discussed on a case by case basis with appropriately experienced and trained staff. This guidance should be best used in conjunction with **Appendices 1-9** and the flow chart in **Appendix 6**.

PRINCIPLES OF MANAGEMENT

Admission to an acute hospital can be an ideal opportunity for engagement and retention in treatment for individuals who have problematic drug use. There is a current and increasing body of evidence that concurrent treatment of their substance use problems will increase compliance, retention and success of their other medical and surgical regimes.

Acute Addiction Liaison Nurses are available in all acute hospitals in Glasgow and Clyde, please contact them for advice.

THE PREGNANT PATIENT

The principles of medical practice are not different in this patient group. The immediate management of pregnant women is clearly described in each section. The different management issues in pregnancy are described on page 15. For longer term management additional specialist advice and support is also available from both Senior Addiction Specialists and Special Needs in Pregnancy Service (SNIPS) for GGC (see contact details at **Appendix 1**). This service is not available 24/7 so if specialist advice is not available, initial management should follow generic guidelines.

HISTORY, EXAMINATION AND INVESTIGATION

DEFINITION

Dependent users will most likely require medical interventions. In GGC, drug dependence is defined by the ICD-10 classification of mental and behavioral disorders where 3 or more of the following have been present together in the past year:

- A strong desire or sense of **compulsion** to take the substance
- **Loss of control** of substance-taking behaviour
- A characteristic **withdrawal syndrome** for the substance; or use of the same (or closely related) substance with the intention of relieving or avoiding withdrawal symptoms
- Evidence of **tolerance**, such that increased doses of the psychoactive substance are required in order to achieve effects originally produced by lower doses
- **Salience over** alternative pleasures or interests
- **Persisting drug use despite harmful consequences**

In addition to the usual medical history the following should be documented:

- Drugs used
- Frequency and amount used
- Route of use e.g. IV, smoked, ingested
- Whether usage is increasing/decreasing
- Recent use
- Previous use
- Previous or current treatment
- Tetanus immunisation status

Examination

- **Injection sites** (Frequent injectors will have multiple sites of different age and usage)
- **Evidence of withdrawal** (requires Subjective Opiate Withdrawal Scale (SOWS) to be undertaken see **Appendix 4**)

Investigations

- **Drug urinalysis (if available):** This does not replace full clinical assessment. Positive urinalysis indicates a drug has been taken but does not indicate when. Some of the new type drugs on the street, including novel benzodiazepines, cannot be tested for using standard urine tests
- **ECG**: Most patients will have a routine ECG, however this should be done for all patients prescribed methadone to assess for prolonged QT interval (http://www.ggcprescribing.org.uk/blog/mue-08-drug-induced-qt-prolongation)

  (The QT interval is corrected for heart rate by the QTc, in men the upper limit of normal is 0.44s and in women 0.46s)

  Prolongation of the QT interval can be associated with ventricular arrhythmias and death. Causes other than methadone should be considered and excluded eg genetic, adverse drug effects (anti-psychotics), endocrine and metabolic disturbances.

  If during admission QTc is prolonged on repeated ECG and all other reversible causes are excluded, a risk assessment of altering methadone dose or switching to buprenorphine should be discussed with Alcohol and Drug Recovery Service medical staff. Consideration should be given that the risk of relapse to heroin outweighs cardiac risk in most patients.

  For more information please refer to National Orange guidelines. Drug Misuse and Dependence: UK Guidelines on Clinical Management

- **Blood Borne Viruses**
  Especially, Hepatitis C & HIV

  Opportunistic screening for blood borne viruses should be offered at any healthcare contact. The HIV Failsafe team will ensure follow up; it is the duty of the testing clinician to inform the patient of the hepatitis screening results unless other systems are in place.

For treatment / support advice for staff the HIV Failsafe team can be contacted on – 0141 211 0097

TREATMENT OPTIONS

Heroin dependency can be treated with symptomatic relief as described in **Appendix 2** detoxification regimens or maintenance programmes. Detoxification is usually only suitable for highly motivated individuals with a short history of dependence and reasonably well preserved health and social functioning. A strong body of evidence now supports the view that most opiate dependent individuals require maintenance treatment with psychosocial support using methadone or buprenorphine.

Patients on a Methadone or Buprenorphine substitute prescription

Patients may take 24-36 hours to develop symptoms and signs of withdrawal, so may not need a dose within the first hours of admission unless they are pregnant see Page 15.

Telephone their care manager to inform them of admission and community dispenser to inform them of patient's hospitalisation, to confirm dosage and when last consumed. If all is confirmed and their assessment is satisfactory then continue their present dose, if not, contact acute addiction liaison for advice.

Do not feel pressurised to prescribe. Only prescribe when assessment (Appendix 4), examination and investigations have been completed and indicate that prescription is appropriate.

Enhanced Drug Treatment Service (EDTS)

These patients will be receiving injectable diamorphine treatment and opiate replacement therapy (ORT) in the form of methadone. These are prescribed and dispensed in the EDTS premises. **DIAMORPHINE BY INJECTION FOR THE TREATMENT OF ADDICTION MAY ONLY BE PRESCRIBED BY DOCTORS HOLDING A SPECIALIST LICENCE AND ONLY ADMINISTERED WITHIN EDTS PREMISES. DIAMORPHINE TREATMENT MUST NOT, UNDER ANY CIRCUMSTANCES, BE CONTINUED WHILST A PATIENT IS IN HOSPITAL.**

EDTS is open 9am-5pm seven days including public holidays – Tel: 0141 533 2835 or 0141 553 2876

Outwith this time patients should be treated in line with the principles detailed in this guideline. See **Appendix 6**

.

Length of stay in Hospital

1. Short stay (<7days)

- if on a methadone or buprenorphine prescription in the community check last date and dose with the community dispenser before continuing (Appendix 6). If not on methadone or buprenorphine refer to **Appendix 2** for crisis management
- if a poly drug user not on treatment presents in withdrawal and requires overnight admission, a crisis management regimen (see **Appendix 2** and **Appendix 3**) may be appropriate. Refer to acute addiction liaison nurses to arrange longer term assessment and treatment
- if pregnant see relevant section on Page 16

2. Longer stay (>7days)

- if on a prescription check last date and dose with the community dispenser before continuing (Appendix 6), if not, care planning and management is possible. Please discuss the patient with Acute Addiction Liaison Nurses or appropriate Senior Alcohol & Drug Recovery Service Medical Officer if liaison nurses are not available. (**Appendix 1**).
- if someone has a condition requiring admission for weeks or longer then stabilisation with methadone may be indicated.

Do not initiate Methadone or Buprenorphine treatment without advice from specialist addiction services and without arranging continuation of treatment on discharge.

In pregnancy there should be a low threshold to initiate Methadone or Buprenorphine.

CAUTION - Methadone

Methadone has a long half-life (range from 14 to 72 hours - mean about 24).

It may be lethal in overdose or when given to patients who have lost their tolerance to opioids, or opioid naive patients.

Extra caution should be exercised when re-introducing Methadone/ Buprenorphine following a period of abstinence. e.g post intubation following an ITU admission

For the management of patients on Methadone / Buprenorphine please refer to **Appendix 5** and **Appendix 6**

Please consult Acute Addiction Liaison Nurses or SNIPs GGC if the patient is pregnant. Please refer to **Appendix 1**

MISSED DOSES

If a patient has missed up to 3 days (72hrs) of methadone but has continued to use heroin or other opiates loss of opiate tolerance is unlikely and may not require a reduction in their prescribed methadone dose (see **Appendix 6**)

However, if a patient has been physically unwell and completely abstinent a more cautious approach may be required. Contact acute addiction liaison service (see **Appendix 1**).

CAUTIONS

Exercise extra caution when prescribing Methadone or Benzodiazepines in:

- Respiratory disease
- Head injury – in head injury the Glasgow Coma Scale is not sensitive enough to assess opioid intoxication
- Liver disease/ Hepatitis
- Co-existent alcohol dependence
- Overdose/ decreased tolerance
- If receiving opiate analgesia or other sedating medications
- Patients with severe pain (in this group titrated IV/subcutaneous morphine is the regimen of choice, avoid **pethidine**)
- Interactions with other prescribed drugs, check if it will alter the effects of methadone or benzodiazepines eg rifampicin used in the treatment of tuberculosis reduces methadone plasma concentration by 30-65%
- Pregnancy; unless indicated for emergency treatment of seizure activity please refer to pregnancy section page 16
- Methadone Dose in Renal Impairment
  Glomerular Filtration Rate (GFR)
  ≥10 ml/minute/1.73m² no change
  <10 ml/ minute/1.73m² reduce by 50% and titrate according to response

If oral doses of methadone or benzodiazepines cannot be given, reduced intravenous doses of benzodiazepines or subcutaneous methadone may be given. Typically dose conversion from oral to subcutaneous methadone is half, which can be given as 2 separate doses, 12 hours apart. The patient should be monitored closely and the dose adjusted accordingly.

When returning to oral methadone recommence original oral dose if there is no risk of overdose.

Advice must be sought from addiction specialists on an individual patient basis for conversion.

If methadone has not been consumed and the patient has been completely abstinent for more than 48 hours see **Appendix 6** and contact acute addiction liaison nurse service for advice.

In pregnancy, there are increased risks associated with opiate withdrawals. Urgent advice must be sought from local senior alcohol & drug recovery service medical staff and maternity specialists (SNIPS). See **Appendix 1** for contact details

Buprenorphine

Buprenorphine is a partial agonist, and will act as an antagonist in the presence of a competing agonist such as strong oral opiates or diamorphine. This will result in precipitated withdrawal or opiate blockade. It also means Buprenorphine is safer in overdose and may be less sedating than methadone.

Care must always be taken when titrating or re-titrating Buprenorphine see **Appendix 5**. Care must be taken with missed doses of >48 hours plus see **Appendix 6**, contact acute addiction liaison nurse services for advice.

Buprenorphine is restricted to initiation by alcohol & drug recovery services or GPs who have received appropriate training and authorisation from addiction services for those patients for whom methadone is not suitable and for whom the use of Buprenorphine is considered appropriate.

PATIENTS LIKELY TO SUFFER BENZODIAZEPINE / HYPNOTIC WITHDRAWAL

These guidelines give pragmatic guidance for the hospital management of problematic benzodiazepine use and dependency.

Benzodiazepine withdrawal can cause potentially life threatening seizures.

Other symptoms of acute benzodiazepine withdrawal:

anxiety; tremor; insomnia; nausea and vomiting

Street bought benzodiazepines are of varying strength and patients should be treated based on symptoms.

Small doses of diazepam (5-10mg) should be prescribed in the “once only” section of the prescription kardex and patients re-assessed at regular intervals. If they are not drowsy or intoxicated then this may be repeated 6 hourly. Seek advice from acute addiction liaison nurse service.

ALL THESE MEDICATIONS SHOULD BE DISPENSED UNDER SUPERVISION

Patients not on a substitute prescription contact acute addiction liaison nurses

Decide whether short stay (crisis management) or longer stay (care planning) is required.

Complete assessment (history, examination and investigation) and exclude other illnesses, which may cause symptoms similar to opiate withdrawal.

Always seek advice in pregnancy and breast feeding from local senior alcohol & drug recovery services medical staff and maternity specialists **the Special Needs in Pregnancy Service (SNIPS) in Glasgow and Clyde as appropriate. See Appendix 1.**

If patients develop objective signs of withdrawal (**Appendix 4**), begin treatment to alleviate the withdrawals in line with **Appendix 2**.

Remember symptoms of opiate withdrawal may be subjectively severe but objectively mild.

If stabilisation with methadone or buprenorphine is appropriate then contact the acute addiction liaison nurse service who can give further advice and assistance, and facilitate arrangements with GPs, local Community Alcohol and Drug Recovery Services (**Appendix 1**), and through care planning. Treatment options at this point would be to proceed to emergency treatment of acute withdrawal if maintenance will not be possible, but this should be a last resort. See **Appendix 2** and **Appendix 3**.

Buprenorphine should only be initiated by an addictions specialist.

Problematic Use of Drugs and Alcohol

Primary problematic alcohol use is not covered by these guidelines, please refer to the Glasgow Modified Alcohol Withdrawal Scale (GMAWS) and contact acute addiction liaison nurse services for further advice. (**Appendix 1**)

Patients on weekend pass / short periods up to 3 days

On occasions where a patient on a substitute prescribing programme is discharged from hospital for a short period, for example, on weekend pass, it is the responsibility of the **discharging hospital** to continue Methadone / Buprenorphine prescribing during this period, and also advise the community prescriber / dispenser of this arrangement. The patient should be advised prior to leaving hospital to return to the ward for daily dispensing of their substitute prescription.

Do not give a supply of Methadone / Buprenorphine home

Prior to the patient leaving the ward the community team and dispenser must be made aware of this arrangement.

PATIENT DISCHARGE PROCEDURE

No patient on a Methadone or Buprenorphine prescription should be discharged without arrangements being made for continuity of their substitute prescription. This is particularly important for weekend discharges. If the acute addiction liaison nurses are involved they may be able to make appropriate arrangements.

Inform community dispenser of last dose of Methadone / Buprenorphine providing time and date given in hospital. Prior to discharge phone GP or Community Alcohol and Drug Recovery Service prescriber to inform of discharge and dosage of Methadone / Buprenorphine prescribed. Ensure IDL is completed and authorised.

Do not give a supply of Methadone / Buprenorphine home

If a patient requires to be discharged on opiate analgesia, the dose should be the lowest effective dosage as per WHO pain guidelines. Remember their GP can facilitate daily pick up of their analgesia with their Methadone / Buprenorphine prescription.

HARM REDUCTION

Offer advice on harm reduction including:

- Overdose awareness
- Avoiding sharing needles, spoons, filters or other injecting paraphernalia
- Safe sex

Contact details are available from Community Alcohol and Drug Recovery Services for all Injecting Equipment Providers in GGC. See **Appendix 1**

TAKE HOME NALOXONE (PRENOXAD)

Opiates such as heroin and methadone are most commonly implicated in drug related deaths, especially when taken in combination with other central nervous system depressants such as alcohol and benzodiazepines. The Take Home Naloxone programme within NHS GGC allows individuals at risk of opiate overdose to access Overdose Awareness Training and be issued with a supply of Take Home Naloxone. An individual does not need to be in structured treatment to be able to access Take Home Naloxone. Up to date guidelines can be found in the Clinical Guideline Repository on Staffnet by searching for Naloxone.

Training and supply can be accessed by:

- Referral to the acute addiction liaison nurses whilst in hospital (see **Appendix 1** for contact details)

- Self referral via any Drug Service (**Appendix 1**) or Community Alcohol and Drug Recovery Service (**Appendix 10**).

- The Glasgow Drug Crisis Centre, 123 West St, Glasgow, G5 8BA. Telephone 0141 420 6969.

Patients who are considered to be at risk of overdose should be offered naloxone training by the acute addiction liaison nurses whilst in hospital and a supply of “take home” naloxone dispensed by the ward on discharge. Contact details and further information is shown in **Appendices 1 and 10**.

PROBLEMATIC DRUG USE IN PREGNANCY

Drug use in pregnancy results in a high risk pregnancy and management should be multidisciplinary, with particular importance placed on communication between all professionals involved.

In Greater Glasgow and Clyde it is recommended that all drug using pregnant women, including those on substitute prescribed medication are referred to the Special Needs in Pregnancy Service (SNIPs) as the best way to ensure that they receive the appropriate maternity care during and following their pregnancy.

For pregnant women, ORT has additional complexities and all cases should be discussed with Senior Alcohol & Drug Recovery Service Medical Staff.

There is evidence to suggest that maternal withdrawal, even mild, is associated with foetal stress, foetal distress and even stillbirth, particularly in the third trimester. Abrupt withdrawal of opiates is best avoided as it carries a risk of miscarriage, foetal distress and premature labour.

Benzodiazepines should not be prescribed to pregnant women unless indicated as emergency treatment however long term benzodiazepine prescriptions should not be abruptly stopped. Benzodiazepines should be rationalised and converted to diazepam and reduced. Patients at high risk of benzodiazepine withdrawals due to illicit use should be referred to acute addiction liaison nurse service, **Appendix 1**.

NEW PSYCHOACTIVE SUBSTANCES

For the diagnosis and management of serotonin toxicity, see **Appendix 9**

New psychoactive substances (NPS) represent a diverse group of drugs that can be classified according to their pharmacological activity. There have been nearly 500 different compounds identified, however only a handful are found to be in circulation. Such drugs may or may not be detected by urine toxicology screens, and the utilisation of such testing will neither confirm nor exclude their use. The mainstay of treatment is supportive, with the use of sedation in agitated individuals, and monitoring of blood glucose.

Synthetic Cannabinoids

These represent the most diverse class of compounds, and are the most commonly consumed products, predominantly by smoking. They are sold in foil packets with names such as “exodus damnation,” “sweet leaf obliteration,” and “annihilation.” They act as full agonists on the endogenous cannabinoid receptors in the brain.
Clinical features associated with their use are nausea, vomiting, and induced dissociative state. Case reports in the literature have identified acute ischaemic stroke, and acute kidney injury following daily consumption. The synthetic cannabinoids appear to be a significant trigger in the development of acute mental health presentations.

Novel Benzodiazepines

There has been an increase in the number of potent novel benzodiazepines on the market, many of which have not undergone formal pharmacological testing. They may or may not be identified on urine toxicological testing. These benzodiazepines may be used in significant quantities along with other street drugs; withdrawal may lead to seizures or fits. Patients may also use them to ‘self-medicate’ when consuming stimulants.

Synthetic Cathinones

These chemicals represent the synthetic analogues of the natural stimulant cathinone found in the Khat plant. They act as stimulants similar to amphetamines, but have varying activities on neurotransmitters, with some more potent at inducing serotonin toxicity.

Stimulants

Most stimulants are sold as alternatives to cocaine or amphetamines. They predominantly act on dopamine and noradrenaline transport system within the CNS.

Hallucinogens

Sold on blotters like LSD, these compounds have a prolonged duration of action, with much greater potency. Unlike LSD, they may have intensive vasoconstrictive properties, and case reports have identified acute digital ischaemia with their use.

Cocaine

Cocaine is a stimulant, it increases levels of several neurotransmitters and exerts sodium and potassium blocking effects. As a result multiple body systems are affected and intoxication may present in a multitude of ways.

Please refer to guidelines at www.toxbase.org for the detailed management of cocaine toxicity.

For the diagnosis and management of serotonin toxicity see **Appendix 9**.

MANAGEMENT OF PAIN IN PATIENTS ON SUBSTITUTE PRESCRIPTIONS METHADONE & BUPRENORPHINE

DO NOT WITHOLD ANALGESIA IF PATIENTS ARE IN PAIN

Introduction

- Patients on Methadone / Buprenorphine expect that their pain will be badly managed and are frequently anxious about the possibility of drug withdrawals
- This Guideline is to be used where non opiate analgesics have failed or are inappropriate, as per WHO Pain Ladder **Appendix 7**
- There is no direct conversion between methadone and morphine
- Methadone is a very poor analgesic and should not be relied upon in this patient group
- Buprenorphine should not be used as analgesia in patients taking full agonists, such as codeine or morphine based drugs
- Consider alternatives eg paracetamol, nerve blocks or splints

Anticipated Pain (Elective)

METHADONE

- Where a patient on methadone is to undergo a procedure resulting in moderate to severe pain, they should continue on their normal dose until the day of surgery
- Whether patients should take their normal dose of methadone on day of the procedure will be dependent on the timing of surgery and ultimately decided by the anaesthetist
- They will require 10-20mg of morphine 4-6 hourly thereafter, IV preferably. Morphine requirement should be re-titrated to pain.
- Patients should recommence methadone on their current dose if this can be achieved in less than 48hrs, if this is not possible contact acute addiction liaison nurse service. Outwith the hours of 9am-5pm Monday-Friday please refer to **Appendix 6**.

Buprenorphine

These guidelines are considered optimal, however each case should be considered on an individual basis with the responsible anaesthetic team.

- Where the patient is on Buprenorphine, they will need to stop their tablets **24 hours before surgery**
- This is because it is a partial agonist, and as such, can act as an antagonist in the presence of a competing agonist such as diamorphine, resulting in precipitated withdrawal or opiate blockade
- Following the procedure, they will require 10-20mg of morphine 4-6 hourly IV preferably
- A gap of 12-16 hours after the last dose of morphine is recommended before restarting Buprenorphine to prevent precipitated withdrawal
- Restart Buprenorphine as per **Appendix 5**
- Seek specialist advice from acute addiction liaison nurse service

Discharge Arrangements

- Contact patient's GP / local prescribing team and pharmacist prior to discharge to ensure continuation of prescription, or acute addiction liaison nurse service (see **Appendix 1)**
- If patient requires to be discharged on opiate analgesia, the dose should be the lowest effective dosage as per WHO pain guidelines. Remember their GP can facilitate daily pick up of their analgesia with their Methadone / Buprenorphine prescription

Unanticipated Pain (EMERGENCY)

Methadone

- If on methadone, there is no direct conversion to morphine. Give 10-20mg morphine 4-6 hourly, preferably IV
- If in ITU and ventilated, the propofol and morphine should be adequate without the immediate reintroduction of methadone
- If a patient is on pain control analgesia (PCA) or regular IV morphine seek advice from Acute Addiction Liaison Nurses or Alcohol & Drug Recovery Services Medical staff as to dose of methadone to be prescribed **Appendix 1**
- To restart methadone, start at 20mg and increase dose of methadone as dose of morphine decreases. On day 1, patient can have further 10mg methadone if required to stop withdrawal. Dose would then be titrated in the usual way, as per guidelines **Appendix 5**

Buprenorphine

- If on Buprenorphine, no further doses should be given following admission
- Patients should receive 20-40mg morphine 4-6 hourly IV preferably
- Monitor for signs of Acute Withdrawal using SOWS rating scale **Appendix 4**
- Over next 72 hours, reduce to 10-20mg morphine
- Continue to observe for signs of withdrawal but do not confuse with signs of inadequate pain relief
- To restart, no opiates for 12-16 hours and re-titrate as per Prescribing Guidelines **Appendix 5**

Discharge Arrangements

- Contact patient's GP / local prescribing team and pharmacy prior to discharge to ensure continuation of prescription, or acute addiction liaison nurses see **Appendix 1**

- If patient requires to be discharged on opiate analgesia, the dose should be the lowest effective dosage as per WHO pain guidelines. Remember their GP can facilitate daily pick up of their analgesia with their Methadone / Buprenorphine prescription

Summary **Appendix 8**

- Patients who continue to show objective signs of acute pain, such as sweating, dilated pupils and rapid respiratory rate, may require higher doses of opiate analgesia than those mentioned above

- However, this should not be confused with "Hyperanalgesic Syndrome", where pain is increased following opiate administration. A patient, who has increased pain as a result of tolerance, would be expected to improve with further opiate administration

- Patients with problematic drug use have frequent episodes of intoxication / withdrawal which may alter the intensity of their pain experience

- When suitable and safe, non opiate analgesics should be used

Contacts

Useful phone numbers and contacts see **Appendix 1**

APPENDIX 1

Useful Phone Numbers & Contacts During Working Hours

ACUTE ADDICTION LIAISON NURSE SERVICES

Glasgow	Queen Elizabeth University Hospital / Gartnavel General Hospital / Glasgow Royal Infirmary / Stobhill Hospital Victoria Hospital / Vale of Leven	0141 211 0231 0141 211 0238
Renfrewshire	Royal Alexandra Hospital	0141 314 4472
Inverclyde	Inverclyde Royal Hospital	01475 715 353

GGC ALCOHOL & DRUG RECOVERY SERVICES SENIOR MEDICAL STAFF / CONSULTANT PSYCHIATRIST

Glasgow - Main switchboard – 0141 303 8971

Leven - Main switchboard – 01389 812 018

Renfrewshire - Main switchboard – 0300 300 1199

Inverclyde - Main switchboard – 01475 715 353

GLASGOW SPECIAL NEEDS IN PREGNANCY SERVICE (SNIPS)

Specialist obstetric addictions advice is not available 24/7. In the absence of specialist advice pregnant women using alcohol or other drugs should be managed according to general guideline and specialist advice sought at the earliest opportunity.

Dr Ellis – 0141 211 5132 or page – 2255 via main switchboard – 0141 211 5400

A SNIPS midwife is on duty 8.30am – 4.00pm 7 days / week and can be contacted by leaving a message on answer phone in the SNIPS midwifery office, checked twice daily:

SNIPS midwifery office – 0141 211 5366

NB – In addition, advice on obstetric management should always be sought from the unit where the woman is booked or closest obstetric unit as appropriate

CLYDE SPECIAL NEEDS IN PREGNANCY SERVICE (SNIPS)

Royal Alexandra Hospital – 0141 314 6199
Inverclyde Royal Hospital – 01475 504 833
Vale of Leven Hospital – 01389 817 270

GGC ADDICTION PHARMACY SERVICES

Main switchboard - 0141 303 8971

FAMILY SUPPORT SERVICE

Scottish Families Affected by Alcohol & Drugs – 08080 10 10 11 - www.sfad.org.uk

FOR OUT OF HOURS

Please contact The Drug Crisis Centre, 123 West St, Glasgow, G5 8BA. Telephone 0141 420 6969.

APPENDIX 2

Suggested emergency management of withdrawal symptoms, as per the Subjective Opioid Withdrawal Scale (SOWS) (Appendix 4) for those patients:

- Awaiting further assessment

- Awaiting confirmation of patients Methadone / Buprenorphine dose

- Short term admissions for whom no through care is possible

- Dihydrocodeine to be prescribed in doses of up to 60mgs four times daily
- This dose can be reduced or maintained during short admissions depending on the clinical condition of the patient.
- **Do not supply on discharge**

If required, incremental reductions can be daily or every other day.

Note: *Although this is established practice supported by some evidence base, this is an unlicensed use of dihydrocodeine. Liquid preparations are the preferred formulation to enable supervised administration*.

For further advice contact acute addiction liaison nurse service (**Appendix 1**)

APPENDIX 3

Suggested detoxification or maintenance regimen for short term admissions for a problematic benzodiazepine use and seizures. Please discuss with acute addiction liaison nurses.

It is recognised that the doses of diazepam used in treating these patients is well in excess of those normally prescribed.

Oral Diazepam could be prescribed as follows:

20mg three times daily for 3 days	(Days 1-3)
15mg three times daily for 3 days	(Days 4-6)
10mg three times daily for 3 days	(Days 7-9)
5mg three times daily for 3 days	(Days 10-12)
5mg twice daily for 3 days	(Days 13-15)
5mg once daily for 3 days	(Days 16-18)

Diazepam detoxes should be agreed on an individual basis according to level of use and length of hospitalisation and discussed with **acute addiction liaison nurses**.

If required, incremental reductions can be daily or every other day.

Notes

1. For those abusing opiates plus benzodiazepines and / or alcohol, for whom no through care is possible, a combination of **Appendix 2** and **Appendix 3** can be prescribed, please also refer to the Glasgow Modified Alcohol Withdrawal Scale (GMAWS)

   It is recognized that the doses of diazepam for this patient group are well above those normally prescribed and patients should have their physical observations closely monitored

2. If the patient presents with signs of sedation or intoxication, the dose can be withheld until clinical condition is satisfactory. Then proceed with a reduced dosage

3. Do not assume if a patient becomes unusually drowsy they have had illicit drugs. There may be an underlying medical reason that requires further investigation and patient should be closely monitored

4. On discharge continuation of a hospital initiated benzodiazepine prescription is **not** recommended

APPENDIX 4

Assessment of Opiate Withdrawal – Subjective Opioid Withdrawal Scale (SOWS)

Observe the patient and score accordingly. A score of more than 5 is strongly suggestive of opiate withdrawal in a dependent patient.

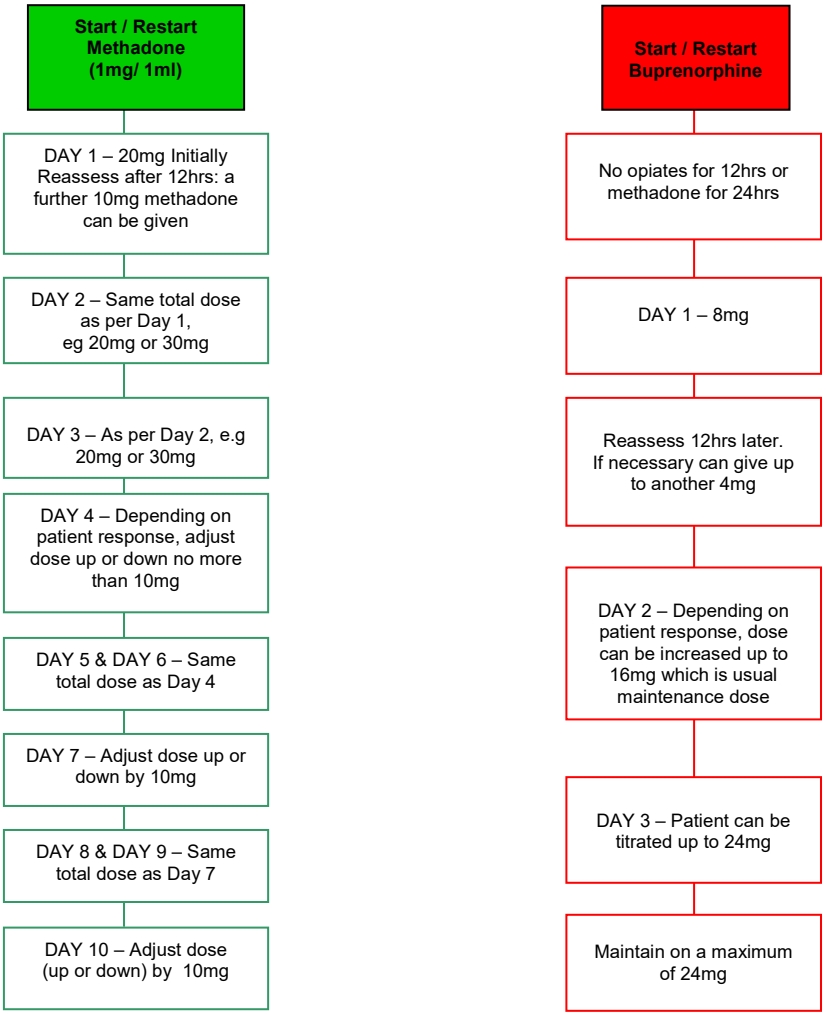
	2	1	0
Pupil size	**Wide**	**Normal**	**Pin point**
Palms	**Wet**	**Moist**	**Dry**
Skin	**Goosed**	**Cold**	**Warm**
Nasal	**Running**	**Sniffing**	**Dry**
Agitation	**Can't sit**	**Agitated**	**Calm**
GIT	**Vomiting**	**Nausea**	**Normal**
Pulse	**>100**	**80-100**	**<80**
TOTAL			

APPENDIX 5

Flow Chart for Titration / Re-titration of Methadone / Buprenorphine

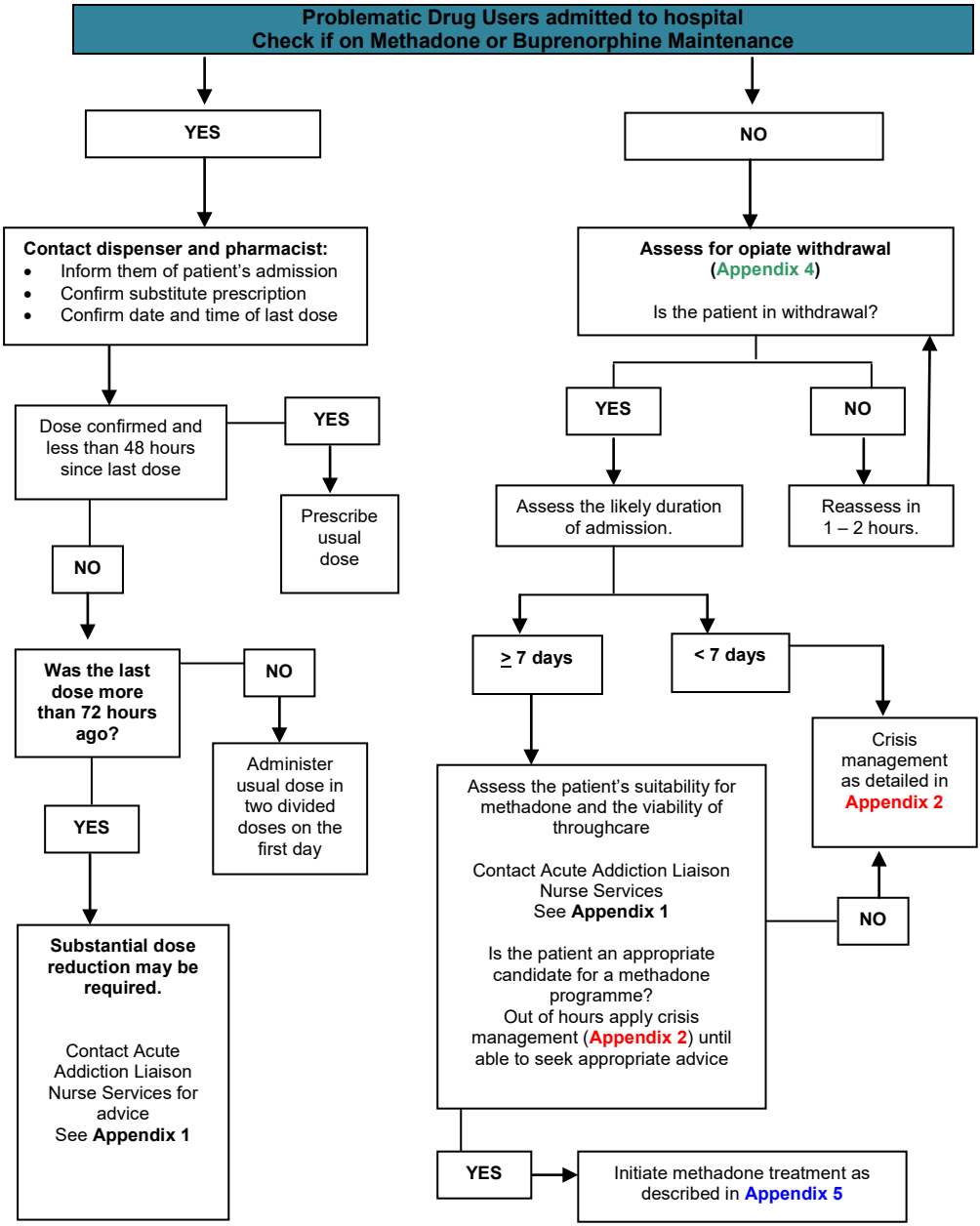
Initiating substitute prescriptions

Do not initiate substitute prescription treatment without advice from Acute Addiction Liaison Nurses and / or GGC Addictions Senior Medical Staff (appendix 1) and without arranging continuation of treatment on discharge with Glasgow Alcohol and Drug Recovery Services or Clyde Community Drug Services

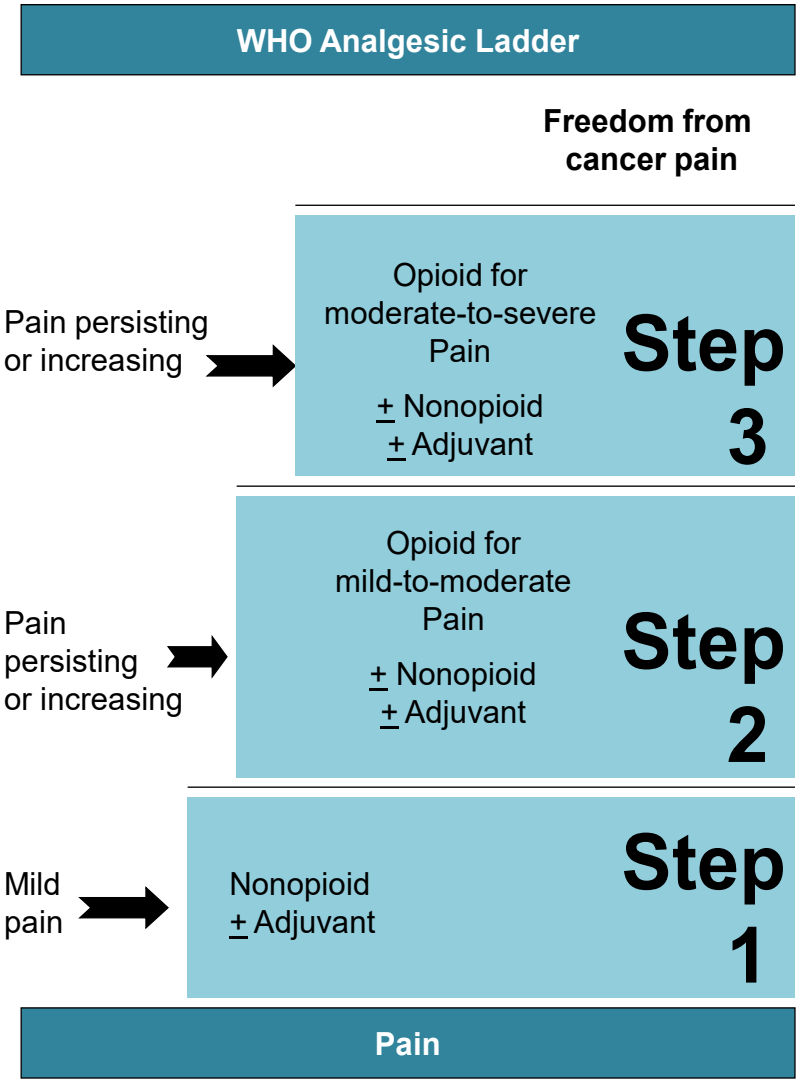


APPENDIX 6

Flow Chart for use with Hospital Guidelines on the Management of Problematic Opiate users in Hospital



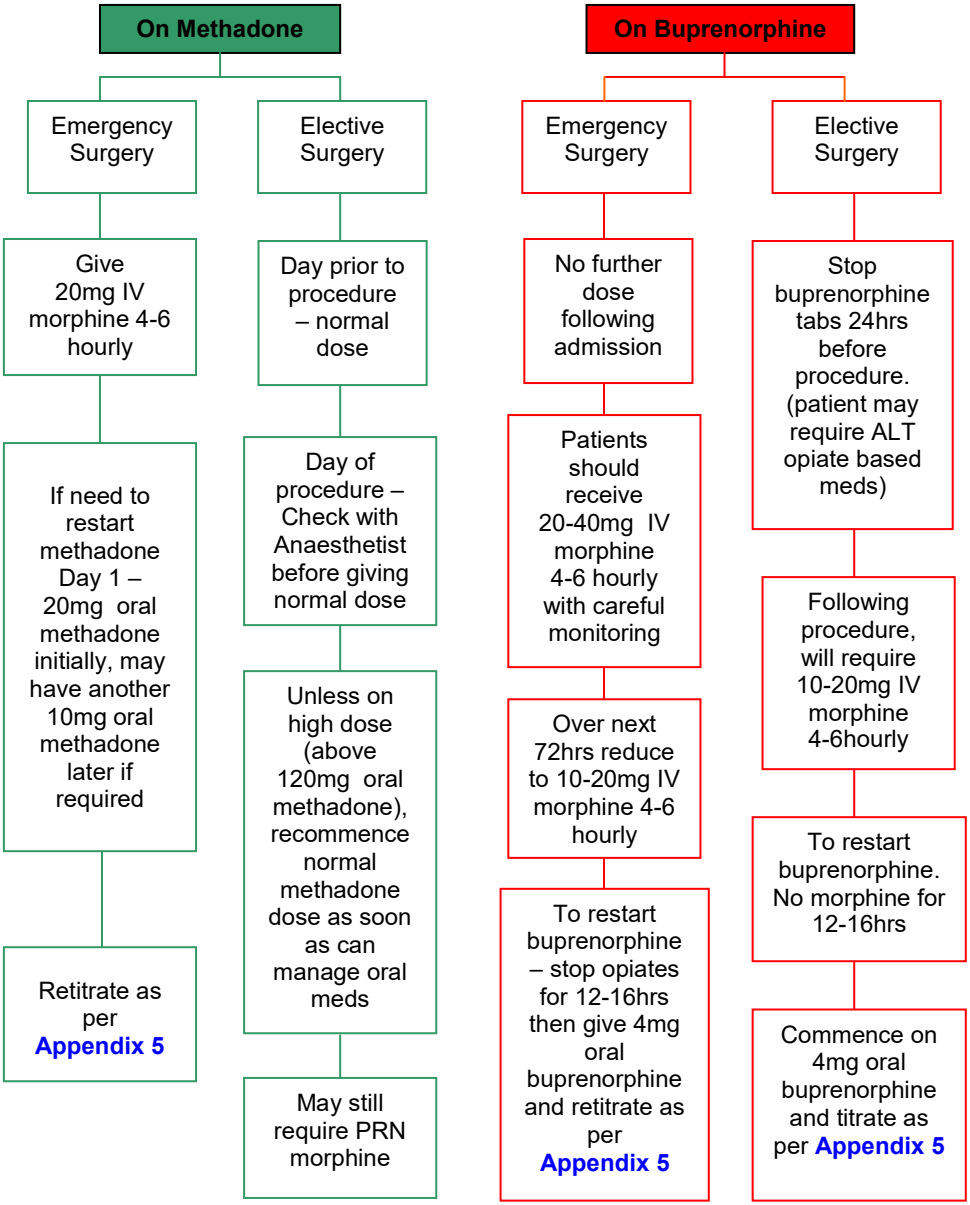
APPENDIX 7



Adapted from: World Health Organisation. *Cancer pain relief and palliative care*. Geneva: WHO; 1996. Used with permission

APPENDIX 8

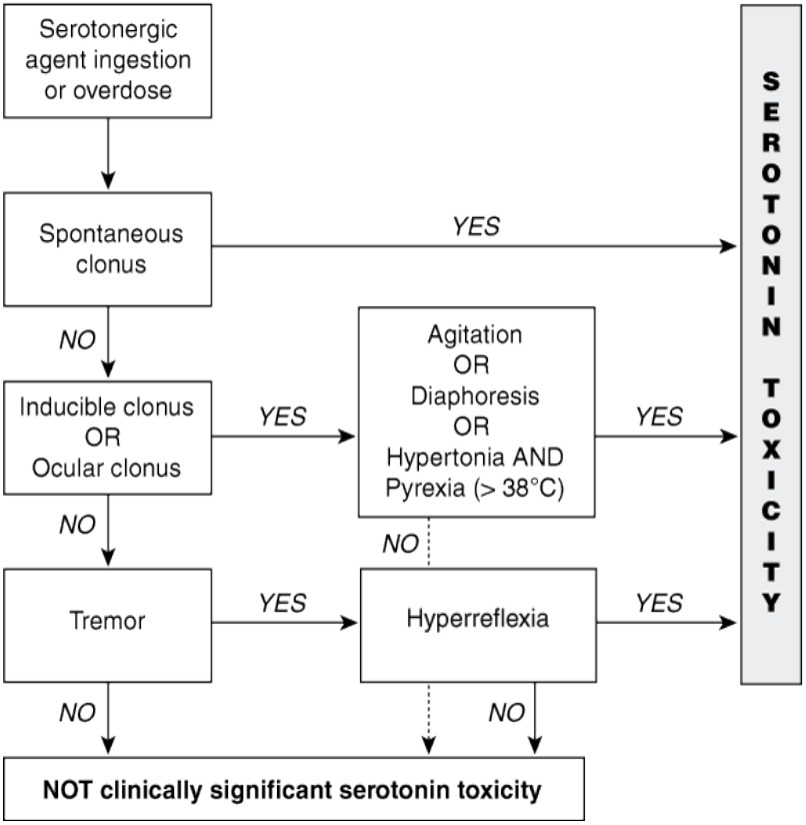
Patients admitted on Substitute Prescription who require Opiate Pain Relief



APPENDIX 9

Diagnosis of Serotonin Toxicity

www.toxbase.org



For guidance on the treatment of serotonin toxicity, click on link below for Clinical Guidelines Repository on StaffNet and search 'serotonin toxicity recognition'
http://www.staffnet.ggc.scot.nhs.uk/Info%20Centre/PoliciesProcedures/GGCClinicalGuidelines/Pages/home_page.aspx

APPENDIX 10

For further information / advice on Naloxone please contact the relevant team listed below.

For Out of Hours please contact The Drug Crisis Centre, 123 West St, Glasgow, G5 8BA. Telephone 0141 420 6969

Community Alcohol & Drug Recovery Services

East	**Newlands Centre, 871 Springfield Rd, G31 4HZ**	**0141 565 0200**
North East	**1250 Westerhouse Rd, G34 9EA**	**0141 276 3420**
South	**Gorbals Health & Care Centre, 2 Sandiefield Rd, G5 9AB**	**0141 420 8100**
South East	**10 Ardencraig Place, G45 9US**	**0141 276 5040**
South West	**Pavilion One, Rowanpark Business Centre, 5 Ardlaw Street, G51 3RX**	**0141 276 8740**
Pollok	**130 Langton Rd, G53 5DP**	**0141 276 3010**
North West (Possilpark)	**Possilpark Health & Care Centre, 99 Saracen St, G22 5AP**	**0141 800 0670**
North West (Drumchapel)	**7-19 Hecla Square, G15 8NH**	**0141 276 4330**
North West	**Woodside Health & Care Centre, 891 Garscube Rd, G20 7LR**	**0141 276 4580**
Homeless Health Service (Glasgow)	**55 Hunter Street, G4 0UP**	**0141 553 2801 0141 553 2807**
Enhanced Drug Treatment Service	**55 Hunter St, G4 0UP**	**0141 533 2835 0141 553 2876**
East Renfrewshire	**St Andrews House, 113 Cross Arthurlie St, G78 1EE**	**0141 577 3368**
East Dumbarton	**Kirkintilloch Health & Care Centre, Saramago St, G66 3BF**	**0141 232 8211**
Leven	**Dumbarton Joint Hospital, Cardross Rd, G82 5JA**	**01389 812 018**
West Dumbarton	**120 Dumbarton Road, G81 1UG**	**0141 562 2311**
Inverclyde	**Wellpark Centre, 30 Regent St, Greenock, PA15 4PB**	**01475 715 353**
Renfrewshire	**Renfrewshire Drug Service 20 Back Sneddon St, Paisley, PA3 2DJ**	**0141 618 2585**

For further information on the take home naloxone programme within NHS GG&C please contact: GGC Addiction Pharmacy Service on: 0141 303 8971

APPENDIX 11

Acknowledgements & Contributors

In memory of George Benson who sadly passed away July 2019. George was a valued member of the group and a key contributor to these Guidelines. For many years he was integral in driving forward developments across acute and community services to improve the treatment and care of people with addictions.
R.I.P. George

This guideline was reviewed and updated by the Acute Problem Drug Use Group

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These guidelines were originally produced by the GDPS, and were updated by Glasgow Addiction Services in February 2009 in consultation with the Acute Services Directorate, and the Acute Addiction Action Plan Drug Misuse and Withdrawal Sub Group; they may not be altered, or reproduced without permission.

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Procedure for Ordering and Reconciling PGDs

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PMG-MH

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CLINICAL GUIDELINE

Psychotropic Medicines: Reviewing with Care Home Residents

A guideline is intended to assist healthcare professionals in the choice of disease-specific treatments.

Clinical judgement should be exercised on the applicability of any guideline, influenced by individual patient characteristics. Clinicians should be mindful of the potential for harmful polypharmacy and increased susceptibility to adverse drug reactions in patients with multiple morbidities or frailty.

If, after discussion with the patient or carer, there are good reasons for not following a guideline, it is good practice to record these and communicate them to others involved in the care of the patient.

Version Number:	2
Does this version include changes to clinical advice:	Yes
Date Approved:	20th August 2020
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Lead Author:	Chris F Johnson
Approval Group:	Primary Care Prescribing Management Group

Important Note:

The Intranet version of this document is the only version that is maintained.
Any printed copies should therefore be viewed as 'Uncontrolled' and as such, may not necessarily contain the latest updates and amendments.

This guidance contains information related to reviewing: **Page**

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2. Antidepressants 3
3. Antipsychotics: link to Antipsychotic Prescribing in Dementia
4. Benzodiazepines and z-hypnotic long-term use (>4 weeks) 6
5. Cognitive enhancers 9
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Introduction

As is well known psychotropic medicines are effective for treating and managing a variety of diseases and conditions. However, they are also associated with a variety of avoidable drug related harms: cognitive impairment; increased falls risks with associated hip fracture; stroke and death.

Therefore this guidance is intended as a resource to assist medical and non-medical healthcare professionals' decision making process when reviewing psychotropic medicines with Care Home residents, and where appropriate carers and welfare proxies e.g. those with power of attorney regarding health related issues.

As with other areas of healthcare, effective medication review relies on the collaborative efforts of the broader healthcare team, residents, carers and welfare proxies. It does not rely on, or expect one healthcare discipline to undertake and implement medication reviews and changes without the collaborative support of the broader healthcare team, residents, carers and welfare proxies. An inclusive collaborative approach to medication review is more effective at minimising the use of inappropriate psychotropic medicines.

References:

- SIGN Guidelines www.sign.ac.uk
- NICE Guidelines www.nice.org.uk
- Scottish Government Model of Care Polypharmacy Working Group. Polypharmacy Guidance (2nd edition). March 2015. Scottish Government.
- Banerjee S. The use of antipsychotic medication for people with dementia: Time for action. 2009:1-65.
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- Billioti de Gage S, Moride Y, Ducruet T, et al. Benzodiazepine use and risk of Alzheimer's disease: case-control study. BMJ 2014;349:g5205.

Managing Symptoms of Stress and Distress in Dementia: Issues to Consider. Quick Reference Guide.

Useful references and resources

- Delirium diagnosis, Risk Reduction, and Management in Acute Services 2018 http://www.staffnet.ggc.scot.nhs.uk/Info%20Centre/PoliciesProcedures/GGCClinicalGuidelines/GGC%20Clinical%20Guidelines%20Electronic%20Resource%20Direct/Delirium%20Diagnosis,%20Risk%20Reduction,%20and%20Management%20in%20Acute%20Services.pdf

- Scottish Government Polypharmacy Model of Care Group. Polypharmacy Guidance, Realistic Prescribing 3rd Edition, 2018. Scottish Government https://www.therapeutics.scot.nhs.uk/wp-content/uploads/2018/04/Polypharmacy-Guidance-2018.pdf

- The Abbey Pain Scale: For measurement of pain in patients who cannot verbalise http://www.wales.nhs.uk/sitesplus/documents/862/FOI-286f-13.pdf

- Meeting needs and reducing stress. Guidance on the prevention and management of clinically related challenging behaviour in NHS settings. http://www.reducingdistress.co.uk/reducingdistress/

- Managing Behaviour and Psychological Problems in Patients with Diagnosed or Suspected Dementia, in Primary and Secondary Care. NHS Nottinghamshire Area Prescribing Committee. Nov 2018 https://www.nottsapc.nhs.uk/media/1069/bpsd-november-2018.pdf

Acknowledgements
With thanks to Shona Mackie and Ann Haugh, NHS Forth Valley, who developed the flowchart, and NHS Lanarkshire for allowing the use of an amended version of Managing Symptoms of Stress and Distress in Dementia guidance.

Psychotropic medicines: NHSGGC Guidance for reviewing psychotropic medicines with Care Home residents

This guide has been designed to be used by all staff to assist in the management of symptoms of stress and distress in dementia and to eliminate possible causes for changes in emotions, behaviour and functioning. It should be referred to in the first instance, prior to utilising psychotropic medication. (Adapted from Quick Reference Guide NHS Forth Valley)

There has been a ***rapid*** change in the patient's behaviour

There has been a ***gradual*** change in the patient's behaviour

Exclude Physical Causes

- **Delirium –** check temperature, bloods, (e.g. FBC, U&E, LFT, TFT, ESR, CRP, Glucose, Vitamin B12, folate and ferritin levels, MSSU) and 4AT (rapid Assessment Test link)
- **Dehydration** – check bloods (see above); especially U&E. Commence on fluid balance chart
- **Pain** – complete appropriate pain assessment tool e.g. Abbey Scale
- **Hunger** – monitor and complete fluid and diet charts
- **Constipation** – monitor bowel habits e.g. Bristol Stool chart
- **Tiredness** – chart sleep pattern
- **Medication** – side effects
- **Medication withdrawals –** e.g. benzodiazepines, opiates
- **Sensory Impairment** – sight &/or hearing deficit - refer to sensory impairment service for assessment and advice (where applicable)
- **Hypoxia** – cyanosis, laboured breathing, pre-existing conditions e.g. COPD
- **Change of environment**

Exclude Psychological Causes

- **Depression** – observe for any mood or behavioural changes. Complete appropriate assessment tool
- **Anxiety** – as per depression above
- **Hallucinations** – more commonly seeing and/or hearing things. NB exclude delirium
- **Delusions –** more commonly paranoia and/or suspiciousness. NB exclude delirium
- **Sundowning -** increased agitation and activity occurring in the late afternoon/early evening

Exclude Environmental Causes

- **Noise levels** – over stimulation/elevated noise levels can be antagonistic
- **Lack of social stimulation**
- **Inappropriate music** – ensure age related and appropriate to the client group
- **Environment/layout**
  - Is it conducive to the specific client group?
  - Could it potentially increase confusion and disorientation in people with cognitive impairment?

Exclude Other Causes

- **Staff/carers** – tone of voice, approach, body language, poor verbal and/or non-verbal communication
- **Inflexible routines** – e.g. toileting, bathing, bedtimes
- **Task orientated care**
  - lack of person-centred care
  - not knowing the person
- **Client group**
  - Triggered by the behaviour of others: staff and/or fellow
- **Continuity of staff**
  - Therapeutic relationships
  - Team continuity
  - Staff interaction

Exclude other causes if there has been no improvement or further deterioration in the patient's behaviour

Antidepressants

For patients transitioning from their home to care home - consider if medication review is needed.

All patients prescribed antidepressants should be reviewed at regular intervals in line with current National and local guidance (1,2). Antidepressants demonstrate limited to marginal benefits in treating depression in people with dementia (3-6), however for some they may reduce depressive symptoms and improve general functioning (7). Although there are relatively few studies of antidepressants for the treatment of agitation and psychosis in dementia, sertraline, citalopram (max 20mg per day) and trazodone have been used and are associated with modest reductions in symptoms of agitation and psychosis (8-9).

Consider

- Review ongoing antidepressant need and where possible consider stopping:
- **Priority for review:**
  - First episode: review 6 months after remission achieved.
  - Recurrent episodes: review at 6 monthly intervals or annually considering illness chronicity and severity, to tailor continued treatment to patients needs.
  - **Caution:** Past involvement with psychiatry team(s) and/or history of recurrent depression
  - **Exclude:** Palliative care patients, patients with current psychiatry team involvement.
- Other drugs causing depression or anxiety symptoms, e.g. benzodiazepines, z-hypnotics, beta-blockers, etc.
- Selective serotonin re-uptake inhibitors (SSRIs) demonstrate a flat dose response for the treatment of depression, therefore for routine care **50's enough and 20's plenty** to assess efficacy for sertraline 50mg daily and citalopram/fluoxetine/paroxetine 20mg daily respectively.
- Mirtazapine is more sedating at 15mg than at higher doses. Doses of 30mg per day have been shown to be effective for the treatment of depression in younger adults (10).
- Older people are more susceptible to antidepressant associated adverse effects such as falls, hyponatreamia, anxiety, agitation, confusion, gastro-intestinal bleeds (with SSRIs and venlafaxine), postural hypotension, tachycardia (with tricyclics), etc.

How to withdraw antidepressants

- Do not stop suddenly.
- Gain agreement with the patients, carers, and/or welfare guardians.
- Patients with current or past psychiatry involvement consider asking psychiatry to review ongoing use and dose.
- Antidepressants can usually be stopped by reducing the dose or frequency over a 4 week period or longer. **However,** slow reduction over a period of months may be required and more appropriate for some patients; especially for those receiving longer courses of antidepressants and older patients
- Discontinuation or withdrawal like symptoms may occur on stopping or reducing doses. These are usually mild and self limiting and resolve over about 1-2 weeks but can be severe, particularly if the drug is stopped abruptly, and may be mistaken for relapse symptoms.
- SSRIs and selective serotonin and noradrenaline re-uptake inhibitors (SNRIs) may cause discontinuation symptoms: flu-like, electric shocks, vivid dreams, insomnia, etc. These are more common with paroxetine and venlafaxine due to their short half-life's.
- Fluoxetine can be stopped at 20mg daily due to its long half-life. However, slower reductions may be appropriate for some patients; for example taking on alternate days for 4 weeks then every third day for 4 weeks then stop. Higher doses should be tapered to 20mg daily before stopping.
- Tricyclic antidepressants may need slower reduction to minimise the risk of cholinergic rebound (nausea, vomiting, headache, restlessness, diarrhoea); using lowest tablet strengths or alternate day dosing.

Follow up review

- Review patient after 1-2 weeks to assess for discontinuation symptoms (paraesthesia, anxiety, dizziness, vivid dreams, stomach upsets, flu-like symptoms, headache, suicidal thoughts, insomnia).
- If no symptoms continue on current dose for 4 weeks, review again and reduce if still symptom free.
- If mild discontinuation symptoms continue on current dose for 4 weeks and review for ongoing discontinuation symptoms. If none, reduce dose again at 4 weeks.
- If severe discontinuation symptoms then increase antidepressant dose to original dose for a week then consider trying again with a more gradual reduction.
- At each point in the dose reduction, if severe symptoms occur then step back to the previous dose for a week then proceed with a smaller dose reduction. An alternative strategy is to start an antidepressant with a longer half-life from the same class instead, and then reduce this. For example paroxetine 20mg daily to fluoxetine 20mg daily for 7 days then reduce to alternate days for 2 weeks and then stop.
- Where appropriate consider referral to Old People's Mental Health Services if further advice is required.

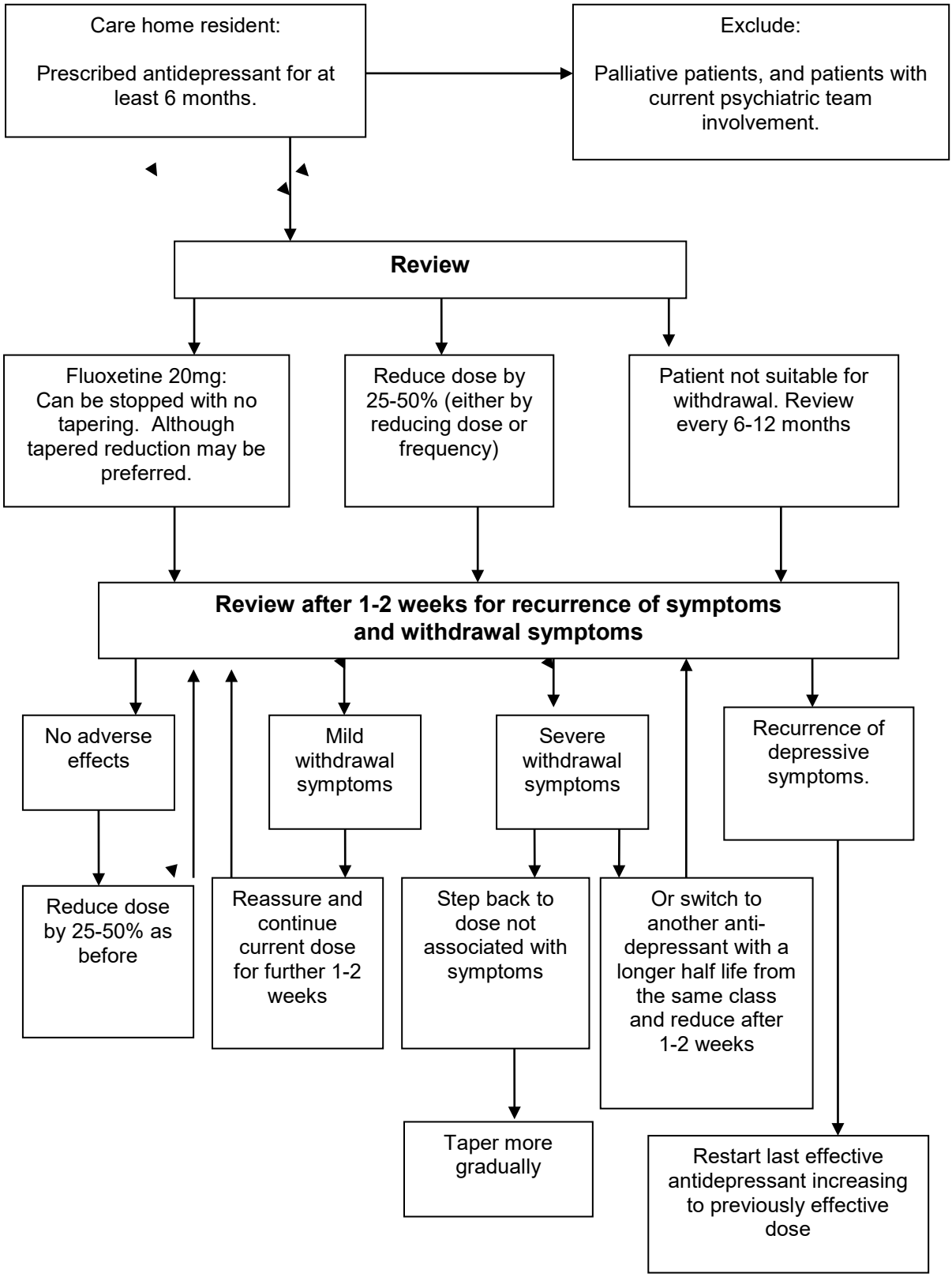
Links

- Wellbeing services south Glasgow
- Clinical Knowledge Summaries (CKS), Depression. See Scenario: Ongoing Management. Stopping antidepressants

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Flow chart: Reviewing antidepressants for Care Home residents.



Benzodiazepine and z-hypnotic regular long-term (>4 weeks) use

For patients transitioning from their home to care home - consider if medication review is needed.

Benzodiazepines and z-hypnotics (B-Z) are indicated and licensed for the short-term (2 to 4 weeks) management of anxiety or insomnia that is severe, disabling or causing the patient extreme distress (1,2) with z-hypnotics demonstrating no advantages over benzodiazepines (3).

28% of care home residents aged ≥65 years old received B-Zs in Scotland in 2011 and were three times more likely than non-care home residents to receive them (4). Although B-Zs are not routinely advised for managing the symptoms of stress and distress in dementia (5) as they are associated with an increased risk of dementia, cognitive impairment, depressive symptoms and falls in the elderly (7-9).

Priority for review

- Long-term benzodiazepines and/or z-hypnotics prescribed for anxiety, insomnia or agitation.
- Those at higher risk of adverse effects: cognitive impairment, depressive symptoms, falls, etc.

Caution

- Current or past involvement with psychiatric team(s).
- Unresolved anxiety, insomnia or agitation.
- Initiated by Neurology.
- A history of alcohol or other drug use or dependence.
- A history of drug withdrawal seizures — these generally occur in people who suddenly stop high doses of these drugs. Slow tapering is recommended for these individuals.

Exclude

- Palliative care patients
- Older people receiving B-Zs for epilepsy, chronic conditions where muscle spasms are an issue such as multiple sclerosis, and older people with Parkinson's disease.

How to reduce B-Zs (See cautions below)

- **Do not stop suddenly.**
- Gain agreement with the patients, carers, and/or welfare guardians.
- Patients with current or past psychiatry involvement consider asking psychiatry to review ongoing B-Z use and reduction.
- Plan and manage withdrawal at a reduction rate that is tolerable for the patient.
- Transfer non-diazepam patients to an equivalent dose of diazepam, see BNF and Ashton Manual, and follow up after 7 days or sooner. Then reduce by 10% every 4 weeks using a planned reduction schedule (1).
    - Slightly lower doses may be appropriate due to diazepam longer half-life and the increased risk of sedation, eg temazepam 10mg at night to diazepam 4mg at night with follow up review at 7 days or sooner, and then reduce by 1mg every 4 weeks. If over sedation is problematic quicker managed reduction may be appropriate.
- Patients prescribed diazepam: reduce total daily dose by 1-2 mg every 4 weeks using a planned reduction schedule (1). Slower reductions may be required for some patients who have received longer term treatment with a B-Z.
- When two or more B-Zs are prescribed consider converting to diazepam, in a stepwise manner, at an interval of 7 days with follow up at 7 days (10), e.g. lorazepam and temazepam both used, therefore change lorazepam to diazepam equivalent first and review at 7 days, if patient stable, then consider changing temazepam to diazepam equivalent and review at 7 days, and if stable then start reducing total diazepam dose.
- Consider four weekly reductions, by approximately 10%, to run in line with care home medication cycles

Caution

- Dose equivalences are ***approximate*** dose equivalences.
- Due to variations in individual drug potency and half-lives (e.g. older patients may experience cumulative effects with longer acting drugs), and variations in individual patient's characteristics: sensitivity, age, hepatic function, response, expectations, etc, patient response may vary.
- Older people can be more susceptible to accumulation effects of longer acting B-Zs when transferring from shorter acting B-Zs.
- **Seek specialist advice (preferably from a hepatic specialist) before switching to diazepam in people with hepatic dysfunction** as diazepam may accumulate to a toxic level in these individuals. An alternative benzodiazepine without active metabolites (such as oxazepam) may be preferred.

Withdrawal effects

May develop at any time up to 3 weeks after stopping a long-acting B-Z, but may occur within a day of stopping a short-acting B-Z. Withdrawal syndrome is characterised by insomnia, anxiety, loss of appetite and body weight, tremor, perspiration, tinnitus and perceptual disturbances. Some symptoms may be similar to the original complaint and encourage further prescribing (1).

Follow up review

- Review patients transferred to diazepam at 1-2 weeks, or earlier, to check for excessive sedation during waking hours or intolerable withdrawal symptoms.
- If the initial step down is tolerated review and reduce every four weeks.
- If there is excessive sedation review the reduction schedule and reduce the dose to the next step earlier than planned. Review this weekly (or earlier) until over sedation is controlled.
- If there are intolerable withdrawal symptoms review with patient and agree any amendment to the reduction schedule. Consideration should be given to returning the patient to the last tolerated dose of B-Z for 4 weeks then consider slower reduction.

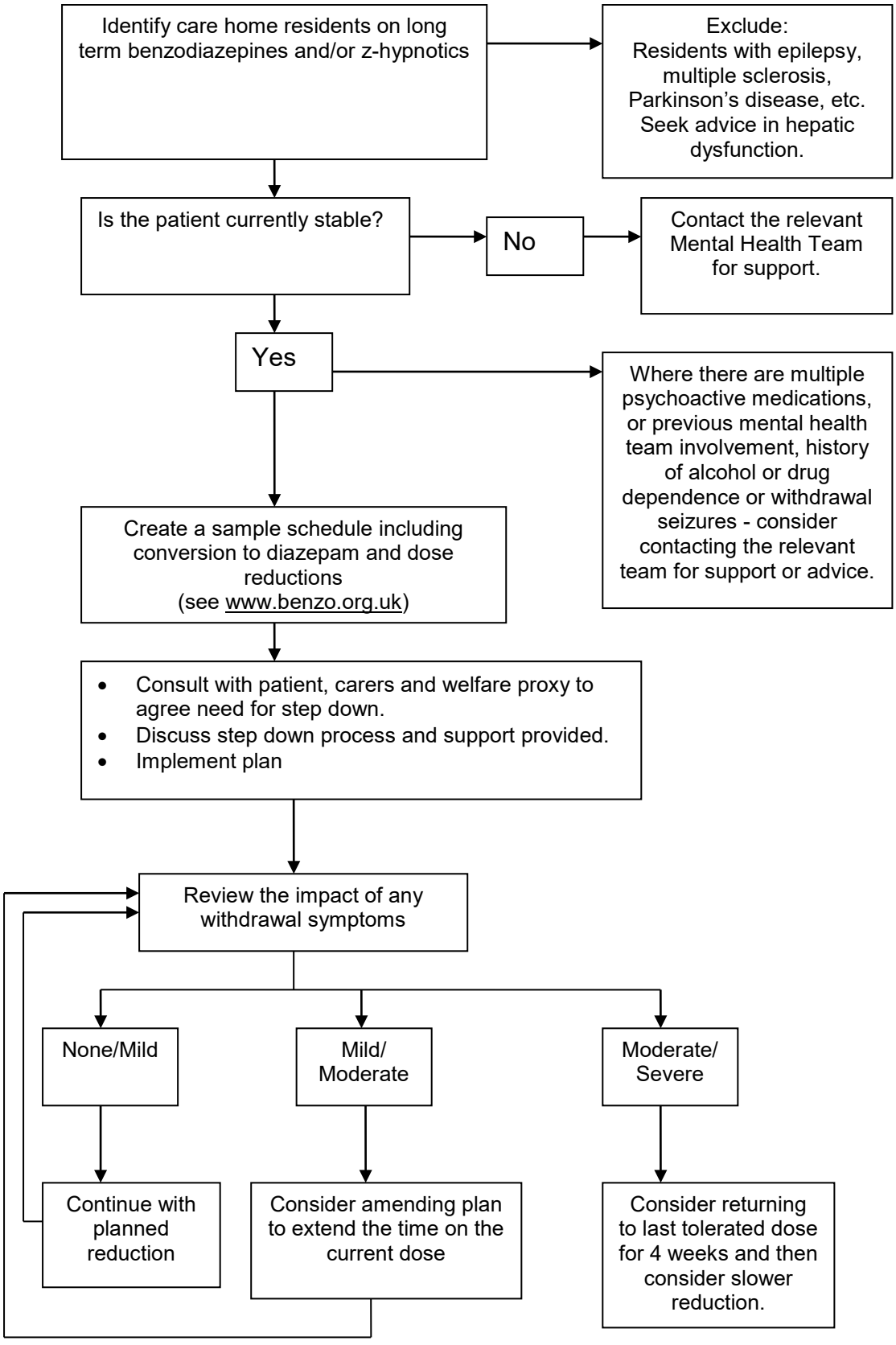
Useful Links

- Benzodiazepines: how they work and how to withdraw - benzo.org.uk
- Wellbeing services south Glasgow

References

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10. The Ashton Manual. www.benzo.org.uk

Flow chart: Reviewing benzodiazepines and z-hypnotics for Care Home residents.



Cognitive Enhancers

For patients transitioning from their home to care home - consider if medication review is needed.

Dementia is a broad term description which includes the most common forms of dementia, namely Alzheimer's disease, dementia with Lewy bodies and vascular dementia and is a chronic, progressive condition.

Cognitive enhancers are a small group of medicines for the treatment of dementia with up to half of the patients given these drugs demonstrating a slower rate of cognitive decline. They can also help to reduce some of the symptoms of stress and distress in dementia. Drug effectiveness is assessed within the first months by the initiating specialist: psychiatrist, neurologist or physician experienced in the management of dementia, or by the Community Mental Health Team for Older People. Treatment is normally continued for as long as a therapeutic benefit exists, however if there are issues with:

- Adverse drug effects,
- Lack of effect on cognitive, global functional or behavioural symptoms

it may be appropriate to review ongoing need.

Acetylcholinesterase (AChE) inhibitors:
Donepezil: Indicated for the symptomatic treatment of mild to moderately severe Alzheimer's disease. There is also evidence to suggest its efficacy may extend to the treatment of people with more severe forms of Alzheimer's disease. Age and severity of Alzheimer's disease should not be a contraindication to its use.

Galantamine: Indicated for the symptomatic treatment of mild to moderately severe Alzheimer's disease. SIGN Dementia guideline advises it can be used to treat cognitive decline in people with Alzheimer's disease and people with mixed dementias, and also for the management of associated symptoms in people with Alzheimer's disease.

Rivastigmine: Indicated for the symptomatic treatment of mild to moderately severe Alzheimer's disease or in patients with Parkinson's disease dementia; and can also be used for the management of associated symptoms.

If discontinuation of these drugs is considered when evidence of a therapeutic effect is no longer present, then treatment with memantine may be considered.

Memantine is a glutamate receptor antagonist indicated for treatment of moderate to severe Alzheimer's disease. It is recommended for managing moderate Alzheimer's disease for people who cannot tolerate AChE inhibitors, and as an option for the management of severe Alzheimer's disease. Maintenance treatment can be continued as long as a therapeutic benefit is favourable.

Withdrawal of cognitive enhancers
The uncertain course of dementia makes it difficult to give a prognosis, as individuals vary in their symptoms and rates of progression. Any decision to withhold or discontinue treatment requires careful consideration which must involve the individual's family and carers, as this could result in a significant decline in cognitive function and symptoms of stress and distress in dementia.

- If the resident is under the care of mental health services, their advice should be sought around any decision to withdraw treatment with a cognitive enhancer.

- If the decision to withdraw treatment is due to side effects, it is important to rule out whether this is a manifestation of progressing dementia; for example weight loss is a common feature of dementia, however is also listed as a possible side effect of the medication.
- A change in presentation of behaviour should prompt an assessment – Communication difficulties may limit the resident's capability to express hunger, thirst, discomfort or pain. Consider issues highlighted in Managing Symptoms of Stress and Distress in Dementia flow chart above.

Withdrawal and follow up review

- If withdrawal of the cognitive enhancer is due to side effects, however there has been evidence of ongoing benefit, then an alternative cognitive enhancer from the group could be considered.
- If the acetylcholinesterase inhibitors are no longer tolerated due to side effects, or lack of ongoing therapeutic benefit, then a trial of memantine may be considered.
- If it has been agreed with medical staff, family and carers that the cognitive enhancer is to be withdrawn altogether, then this should be carried out as a gradual dose reduction, allowing four weeks between dose changes, with ongoing assessment and monitoring of function and cognitive decline. If any cognitive decline occurs increase dose back up to reduce further cognitive decline.
- If no deterioration is observed from monitoring, then ongoing gradual dose reduction with careful assessment should continue until it has been discontinued.

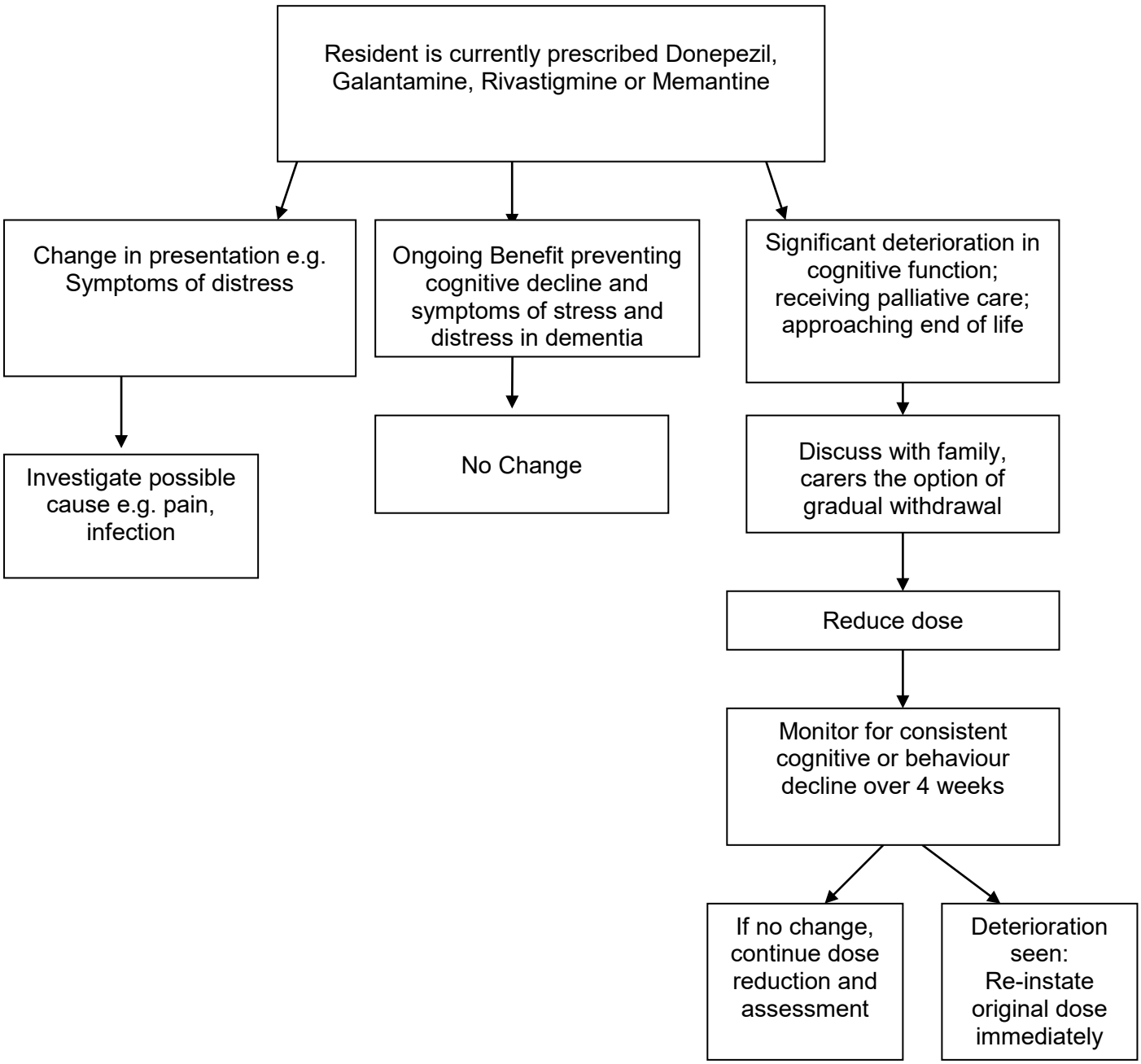
Any decision to withdraw cognitive enhancers should take into consideration the individual and their clinical circumstances.

References

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2. Medicines Compendium UK. www.medicines.org.uk/emc

My life with dementia: Dying well with dementia October 2012
Living well with dementia: UK national strategy
NICE technology appraisal (T217)

Flow chart: Reviewing cognitive enhancers for Care Home residents



Mood Stabilisers

There is very limited evidence to support the use of anticonvulsants which have mood stabilising activity in the treatment symptoms of stress and distress in dementia. Use may very rarely be justified where other treatments are contraindicated or ineffective.

They may be considered for the symptomatic treatment of seizures or myoclonus associated with dementia but are not recommended for other symptoms of dementia.

Trials involving this group of medication require to be undertaken to assess any evidence of efficacy although their use may be limited due to significant adverse effects.

Withdrawal and follow up review

If prescribed for symptoms of stress and distress in dementia, the medication should be reviewed with a view to discontinuation. Where prescribing changes are considered appropriate and implemented, follow up review and monitoring should be carried out to assess progress.

No changes should be made if prescribed for epilepsy, bipolar disorder or are under the care of a mental health specialist.

References

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NHS Greater Glasgow & Clyde Mental Health Services
MHS MRG 13

Response Ward Emergency Tray Locations

The contents of mental health emergency trays held in response wards have been reviewed by:

Jonathan Kerr- Mental Health Resuscitation Officer
Andrew Walker- Lead Clinical Pharmacist.

Hospital	Response ward locations
Dykebar	Arran, North & South
RAH	Ward 39
Leverndale	Ward 4A/B & Banff/Balmore, Mother & Baby unit & Mental Health Assessment unit
Stobhill/Mackinnon House	Armadale, Skye House, Eriskay, Isla, Jura, Elgin & Mental Health Assessment unit
Rowanbank	Larch and Pine
Langhill	AAU, IPCU & ECT suite
Gartnavel Royal	Timbury, Tate, Clyde & Kershaw
Rodgerpark NH	Woodburn

There will be a standard tray in each of these locations. The contents are as follows

Drug	Quantity
Adrenaline 1mg/10mls (1 in 10,000) minijets	3
Amiodarone 300mg pre-filled syringe	1
Adrenaline 1mg/ml (1 in 1000) amps	2
Diazepam 10mg/2ml (Diazemuls) amps	1
Diazepam Rectal Solution 10mg	1
Flumazenil 500micrograms/5ml amps	2
Glyceryl Trinitrate Spray	1
Glucagon 1mg kit	2
Naloxone 400microgram/ml	5
Atropine 500microgram/5ml minijet	1
Aspirin 300mg tablets	1 x 28

In addition the following drugs should be added to all ward stock lists:

- Ipratropium bromide 500microgram nebules
- Salbutamol 5mg nebules.
- Furosemide 50mg/5ml amps

Approved by Prescribing Management Group (Mental Health) June 2021
Review date: June 2024

Safe identification of patients- Policy & procedure (MHS 21)

Warning: This guideline is 19627097 day(s) past its review date.

Resources

Use the button below to access this resource item.

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Last reviewed:

01 September 2022

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MHSCGG

Reviewer Name(s):

Lead clinical pharmacist, Clinical effectiveness pharmacist

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Safe and Secure Handling of Medicines in Hospital Wards, Theatres and Departments



Version 1
April 2008

Safe and Secure Handling of Medicines in Hospital Wards, Theatres and Departments

Authors:	Colette Byrne, Clinical Governance Pharmacist.
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	(All Pharmacy and Prescribing Support Unit, NHS GG&C.)
	Produced in consultation with multidisciplinary teams across NHS GG&C.
Responsible Director:	Dr Brian Cowan, Medical Director, NHS GG&C.
Approved by:	Senior Management Group, NHS GG&C.
Date approved:	December 2007.
Date for Review:	Ongoing review – see online version which will be updated regularly.
Version:	1.
Replaces previous version:	Replaces any policy / procedures for the safe and secure handling of medicines in hospital wards issued prior to December 2007.

Before using this printed version please ensure the information contained in the section you are reading is still valid. To do this, please refer to the online policy, which will be updated on a regular basis. The online version is available on Staffnet.

If you have any suggestions that you would like taken in to account during the review of this document please e-mail your comments to: **sshm@ggc.scot.nhs.uk**

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Introduction

This policy document covers all aspects of medicine procurement, storage, distribution and administration within the hospital environment. It is not intended to address the specific clinical issues that relate to therapeutic choice, medication efficacy and preventing adverse effects from medication. It has been produced in response to the revised Duthie report (2005) and other Government reviews. This document is not intended for use within primary care or hospice environments (supplementary policies will be issued specifically for these areas).

All wards, theatres and departments must have a system of procedures for the ordering, handling and use of medicines that meet legal requirements and good practice guidance to ensure safety, security and efficiency. Much of the legislation concerning medicines has been written to avoid diversion or abuse. This document is available via the NHS Greater Glasgow and Clyde (NHS GG&C) StaffNet and provides a framework for the preparation of the required detailed local procedures.

The Head of the Pharmacy and Prescribing Support Unit (PPSU), Medical Director and Director of Nursing are responsible for ensuring staff under their direction establish and maintain approved procedures to comply with current legislation and professional guidance. They must ensure the risks inherent to both staff and patients in the use of medicines are managed appropriately.

Throughout the document, the Appointed Registered Nurse / Midwife or Manager in Charge is named as the responsible person for certain elements of the system. In departments not managed by nurses / midwives the equivalent manager is the responsible person.

Certain medicines are currently classified as Controlled Drugs (CDs). These are listed in the current Misuse of Drugs Regulations and are subject to more stringent controls (see current BNF, section on Controlled Drugs and Dependence). The Accountable Officer for NHS GG&C is ultimately responsible for ensuring the policies relating to Controlled Drugs are adhered to at all times. In some instances this responsibility may be delegated to appropriate senior personnel within the organisation.

This policy will be reviewed and updated on a regular basis. Associated Standard Operating Procedures (SOPs) will be devised and regularly audited.

This document is correct at time of going to press but may change if further guidance or legislation is subsequently published. If versions of this document are printed and stored in any wards / theatres / departments, any person referring to the document after the date of printing must check on the StaffNet to ensure they are using the most up-to-date version. This document supersedes all previously published guidelines in Glasgow and Clyde.

1. Definition of a Medicine, including Controlled Drugs (CDs)

Medicines are substances that are introduced into the body, or externally applied to the body, for the purpose of

- treating disease
- preventing disease
- diagnosing disease
- ascertaining the existence, degree or extent of a physiological condition
- contraception
- inducing anaesthesia
- otherwise preventing or interfering with the normal operation of a physiological function.

Medicines may be categorised as follows:

1. Medicines and medicinal preparations that come under the provisions of the Medicines Act (1968). They include medicines used in clinical trials, unlicensed medicines and medicated dressings.
2. Controlled Drugs, (CDs), i.e. dangerous or otherwise harmful medicines controlled under the provisions of the Misuse of Drugs Act (1971) and Regulations made under the Act. Controlled Drugs are subdivided into different specifications as follows:

   Schedule 1: *Includes drugs such as cannabis and lysergide, which are not used medicinally. Possession and supply are prohibited except in accordance with Home Office authority. Sativex® is an unlicensed cannabis derivative product that can be imported for use in multiple sclerosis. It is the only medicinal drug in this class and can be imported from Canada. There has been some use within NHS GG&C.*

   Schedule 2: *Includes drugs such as diamorphine (heroin), morphine, remifentanil, pethidine, secobarbital, glutethimide, amphetamine, and cocaine and are subject to the full CDs requirements relating to prescriptions, safe custody (except secobarbital), the need to keep register, etc. (unless exempted in Schedule 5).*

   Schedule 3: *Includes barbiturates (except secobarbital, now Schedule 2), buprenorphine, diethylpropion, mazindol meprobamate, pentazocine, phentermine, midazolam and temazepam. They are subject to the special prescription requirements (except for temazepam) but not to the safe custody requirements (except for buprenorphine, diethylpropion, and temazepam) nor to the need to keep registers (although there are requirements for the retention of invoices for 2 years).*

   Schedule 4: *Includes Part I benzodiazepines (except temazepam and midazolam which are in schedule 3) and zolpidem, which are subject to minimal control. Part II includes androgenic and anabolic steroids, clenbuterol, chorionic gonadotrophin (HCG), somatotrophin, somatrem, and somatrophin. Controlled Drug prescription requirements do not apply and Schedule 4 drugs are not subject to safe custody requirements.*

   Schedule 5: *Includes those preparations which, because of their strength, are exempt from virtually all Controlled Drug requirements other than retention of invoices for two years.*
3. Alternative / complementary medicinal products e.g. herbal or homeopathic remedies that are used for therapeutic purposes.

Throughout the document the term 'medicine' will only cover categories 1 and 2 of medicines identified above. Where additional controls apply e.g. for Controlled Drugs in Schedule 2 this will be clearly identified.

Products in category 3 will be covered in Appendix 1.

2. General Policy Statements

2.1 All medicines administered or issued to patients within NHS GG&C are procured by and distributed through pharmacies (either hospital or community), or via approved homecare suppliers, in accordance with local SOPs.

2.2 Patients own drugs (PODs), including CDs, may be used during the hospital stay, where they have been assessed as suitable for use, the patient consents to their use, and suitable local SOPs are in place.

2.3 All medicines will be stored securely in pharmacy and at ward, theatre or department level to maintain their quality and security in suitable cupboards, refrigerators and freezers as appropriate.

2.4 Medicines must be ordered, prescribed and administration recorded on approved stationery, which must be stored securely to prevent fraudulent use. Electronic prescription systems can be employed provided there are procedures in place to restrict access to terminals and pass codes and ensure a full audit trail is maintained.

2.5 Medicines are prescribed in line with agreed formularies, or have the required level of approval for use if a patient is admitted or commenced on a non-formulary medicine.

2.6 Unlicensed medicines, except for medicines being used for research or in clinical trials, are used only when no suitable licensed medicinal product is available.

2.7 Medicines are ordered, prescribed, administered or supplied to patients only by suitably competent practitioners, within a legal framework, who can exercise professional accountability and judgement in the best interests of their patients. This includes persons operating within a Patient Group Direction, (PGD), or functioning as non medical prescribers.

2.8 Self-administration schemes e.g. patient controlled analgesia (PCA) must incorporate a formal patient assessment which should be documented.

2.9 There are systems for the transport of medicines that ensure their security, quality and integrity, and maintain the health and safety of the patient, staff and the public.

2.10 Disposal of medicines complies with legal requirements and health and safety regulations.

2.11 There must be a complete audit trail available from purchase and receipt by pharmacy or approval of the use of PODs, to their administration to individual in-patients, supply at point of discharge, return to pharmacy, or their destruction at ward / theatre / department level.

2.12 All clinical incidents or significant near miss events involving medicines must be documented and investigated and appropriate action taken to reduce the risk of recurrence.

2.13 Staff are not permitted to acquire medicines purchased and supplied for patients for their own personal use or for use by their friends and family.

3. Aims of Policy

3.1 To ensure safety in the procurement, storage, distribution and administration of medicines to patients in NHS GG&C.

3.2 To ensure that medicines purchased are of the required quality from approved suppliers.

3.3 To achieve best price and fulfil contractual and other obligations.

3.4 To maintain control of the pharmacy stock inventory in line with the recommendations and policies of NHS GG&C Area Drug and Therapeutics Committee (ADTC).

3.5 To ensure that medicines are available at the time they are needed.

3.6 To ensure that stocks of an appropriate range of medicines are kept at a level to minimise wastage.

3.7 To ensure that medicines used for research and clinical trials and unlicensed medicines are authorised for use.

3.8 To ensure that the quality and security of medicines are maintained during transportation.

3.9 To ensure that all medicines are transported with due attention to health and safety considerations.

3.10 To ensure that the quality and security of medicines is maintained in all areas where medicines are stored or administered within NHS GG&C premises.

3.11 To ensure that all prescriptions for medicines are written according to accepted NHS GG&C standards and legal requirements.

3.12 To minimise the risk of errors with the prescription, administration and supply of medicines.

3.13 To ensure that any changes to the medicines prescribed for the patient are implemented as soon as practical.

3.14 To ensure that patients are provided with an appropriate quantity of the correct medicines, labelled with clear directions, or are advised how to obtain supplies in the community, where appropriate.

3.15 To ensure that patients are given adequate information about their medicines including any special instructions for their use.

3.16 To dispose of unwanted medicines according to current national legislation.

3.17 To prevent misappropriation of medicines by staff and / or patients.

4. Procurement of medicines from external suppliers

4.1 General principles

4.1.1 The Head of PPSU will delegate responsibility to specified senior staff within PPSU to negotiate contracts for medicines with suppliers on behalf of NHS GG&C. Pharmacy Managers or delegated deputies will have authority to purchase non contract medicines as required, including unlicensed medicines, in line with current policy and standing financial instructions.

4.1.2 Information on medicine costs is confidential within NHS GG&C and is referred to only in the most general terms by NHS GG&C personnel, except during direct negotiations of agreements and contracts.

4.1.3 All medicines must be obtained through pharmacy, except for patients' own drugs (see section 11, Patients Own Drugs).

4.1.4 Defective medicines or potentially defective medicines are withdrawn from use in an appropriate timescale to minimise risk to patients (see section 18, Defective Medicines).

4.1.5 Medicines used for research and clinical trials, expanded access medicines and newly licensed medicines must have the appropriate management approval and / or committee approval (see section 4.5, Approval of Medicines for Procurement and 4.7, Medicines for use in Research and Clinical trials).

4.1.6 Appropriate risk management arrangements are followed for the procurement of medicines that do not have a product licence in the United Kingdom (see section 4.6, Unlicensed Medicines).

4.1.7 The Pharmacy Manager is responsible for ensuring, as far as possible, that the medicines he or she procures and supplies are of the required quality and are used safely, effectively and appropriately, and are suitable for the patient. The Pharmacy Manager may devolve this responsibility to other senior pharmacists.

4.1.8 If any staff member involved in the procurement, prescribing, preparation or administration of medicines has concerns about the quality of the product or any clinical concerns regarding the use of the medicine in individual patients they should advise the relevant senior professional (e.g. Consultant / Assigned Nurse in Charge / Pharmacy Manager).

4.2 Company medical representatives

4.2.1 Company medical representatives must observe the current Association of British Pharmaceutical Industry (ABPI) Code of Practice and any NHS GG&C policy, i.e. Working with Suppliers of Clinical Products Policy in the course of visits to hospitals.

4.2.2 Only medicines approved for use by NHS GG&C Area Drug and Therapeutics Committee (ADTC) may be promoted to staff working within NHS GG&C.

4.2.3 Information may be requested on any product from a medical representative, irrespective of whether the medicine is on the NHS GG&C Formulary.

4.2.4 The presence of medical representatives must not disrupt work in clinical areas.

4.2.5 Junior pharmacists, medical staff and ward nursing or other staff may not be approached directly by medical representatives unless authorised to do so by a senior pharmacist, lead nurse / midwife or consultant. Any meetings with medical representatives must have a clear educational objective. Consultants, specialist registrars, nurses / midwives and pharmacy staff must see representatives by appointment only.

4.2.6 Sponsorship of meetings by medical representatives may be accepted only if the meeting has a clear educational objective.

4.2.7 Staff must not disclose information on medicine costs to representatives.

4.2.8 Representatives must not leave samples of medicines in wards or other clinical areas or in the pharmacy.

4.2.9 Representatives from companies promoting an unlicensed medicines manufacturing / distribution service should contact the Regional Quality Assurance pharmacist prior to making initial contact with individual hospital sites.

Continues overleaf

4.3 Ordering and stock control of medicines by hospital pharmacy staff

4.3.1 All medicines must be procured in accordance with current pharmacy computer stock control procedures for procuring drugs, which have been approved by the external auditors and finance department.

4.3.2 A purchase order will be raised, in accordance with current contracts, to an appropriate supplier (e.g. local wholesaler) by a suitably trained staff member and approved by a pharmacy authorised signatory for medicines, in accordance with NHS GG&C Standing Financial Instructions.

4.3.3 In some instances it may be necessary to procure medicines from other hospitals or community pharmacies. Such requests must be authorised by the pharmacy Operational Services Manager or delegated deputy, dependent on local policy. Out of hours, this request will be dealt with by the Emergency Duty Commitment (EDC) pharmacist. Local standard operating procedures (SOPs) will apply.

4.3.4 In exceptional circumstances medicines may need to be ordered from suppliers outwith normal opening hours. Local SOPs will apply.

4.3.5 Stock levels must be reviewed regularly to ensure medicines are available on site when they are needed and to minimise wastage.

4.4 Receipt of medicines into pharmacy

4.4.1 When any medicines are delivered to pharmacy the driver's identity must be confirmed. If the driver enters the pharmacy to deliver goods / obtain signatures he/she must be escorted at all times. He/she must report to the appropriate pharmacy delivery area where a pharmacy stores officer will sign for the delivery either by signing "Received unchecked" or will check the medicines against the delivery note prior to signing for receipt.

4.4.2 Completed delivery notes must be presented to a suitably trained staff member to mark up on the computerised stock control system. There must be clear separation of the 'procurement', 'goods received' and 'mark up' processes, with at least two suitably trained staff members involved.

4.4.3 A Medicines Returned to Pharmacy Form (see Appendix 2) must accompany all medicines returned from wards, theatres or departments (including prescriptions not issued to patients and patients own drugs no longer required). Returned medicines assessed as suitable for reuse must be entered into the computerised stock control system and the destruction of any medicines documented. (See section 16, Return and disposal of medicines.)

Controlled Drugs : Additional Requirements

4.4.4 When a CD is delivered to pharmacy the driver must report to the appropriate pharmacy delivery area and their identity must be confirmed. A pharmacist or authorised pharmacy technician will sign for the delivery and check the CDs against the delivery note.

4.4.5 All CDs received in pharmacy, from suppliers or returned from wards, must be stored in a designated CD storage facility which should be kept locked at all times when not in use.

4.4.6 All CDs received in pharmacy, either from suppliers or returned from wards, must be recorded in the appropriate section of the pharmacy Controlled Drug Register. The following particulars must be recorded:

- Date on which received
- Name and address of supplier (wholesaler, manufacturer or ward)
- Amount received
- Form in which received
- Signature of pharmacist or authorised pharmacy technician recording their receipt

4.4.7 All CDs received into the pharmacy department must be written into the pharmacy Controlled Drug Register within 24 hours of receipt. If any discrepancies are found the wholesaler or pharmacist returning the CDs from ward / clinical areas should be informed immediately.

4.4.8 Pharmacy CD balances must be checked when goods are received into stock and after each issue.

4.4.9 The balance in the register must be reconciled with the computer stock balance periodically, at least monthly, by pharmacy staff, with ad hoc spot checks being conducted on a regular basis. If any discrepancies are found a thorough investigation must be carried out. This must be fully documented, including any actions taken. The Pharmacy Manager must be informed. If a discrepancy cannot be resolved a report should be sent to the Accountable Officer.

4.5 Approval of medicines for procurement

4.5.1 Newly licensed medicines, or new indications for existing licensed medicines, will not be introduced into routine use unless they have been approved by the Scottish Medicines Consortium (SMC), NHS GG&C ADTC and, where appropriate, NHS GG&C Prescribing Management Group (PMG).

4.5.2 Medicines are classified as approved or non-approved within NHS GG&C.

4.5.3 Approved medicines include:

- Preferred list medicines - medicines that appear in the NHS GG&C Formulary in the preferred list section (covering the most common clinical conditions).
- Total formulary medicines - medicines approved by NHS GG&C ADTC that are not included in the preferred list. These medicines are often for use within a specialist area e.g. oncology.
- Some unlicensed medicines are also approved for use (e.g. UK licensed medicines used in Paediatrics according to accepted national guidelines, such as the BNF for Children).
- Medicines prescribed as part of an approved clinical trial.

4.5.4 Non-approved medicines include:

- Some unlicensed medicines prescribed for individual patients. (See 4.6, Unlicensed medicines).
- Medicines that have been licensed but not yet assessed by the SMC or NHS GG&C ADTC.
- Medicines which have been assessed by the SMC and are "not recommended" for use in Scotland.
- Medicines recommended by SMC but following consideration by NHS GG&C ADTC have not been recommended for use in NHS GG&C as suitable alternatives exist.

4.5.5 Certain patients will require particular non-approved medicines because of their individual clinical circumstances.

4.5.6 The pharmacy department will not routinely stock non-formulary or non-approved unlicensed medicines. There may be a delay in supplying non-approved medicines if they are prescribed.

4.5.7 Non-formulary or non-approved unlicensed medicines may be prescribed only on the authority of the patient's consultant. In the absence of a consultant their specialist registrar may prescribe the medicine only if they have experience of treating patients receiving the medicine.

4.5.8 Any decision to prescribe a non-formulary or non-approved unlicensed medicine must be justified by the consultant. A Non-Formulary Medicine Request Form must be completed for all drugs on the NHS GG&C highlighted Non-Formulary List. Requests for a non-approved unlicensed medicine must be accompanied by an Unlicensed Medicines request form (with the appropriate signatures).

4.5.9 The appropriate Clinical Director and General Manager, in conjunction with the Directorate Pharmacist, must approve the request if the cost of an individual patient's treatment with a non-approved medicine exceeds £3K per treatment or per annum or if significant numbers of patients are likely to require the non-approved medicine. (In Mental Health the executive group of the Mental Health Partnership Medication Resource Management Group will approve all requests).

4.5.10 The pharmacy department will obtain a supply of the medicine for treatment of the individual patient following confirmation by the responsible clinical pharmacist.

4.5.11 The Lead Clinical Pharmacist for the directorate concerned, in conjunction with the directorate Clinical Governance committee, Drug and Therapeutics or other suitable committee will review all requests for non-formulary or unlicensed medicines retrospectively, in order to identify trends and take any necessary action.

4.5.12 Regular requests for the same non-formulary medicine will require completion of a formulary appeal request, detailing supporting evidence of clinical efficacy. The request must be submitted to the NHS GG&C Formulary Development Pharmacist.

4.6 Unlicensed medicines

(Please continue to follow current policies and local SOPs until the new NHS GG&C Unlicensed Medicines Policy is available.)

4.6.1 Licensed medicines are medicines that have a Marketing Authorisation, formerly called a Product Licence, issued by the Medicines and Healthcare Products Regulatory Agency (MHRA) for the UK or by the European Medicines Agency (EMEA) for all EU member states.

Continues overleaf

4.6.2 Unlicensed medicines are medicines that do not have a Marketing Authorisation in the UK.

4.6.3 A licensed medicine may be used outwith its licensed indication to treat patients. Under such circumstances it will be referred to as 'off-label use'. This includes many medicines prescribed for children. (Prescribers should refer to local policies and / or SOPs when working in areas where routine 'off-label' prescribing occurs.)

4.6.4 For each non-approved unlicensed medicine that a consultant wishes to prescribe an unlicensed medicines request form must be completed. In certain circumstances a 'blanket' approval form may be appropriate (if the non-approved unlicensed medicine is likely to be used frequently). This type of approval should be discussed with the Directorate Pharmacist and approval for the 'blanket' authorisation obtained from the Clinical Director and General Manager.

4.6.5 The Pharmacy Manager and / or the Lead Clinical Pharmacist for the directorate must review and approve all requests for non-approved unlicensed medicines. Where there is a significant cost or service delivery implications associated with the use of the unlicensed medicine, (e.g. >£3K per course of treatment), the request must also be approved by the relevant Clinical Director and General Manager.

4.6.6 The Regional Quality Assurance Pharmacist will provide and maintain an up to date list of approved suppliers of unlicensed medicines.

4.7 Medicines for use in research and clinical trials

4.7.1 Researchers wishing to undertake research must approach the local Research and Development Office for all clinical investigations involving human volunteers or patients. (Additional approval may be required, depending on the nature of the individual trial – guidance will be given by the Research and Development Department.)

4.7.2 A Clinical Trials Authorisation (CTA) must be submitted to the Medicines and Healthcare Products Regulatory Agency (MHRA) for all clinical trials involving an investigational medicinal product.

4.7.3 If the investigation involves the administration or supply of medicines the Research and Development Committee should liaise with the Pharmacy Manager prior to trial approval.

4.7.4 Medicine supplies for research and clinical trials must be distributed through the pharmacy.

4.7.5 A pharmacy file meeting current R&D requirements must be held in the pharmacy and a local dispensing procedure approved.

4.7.6 The clinical trial may commence only following formal management approval, MHRA and ethical approval.

Controlled Drugs : Additional Requirements

4.7.7 All requirements regarding storage, record keeping and destruction apply to clinical trial drugs classified as CDs in addition to any trial documentation that may be required.

5. Ordering and stock control of medicines in wards, theatres and departments

5.1 General principles

5.1.1 All staff ordering medicines must be trained and competent in the required procedures.

5.1.2 In hospital, medicines must be ordered by a registered nurse or midwife or other suitably qualified personnel (e.g. radiographers) who must be an authorised signatory for that area. Pharmacists / pharmacy technicians / pharmacy support workers can also order medicines for wards on an adhoc basis or as part of a routine ward top up service (provided they are registered in pharmacy as a signatory for that clinical area).

5.1.3 Where electronic ordering is in place it must be password protected and accessed only by authorised personnel.

5.1.4 Pharmacy departments must maintain an up to date list of authorised signatories permitted to requisition medicines and controlled drugs.

5.1.5 All stationery used to order medicines is controlled stationery. This includes stationery used to order ward stock, CDs, and medicines to be given to patients to take away on discharge or at a clinic. Controlled stationery must be stored and issued from pharmacy in a secure manner.

5.1.6 The Appointed Registered Nurse / Midwife or Manager in Charge is responsible for the safekeeping of all controlled stationery.

5.1.7 Controlled stationery comprises Controlled Drug Order Books, Ward Controlled Drugs Registers, Medicine Prescription Forms (Discharge Prescriptions), Emergency requisition forms, and any other stationery used locally to order medicines. All controlled stationery must be stored securely under lock and key, except Discharge Prescriptions, if doing so would compromise timeous patient discharge. They must, however, be stored safely and securely to prevent misappropriation.

5.1.8 The Appointed Registered Nurse / Midwife or Manager in Charge, ward / department medical staff and the designated pharmacy representative will agree a stock list that reflects the needs of the patient group in each clinical area, and is in line with agreed formularies.

5.1.9 The stock list must be reviewed and updated regularly, at least once every year.

5.1.10 The stock list contains a list of the name, form and strength of all medicines routinely required, and the minimum stock level that must be held.

5.1.11 All nursing staff ordering routine medicines should have the required knowledge and competence to order and safely store medicines within the clinical area.

5.1.12 Arrangements must be in place to ensure that medicines that are not included in the agreed stock list, or where the patient's own supply is not available or is not deemed suitable for use, are obtained timeously, so that doses are not missed or delayed if this would potentially harm the patient.

5.1.13 The Appointed Registered Nurse / Midwife or Manager in Charge must ensure that a system is in place to regularly check expiry dates and rotate stocks of medicines.

5.1.14 The Appointed Registered Nurse / Midwife or Manager in Charge is responsible for ensuring that medication ordering systems are in place that minimise dose omissions and delays, reduce medication wastage and utilise staff resource efficiently.

5.1.15 When a patient is transferred to another clinical area within the same hospital or to a different hospital site, the nurse / midwife responsible for the patient's care must make arrangements to ensure that required doses of medicines are not missed or delayed and that stock is not wasted by duplicate orders.

5.1.16 The Pharmacy Manager is responsible for ensuring that systems are in place that ensure medicines are available with minimum delay. (See section 7, Arrangements for the supply of medicines when the pharmacy is closed.)

5.1.17 If a patient is at risk from a missed dose and no suitable alternative medicine is available, the medicines may be transferred from another area in the hospital if pharmacy is closed, provided the correct procedures are followed. (See section 7.2, Internal transfer of medicines between wards, theatres and departments when pharmacy is closed).

5.1.18 Appropriate documentation must be completed at all stages of the ordering and receipt of medicines process by suitably qualified staff.

Continues overleaf

Controlled Drugs : Additional Requirements

5.1.19 An up to date list of authorised signatories for controlled drugs must be held in pharmacy. It is common practice to limit this list to ward managers and senior staff members.

5.1.20 Doctors and pharmacists are not authorised to sign Ward Controlled Drugs Order Books.

5.1.21 All requisitions for CDs should be made using the Ward Controlled Drugs Order Book.

5.2 Requirements for ordering medicines for ward, theatre and department stock

5.2.1 A schedule for ordering and delivery of medicines should be agreed with the Appointed Registered Nurse / Midwife or Manager in Charge, the Pharmacy Manager and Porter Manager.

5.2.2 Suitable quantities of medicines included in the stock list must be ordered so that they may be processed and delivered according to the agreed schedule. Sufficient quantities of stock should be held so that they will not require ordering outwith the agreed schedule, except in emergency situations.

5.2.3 The Appointed Registered Nurse / Midwife or Manager in Charge should monitor ordering practice to ensure that it is carried out efficiently i.e. doses are not missed or delayed unnecessarily, medicines are not wasted, and nursing, pharmacy and portering time is used efficiently.

5.2.4 Ward / department staff must arrange delivery and collection for items that are ordered outwith the agreed delivery schedule. Local SOPs will apply.

Controlled Drugs : Additional Requirements

5.2.5 CDs must be requisitioned in the sequentially numbered Ward Controlled Drugs Order Book, which will be signed by a registered nurse / midwife who must be an authorised signatory for CDs for the area concerned. In theatre environments, suitably qualified operating department practitioners (ODPs) can requisition CDs if they are an authorised signatory for that area.

5.2.6 The requisition must state the name, form and strength, where appropriate, of the CD and the total quantity required. The Ward Controlled Drugs Order Book should be sent to pharmacy for supply.

5.2.7 CDs for ward stock should be ordered according to a locally agreed schedule. Sufficient quantities of stock should be held so that they will not require ordering outwith the agreed schedule, except in emergency situations.

5.3 Requisitioning medicines for discharge and pass prescriptions and for out-patient clinics

(See also section 11, Patients Own Medicines and section 13, Prescribing medicines.)

5.3.1 A Discharge Prescription (or locally agreed Pass Prescription form, if appropriate) must be used to prescribe all medicines supplied to patients from hospital, including supply of medicines from out-patient clinics. This ensures adequate amounts of medication are provided on discharge and facilitates communication with the patient's GP. It is current good practice to include also information on medicines that have been stopped or altered and the reasons for these changes.

5.3.2 The information required must be accurately transcribed from the Medicine Kardex and / or the patient's medical notes, with an appropriate clinical review of the kardex to take account of the patient's current health status and desired treatment objectives.

5.3.3 In some departments (e.g. A&E departments) Discharge Prescriptions are not routinely required as "Patient Packs" of medicines are utilised for patients to take home and information on medication supplied is communicated to the patient's GP. (See also section 13.4, Prescriptions for out-patients / patient packs.)

5.3.4 Clinical trial medicines may be ordered on approved documentation as per trial protocol.

5.3.5 The doctor / authorised prescriber responsible for the patient's care must ensure that the prescription is completed in adequate time.

5.3.6 The prescription must be written legibly in black ink or otherwise so as to be indelible. The approved name for each medicine should be used, expect in cases where the BNF specifies that the brand name should be used due to brand bio-availability differences, e.g. lithium, controlled release nifedipine / diltiazem / ciclosporin.

5.3.7 Prescriptions may be computer generated, providing they are requested by an authorised prescriber with password protected access to the computer system.

5.3.8 The discharge prescription must include the name of the hospital, name, address, D.O.B., CHI and hospital number of the patient, consultant name, ward or department, signature and page number of the prescriber, date of writing and the name and address of the GP, in addition to clinical information.

5.3.9 At least seven days supply of medicines must be provided, unless a longer or shorter course of treatment is appropriate (e.g. for completion of an antibiotic course or for day or weekend pass prescriptions). In many units original packs will be dispensed, if appropriate.

5.3.10 If the patient already has his or her own supply of required medicines at home or stored in the ward, an additional supply should not be issued from the hospital. The nurse / midwife / pharmacist / doctor/ pharmacy technician must annotate the prescription with "Patient's own supply" and initial each entry. In doing so they are accepting that the patient has supplied reliable and accurate information on the medicines they have at home. If there is any doubt as to the validity of the information provided by the patient a fresh supply of all required medicines should be made from pharmacy using a Discharge Prescription (or Pass Prescription form). In these circumstances, the patient should be asked to return all medicines stored at home to their local community pharmacy.

5.3.11 Sufficient time must be allocated for pharmacy to process and return discharge medicines, taking account of the patient's planned time and date of discharge. Where appropriate, routine discharge prescriptions should be sent to pharmacy 24 hours in advance (or given to ward based pharmacy staff 24 hours in advance if this is the normal procedure to obtain discharge prescriptions).

Controlled Drugs : Additional Requirements

5.3.12 Prescriptions for controlled drugs are subject to strict legal requirements. (See also 13.3, Prescriptions for discharge or pass medicine).

5.3.13 A separate discharge prescription is required for CDs for discharge or pass medication. More than one CD can be prescribed on the same CD discharge prescription form. A prescription for CDs should not include any non CD medicines. All discharge / pass prescriptions for CDs must be accompanied by the ward / department Controlled Drugs Order Book, which must be signed by a registered nurse / midwife who must be an authorised signatory for CDs for the area concerned. (Controlled Drugs Order Books may not be required to accompany CD prescriptions from wards on all sites if locally validated procedures ensure a complete audit trail is maintained of CDs supplied on discharge / pass prescription e.g. 3-monthly reconciliation of CD prescriptions dispensed with the Ward Controlled Drug register. Local SOPs must be followed.)

5.3.14 Discharge or pass prescriptions for CDs cannot be transmitted electronically as the prescriptions must be signed by the prescriber. Addressograph labels must not be used on CD prescriptions as this does not fulfil the legal requirement that the name and address are indelible.

5.3.15 In addition, for CD prescriptions, the name, dose, form and strength, where appropriate, of the CD must be written and the total quantity to be supplied must be written in both words and figures. The Controlled Drugs Order Book must state the name, form and strength, where appropriate, of the CD, the total quantity required and the name and CHI number of the patient concerned. Each CD required should be requested on a separate page of the ward / department Controlled Drugs Order Book.

5.3.16 If the CDs are to be dispensed in the hospital pharmacy, the discharge or pass prescription and the Controlled Drugs Order Book should be delivered to the pharmacy at least 24 hours before the patient is due to be discharged, to allow adequate time for the dispensing process and delivery of the completed discharge prescription to the ward. For acute, unplanned discharges at least 4 hours will be required to process the prescription in pharmacy.

5.3.17 Prescriptions for CDs that do not comply with legal requirements will have to be re-written correctly before the prescription can be dispensed. This may result in delays in the patient being discharged.

6. Supply of medicines from pharmacy for use within the hospital

6.1 General principles

6.1.1 All issues of medicines to wards, theatres and departments must follow appropriate approved pharmacy SOPs.

6.1.2 Pharmacy will supply medicines only against the signature of a registered nurse / midwife or other suitable qualified personnel (e.g. radiographers), who must be an authorised signatory for that area. Pharmacists, pharmacy technicians and pharmacy support workers may also order medicines, provided they are registered with pharmacy as signatories for that clinical area.

6.1.3 If pharmacy does not supply the exact item requested and a suitable alternative is available e.g. different strength or different quantity is supplied, this will be clearly annotated on the original order.

6.1.4 Pharmacy will retain the original order, where appropriate, and a copy of the picking ticket, with the signatures of pharmacy personnel involved in issuing the medicines, for 2 years.

6.1.5 A delivery note detailing what has been supplied will accompany all medicines supplied from pharmacy, for use within the hospital, within normal working hours.

Controlled Drugs : Additional Requirements

6.1.6 All CD issues will be recorded in the appropriate section of the pharmacy Controlled Drug Register, which should be maintained with a running balance total for each product. The following details must be recorded:

- Name of the patient (if CD supplied against a discharge, pass or outpatient prescription).
- If the CD is supplied directly to the patient or their representative from pharmacy, the following additional information must also be recorded in the Pharmacy Controlled Drug Register:
  - Whether the person who collected the CD was the patient, their representative or a healthcare professional acting on behalf of the patient.
  - If the person who collected the CD was a healthcare professional, that person's name and address.
  - If the person who collected the CD was the patient or their representative, whether evidence of identity was requested. (As a matter of good practice a note as to why this was not requested may be included but this is not mandatory.)
  - Whether evidence of identity was provided by the person collecting the drug.
- Date on which the supply was made.
- Ward or department.
- Name of the person requisitioning the CD who must be an authorised signatory for CDs for the area requesting it.
- Amount supplied.
- Form in which supplied.
- Serial number of relevant page in the Ward Controlled Drugs Order Book.
- Signature of the person supplying the CD.

6.1.7 A computerised Controlled Drug register may be used provided safeguards are incorporated into the software to ensure all of the following:

- The author of each entry is identifiable.
- Entries cannot be altered at a later date.
- A log of all data entered is kept and can be recalled for audit purposes.
- Access control systems are in place to minimise the risk of unauthorised or unnecessary access to the data and adequate backups are made.

6.1.8 The following points are important with respect to pharmacy Controlled Drug Registers:

- All entries must be in chronological order.
- A separate part of the register must be used for each class of CD.
- The class of drugs must be specified at the top of each page.
- Entries must be made on the day of the transaction or on the next following day.
- No cancellation, obliteration or alteration may be made; correction must be by dated marginal note or footnote.
- Entries must be ink or otherwise indelible.

6.1.9 The Ward Controlled Drugs Order Book must be signed and dated by the pharmacy personnel making the supply.

6.1.10 All CDs will be supplied in a sealed tamper evident container, e.g. an Envopak bag with a numbered security tag.

6.2 Supply of medicines to community pharmacies or other hospital pharmacies

6.2.1 Hospital and community pharmacies should procure their medicines from a local wholesaler or direct from a manufacturer.

6.2.2 In an emergency, a request may be made by other hospitals or community pharmacies to obtain a supply from hospital stock.

6.2.3 Such requests must be authorised by the pharmacy Operational Services Manager or delegated deputy, dependent on local policy.

6.2.4 Out of hours, this request will be dealt with by the EDC pharmacist. (See section 7, Arrangements for the supply of medicines when pharmacy is closed.)

6.2.5 The site receiving the request should ensure the validity of the request if they do not know the personnel involved who are making the request. This may be done by asking for contact details and confirming the number is valid by checking telephone / online directories and also phoning back to the registered phone number of the site / business requesting medicines.

6.2.6 If the request is from an unknown hospital or community pharmacist, their registration details can be verified by checking the Royal Pharmaceutical Society of Great Britain (RPSGB) web site to ensure that the person is a registered pharmacist.

6.2.7 Requests may be made by telephone but must be confirmed by a faxed or written order or requisition from the hospital / community pharmacy requesting the medicine.

6.2.8 The request will be processed through the computerised stock control system. The relevant paperwork must be sent to the Finance Department to deal with the charging process, in accordance with local SOPs.

6.2.9 Medicines may be transferred in a taxi. See section 8.4, Taxis and Couriers. The taxi driver or a member of the community pharmacy staff uplifting the medicines from pharmacy must sign for receipt. Taxi drivers must record their unique call number.

Controlled Drugs : Additional Requirements

6.2.10 CDs may be issued in an emergency on receipt of a Ward Controlled Drugs Order request from another hospital or on receipt of a request written on Company headed notepaper, signed and dated by the community pharmacist with details of their RPSGB registration number.

6.2.11 A record of the transaction will be made in the pharmacy Controlled Drug Register.

6.2.12 The CDs will be secured in a tamper evident container (e.g. an Envopak bag with a numbered security tag or other temper evident container), with a copy of the delivery note.

7. Arrangements for the supply of medicines when pharmacy is closed

7.1 General principles

7.1.1 The Appointed Registered Nurse / Midwife or Manager in Charge is responsible for ensuring that appropriate systems are in place so that required medicines are available to minimise unnecessary dose omissions or delays These systems should ensure that adequate supplies of required medicines are ordered during pharmacy opening hours.

7.1.2 The Pharmacy Manager must ensure that an EDC pharmacist is available to provide advice on availability and safe use of medicines when the pharmacy is closed. The EDC pharmacist will provide urgently required medicines from the pharmacy, if deemed appropriate after consultation with ward medical and nursing staff.

7.1.3 On some sites, emergency cupboards are utilised for out-of-hours supply of medicines. These are maintained and stocked by pharmacy. Access to them is restricted to pharmacy staff and the Hospital Co-ordinator. Local SOPs must be followed.

7.1.4 The EDC pharmacist will not attend to supply discharge prescriptions out of hours but will respond to calls according to his / her professional judgement.

7.1.5 In emergency situations, the EDC pharmacist will make every effort to attend as quickly as possible.

7.1.6 The Hospital Co-ordinator must contact the EDC pharmacist personally, unless prescribing advice is required, when the doctor responsible for the patient's care must contact the EDC pharmacist directly, via switchboard.

7.1.7 If a prescribed medicine is not available in a clinical area when pharmacy is closed, the Assigned Nurse / Midwife in Charge must identify if the medicine can be obtained from another ward / department or from the emergency cupboard (if available). The Hospital Co-ordinator has access to the emergency cupboard and should be contacted by the Assigned Nurse / Midwife in Charge once it has been ascertained that the medicine is not available on another ward.

7.1.8 If the medicine is not available form another ward / department or the emergency cupboard, the Assigned Nurse / Midwife in Charge should consult with ward medical staff to agree whether the dose may be missed or delayed without compromising patient care, until the pharmacy reopens. If clinical care will be compromised by missing doses a decision must be made as to whether or not an alternative medicine that is available can be prescribed and administered. If not, the Hospital Co-ordinator must be advised, who will contact the EDC pharmacist via the hospital switchboard. All missed doses must be documented in the Medicine Kardex.

7.1.9 If the medicine is required before the pharmacy reopens, the EDC pharmacist will take action as follows:

- If patient care will be compromised due to medication omission and the medicine is not stocked in the emergency cupboard or on another ward or department but is stocked in the pharmacy, attend the hospital to supply.
- If the medicine is not available from the emergency cupboard or on another ward and is not stocked in the pharmacy, discuss with the prescriber and agree appropriate action. In some circumstances this may involve obtaining medicine from another hospital or contacting the local wholesaler.

7.2 Internal transfers of medicines between wards, theatres and departments when pharmacy is closed

7.2.1 Medicines should be transferred between wards, theatres and departments only when the pharmacy is closed, (except when accompanying patients being transferred to other wards / departments / sites to ensure continuity of supply, prevent dose omissions and reduce medication wastage).

7.2.2 The ward that requires the medicines must check if any neighbouring wards hold the required medicine. The Assigned Nurse / Midwife in Charge of the ward holding the required medicine must agree to the transfer. The ward requiring the medicine must send a copy of the current in-patient Medicine Kardex to the ward identified as holding stock, along with their Medicine Transfer Record Book (detailing what medicine is required). This book must be signed by the Assigned Nurse / Midwife in Charge of the requesting ward.

7.2.3 The Medicine Transfer Record Book should record:

- Date of transfer.
- Name, form, strength and quantity of medicine transferred.
- Signatures of the two nurses / midwives involved.

The ward issuing the medicine should retain the 'tear-off' slip from the Medicine Transfer Record Book, which should be filed in a dedicated folder held by the Authorised Nurse in Charge. Periodically, these books will be reviewed by nursing and / or pharmacy staff and used to amend stock lists to reflect current prescribing patterns.

7.2.4 A complete / partially used blister strip should be borrowed rather than cutting off one or two blisters, where possible. Any medication transferred must be clearly identifiable.

Controlled Drugs : Additional Requirements

7.2.5 The transfer of controlled drugs must be recorded in the Medicines Transfer Record Book (as above) and also be fully documented in the CD register of both wards.

7.2.6 The Hospital Co-ordinator must take the patient's Medicine Kardex from the ward requiring the CD, (Ward X), to the ward holding stock of the required CD, (Ward Y).

7.2.7 The Assigned Nurse / Midwife in Charge of the ward holding the CD, Ward Y, must authorise the removal of the required CD from their CD cupboard.

7.2.8 A registered nurse / midwife on Ward Y must make an entry in the appropriate page of the Ward Controlled Drugs Register belonging to Ward Y, indicating that stock has been transferred to Ward X. The entry should state, e.g. "2 tablets transferred to Ward X for patient A". This should be signed by the nurse / midwife from Ward Y and countersigned by the Hospital Co-ordinator.

7.2.9 The Hospital Co-ordinator will transfer the controlled drug from Ward Y to Ward X.

7.2.10 A registered nurse / midwife on the ward requiring the CD, Ward X, must make an entry in the appropriate page of the Ward Controlled Drugs Register belonging to Ward X, stating e.g. "2 tablets transferred from Ward Y for patient A". This should be signed by the nurse / midwife from Ward X and countersigned by the Hospital Co-ordinator.

7.2.11 Ward / department Controlled Drug Registers should be checked by pharmacy staff every three months following agreed SOPs.

8. Transport of medicines

8.1 General principles

8.1.1 The Pharmacy Manager / Operational Services Manager, Appointed Registered Nurse / Midwife or Manager in Charge and portering lead must negotiate appropriate portering systems to facilitate efficient transport of medicines and orders across the site to meet with service requirements.

8.1.2 A record is kept at each step where a medicine changes hands during its delivery from the pharmacy to destinations within the hospital, or to another hospital or institution, or person outwith the site and also when medicines are returned to pharmacy. For ward top-up boxes and bulk intravenous fluid deliveries recording is impractical. Local SOPs should be followed.

8.1.3 In-patients are discouraged from collecting discharge prescriptions directly from pharmacy due to identification and security issues. In addition, the patient or their representative may not receive the same level of discharge counselling on the use of their medicines as is available at ward level. If patients or their representatives collect medicines directly from the hospital pharmacy (e.g. out-patients) they must sign for receipt of medicines.

8.1.4 The person responsible for the medicine at each point of the transportation chain must be identifiable.

8.1.5 Medicine containers and packages are kept securely or under surveillance whilst awaiting collection or in transit between pharmacy and the final destination.

8.1.6 Medicine containers and packages awaiting collection or in transit are kept in the appropriate secure storage conditions to maintain the quality of their contents.
This includes maintaining the cold chain where required. (See section 8.3, Maintaining the cold chain.)

8.1.7 All medicines must be transported in sealed tamper evident containers or packages, e.g. securely stapled bags.

8.1.8 All containers and packages must be clearly labelled with the final destination.

8.1.9 Responsibility for security and maintenance of appropriate storage conditions remains with those collecting the sealed container until delivery is made, and documentation is signed acknowledging receipt.

8.1.10 Managers of staff groups responsible for transporting medicines within each hospital site are responsible for ensuring staff are trained to ensure an understanding of the need for security and NHS GG&C procedures, including action to be taken in the event of physical threat.

8.1.11 All incidents involving a breach of security are investigated. (See section 10.6, Action in the event of a breach in security.)

8.1.12 Local SOPs will apply for the transport of high-risk medicines including chemotherapy, intrathecal medicines and vaccines.

8.2 Transport of medicines to wards, theatres and departments

8.2.1 Medicines must be issued from pharmacy and transported in a sealed, tamper evident package. They must be clearly labelled with the destination and accompanied by a note of what has been supplied. If medicines are collected directly from pharmacy by the patient, tamper evident packaging and a note of what has been supplied are not required; however, the patient (or their representative) should always sign appropriate documentation and may be asked to verify the name and address of the patient / produce identification.

8.2.2 The member of staff uplifting medicines from the pharmacy department for transport to wards / theatres / departments must have their staff identification badge available. A consignment note, completed by pharmacy staff, must be signed by the staff member to take responsibility for transporting the sealed package to its final destination.

8.2.3 Porters delivering medicines to wards / theatres / departments are responsible for the return of the signed consignment note to pharmacy, as soon as practical, where it will be filed appropriately and stored for 3 months.

8.2.4 Porters delivering medicines for ward, theatre or department stock, or discharge / pass medication, must obtain a signature of receipt on the consignment note from a designated staff member, who will check that the package is sealed and has not been tampered with.

8.2.5 Pharmacy must be informed immediately of any suspected breaches in security. (See section 10.6, Action in the event of a breach in security.)

8.2.6 Intrathecal medicines and chemotherapy must be transported separately from any other medicine. (Please refer to the NHS GG&C Policy on Intrathecal Medicines).

Controlled Drugs : Additional Requirements

8.2.7 In-patients cannot collect discharge prescriptions for CDs direct from pharmacy. CDs for discharge or pass medication must be issued from the ward, in accordance with section 15 – Supply of medicines for patients to take away from hospital.

8.2.8 The consignment note for delivery of CDs to clinical areas must state the seal number on the Envopak bag (where these are used) or the relevant page number of the Ward Controlled Drugs Order Book, and the destination point.

8.3 Maintaining the cold chain

8.3.1 Sensitivity to changes in temperature varies depending on the medicine. Pharmacy departments will ensure that medicines sensitive to temperature change are identified and ward / department / theatre staff made aware of these items and any special storage / transport arrangements that must be followed.

8.3.2 If medicines that are sensitive to temperature changes are to be transported on a regular basis, pharmacy will validate the cold chain using a continuous calibrated temperature recording device for the duration of the transport time.

8.3.3 If medicines that are sensitive to temperature changes are to be transported on an occasional basis, the following good practice should be followed:

- The medicines sensitive to temperature change must be clearly labelled with appropriate warnings (e.g. "Store in Fridge").
- The medicine must be held outwith the recommended storage temperature for the minimum time possible. Maximum exposure time allowed depends on the sensitivity of the product.
- Cold boxes or expanded polystyrene boxes must be used for medicines identified as being likely to deteriorate with even short-term temperature changes.
- If gel packs are used, they must be evenly distributed. Direct contact with the medicines must be avoided by using bubble-wrap between the medicines and the gel packs. Using partially frozen gel packs further reduces the risk of the medicine freezing.

8.3.4 Medicines must not be removed from pharmacy refrigerators or freezers until the member of staff collecting or delivering the medicine to the ward / department is available.

8.4 Taxis and couriers

8.4.1 Only in exceptional circumstances should taxis or couriers be used for transportation of medicines.

8.4.2 Only hospital contract taxis and couriers able to produce identification may be used to transport medicines.

8.4.3 Taxis and couriers must always be ordered via the hospital switchboard or hospital transport department in accordance with local SOPs.

8.4.4 Taxis must not transport patients or staff whilst transporting medicines between sites (unless the medicine belongs to the patient or pharmacy staff are transporting medicines between sites, e.g. chemotherapy prepared at another site).

8.4.5 All packages must be sealed and tamper evident and the driver or courier must sign for collection of the medicines to be transported. Taxi drivers must record their unique call number.

8.4.6 Drivers must be advised of procedures to follow in the event of an accident / spillage when transporting high risk medicines. In the case of chemotherapy, it should be transported in containers that are clearly marked with information on the action to be taken in the event of a spillage (local SOPs will apply).

8.5 Posting medicines

8.5.1 Medicines must be posted only when the patient or the patient's representative cannot collect them, and there is no suitable alternative means of delivery, e.g. hospital vehicle, taxi, or courier.

8.5.2 Patients' medicines may provide confidential information about their condition and treatment, and this must be considered before posting medicines.

Continues overleaf

8.5.3 Cytotoxic chemotherapy is classified as prohibited or restricted material by the Postal Service and must therefore not be sent by routine post. Special arrangements are required and the carrier must be made aware of the hazardous contents. Storage, handling and packaging requirements must be agreed. (The Royal Mail may be contacted for further information on 08457 740 740.)

8.5.4 Medicines supplied by pharmacy must always be posted using Recorded Delivery or Registered Mail.

8.5.5 Where medicines are posted, a record must be kept of the date, name and address of the recipient, contents of the package, and person responsible for posting.

9. Receipt of medicines for use in wards, theatres and departments

9.1 General principles

9.1.1 A registered nurse / midwife must check that the ward box / package delivered by the messenger or porter is intended for that area, that it is sealed and has not been tampered with, before signing the consignment note. The number of the security seal should match the number on the consignment note (where these are in use).

9.1.2 If the order cannot be checked immediately, the registered nurse / midwife is responsible for ensuring that the package is stored in the conditions necessary to maintain security and quality (e.g. a secure lockable medicine cupboard, CD cupboard or lockable medicine refrigerator as appropriate). The medicines should then be checked as soon as practical and before changeover of shift.

9.1.3 The medicines should be checked by a designated staff member against the original order and the delivery note as follows:

- The package is sealed and has not been tampered with.
- The items listed on the delivery note detailing what has been supplied match the items that have been received.
- The items listed on the delivery note detailing what has been supplied match the items that were ordered.

9.1.4 The Appointed Registered Nurse / Midwife or Manager in Charge should identify any routinely used high-risk medicines (e.g. chemotherapy) and ensure SOPs are in place that facilitate prompt and safe receipt of these medicines in the ward / department, e.g. check that all of a patient's required chemotherapy has been delivered and that any items requiring refrigeration have been identified and stored appropriately.

9.1.5 The delivery note must be signed to confirm that it matches what has been supplied. It must be retained in the ward, theatre or department for 6 months.

9.1.6 Any discrepancy must be reported as soon as practicable to the pharmacy department, during working hours, and the delivery note left unsigned until the discrepancy is resolved. Outwith pharmacy working hours the EDC pharmacist should be informed by the Hospital Co-ordinator of any discrepancies involving CDs, chemotherapy or aseptically prepared products. All discrepancies will be investigated, documented, and appropriate corrective action taken to prevent a recurrence.

Controlled Drugs : Additional Requirements

9.1.7 The Ward Controlled Drugs Order Book should be signed by a registered nurse / midwife on the line "Received by" to confirm the CDs received on the ward are those that were ordered.

9.1.8 A designated staff member (e.g. registered nurse/midwife) must record receipt of all controlled drugs, including those supplied as part of a discharge prescription, in the Ward Controlled Drugs Register. Details of CDs received from Pharmacy on a discharge prescription must be entered into the Ward Controlled Drugs Register, even if the patient is to be discharged immediately. One page of the register should be headed "Controlled Drugs on Discharge Prescription In". The opposite page should be headed "Controlled Drugs on Discharge Prescription Out". All records of receipt must be recorded on the page "Controlled Drugs on Discharge Prescription In". The entry must include the signature of the person making the entry and the signature of a witness, date, time, quantity received, the strength and form of the drugs.

9.1.9 A separate page of the Ward Controlled Drugs Register must be dedicated to each individual product. All records of receipt and administration must be recorded on that page. The entry must include the signature of the person making the entry and the signature of a witness, date, time, quantity received the strength and form of the drug, the requisition page number of the Ward Controlled Drugs Order Book and the new balance. Patients' own CDs brought into hospital must also be entered into the Ward Controlled Drugs Register. One page of the register should be headed "Patient's Own Controlled Drugs In". The opposite page should be headed "Patient's Own Controlled Drugs Out". The patient's name and CHI number, and name, form, strength and quantity of the CDs should be recorded at receipt and on return to the patient or on destruction of the CD, if no longer clinically indicated, by the pharmacist at ward level.

9.1.10 When the page is full, required information must be carried over to a new page. The page that is full should indicate at the bottom "Balance transferred to page xx" and the new page should indicate at the top, "Balance transferred from page yy". The index at the front of the register must be used to indicate the current page in use for each product.

Continues overleaf

9.1.11 The entry must be witnessed and signed by a second registered nurse / midwife or a suitably competent student nurse / midwife or Operating Department Practitioner (ODP). Both are responsible for checking that the correct drug has been received in the correct quantity and is within its expiry date. They must also ensure that each required detail is entered correctly and the CDs are stored securely in the ward controlled drug cupboard (or separate lockable refrigerator, if appropriate).

9.1.12 Replacement Ward Controlled Drugs Registers may be obtained from pharmacy. All entries must be transferred to the new register. Each entry on the old register should be annotated "Transferred to new register" and the entry short-ruled and dated. The new register should be annotated "Balance transferred from old register" and dated. Both registers (old and new) should have each entry signed by 2 designated members of staff. Pharmacy will keep a record of all CD registers issued and will check the transfer of records has been carried out correctly.

9.1.13 Completed Ward Controlled Drugs Order Books and Ward Controlled Drugs Registers must be retained on the ward for 2 years after the date of last entry and then destroyed in line with confidential waste procedures.

10. Storage and security of medicines

10.1 General principles

10.1.1 Medicines should at all times be stored at a level of security appropriate to their proposed use and at a level appropriate to the staff present at any time. There is a potential cascade of security levels, with Pharmacy departments being the most secure, followed by ward / department medicine cupboards, medication trolleys, bedside Patients Own Drugs (POD) lockers and emergency trolleys. The security level may be different in locations that are staffed continuously compared with those that are staffed only intermittently, even when the use of the medicine is the same in each location.

10.1.2 The Appointed Registered Nurse / Midwife or Manager in Charge is responsible for ensuring all medicines in their ward / department are stored appropriately in secure cupboards, medicine trolleys or lockable refrigerators, approved by pharmacy.

10.1.3 Drug cupboards, including CD cupboards, must not be marked to indicate their contents.

10.1.4 Medicines shall be kept locked in separate cupboards e.g. :

- Internal medicine cupboard.
- External medicines cupboard.
- Patient medication lockers.
- Medicine trolleys.
- Medicine refrigerator / freezer.
- Flammables cupboard.
- Controlled drugs cupboard.
- Cupboard for non-cytotoxic intrathecal agents, if applicable. (Prior authorisation must be obtained to maintain stocks of these agents. Cytotoxic intrathecal injections cannot be stored in ward areas under any circumstances.)
- Cupboard for intraventricular agents, if applicable. (Prior authorisation must be obtained to maintain stocks of these agents.)
- Cupboard for epidural agents, if applicable.

10.1.5 Each cupboard must have a unique lock and key (although master keys are allowed for POD lockers).

10.1.6 The Appointed Registered Nurse / Midwife or Manager in Charge is responsible for ensuring that medicines are stored appropriately to minimise the risk of error of selecting the wrong preparation and to ensure that their quality is maintained, e.g. stored in a refrigerator if required. Medicines must be stored so that labels remain legible.

10.1.7 Medicine cupboards and refrigerators must be of an adequate size to allow medicines to be segregated and arranged for ease of selection, access, and stock control, and allow an adequate range and stock level to be held to meet patients' needs.

10.1.8 When medicines require storage in locked refrigerators or freezers, security must be in accordance with perceived risk. A temperature record must be maintained by the ward / department. It is recommended that at least daily recording of current, maximum and minimum temperature (since the last reading) is carried out. If possible, twice daily records should be kept. The records should document situation when temperatures are outwith the recommended range of 2 - 8°C for refrigerated products and any action taken to resolve the situation. In the event of equipment failure the Estates Department should be contacted and arrangements made to move medicines to a suitable storage facility. Pharmacy must also be contacted for advice regarding any medicines that may need to be destroyed and replaced due to the effects of temperature changes.

10.1.9 Internal medicines should be separated into solid oral dose preparations and liquid formulations as much as possible to minimise the risk of selecting the wrong preparation, and to facilitate efficient stock control and ordering. Other medicines given by non-oral routes, e.g. nebulisers / suppositories, should be kept clearly segregated from oral medicines to avoid inadvertent wrong route administration.

10.1.10 All products containing potassium chloride in parenteral form are subject to restricted access and special ordering and storage requirements apply. Please refer to current local policy and SOPs for further information.

10.1.11 Medicines intended for intrathecal, intraventricular or epidural use should be kept in separate locked cupboards from injections intended for administration by different routes. They should never be kept as ward or theatre stock unless documented and approved by pharmacy.

Continues overleaf

10.1.12 Medicines must be stored alphabetically by approved name as far as practically possible. They should be stored in their original packaging. Ampoules, vials, or blister packed tablets must not be removed from the original box during storage.

10.1.13 Ward and department cupboards used for storage must be kept locked when not in use. In theatres, cupboards can be kept unlocked whilst the theatre is in use. Between operating sessions or when the theatre is not in use the medicines should be returned to the medicine cupboards and the cupboards then locked (CDs should not be left out of cupboards unattended at any time).

10.1.14 Medicine trolleys must be kept locked and immobilised when not in use. They should contain medicines currently in use and commonly prescribed drugs for the clinical area. They should be kept clean and tidy and items intended for different routes of administration kept clearly segregated (e.g. nebules / capsules / oral liquids).

10.1.15 Patients Own Drugs (PODs) must be stored in a separate area of the locked medicine cupboard or a POD locker that is not readily portable. PODs must be clearly distinguishable from ward stock.

10.1.16 Regular expiry dates checks should be carried out for all medicines. Stock must be rotated according to the expiry date so that oldest stock is used first.

10.1.17 Any patient responsible for self administration of medicines on the ward must keep his / her medicine in a cupboard or drawer which can not easily be removed e.g. salbutamol inhaler for use in an emergency.

10.1.18 All incidents involving a breach of security that cause actual or potential loss or theft of medicines are investigated and the appropriate corrective and preventative action is taken in accordance with local SOPs. (See section 10.6 Action in the event of a breach of security). This may involve contacting the police.

Controlled Drugs : Additional Requirements

10.1.19 All CDs for ward /department stock and discharge / pass medication and patients own CDs should be stored in areas that comply with current regulations. The provisions within The Misuse of Drugs (Safe Custody) Regulations 1973 are not applicable to the storage of CDs in NHS hospitals but are deemed good practice.

10.1.20 CDs should be stored in a separate locked cupboard from all other medicines, ideally inside another locked cupboard. The CD cupboard must have its own dedicated key. The key for the CD cupboard should be kept on the person of the Assigned Nurse / Midwife in Charge when not in use. This key should be kept separate from other medicine keys.

10.1.21 Self-administration of individual patient supplies of CDs must follow locally approved SOPs and ensure all record keeping requirements / safe custody requirements are met.

10.1.22 Clinical trial controlled drugs will normally be stored in the pharmacy, or in an alternative location, jointly approved by pharmacy and the clinical trial monitors. Storage requirements are as for stock CDs.

10.1.23 Parenteral CDs should be stored in a separate area of the CD cupboard, wherever possible.

10.1.24 CDs intended for intrathecal, intraventricular or epidural use should be stored in separate, clearly identified storage area, preferably in a separate CD cupboard but, if this is not practical, then in a separate area within the locked CD cupboard(s).

10.1.25 CDs must not be returned to pharmacy in the pharmacy box. They must be returned to pharmacy if no longer required by an appropriately authorised member of pharmacy staff accompanied by a Medicines Returned to Pharmacy form. In some sites, ward staff may be authorised to return CDs no longer required using a Medicines Returned to Phatmacy Form. On these sites, local SOPs must be followed that ensure a complete audit trail is maintained and that the CDs are handled and transported securely at all times. Some wards / departments return all CDs to pharmacy when they close (e.g. at weekends). These CDs must be returned to pharmacy in a tamper evident envopak by a designated ward / department staff member.

10.1.26 CDs requiring refrigeration should be stored in a separate lockable refrigerator in a secure area.

10.2 Control of access to medicines

10.2.1 The Appointed Registered Nurse / Midwife or Manager in Charge is responsible for ensuring a system is in place for the safekeeping of, and for controlling access to, all medicines stored in his or her area of control. In order to fulfil this responsibility, the Assigned Nurse / Midwife in Charge must normally hold the keys that allow access to any medicines (e.g. keys for drug cupboards, POD lockers, refrigerators etc). Any keys that allow access to CDs (e.g. CD cupboard keys) should be kept separate from other keys and only given to other approved staff when access to CDs is required.

10.2.2 In circumstances where holding the keys personally would cause delays or difficulties in making medicines available, the Assigned Nurse / Midwife in Charge may delegate keyholding and control of access to another designated staff member. In operating theatres, control of access to medicines may be delegated to a suitably qualified and competent operating department practitioner (ODP). Special arrangements apply where control of access is delegated to an ODP. (See section 10.3, Delegating control of access to medicines and CDs to an ODP.)

10.2.3 The Appointed Registered Nurse / Midwife or Manager in Charge retains responsibility for the safe custody of medicines and controlled stationery, even if he / she decides to delegate control of access. The Appointed Registered Nurse / Midwife or Manager in Charge must make necessary arrangements to be sure that only authorised persons are given access in appropriate circumstances.

10.2.4 The Appointed Registered Nurse / Midwife or Manager in Charge is responsible for ensuring that a duplicate set of keys for all medicine storage cupboards, medicine trolleys, pharmacy boxes etc. are stored securely in a designated place, approved by pharmacy, according to local arrangements.

10.2.5 A duplicate key will be issued for use if the original is, or appears to be faulty, or is missing. The duplicate key must be returned to the designated storage location in the nursing office or pharmacy promptly whenever the faulty key is repaired, or replaced or the missing key is located. If the lock has to be replaced the Appointed Registered Nurse / Midwife or Manager in Charge is responsible for ensuring a copy of the new key is supplied to the nursing office or pharmacy, and the key to the original lock is withdrawn.

10.2.6 Pharmacy and Heads of Nursing must ensure appropriate action is taken and the outcome documented in the event of loss or potential theft of keys for any cupboards / refrigerators / freezers containing medicines (including bedside locked cabinets used to store patients own drugs).

Controlled Drugs : Additional Requirements

10.2. 7 A written record is made at each step where a CD changes hands, and when it is administered or destroyed.

10.2.8 Additional arrangements are in place to monitor stocks of controlled drugs. (See section 10.4, Record keeping and stock checks required for medicines by wards, theatres and departments).

10.2.9 Some devices used to administer CDs are locked to avoid tampering with the device and not to control access to the CD e.g. PCA pumps. The nurse / midwife who is caring for the patient may hold a copy of the key to the device.

10.2.10 If the key to a CD cupboard goes missing, the guidance given in section 10.2.6 should be followed. Additionally, the police must be informed if foul play is suspected.

10.2.11 The appropriate ward or department manager and the Pharmacy Manager are responsible for ensuring that CD stocks in wards, theatres and departments that are to be left unmanned either routinely, e.g. overnight, at weekends, or due to closure for a limited period of time, are secure. When agreeing the procedure to be followed or the course of action to be taken, a risk assessment must be undertaken, taking consideration of the following factors:

- The likelihood of immediate detection of an intruder.
- The deterrents in place.
- The particular medicines being stored.

10.2.12 Certain clinical areas may have special arrangements in place to allow return of a number of CDs to pharmacy for safe storage, e.g. clinics closed at weekend. Local SOPs will apply.

10.3 Delegating control of access to medicines and Controlled Drugs to a registered Operating Department Practitioner (ODP)

10.3.1 The Appointed Registered Nurse / Midwife or Manager in Charge is responsible for the safekeeping of, and for controlling access to, all medicines stored in his or her area of control. The keys should normally be held by the Assigned Nurse / Midwife in Charge of the ward / department.

10.3.2 In circumstances where holding the keys personally would cause delays or difficulties in making medicines available, the Assigned Nurse / Midwife in Charge may delegate keyholding and control of access to medicines to another registered nurse / midwife. In operating theatres, control of access to medicines may be delegated to a suitably qualified and competent registered operating department practitioner (ODP), in specific circumstances for defined periods of time

10.3.3 A local written protocol defining the circumstances in which the control of access to medicines will be delegated must be agreed.

Continues overleaf

10.3.4 The ODP must have achieved the Scottish Vocational Qualification/National Vocational Qualification in Operating Department Practice level 3, and be on the voluntary register maintained by the Association of Operating Department Practitioners. In addition, the Appointed Registered Nurse / Midwife or Manager in Charge must be satisfied that the ODP understands and will adhere to the protocol.

10.3.5 The protocol must include the following information:

- Situations in which authority to control access may be delegated.
- Persons to whom the medicines may be conveyed.
- Specific medicines and maximum quantities that may be conveyed.
- Records that must be kept when a CD changes hands or any medicines are administered to a patient.
- Circumstances and situations where further advice or authority must be obtained from the Appointed Registered Nurse / Midwife or Manager in Charge.
- Monitoring arrangements for the protocol.
- Qualifications and registration details of the ODP.

10.3.6 The protocol must be signed by the ODP to confirm that he / she has read and understood the protocol and by the Appointed Registered Nurse / Midwife or Manager in Charge to confirm that the ODP is authorised to practice within the protocol.

10.3.7 The protocol must be regularly reviewed (at least annually).

10.4 Record keeping and stock check requirements for medicines by wards, theatres and departments

10.4.1 A complete audit trail for all medicines must be available from the point of receipt at ward / department level to administration to patients or return to pharmacy.

10.4.2 A record must be made of all medicines administered to patients in wards / theatres / departments / clinics.

10.4.3 The Appointed Registered Nurse / Midwife or Manager in Charge should liaise with pharmacy to ensure they can account for all medicines liable to misuse. Local SOPs will apply.

10.4.4 It is the responsibility of the Appointed Registered Nurse / Midwife or Manager in Charge to notify pharmacy of any changes in personnel authorised to requisition medicines and CDs.

Controlled Drugs : Additional Requirements

10.4.5 The Appointed Registered Nurse / Midwife or Manager in Charge is responsible for ensuring that records of all CD transactions are properly maintained, and that stocks are reconciled. In their absence the responsibility can be delegated to the most senior registered nurse / midwife on duty (the Assigned Nurse / Midwife in Charge).

10.4.6 A record of all CD transactions must be made in the Ward Controlled Drugs Register belonging to the ward, theatre or department:

- On receipt at ward level theatre or department, including patients own CDs, brought into hospital and returned on discharge or pass.
- On administration to patients.
- When part of a dose is destroyed (surplus to requirements).
- On return to pharmacy.
- On internal transfer of CDs between wards / departments when pharmacy is closed following authorisation from the hospital co-ordinator.
- When out of date or no longer required CDs are destroyed at ward level.

Destruction or return of CDs to pharmacy must be arranged with the pharmacy department.

10.4.7 A separate page must be dedicated to each individual product, and all transactions recorded on that page in chronological order with a running balance. When the page is full, required information must be carried over to a new page. The page that is full should indicate at the bottom “Balance transferred to page xx” and the new page should indicate at the top, “Balance transferred from page yy”. The index at the front of the register must be used to indicate the current page in use for each product.

10.4.8 In hospital, patients own controlled drugs, which are being used or stored, must be entered in the Ward Controlled Drugs Register on a dedicated page, and each transaction must be documented.

10.4.9 Two registered nurses / midwives, or one registered nurse / midwife and one suitably competent student nurse / midwife must record the receipt of CDs in the Ward Controlled Drugs Register and check the balance is correct. Both are responsible for checking that the correct drug has been received and that it is within its expiry date. They must ensure all required details are entered correctly in the Ward Controlled Drugs Register and that the CDs are stored securely in the ward controlled drug cupboard (or lockable refrigerator, if appropriate). In theatre environments, one member of staff may be a suitably competent registered ODP.

10.4.10 In a hospital ward or department two registered nurses/midwives, or one registered nurse / midwife and a registered medical practitioner or suitably competent student nurse / midwife must always participate in the administration of CDs, one witnessing the procedure and one administering the medicine. Responsibility ultimately rests with the person administering the CD (unless this is a student nurse / midwife, where responsibility lies with the nurse / midwife supervising and witnessing the administration). In theatre environments, the member of staff witnessing the administration may be a suitably competent registered ODP.

10.4.11 A record of all CD administrations must be made in the Ward Controlled Drugs Register. The person administering the CD should sign in the "Administered by" box and the person witnessing the administration should sign in the "Witnessed by" box. A record must also be made in the patient's Medicine Kardex. Other records should be made according to local procedures, e.g. record in nursing notes.

10.4.12 If part of a dose is not administered to the patient, two registered nurses / midwives, or one registered nurse /midwife and a registered medical practitioner or suitably competent student nurse / midwife, must check the amount discarded and record it in the register if only part of a dose unit is administered. In theatre environments, one member of staff may be a suitably competent registered ODP.

10.4.13 Two registered nurses / midwives, or one registered nurse / midwife and a registered medical practitioner or suitably competent student nurse / midwife, must reconcile the stock balance at each transaction by counting or measuring the physical stock when checking it against the register. In theatre environments, one member of staff may be a suitably competent registered ODP.

10.4.14 Liquid medicines should be issued from pharmacy in individual dose units, where possible. The pharmacist must check liquid medicines supplied in multi-dose bottles and amend the register to correct for small discrepancies that are accounted for by overage and loss on measurement, when necessary. The Pharmacy Manager / Designated Deputy must be contacted where there are discrepancies which cannot be accounted for by overage and loss on measurement.

10.4.15 The stock of every CD must be checked at each shift changeover or, as a minimum, a least once every 24 hours, by two registered nurses / midwives, as follows:

- Systematically look at each page of the register and then count or measure the corresponding physical stock. Items should not be selected first, counted and then checked with the corresponding page in the register, as this method does not ensure that all stock recorded in the register is checked.
- Refer to the Ward Controlled Drugs Order Book. Check that each order received since the last daily check has been entered in the Ward Controlled Drugs Register.
- Record in writing at the back of the Ward Controlled Drugs Register (or CD check book if this is in use locally) that the daily check has been carried out. Both members of staff carrying out the stock check must sign this entry.
- Inform the Appointed Registered Nurse / Midwife or Manager in Charge of any discrepancies found and document and investigate appropriately.

10.4.16 CDs supplied in sealed, tamper evident boxes / packets do not need to be opened and their contents removed for counting on each occasion the CD stock balance is checked (provided the tamper evident seal remains intact). In some areas (e.g. theatres), local procedures will stipulate that all boxes / packets must be opened and the stock checked (on receipt and at each CD stock check).

10.4.17 If any discrepancies that cannot be resolved are found in the routine stock check of CDs by wards / departments the Assigned Nurse / Midwife in Charge must act immediately by informing the appropriate senior nurse (e.g. Clinical Co-ordinator), Pharmacy Manager / Designated Deputy. Following a thorough investigation, if criminal activity is suspected, the Police will be informed (See section 10.6, Action in the event of a breach in security).

10.4.18 Pharmacy staff should check the Ward Controlled Drugs Register and reconcile stock at least once every 3 months. The person undertaking the check must provide a report of the outcome of the check to the Appointed Registered Nurse / Midwife or Manager in Charge. The person undertaking the check must record any discrepancies found as a medication incident and inform the Appointed Registered Nurse / Midwife or Manager in Charge, Lead Nurse and Pharmacy Manager.

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10.4.19 Pharmacy will provide quarterly reports to each Directorate, detailing the CD stock checks carried out, any discrepancies found and actions needed to resolve discrepancies.

10.4.20 Ward Controlled Drugs Registers and Ward Controlled Drugs Order Books must be retained by the Appointed Registered Nurse / Midwife or Manager in Charge for two years after the date of the last entry.

10.5 Storage of drugs required for emergency use

10.5.1 Every ward must have access to medicines stored in strategic and accessible sites that can be used in emergencies such as cardiac arrest, respiratory arrest or anaphylaxis. Many wards keep the range of medicines required in their ward stock and do not require to keep a separate emergency tray / box.

10.5.2 Emergency kits (e.g. for emergency teams working outside the hospital and GPs out of hours service):

- Must be tamper evident.
- If it is impractical for them to be locked up, they must be stored in an area with constant staff presence.
- Kits, or their contents, must not be obvious to the general public.

10.5.3 Following a review by the resuscitation team, wards / departments which stock only a limited range of medicines will have access to an emergency medicine tray / box, which will be situated in an agreed location.

10.5.4 Once an emergency medicine tray / box has been opened it should be returned to the pharmacy department for replacement as soon as possible, during pharmacy opening hours, even if no medicines or equipment have been removed.

10.5.5 There must be a system of checks in place for emergency trays / boxes that are assembled and stored ready for use, to ensure that any medicine included is correct and within its expiry date.

10.5.6 On some sites, emergency cupboards are utilised for out-of-hours supply of medicines. These are maintained and stocked by pharmacy. Access to them is restricted to pharmacy staff and the hospital co-ordinator. Local SOPs must be followed

Controlled Drugs : Additional Requirements

10.5.7 Any areas that hold emergency trays / boxes containing CDs must check the contents of the tray / box daily to ensure the CDs have not been tampered with. The Appointed Registered Nurse / Midwife or Manager in Charge must liaise with pharmacy to ensure storage arrangements are appropriate.

10.6 Action in the event of a breach of security

10.6.1 A breach of security includes any deviation from the procedures that results in actual or potential loss or theft of medicines. Examples of such incidents include:

- CDs are found to be missing.
- Controlled stationery is found to be missing.
- A key for medicine storage areas is found to be missing.
- Medicines belonging to ward / department stock are found to be missing.
- Patients Own Drugs are found to be missing.
- An unauthorised person has access to controlled stationery.

10.6.2 Any person who discovers a breach of security is responsible for reporting it immediately to the Assigned Nurse / Midwife in Charge, and to the Pharmacy Manager / Designated Deputy. Out of hours, the EDC pharmacist should be informed.

10.6.3 The Appointed Registered Nurse / Midwife or Manager in Charge of the department concerned is responsible for investigating the breach of security and for taking the necessary action according to relevant NHS GG&C policy (see Standing Financial Instructions, Section 18, Fraud, Losses and Legal Claims). This includes informing appropriate personnel within appropriate timescales, and ensuring that the relevant incident form is completed.

10.6.4 All incidents involving a breach of security that cause actual or potential loss or theft of medicines must be investigated and the appropriate corrective and preventative action taken in accordance with local SOPs. If medicines have been misappropriated police charges may be brought against staff members.

11. Patients Own Drugs (PODs)

11.1 General principles

11.1.1 Patients own drugs may be brought into the ward by the patient or patient's representatives or ambulance crews. Patients' representatives may bring medication in to hospital after the patient has been admitted.

11.1.2 Nursing, midwifery, pharmacy or medical staff assessing PODs must be satisfied that the medicine has been prescribed for that patient and the medicine is fit for purpose.

11.1.3 All medicines brought into hospital by patients remain their own property. The patient (or their representative) must give consent for PODs to be used or for their disposal (verbal consent is sufficient – this should be documented in the nursing notes / POD assessment documentation or on the front of the Medicine Kardex (dependent on local SOPs).

11.1.4 Careful consideration should be given to returning PODs to patients representatives during the patients stay. Controlled Drugs must not be returned to patients representatives during the patient's in-patient stay as there is the potential for misappropriation.

11.1.5 On no account should PODs be mixed with ward, theatre or department stock or be administered to another patient.

11.1.6 Where PODs need to accompany a patient who is being transferred to another ward, they must be placed in an appropriate container / bag designated for this purpose (e.g. a Patients Own Drugs 'green bag') and given to staff transferring the patient for handing over to the receiving staff. Responsibility for the safe keeping of the PODs lies with the member of staff carrying out the transfer.

11.1.7 Where the responsibility for a patient is transferred from one nurse / midwife or other clinician to another, or from one clinical area to another, then the nurse / midwife or other clinician receiving the patient must check that all PODs that have been transferred are correct for the patient. The responsibility for security of the PODs is also transferred to the receiving nurse / midwife or clinician. This is part of the series of checks that are required at transfer.

11.1.8 In certain circumstances, parents, relatives or carers of patients may be resident in hospital and require to take regular medication. Local SOPs should be followed for the storage and security of these medicines belonging to the parents, relatives or carers. Particular attention must be paid to drugs liable to misappropriation / CDs. Every possible effort should be made by the parent, relative or carer to store and take their medicine outwith the hospital, if possible.

11.2 Documentation of Patients Own Drugs

11.2.1 A detailed list of all PODs brought into hospital should be recorded in the patients notes or on locally agreed documentation, following approved SOPs.

11.2.2 If PODs have to be sent to pharmacy for destruction this must be with the patients or patients representative's permission and must be documented in the nursing notes or locally agreed documentation. All medicines returned to pharmacy must be accompanied by a Medicines Returned to Pharmacy form.

11.2.3 At point of discharge, the patient / patient's representative must sign the discharge prescription to indicate they have received discharge medicines, which may include return of PODs (if still clinically appropriate). A copy of the discharge/pass prescription should be filed in the patient's medical notes. If the patient cannot sign the prescription then two nurses from the ward / department should sign the prescription to indicate they have returned the medicines.

Controlled Drugs : Additional Requirements

11.2.4 Where it is necessary to administer a patient's own CD to them while in hospital, a separate page of the CD register should be used to allow each dose administered to be recorded in the normal manner. The CD will have been logged in on admission to the ward / department in the "Patient's Own Controlled Drugs In" page. On the opposite page, "Patient's Own Controlled Drugs Out", the entry should state "Transferred to page xx for in-patient use".

Continues overleaf

11.2.5 Details of patients own CDs brought into hospital must be entered into the Ward Controlled Drugs Register. One page of the register should be headed "Patient's Own Controlled Drugs In". The opposite page should be headed "Patient's Own Controlled Drugs Out". The patient's name and CHI number, and name, form, strength and quantity of the CDs should be recorded at receipt and on return to the patient or on destruction of the CD, if no longer clinically indicated, by the pharmacist at ward level.

11.2.6 On the page headed "Patient's Own Controlled Drugs In" the entry must state the date, time received, patient's name, drug name, form, strength and quantity received, and balance (e.g. "…Sevredol tablets 20mg, 22 tablets"). If more than one CD is brought in it should be recorded on a separate line.

11.2.7 When patients are transferred between wards their own medicines and CDs should accompany them. CDs should be written out of the Ward Controlled Drugs Register (on the "Patient's Own Controlled Drugs Out" page), stating where the patient is being transferred to and then written into the receiving ward's Controlled Drug Register (on the "Patient's Own Controlled Drugs In" page). The CDs should be transported in a sealed, tamper evident container.

11.2.8 Where it is clinically appropriate to return CDs that have not been used during the in-patient stay at point of discharge / pass, an entry must be made on the opposite page headed "Patient's Own Controlled Drugs Out", on the same line. The entry must state date, time issued, patient's name, drug name, form, strength, quantity issued (e.g. "…Sevredol 20mg tablets x 22 supplied").

11.2.9 The patient or their representative must sign the discharge prescription to record that they have received the CDs. The exact quantity / form / strength of any CD PODs returned to patients or their representatives must be documented on the Discharge Prescription.

11.2.10 Where it is inappropriate to return patients own CDs at point of discharge, e.g. no longer clinically indicated / strength inappropriate, pharmacy must be contacted to destroy the CDs at ward level.

11.3 Assessment of Patients Own Drugs

11.3.1 A nurse / midwife, pharmacist or pharmacy technician must take all reasonable steps to ensure that a patients own medicine is suitable before it is used in hospital, or re-issued at discharge. This will include the following checks:

- The medicine is in the original dispensing pack, or in a blister strip containing the medicine name, strength and expiry date.
- For medicines in the original dispensing pack, the label and the contents of the pack must correspond and they must have been dispensed for the patient in question within the last 3 months.
- There are no visible signs of deterioration.
- The medicine has not expired if the expiry date is on the blister strips, or, if no expiry date is available it must be within 3 months of the date dispensed.
- Medicines are not mixed in the container.

11.3.2 The outcomes of 11.3.1 must be formally documented in the nursing notes or approved documentation. Only medicines complying with the above criteria should be used during the in-patient stay or returned to the patient, when clinically appropriate, at point of discharge.

11.3.3 Multi-compartment devices, (compliance aid / dosette boxes) should not routinely be used for administration during in-patient stay. If the multi-compartment medication device is not clearly labelled, or is not a sealed device, the medicines must not be used except when the patient is at clinical risk if a medicine is omitted and an alternative supply is not available in the short term. Nursing staff administering the medicine must be able to identify the medicine contained in the multi-compartment medication device. (See Appendix 6, Multi-compartment medication devices.)

11.4 Storage of Patients Own Drugs

11.4.1 PODs should be stored appropriately and securely in the ward / department throughout the patient's stay (medicine cupboard / controlled drug cupboard, POD locker or refrigerator) either for use while in hospital or to be returned at point of discharge, if clinically indicated.

11.4.2 In certain circumstances medicines may be given to patients to be stored at their bedside, e.g. salbutamol inhalers, for emergency use. Local SOPs will apply.

Controlled Drugs : Additional Requirements

11.4.3 After recording the receipt of patients' own CDs in the Ward Controlled Drugs Register, CDs must be locked in the ward controlled drugs cupboard (unless the patient is self administering CDs, where a local risk assessment should be undertaken and suitable storage arrangements made for the CD that assures safety and security without compromising patient care).

11.5 Return of Patients Own Drugs at Point of Discharge

11.5.1 PODs may be safely returned to the patient at point of discharge providing:

- The medicine is still prescribed on discharge.
- The medicine is appropriately labelled with the current dose.
- The PODs are still in date.

11.5.2 Providing the patient has at least 7 days supply of their own medicines which are in date, are clinically indicated and are fit for use, they should be re-issued at point of discharge. Further supplies should not be ordered from pharmacy. The medicines should be prescribed in the usual manner on the Discharge Prescription and annotated as "Patient's Own Drugs".

11.5.3 If a patient brings in a multi-compartment device and there are no changes to their medicines during the in-patient period an appropriately trained staff member should assess if the patient's own device can be returned to the patient for use on discharge, considering:

- The number of days supply remaining.
- The origin of the device, e.g. local pharmacy / filled by patient or family member.
- If issuing a part used device may cause confusion / worsen compliance.

In most cases, it is more appropriate to issue a freshly filled multi-compartment device. (See Appendix 6.)

11.6 Destruction of Patients Own Drugs

11.6.1 The Assigned Nurse / Midwife in Charge or pharmacy technician / pharmacist will decide if PODs have to be returned to the patient on discharge or be destroyed. This decision will be recorded in the nursing notes/ locally approved documentation.

11.6.2 The patient or their representative must consent prior to the destruction of the PODs. If the patient (or their representative) refuses consent for destruction of the PODs no longer clinically indicated, or otherwise unsuitable for use, this must be documented in the medical notes. If appropriate, medical staff and the patient's GP should be informed and resolution sought.

11.6.3 All PODs (excluding CDs) not being returned to patients must be returned to pharmacy for destruction. The PODs should be accompanied by a Medicines Returned to Pharmacy form, which must state the patient's name and hospital / CHI number and list all PODs sent for destruction. Detailed quantities of each medicine returned are not generally required to be included on this form, unless the drug is included in the Desirable Drugs Policy, where exact quantities must be documented.

11.6.4 The Medicines Returned to Pharmacy forms will be retained in the Pharmacy department for a period of 12 months.

Controlled Drugs : Additional Requirements

11.6.5 CDs must not be returned to pharmacy for destruction. They must always be destroyed at ward / department level. (See section 16, Return and disposal of medicines.)

11.6.6 A pharmacist and a registered nurse / midwife from the ward / department must witness the destruction of patients' own CDs at ward level. The destruction must be recorded in the Ward Controlled Drugs Register.

12. Authorisation to prescribe and administer medicines

12.1 General principles

12.1.1 Medicines can be prescribed only by a UK registered doctor, or dentist, or a registered supplementary / independent Prescriber.

12.1.2 If medicines are not prescribed, they can only be administered or supplied within the terms of a Patient Group Direction (PGD) or a Patient Specific Direction (PSD). Midwives are exempt from this requirement in relation to certain specified medicines only, allowing them to supply and administer these medicines without the directions of a doctor, by provisions in the Prescription Only Medicines (Human Use) Order 1997. The medicines to which this exemption applies are listed in Schedule 5 of the POM Order (Appendix 7).

12.1.3 Medicines are prescribed, or authorised for administration or supply, according to agreed local policies, formularies and stock lists.

12.1.4 Medicines used for research and clinical trials must have the appropriate management and ethics committee approval. (See section 4.5, Approval of new medicines for procurement and section 4.7, Medicines for use in research and clinical trials.)

12.1.5 Appropriate risk management arrangements must be followed for the prescribing of medicines that do not have a product licence. (See section 4.6, Unlicensed medicines.)

12.1.6 A record of all medicines prescribed and administered or supplied must be maintained in the patient's medical case notes. If the medicine is a CD then a record of administration will also be recorded in the Ward Controlled Drugs Register.

12.1.7 All medication errors or potentially serious 'near miss' events should be reported and investigated. (See section 17, Medication Incidents.)

12.1.8 Prescribers should not prescribe medicines for themselves or for anyone with whom they have a close personal or emotional relationship.

Controlled Drugs : Additional Requirements

12.1.9 If electronic prescribing is in place then any CD discharge prescription so generated will need to be signed by the prescriber.

12.2 Non-medical prescribers

12.2.1 The extension of prescribing roles to non-medical professions is intended to:

- Improve the quality of service to patients without compromising patient safety.
- Make it easier for patients to get the medicines they need.
- Increase patient choice in accessing medicines.
- Make better use of the skills of health professionals.
- Contribute to the introduction of more flexible teams working across the NHS.

12.2.2 Currently, three recognised means of non-medical prescribing exist:

- **Community practitioner nurse prescribing** – District Nurse Prescribers / Health Visitor / Public Health prescribers who can prescribe only from the "Nurse Prescribers' Formulary for Community Practitioners" (see current edition of the BNF for the current version of this formulary). (This class of prescriber is not discussed further in these Acute sector guidelines as they will only function within community settings).
- **Supplementary prescribing** – A voluntary partnership between the patient, an independent prescriber (who must be a registered doctor or dentist), and a registered supplementary prescriber to implement an agreed patient specific Clinical Management Plan (CMP), which details medicines that can be prescribed for specific indications.
- **Nurse / Midwife or Pharmacist independent prescribing** - Prescribing by a nurse / pharmacist responsible and accountable for the assessment of patients with undiagnosed or diagnosed conditions and for decisions about the clinical management required, including prescribing.

12.2.3 Registered nurses, midwifes and pharmacists, can apply for registration as independent prescribers following succesful completion of an approved non-medical prescribing course.

12.2.4 Existing qualified pharmacist supplementary prescribers will also be able to function as independent prescribers once they have completed an appropriate conversion qualification. (See www.nes.scot.nhs.uk).

12.2.5 Allied Health Professionals can apply for registration as supplementary prescribers following completion of an approved course.

12.2.6 All training courses for non-medical prescribers can be accessed through the Non-Medical Prescribing Lead within PPSU.

12.2.7 Appropriate local procedures relating to registration with NHS GG&C as a qualified non-medical prescriber must be followed and job descriptions updated (if necessary).

12.2.8 It is essential that nurse / midwife and pharmacist prescribers are clear at all times which prescribing regime they are operating under i.e., for nurses, as a Community Practitioner nurse prescriber, supplementary prescriber or independent prescriber.

12.3 Nurse / Pharmacist / Allied Health Professions supplementary prescribers

12.3.1 The supplementary prescriber provides continuing care to the patient following assessment and diagnosis by the independent prescriber (who must be a doctor or dentist) and according to a CMP agreed with the independent prescriber.

12.3.2 The independent prescriber is responsible for:

- The initial assessment of the patient, the formulation of the diagnosis and determining the scope of the CMP.
- Reaching an agreement with the supplementary prescriber about the limits of the responsibility for prescribing and review – which should be set out in the CMP.
- Providing advice and support to the supplementary prescriber as requested.
- Carrying out a review of the patient's progress at appropriate intervals, depending on the nature and stability of the patient's condition.
- Sharing the patient's record with the supplementary prescriber.

12.3.3 The supplementary prescriber is responsible for:

- Prescribing for the patient in accordance with the CMP.
- Altering the medicines prescribed within the limits set out in the CMP, if monitoring of the patient's progress indicates that this is clinically appropriate.
- Monitoring and assessing the patient's progress as appropriate to the patient's condition and the medicines prescribed.
- Working at all times within his/her clinical competence and professional code of conduct, consulting the independent prescriber as necessary.
- Accepting professional accountability and clinical responsibility for prescribing practice.
- Passing responsibility for prescribing back to the independent prescriber if the agreed clinical reviews are not carried out within the specified interval, or if it is felt that the patient's condition no longer falls within his / her competence.
- Recording prescribing and monitoring activity in the shared patient record as soon as possible.

12.3.4 The independent prescriber assesses the patient, makes a diagnosis, and decides if the patient is suitable for supplementary prescribing. The supplementary prescriber agrees that the patient is suitable for supplementary prescribing. The Independent and supplementary prescriber agree and sign a CMP for the patient. The patient's agreement to the concept of supplementary prescribing is obtained and recorded on the CMP.

12.3.5 There are no legal restrictions on the clinical conditions that supplementary prescribers may treat provided they are included in the CMP and are within the prescribers competence and experience.

12.3.6 Supplementary prescribing is suitable in situations where treatment requires to be adjusted according to the needs of the individual patient over a reasonable period of time, following initial diagnosis by the independent prescriber. It is most useful when managing episodes of care during a hospital stay that need treatment to be tailored according to patient response (e.g. post operative pain control), and when dealing with long-term medical conditions (e.g. diabetes).

Continues overleaf

12.4 Clinical Management Plans (CMPs)

12.4.1 The CMP defines the treatments that may be prescribed by the supplementary prescriber. It must be agreed before supplementary prescribing can take place and must include the following:

- The name of the patient to whom the plan relates.
- The illnesses or conditions, which may be treated by the supplementary prescriber.
- The date on which the plan is to take effect, and when it is to be reviewed by the independent prescriber.
- Reference to the class or description of medicines or types of appliances, which may be prescribed or administered under the plan.
- Any restrictions or limitations as to the strength or dose of any medicine which may be prescribed or administered under the plan, and any period of administration or use of any medicine or appliance which may be prescribed or administered under the plan.
- Relevant warnings about known sensitivities of the patient to, or known difficulties of the patient with, particular medicines or appliances.
- The arrangements for notification of suspected or known reactions to any medicine which may be prescribed or administered under the plan, and suspected or known adverse reactions to any other medicine taken at the same time as any medicine prescribed or administered under the plan.
- The circumstances in which the supplementary prescriber should refer to, or seek the advice of, the independent prescriber.

12.4.2 The CMP must be recorded on one of the approved NHS GG&C CMP templates. It can be paper-based or electronic. It may include a reference to published national or local guidelines, as long as the guidelines are easily accessible, and they identify clearly the range of the relevant medicinal products to be used in the treatment of the patient. There is no need to repeat the advice in the guideline in the body of the CMP itself.

12.4.3 Detailed patient information that is contained in the patient's record shared by each prescriber does not need to be repeated in the CMP, unless essential for clarity and patient safety.

12.4.4 Nurses, midwives and pharmacists can prescribe any medicine, including controlled drugs and unlicensed medicines that are listed in the agreed CMP. Allied health professionals cannot prescribe controlled drugs but can prescribe any other medicine, including unlicensed medicines, which are listed in the agreed CMP.

12.4.5 If the supplementary or independent prescriber changes, a new agreement to enter into a prescribing partnership is negotiated and recorded in the patient record.

12.4.6 The CMP comes to an end:

- At any time at the discretion of the independent prescriber, or
- At the request of the supplementary prescriber or the patient, or
- At the time specified for the review of the patient (unless it is renewed by both prescribers at that time), or
- Where there is a sole independent prescriber and he / she is replaced for whatever reason, or
- Where the patient is discharged from the care of the independent prescriber.

12.5 Nurse / Pharmacist independent prescribers

12.5.1 A nurse / midwife or pharmacist independent prescriber is responsible and accountable for the assessment of patients with diagnosed or undiagnosed conditions and for decisions made about the clinical management of the patient, which will include prescribing. This will require an initial patient assessment, interpretation of findings from that assessment (including any tests ordered), a decision on safe and appropriate therapy and a process for ongoing monitoring.

12.5.2 A nurse / midwife or pharmacist independent prescriber can prescribe any UK licensed medicine for any medical condition, including drugs for 'off label' use (used outwith their UK licence) and some controlled drugs. (see section12.7).

12.5.3 A nurse / midwife or pharmacist independent prescriber must prescribe only for conditions within their own level of competence and expertise. They must refer patients to more appropriate professionals for ongoing clinical management in areas outside their own competency.

12.5.4 Nurse / midwife or pharmacist prescribers must ensure that patients are aware that their care is being managed by a non-medical professional and that they will prescribe medication only within their own area of expertise.

12.5.5 Nurse / midwife or pharmacist independent prescribers are required to keep accurate, unambiguous patient records, including information on medication prescribed. These must be accessible by all members of the prescribing team. No single template is recommended for use – practitioners should develop appropriate templates for use within their own clinical setting. Many practitioners will find that Clinical Management Plan templates can act as useful patient records for independent prescribers.

12.5.6 It is recommended that details of any prescribing practice, along with other details of patient consultation, should also be entered into the appropriate shared patient record (e.g. medical notes). It should also be entered onto nursing records if a separate record is kept in the clinical setting. For hospital in-patients, medicines prescribed must also be written on the current Medicine Kardex.

12.5.7 Prescriptions generated by non-medical prescribers should include:

- Patient name and date of birth.
- CHI number.
- The date of the prescription.
- The name of the prescriber (and an annotation of the prescriber's status to signify that they are acting as a supplementary or independent prescriber).
- The name of the item prescribed, the dose, frequency (and quantity to supply and duration of treatment, if applicable).
- The prescriber's unique reference code or registration number.

12.6 Registration of non-medical prescribers within NHS GG&C

12.6.1 Only practitioners registered with their relevant professional body, e.g. Royal Pharmaceutical Society of Great Britain (RPSGB) as supplementary / independent prescribers will be able to apply for registration as such within NHS GG&C. Practitioners who do not renew their annual registration must inform the Lead for Non Medical Prescribing for PPSU and must cease to practice as a supplementary / independent prescriber immediately.

12.6.2 Hospital based nurses / midwives, who wish to apply to undertake the necessary training to be become independent prescribers, must have their applications approved by their Lead Nurse. These applications must be sent to the Non-Medical Prescribing Lead for approval and processing. Pharmacists must have their applications approved by the Pharmacy Manager / Lead Clinical Pharmacist. The conditions and situations in which the non-medical prescriber intends to practice will be taken into account when considering the application. All applications must be sent to the Lead for Non-Medical Prescribing (PPSU) for final approval and processing.

12.6.3 On successful completion of training and following annotation on the relevant professional register, the supplementary / independent prescriber must also apply to the Lead for Non-Medical Prescribing to be added to the NHS GG&C register of supplementary / independent prescribers before they are allowed to prescribe. All supplementary / independent prescribers will be provided with a form to present a specimen signature at the pharmacy department within the hospital.

12.6.4 Supplementary / independent prescribers recruited from other organisations must apply to the Lead for Non-medical Prescribing to be added to the NHSGG&C register of supplementary / independent prescribers. The Head of Nursing or Senior Pharmacist for that area must take into account the conditions and situations in which the supplementary / independent prescriber intends to practice.

12.6.5 Job descriptions must be amended by the line manager to include the supplementary / independent prescribing role, where necessary.

12.6.6 If there are any changes to any of the details recorded on the NHS GG&C register of supplementary / independent prescribers, the prescriber must inform the Lead for Non-Medical Prescribing who will amend the NHS GG&C register.

12.6.7 The supplementary / independent prescriber can prescribe only on approved NHS GG&C prescribing documents (e.g. Medicine Kardexes, Discharge Prescriptions). The prescriber's registration code (e.g. RPSGB registration number) must be written beside the signature.

12.6.8 Supplementary / independent prescribers should ensure separation of prescribing, dispensing and administration activities wherever possible.

Continues overleaf

12.7 Non-Medical Prescribers and Controlled Drugs

12.7.1 Nurse, midwife and pharmacist supplementary prescribers can prescribe CDs (except Schedule 1 CDs, which are not intended for medical use), as long as they are specified within the CMP. Currently, allied health professionals are not permitted to prescribe controlled drugs as supplementary prescribers.

12.7.2 Nurse / midwife and pharmacist independent prescribers can prescribe a select range of CDs for specified conditions. Nurse / midwife and pharmacist independent prescribers must ensure that they are authorised to prescribe specific CDs by checking the current list of CDs prescribable for listed conditions (available from NMC, RPSGB or the Lead for Non-Medical Prescribing in NHS GG&C).

12.7.3 Non-medical prescribers must follow guidance on prescribing of Controlled Drugs (see section 13).

12.8 Patient Group Directions (PGDs)

12.8.1 PGDs are written instructions for the supply and / or administration of medicines to groups of patients who may not be individually identified before presentation for treatment.

12.8.2 PGDs lend themselves to situations where medicine usage follows a predictable pattern and is less individualised (e.g. Accident / Emergency pain relief). They are useful to manage a specific treatment episode (or episodes) for which supply or administration of a medicine is necessary, but they are not generally suitable as a long-term means of managing a patient's condition.

12.8.3 The majority of treatment with medicines must be prescribed on an individual, patient specific basis.

12.8.4 Staff involved in the supply and / or administration of a prescription only medicine under a patient group direction must:

- Ensure that they have up-to-date knowledge relating to the clinical situation covered by the PGD, the medicine and its use for the indications specified.
- Ensure that they have undertaken any training required for operation of the PGD.
- Be satisfied that the PGD is legally valid, is within its expiry date and that it has been approved by NHS GG&C.
- Ensure that when supplies are made the agreed protocol is followed and that the information specified in the PGD is recorded.

12.8.5 PGDs cannot be used to authorise the supply and administration of medicines without a UK licence , radiopharmaceuticals or most CDs. PGDs are permitted for medicines supplied and administered outwith the terms of their UK licence only if appropriate evidence supporting their use is referenced on the PGD (e.g. monograph in the BNF for Children).

12.8.6 PGDs must be approved locally by the lead clinician and developed by a local team which should include a doctor, pharmacist and member of the professional group who will be working under the PGD. They must consult with all appropriate persons, including all consultants whose patients may be treated under the direction, to confirm that the proposed direction is appropriate, does not compromise patient safety, and is consistent with professional relationships and accountability.

12.8.7 Before it is introduced into operation, the PGD must be submitted to the NHS GG&C PGD sub-group of the ADTC for approval.

12.8.8 Supply and administration must be in line with NHS GG&C formularies and protocols.

12.8.9 The PGD must be reviewed at least once every 2 years otherwise it is invalid. PGDs must not be used beyond their expiry date. The review should be undertaken by the original authors (or their replacements), in consultation with all appropriate persons. It is the responsibility of staff using the PGD to ensure it is clinically up-to-date and that it is reviewed, updated and submitted for re-approval in advance of the expiry date.

12.8.10 If any change is made to the patient group, clinical condition or situation to which the direction applies, or to the characteristics of staff authorised to practice under the direction, or to the description of treatment available under the direction, then the new version of the direction must be submitted for consideration and approval to the PGD committee. If no change has been made to the PGD after review then it will be re-approved by the PGD Subcommittee for a further 2 years.

12.8.11 The PGD must be written using the approved NHS GG&C template, and must contain the following information:

- The patient group, clinical condition or situation to which the direction applies.
- A description of inclusion and exclusion criteria that apply to the direction.
- Cautions / situations where further advice is required before administering / supplying medicine under the PGD.
- Action to be taken if a patient is excluded from or refuses treatment under the direction.
- The medicine which may be supplied or administered, and specific details of:
  - The dose.
  - The form and route of administration.
  - The frequency of administration.
  - The maximum number of doses that may be supplied or administered.
  - The maximum period of time for which the medicine may be supplied or administered.
  - Warnings, cautions and contraindications to treatment with the medicine.
  - The legal status of the medicines.
- Details of any directions / labelling required (if the medicine is to be supplied to the patient).
- Instructions on the documentation required to record supply or administration, and other records to be kept for audit purposes.
- The knowledge, skills and qualifications required by staff approved to authorise supply or administration of medicines under the terms of the PGD, and details of any required training programme.
- The action to be taken if an adverse drug reaction is suspected or occurs to a patient being treated under the direction.
- Details of any necessary follow-up action that will be taken after supply or administration.
- Evidence of approval (by signature) by the chair of the PGD committee, Pharmacy Clinical Governance representative and lead for the professional group working under the PGD.
- The date that the direction comes into force, and the date that it expires.

12.8.12 A nominated individual (e.g. Appointed Registered Nurse / Midwife or Manager in Charge, or appropriate manager for other professions) must approve and maintain an up-to-date record of persons approved to supply or administer medicines under the PGD in their area of responsibility. The record must be signed by the approved persons as confirmation that he/she has read and understood the protocol, and by the Appointed Registered Nurse / Midwife or Manager in Charge, or appropriate manager for other professions. The record must be held and maintained locally.

12.8.13 The arrangements for monitoring of care under the PGD and audit of the PGD must be specified.

Controlled Drugs : Additional Requirements

12.8.14 There are currently only four circumstances in which CDs may be administered or supplied under a PGD:

- A registered nurse may, when acting in her capacity as such, supply or administer diamorphine under a PGD for treatment of cardiac pain to a person admitted as a patient to a coronary care unit or accident and emergency department of a hospital.
- A registered nurse / midwife, pharmacist or any of the other named healthcare professional listed may, when acting in their capacity as such, supply or administer any Schedule 5 CD in accordance with a valid PGD.
- A registered nurse / midwife, pharmacist or any of the other named healthcare professionals listed may, when acting in their capacity as such, supply or administer any Part 1 Schedule 4 CD in accordance with a valid PGD provided that it is not a drug in parenteral form for the treatment of addiction.
- A registered nurse / midwife, pharmacist or any other named healthcare professional listed may, when acting in their capacity as such, supply or administer midazolam in accordance with a valid PGD.

12.9 Symptomatic Relief Policy

12.9.1 The Symptomatic Relief Policy allows nurses and midwives to administer medicines from an agreed list to patients. The agreed list of medicines comprises mainly general sales list or pharmacy medicines that are intended to relieve minor and common complaints (e.g. constipation, headache).

12.9.2 In order for the policy to be valid for individual patients the Doctors Declaration on the back of the Medicine Kardex must be signed. (In units using an alternative style kardex that does not have a section for Symptomatic Relief Policy local SOPs should be followed.)

12.9.3 The nurse or midwife may delegate the administration of medicines from the Symptomatic Relief Policy to health care staff under their supervision, if appropriate.

13. Prescribing medicines

13.1 General principles

13.1.1 Medicines are prescribed only for, and supplied to, NHS patients. They will not be prescribed for or supplied to members of staff, patients' relatives or carers unless they are registered patients, for example through the Accident and Emergency Department (except in emergency situations).

13.1.2 Prescriptions can be generated only by suitably qualified prescribers (registered doctors, dentists, independent nurse or pharmacist prescribers and any nurse / pharmacist / allied health professional (AHP) registered as a supplementary prescriber who is prescribing medicines authorised by the CMP). Appropriate local procedures relating to registration with NHS GG&C for nurse / pharmacist / AHP prescribers must be followed and job descriptions updated (if necessary).

13.1.3 Prescriptions for in-patients, out-patients, discharge or pass medication must be written legibly in black ink or otherwise so as to be indelible. Prescriptions must be written on the current appropriate approved prescribing documents, or prescribed electronically, in accordance with current local procedures. Under no circumstances should correction fluid e.g. Tippex® be used to change any prescription entry (or any other entry in medical notes etc). If any changes are made to a Medicine Kardex, Discharge or Pass prescription, they must be clearly documented and a new Discharge / Pass prescription written or new entry made on the Medicine Kardex (as appropriate).

13.1.4 Whenever possible no more than one main Medicine Kardex should be used for each patient. Where specific therapy is prescribed on an approved supplementary chart, it must also be documented on the Medicine Kardex (e.g. insulin, warfarin, IV infusions).

13.1.5 Medicine must be prescribed generically using the current British Approved Name (BAN), except where branded products of the same drug are known to have clinically significant differences in bioavailability (e.g. controlled release formulations of nifedipine, theophylline etc). For these medicines, the brand in use should be specified when prescribing.

13.1.6 Medicine doses must be written in metric units. Only the following abbreviations may be used:

g = gram

mg = milligram

ml = millilitre

mmol = millimoles

All other dose units must be written in full, e.g. microgram, litre and Units for Insulin International Units.

13.1.7 The use of decimal points must be avoided. For example, 0.1mg must be written as 100 micrograms. If the use of the decimal points is unavoidable, a zero must be written in front of the decimal point i.e. "0.5ml", not ".5ml".

13.1.8 The route of administration must be written in full except for the following approved abbreviations. N.B. Intrathecal must be written in full.

PO	oral	PEG	percutaneous endoscopic gastrostomy
IV	intravenous	RIG	radiologically inserted gastrostomy
IM	intramuscular	PEJ	percutaneous endoscopic jejunostomy
ID	intradermal	NJ	nasojejunostomy
SC	subcutaneous	ETT	endotracheal
SL	sublingual	TOP	topical
NG	nasogastric	INHAL	inhaled
PR	per rectum	NEB	nebulised
PV	per vagina		

13.1.9 The times and day(s), where appropriate, of administration must be specified. Particular attention must be paid when prescribing once weekly medicine, e.g. methotrexate for rheumatoid arthritis or bisphosphonates for osteoporosis.

13.1.10 Oxygen, or any other medical gas prescribed for in-patients or out-patients must be prescribed on the Medicine Kardex in the regular (non-parenteral) section. The administration device used, flow rate and concentration (if applicable) must be documented.

13.1.11 Medicines given by continuous infusion should be signified in the Medicine Kardex by drawing an arrow through all the "Time" sections on the entry in the Medicine Kardex and writing "Continuous Infusion" on the Other Information section. If the dose is likely to vary the dose should be annotated as "Varies" on the Kardex and each dose change recorded on the additional IV Infusion Chart.

13.1.12 For 'as required' medicines, the symptoms to be relieved, the minimum time interval between doses, and the maximum daily dose or the maximum number of doses per day must be specified e.g.:

1g every four-six hours when required for pain,

Maximum 4g in 24 hours

13.1.13 If it is necessary to use two Medicine Kardexes or Discharge Prescriptions for the same patient this should be clearly identified by annotating the Medicine Kardexes / Discharge Prescriptions with "1 of 2" and "2 of 2".

13.1.14 When a patient is re-admitted, or transferred from another hospital where a shared case note record is not in place, a new Medicine Kardex must be written. When a patient returns from pass or re-attends hospital for planned procedures at short intervals, the original Medicine Kardex may be used (as guided by local procedures). A review of the patient's prescription records must take place on every admission to ensure it is appropriate and up-to-date.

13.1.15 Electronic prescription systems may be used if they provide at least the same level of detail and safety as the paper system and have appropriate audit trails.

13.1.16 Medicines are prescribed, or authorised for administration or supply, according to agreed local policies, formularies and stock lists.

13.1.17 Medicines used for research and clinical trials will have the appropriate management and ethics committee approval and must be prescribed on appropriate approved documentation. (See section 4.7, Medicines for use in research and clinical trials).

13.1.18 A record of all medicines prescribed and administered or supplied is maintained in the patient's medical case notes.

13.1.19 All medication errors or potentially serious 'near miss' events must be reported and investigated. (See section 17, Medication incidents).

Controlled Drugs : Additional Requirements

13.1.20 If electronic prescribing is in place then any CD discharge prescription so generated will need to be signed by the prescriber.

13.2 Prescriptions for in-patients

13.2.1 Prescriptions must be written on approved stationery, or prescribed electronically if local procedures for electronic prescribing for in-patients are in use. The following policy statements apply to wards / theatres / departments using a combined prescription and administration style Medicine Kardex. In units using other styles of kardex local SOPs should be followed (which apply the core principles outlined in this document).

13.2.2 For in-patient prescriptions, the following patient details are required:

- Hospital.
- Ward or department.
- Patient's name.
- CHI number.
- Hospital number.
- Date of birth.
- Height.
- Weight.
- Known drug sensitivities (allergies and known or suspected adverse drug reactions).
- Medicine name, strength, form, dose route and times of administration.
- Date prescribed.
- Prescriber's signature.
- Stop or review date for parenteral drugs (especially IV antibiotics).

Continues overleaf

13.2.3 The patient name must be written on each page of the Medicine Kardex.

13.2.4 The start date for each entry must be clearly documented.

13.2.5 Medicines intended to be given once only must be prescribed in the "Once Only" section of the Medicine Kardex.

13.2.6 'As Required' medicines must be prescribed in the "As Required" section of the Medicine Kardex. The indication for the medicine, minimum time interval between doses, dose, and the maximum dose that can be given in a 24 hour period must be stated.

13.2.7 When a medicine is discontinued, this must be done by drawing a line across the prescription box without obliterating what has been written, and by drawing a vertical line down the last administration time. A diagonal line should be made across the remaining days / columns. The date of discontinuation should be recorded and the signature / initials of the person responsible for discontinuing the medicine.

13.2.8 When a Medicine Kardex has to be rewritten:

- Any item no longer required must be discontinued and a diagonal line drawn across each blank section /page of the old chart.
- For each medicine being continued, the original start date must be written in the new chart.
- The word "Re-written" and the date of re-writing must be written at the top of the new chart.

13.2.9 Individual entries on the Medicine Kardex must not be altered or amended. If a change is required, the entry must be cancelled completely and a new prescription entry must be written. The date of cancellation should be noted.

13.3 Prescriptions for discharge or pass medicine

13.3.1 For discharge and pass prescriptions for medicines the following information must be included:

- Name of the hospital.
- Name, address, D.O.B, hospital number and CHI number of the patient.
- Consultant name.
- Ward or department.
- Date prescription written.
- Prescriber's signature, and page number of the prescriber. The prescriber must print his/her name beside their signature. Initials are not acceptable.
- Name and address of the GP.
- If issued by a dentist, the words "For dental use only".
- Age and weight (if the prescription is for a child under 12).

13.3.2 The Discharge Prescription must be used to prescribe all currently required medicines. Electronic systems may be used where these have been validated. The information required must be accurately transcribed from the inpatient prescription chart and the patient's medical notes.

13.3.3 The doctor or authorised prescriber responsible for the patient's care must ensure that the Discharge Prescription or Pass Medication Prescription is completed in adequate time, taking account of the patient's planned time and date of discharge.

13.3.4 Where deliberate changes are made from the entries on the Medicine Kardex when prescribing medicines for discharge or pass this should be noted in the patient's medical notes and Medicine Kardex (e.g. antibiotics discontinued at discharge as the course is complete). If these changes are recorded it will expedite the discharge process and facilitate accurate communication between hospital and primary care professionals.

13.3.5 At least seven days supply of medicines will be provided, unless a longer or shorter course of treatment is appropriate. Where Patients Own Drugs / Making the Most of Your Medicines (MmyM) systems are in use the patient may receive original packs of dispensed medicines (which may be part-used at point of discharge if they were supplied and used during the in-patient period).

13.3.6 If the patient already has his or her own supply of required medicines at home or stored in the ward, an additional supply should not be issued from the hospital. The nurse / midwife / pharmacist / doctor/ pharmacy technician must annotate the prescription with "Patient's own supply" and initial each entry. In doing so they are accepting that the patient has supplied reliable and accurate information on the medicines they have at home. If there is any doubt as to the validity of the information provided by the patient a fresh supply of all required medicines should be made from pharmacy using a Discharge Prescription (or Pass Prescription form). In these circumstances, the patient should be asked to return all medicines stored at home to their local community pharmacy. All medicines currently required to be taken by the patient must be written on the Discharge Prescription, regardless of whether or not the patient has their own supply.

13.3.7 If the medicines on the Discharge or Pass Prescription change prior to the patient going home a new prescription must be written and the original medicines and prescription returned to the pharmacy with the new prescription.

13.3.8 If compliance with medication is identified as an issue during the in-patient period the patient should be assessed by medical, nursing, midwifery or pharmacy staff (following local procedures). If a multi-compartment medication device is deemed helpful after assessment a suitable means of filling the multi-compartment medication device post-discharge must be organised. The discharge prescription must be annotated "Multi-compartment medication device required" before being sent to pharmacy. Patients already receiving medicines in multi-compartment medication devices before admission to hospital must also have their discharge prescription annotated "Multi-compartment medication device required". (See Appendix 6, Multi-compartment medication devices).

Controlled Drugs : Additional Requirements

13.3.9 A separate Discharge Prescription is required for CDs for discharge or pass medication. More than one CD can be prescribed on the same Discharge Prescription. Prescriptions containing CDs should not include any non-CD medicines. All discharge / pass prescriptions for CDs must be accompanied by the ward / department Controlled Drugs Order Book, which must be signed by a registered nurse / midwife who must be an authorised signatory for CDs for the area concerned. The Controlled Drugs Order Book must state the name, form and strength, where appropriate, of the CD, the total quantity required and the name and CHI number of the patient concerned. Each CD required should be requested on a separate page of the ward / department Controlled Drugs Order Book. (Controlled Drugs Order Books may not be required to accompany CD prescriptions from wards on all sites if locally validated procedures ensure a complete audit trail is maintained of CDs supplied on discharge / pass prescription e.g. 3-monthly reconciliation of CD prescriptions dispensed with the Ward Controlled Drug Register. Local SOPs must be followed.)

13.3.10 For discharge and pass prescriptions for CDs the following information must also be included for a CD prescription:

- The approved name of the CD must be used, except for combination products, or where a specific brand, e.g. sustained release products, is necessary due to variation in clinical response between brands.
- Specify the total quantity, in both words and figures, of the preparation or the number of dosage units to be supplied (e.g. for tablets, writing "**10 (ten) tablets**" would be acceptable).
- Where appropriate, identify the strength of the preparation. Where more than one strength is available, then the strength must be specified on the prescription.
- If a prescriber orders a strength or form of controlled drug which does not exist, the discharge or pass prescription must be returned to the prescriber for amendment, e.g.

  "MST Continus tablets 50mg,
  One tablet twice daily x 14 (fourteen tablets)."

  - **Cannot be supplied as MST Continus 50mg does not exist.**

  - **Must be returned to prescriber and rewritten as:**

  "MST Continus tablets 30mg,
  One tablet twice daily x 14 (fourteen tablets)."

  and

  "MST Continus tablets 10mg,
  Two tablets twice daily x 28 (twenty-eight tablets)."

- Where a CD is prescribed, the form of the preparation must be stated (e.g. capsules, injection) on the prescription even when only one form exists or where the form is implicit in the proprietary name, e.g. MST Continus tablets.
- A dose of "To be taken as directed" or "To be taken when required" is not acceptable for CDs. The dose range must be specified and time interval between doses specified if appropriate, e.g.

  "Sevredol tablets 10mg,
  10-20mg every 2-4 hours,
  if required for pain.
  Please supply 20 (twenty) tablets."

- Prescriptions for controlled drugs to be used in a syringe driver must also specify the dose to be administered over a specified period, e.g. 40mg diamorphine SC over 24 hours and number of dose units to be dispensed (in words and figures), e.g.

  "Diamorphine 40mg S/C via syringe driver over 24 hours.
  Please supply 7 (seven) 30mg amps and 7 (seven) 10mg amps."

Continues overleaf

13.3.11 Under no circumstances can a carbon copy or faxed prescription be accepted for a Schedule 2 or a Schedule 3 controlled drug.

13.3.12 If the CDs are to be dispensed in the hospital pharmacy, the discharge or pass prescription must be delivered to the pharmacy at least 4 working hours before the patient is due to be discharged, to allow adequate time for dispensing and delivery to the ward.

13.3.13 Currently, discharge or pass prescriptions for CDs cannot be transmitted electronically as they require to be signed by the prescriber. Future developments in electronic prescribing may change this.

13.3.14 Where possible, the clinical pharmacist should check the discharge prescription before it is sent to pharmacy to reduce the number of queries regarding prescriptions that are unclear, inaccurate or do not comply with prescribing regulations for CDs.

13.3.15 A pharmacist is allowed to make minor amendments to prescriptions for Schedule 2 and 3 CDs, providing the prescriber's original intention is clear. Minor amendments include correcting typographical or spelling mistakes and adding the quantity in either words or figures (where it is written in only words OR figures).

13.3.16 CDs will be supplied in multi-compartment medication devices if deemed clinically appropriate (local SOPs will apply).

13.4 Prescriptions for out-patients / Patient Packs

13.4.1 Patients attending out-patient clinics will usually have changes in their medication / new medication initiated by their GP on receipt of a communication from the hospital practitioner. In exceptional circumstances where there is an immediate need to change medication or start new medicine, the patient should receive an initial supply from the hospital pharmacy. Medicines should be requested on a hospital Discharge Prescription form (see section 13.3, Prescriptions for discharge or pass).

13.4.2 If a medicine is designated 'Hospital Supply Only' the patient will be unable to obtain supplies from their community pharmacy. The prescriber should prescribe the medicine on a Discharge Prescription in the first instance and then contact the local pharmacy department to discuss ongoing supply arrangements. Prescribers may also wish to retain responsibility for prescribing certain medicines (e.g. if the medicine is being used outwith its Product Licence and the GP will not accept prescribing responsibility). In these cases the prescriber should prescribe the medicine on a Discharge Prescription in the first instance and then contact the local pharmacy department to discuss ongoing supply arrangements.

13.4.3 Some clinic areas utilise 'Patient Packs' of commonly used medicines. If patient-pack arrangements are in place a Discharge Prescription must be written for all patient-pack items supplied to patients by a suitably qualified prescriber. This will ensure the patient's GP receives full details of any medicines prescribed. A local record of patient-pack supplies must also be completed. (See section 15.2, Patient Packs).

13.4.4 Hospital doctors, dentists and other suitably qualified prescribers may also prescribe medicines on Health Board Prescriptions (HBPs), which the patient must take to their community pharmacy to be dispensed.

13.4.5 HBPs for medicines require only the name / identity number of the hospital, name, address, age (if under 12 years) of the patient and the signature of the prescriber, date of writing, and details of the medication to be supplied. independent nurse / pharmacist prescribers must use a designated 'stamp' which includes details of their unique Personal Identification Number (PIN) or registration number.

13.4.6 HBPs must be used only in out-patient clinics when there is an immediate need to start / change therapy and this need cannot be met by the local pharmacy department or GP or via the use of patient-packs.

13.5 Prescriptions for clinical trial medicines

13.5.1 For out-patient supply of clinical trial medicines, a trial specific approved prescription form must be used and signed by a trial investigator.

13.5.2 If a patient is admitted on a trial medicine the patient's own trial medicine should be used (if clinically appropriate) during the in-patient period. If further supplies are required for the patient these should be requested from the centre conducting the trial.

13.5.3 When medicines in clinical trials are prescribed for hospital in-patients the protocol number, patient number, the title of the trial and, if possible, the names of any potential medicines should be recorded on the Medicine Kardex (e.g. "ASA trial, Aspirin or placebo"). Supplies will be obtained by the investigator via the hospital pharmacy using approved clinical trial prescriptions / documentation

13.5.4 In-patients being discharged on clinical trial medicine should have supplies organised by the investigator using approved documentation. Trial medication should be included on the Discharge Prescription (annotated as "Trial medicine – supplied by investigator").

Controlled Drugs : Additional Requirements

13.5.5 Trial CDs are covered by the same regulations as non-trial Controlled Drugs.

13.6 Prescriptions for injections and infusions

13.6.1 The parenteral route is potentially more hazardous than other routes of administration of medicines.

13.6.2 Medicines should be prescribed by injection only if no other route is suitable. For example:

- The medicine is not available for administration by another route, and there is no therapeutically equivalent medicine that could be used by another route, or
- The oral, naso-gastric, rectal or other possible route is not suitable, or
- The medicine needs to be administered by injection to achieve immediate effect or the required therapeutic level.

13.6.3 If an injection needs to be prescribed the prescriber must:

- Write a specific finishing date on the prescription, if appropriate, or
- Review it every 24 hours, if appropriate, and change to a potentially less hazardous route at the earliest opportunity (local SOPs should be adhered to where regular injections are prescribed to cover defined periods (e.g. depot injections) to ensure safety and continuity of supply and administration).

14. Administration of medicines

14.1 General principles

14.1.1 Medicines can only be administered in accordance with one or more of the following processes:

- Against an entry made in a Medicine Kardex by a UK registered doctor, dentist, independent or supplementary prescriber.
- Patient Group Direction (PGD).
- Patient Specific Direction (PSD).
- Medicines Act exemption (see Appendix 7 for Midwifery exemptions).
- Symptomatic Relief Policy.

14.1.2 Prescriptions must be written legibly on approved NHS GG&C prescribing documents. In exceptional circumstances, a medicine may be administered on the verbal instruction of a registered doctor. (See section 14.6, Administration of medicines without a written prescription.)

14.1.3 Medicines may be administered only by an authorised practitioner, e.g. registered doctors, registered nurses and midwives. Medicines may also be supplied and / or administered to patients via approved PGDs. (See Section 12.8, Patient Group Directions.)

14.1.4 In exceptional circumstances, other suitably qualified and trained persons may administer medicines. This will involve local risk assessment and approval of robust procedures (to ensure NHS GG&C accepts vicarious liability for the practice).

14.1.5 Patients may self-administer medicines as part of a formal process which must include assessment of the patient and their medicine.

14.1.6 Student nurses and midwives, who have received the appropriate level of training, may participate in the administration of medicines providing they are adequately supervised.

14.1.7 The administration of medicines must be undertaken in a methodical manner, in accordance with section 14.2. Distractions should be minimised while medicines are being selected, prepared and administered. Staff should not be interrupted whilst undertaking medicine preparation and administration except in an emergency.

14.1.8 If infusion devices are necessary for the administration of the medicine, all staff involved in operating the device must be competent in using the equipment and have a record of device training documenting this.

14.1.9 Persons authorised to administer medicines must have sufficient knowledge of the medicine being administered, and of the patient to whom the medicine is being administered, to be able to intervene in circumstances where administration is not appropriate.

14.1.10 Registered nurses or midwives employed through the NHS GG&C Bank or an agency may participate in the administration of medicines, where required.

14.1.11 All medication errors or 'near misses' should be reported, documented and significant errors / 'near misses' investigated as per local procedure.

14.1.12 Medicines may be administered by a sole practitioner providing they have been authorised to do so by the Appointed Registered Nurse / Midwife or Manager in Charge, except in the following circumstances when two practitioners are required, one as a witness and one to administer the medicine:

- Controlled Drugs.
- Complex calculations involved (e.g. two or more separate calculations needed).
- Intravenous medicines (including IV potassium).
- Medicines administered to children age 12 and under.

Controlled Drugs : Additional Requirements

14.1.13 In hospitals, two designated members of staff must always participate in the administration of CDs, one witnessing the procedure and one administering the medicine. Responsibility ultimately rests with the person administering the CD, unless this is a student nurse / midwife, where responsibility lies with the registered nurse / midwife witnessing the administration.

14.1.14 A record of all CDs administered to patients must be made in the Ward Controlled Drugs Register.

14.1.15 In the hospital setting patients may self-administer PCA CDs only if they consent and are able to do so when formally assessed. Assessment and consent must be documented in the patient's medical record/nursing notes. Self-administration of other CDs will not normally take place, except in exceptional circumstances. Local SOPs will apply.

14.2 Administration of medicines to in-patients, out-patients and in clinics

14.2.1 All staff involved in the administration of medicines to patients must exercise their professional accountability in the best interests of patients.

14.2.2 Staff must be familiar with the therapeutic uses of the medicine to be administered, the normal dosage, side effects, precautions and contra-indications.

14.2.3 Formal procedures should be followed when administering medicines, which must incorporate the following steps:

- Read the prescription carefully.
- Confirm availability of medicine.
- Check that the prescribed medicine and route are correct for the patient.
- Check that the prescribed dose has not already been given.
- Select the medicine required and check the label against the prescription.
- Check the expiry date of the medicine.
- Identify the patient by checking the name, date of birth and CHI number on the prescription against the name, date of birth and CHI number on the patient's name band. Wherever possible, the patient should also be asked to state his or her name and date of birth. (In Mental Health departments other means of identification may be used.)
- Check the patient is not allergic to the medicine before administering it.
- Administer the medicine as instructed on the Medicine Kardex.
- Record the administration on the Medicine Kardex.
- Record any reasons for non administration as detailed on the back page of the Medicine Kardex and inform the responsible doctor in an appropriate timescale of any deviation from the prescription, if necessary. (In units using Medicine Kardexes that do not have a 'back page' section detailing non administration codes local SOPs should be followed and reasons for non administration recorded in the Kardex in use or medical notes).

14.2.4 Staff administering medicines should be aware of the patient's care plan.

14.2.5 The dosage, method of administration, route and timing of the administration must be appropriate for the patient's condition and any concurrent therapies.

14.2.6 Expiry dates must be checked prior to the medicine being administered. Particular attention should be paid to drugs intended to be infused over extended periods, e.g. intrathecal baclofen. The drugs used to fill the infusion pump must have an expiry date beyond the anticipated refill date of the pump.

14.2.7 The prescriber, or another authorised prescriber, should be contacted without delay where a contra-indication to the prescribed medicine is discovered, the patient develops a reaction to the medicine, or where assessment of the patient indicates that the medicine is no longer suitable.

14.2.8 In emergency situations, e.g. during resuscitation, a retrospective record of medicine administration may be made as soon as practically possible.

14.2.9 When supervising a student nurse or midwife in the administration of medicines, the signature of the student must be countersigned by the supervisor.

14.2.10 Some drug administrations require complex calculations to ensure that the correct volume or quantity of medication is administered. In these situations, it is desirable for a second practitioner to check the calculation in order to minimise the risk of error. The use of calculators to determine the volume or quantity of medication should not act as a substitute for arithmetical knowledge and skill.

14.2.11 It is unacceptable to prepare substances for injection in advance of their immediate use or to administer medication drawn into a syringe or container by another practitioner when not in their presence. An exception to this is an already established infusion which has been instigated by another practitioner following the principles set out above, or medication prepared under the direction of a pharmacist from a central intravenous additive service and clearly labelled for an individual patient.

Continues overleaf

Controlled Drugs : Additional Requirements

14.2.12 In hospital, all stages of the preparation and administration of CDs must be performed by two practitioners, i.e. registered nurse / midwife, student nurse / midwife and / or doctors or dentists. At least one of these practitioners must be a registered permanent member of staff in the ward / department. One will be the administrator and the other the witness. Those roles must be performed by the same named members of staff throughout the procedure, i.e. roles cannot be swapped mid-way. In theatre environments, the witness may be a suitably competent registered ODP.

14.2.13 The whole administration period for CDs must be witnessed by the two practitioners involved in the procedure, except for slow administration that takes more than a few minutes, e.g. infusions, for which the set up and start of the administration must be witnessed.

14.2.14 An entry must be made in the Ward Controlled Drugs Register. The person administering the CD should sign in the "Administered by box" and the person witnessing the administration should sign in the "Witnessed by" box. A record must also be made in the patient's Medicine Kardex and / or anaesthetic chart, as appropriate. The ultimate responsibility remains with the administering practitioner unless this is a student nurse / midwife, where responsibility lies with the registered nurse / midwife witnessing the administration.

14.2.15 If a prepared CD is not administered or is only partly administered, two registered nurses / midwives, or one registered nurse / midwife and a registered medical practitioner or suitably competent student nurse, must check the amount discarded and record it in the register. In theatre environments, one member of staff may be a suitably competent ODP. Destruction of any part vial / tablets etc must be witnessed and documented in the CD register.

14.2.16 Under no circumstances are CD register entries to be obliterated by pen or correction fluid (e.g. Tippex®). If changes to the CD register are required these should be annotated and initialled.

14.2.17 Two registered nurses / midwives, or one registered nurse / midwife and a registered medical practitioner or suitably competent student nurse / midwife must reconcile the stock balance at each transaction by counting or measuring the physical stock when checking it against the register. In theatre environments, one member of staff may be a suitably competent ODP.

14.2.18 If a patient refuses to take CDs from the healthcare practitioner, a parent / carer may administer oral medication but only in the presence of the practitioners involved in the preparation who will witness the administration and sign the Ward Controlled Drugs Register and Medicine Kardex. (See section 14.10, Covert administration of medicines.)

14.3 Administration of medicines to patients with restricted oral intake

14.3.1 For patients with restricted oral intake action must be taken depending on the category of restriction (fasting, nil by mouth, difficulty swallowing). Further advice on administering medicines / formulation is available from local Medicines Information centres.

14.3.2 For patients who are fasting prior to operations / procedures, the anaesthetist should indicate which medicines can be given and which should be withheld (either on an individual patient basis or by means of robust, regularly reviewed departmental guidelines).

14.4 Administration of medicines by injection and infusion

14.4.1 Medicines for injection and infusion that require complex calculation or manipulation to prepare, or that pose a health and safety risk during preparation, will be supplied, where possible, in a ready to use form from the pharmacy.

14.4.2 Other injections that require dilution or reconstitution before administration may be prepared in the near patient area. (See section 14.5, Preparation of injections / infusions.)

14.4.3 Hazards associated with the preparation of injections include:

- Incorrect dosage calculation.
- Selection of wrong medicine or diluent.
- Incorrect method of preparation.
- Incompatibility of constituents.
- Instability of final product.
- Microbial contamination.
- Particulate contamination.
- Health and Safety risk to the operator or the environment.
- Incorrect labelling.

14.4.4 Registered doctors, nurses, midwives and ODPs who have successfully completed a registered intravenous therapy training programme or equivalent may prepare and administer intravenous injections. Ongoing training needs should be identified at annual PDP review.

14.4.5 The physical and chemical stability of an injection (the medicine and diluent added) must be determined before the product is prepared. Information sources include:

- Summary of Product Characteristics.
- Manufacturer's data sheet or package insert.
- Local Intravenous monographs or Medusa monographs.
- British National Formulary / BNF for Children.
- Clinical pharmacist/ Medicines Information Service.

14.4.6 Infusions should be completed within 24 hours of preparation (or sooner if microbial contamination / chemical instability is a problem). If the infusion is required for more than 24 hours a fresh infusion must be prepared and any unused portion destroyed. In exceptional cases, e.g. epidural infusions, it may be acceptable to use infusions for longer than 24 hours without preparing a fresh infusion. A formal risk assessment must be undertaken for infusions being used for longer than 24 hours and approval for this practice granted by the lead clinician and appropriate pharmacist.

14.4.7 For infusions that are administered using a rate controlling infusion device, the name and strength of the medicine, dose, flow rate, preparation details, and observations during administration must be recorded on the Intravenous Infusion Chart.

14.4.8 Injections prepared in the near patient area must be prepared immediately before administration. They must not be prepared and stored in the near patient area. If this is not possible for operational reasons, a risk assessment must be undertaken in conjunction with pharmacy, and the action taken to minimise the risk must be documented.

14.4.9 Injections prepared in the near patient area must be administered only by those individuals who were involved in the preparation.

14.5 Preparation of injections / infusions

14.5.1 The preparation of injections must be carried out in a designated area that:

- Has a clear, uncluttered surface for preparation.
- Has adequate space.
- Is quiet, away from distractions.
- Has a surface that can be cleaned.
- Has access to hand washing facilities (medicine preparation, however, should not be carried out adjacent to sinks).
- Is near to information on the preparation of injections.
- Is well lit.

14.5.2 If available, a ready-to-use form of injection should be used in preference to one prepared at ward / pharmacy level.

14.5.3 Injections for one patient only should be prepared at a time, and administered before preparing any injections or infusions for another patient.

14.5.4 Injections must be clearly identifiable at all stages during preparation and administration.

14.5.5 The additive label for syringes and infusions (excluding syringes prepared for immediate use as a bolus) must be prepared before starting preparation of the injection / infusion so that it is affixed immediately after preparation is complete. The label must specify the patient name, additive, strength, diluent, route, date and time prepared, initials of staff involved in preparation and expiry date.

14.5.6 In wards / theatres / departments, if an injection is to be given by bolus, the name of the medicine must be affixed to the syringe (e.g. using an additive label or specific drug-name label). The finished preparation and original containers must be kept in an individual tray between preparation and administration to patient.

14.5.7 All prepared infusions / injections must be labelled with an appropriately sized label so as not to obliterate the name of the infusion fluid and to allow inspection of the solution and volume. For syringe drivers, the label must be attached in such a way to avoid obliterating the graduations on the syringe.

Continues overleaf

14.5.8 On no account should prepared injections / infusions be administered that contain particulate matter.

14.5.9 Infusion bags must not be routinely used as multidose containers for the preparation of injections. In some clinical areas, devices are available that facilitate the use of infusion bags as multiple use containers for a restricted time period (e.g. for drawing up small quantities to flush lines / use as a diluent). These devices should only be used after local risk assessment has been undertaken and procedures put in place that ensure patient safety at all times.

14.6 Administration of medicines without a written prescription

14.6.1 Medicines must only be administered without a written prescription in exceptional circumstances, e.g. an emergency arrest situation.

14.6.2 Where a verbal prescription is given by a doctor present at an emergency, or in theatre, the doctor must state the name, dose and route of administration of the medicine to be administered.

14.6.3 The individual who prepares the medicine must ensure the information is correct by repeating the name, dose and route of administration of the medicine to the doctor who ordered it.

14.6.4 The medicine must be administered either by the prescribing doctor or by the individual who prepared it, except in theatre, where it must be administered by the prescribing doctor. Both must be present at the time of administration.

14.6.5 An accurate record of all medicines administered in this situation must be kept and all medicine containers must be kept until a formal record is completed and agreed by those who were present.

14.6.6 All medicines that have been administered must be accurately recorded onto the appropriate documentation by the doctor who prescribed them and countersigned by the staff who administered the medicine. In theatres the second person may be a registered ODP.

14.7 Telephone orders to administer medicine

14.7.1 An instruction to administer medicines via telephone must be accepted only in exceptional circumstances. It must be approved by the Assigned Nurse / Midwife in Charge.

14.7.2 Telephone orders must be accepted only for drugs that have previously been prescribed on the Medicine Kardex (either in the "Once Only", "As required" or regular section of the Medicine Kardex).

14.7.3 The Assigned Nurse / Midwife in Charge must confirm the patient's identity with the prescriber and inform the prescriber of the name, doses and route of other medicine currently prescribed for the patient.

14.7.4 The details of the telephone prescription should be entered onto the patient's Medicine Kardex by the Assigned Nurse / Midwife in Charge at the "Once Only" section, with the following details:

- Date.
- Time of administration.
- Name of medicine.
- Dose.
- Route of administration.

(These must be read back and verified by the Doctor.)

- Nurse / Midwife signature.
- Stated in capitals: "ORDERED BY TELEPHONE
  BY DR (*Specify*) AT (*Specify*) ON (*Specify*)"

The Medicine Kardex must be countersigned by the doctor within 4 hours (unless the patient is at a different site from the doctor, when the Medicine Kardex must be countersigned within 24 hours).

14.7.5 The patient's identity must be confirmed by a check of the full name and hospital number on the Medicine Kardex with the patient's identity wristband (or other locally agreed means of confirming identity).

Controlled Drugs : Additional Requirements

14.7.6 Telephone orders for CDs must not be given or accepted in any circumstances.

14.8 Self-administration of medicines

14.8.1 People at home usually administer their own medicines. With appropriate checks and controls it is logical for hospital in-patients to have custody of and administer their own medicines. Self-administration of medicines accords well with the use of patients own medicines scheme and promotes patient empowerment. Self administration of medicines can be carried out only after patient assessment and agreement and formal documentation of this assessment and agreement. Local procedures must be produced by medical, pharmacy and nursing staff prior to the introduction of self-administration systems. Regular review and audit must be undertaken in areas using self-administration of medicines systems.

Controlled Drugs : Additional Requirements

14.8.2 Not all ward areas are suitable for near-patient storage of CDs required for self-administration. The exception to this will be PCA systems in use in hospital settings.

14.8.3 CDs should not be stored in POD lockers unless deemed absolutely necessary to do so and a local risk assessment carried out. If CDs are stored in the POD locker they must be recorded in the usual manner in the Ward Controlled Drugs Register. In some instances the risk assessment may also indicate that a daily count of CDs in POD lockers should be undertaken by ward staff.

14.8.4 While a patient is self-administering PCA / syringe driver, the prescriber must inform the nurse and patient of any change to the prescription.

14.8.5 While a patient is self-administering his or her PCA / syringe driver, the registered nurse must make the following checks each day:

- A correctly labelled supply of the prescribed PCA CD is in the infusion device for the patient to self-administer from.
- The patient is able to continue self-administering.
- The administration and monitoring records show that the PCA / syringe driver is being administered correctly.
- The infusion device is kept in a locked, tamper-free position.

The nurse / midwife must act on any concern, or change of circumstances, to inform medical staff of a change in the patient's condition as soon as possible.

14.9 Administration of medicines to neonates, children and young people age 12 and under

14.9.1 Preparation and administration of medicines to neonates, children and young people age 12 and under must be carried out by two designated staff members who are deemed competent by the Appointed Registered Nurse / Midwife or Manager in Charge and / or have completed an approved educational programme, and are authorised to administer medicines. (In some dedicated paediatric / specialist settings local policy may stipulate two designated staff members must be involved for all medicines prepared / administered to those age under 16).

14.9.2 Two designated staff members must carry out dose calculations independently. The clinical pharmacist must be contacted if there is any uncertainty regarding the dose or calculation.

14.9.3 If the patient refuses to take medicines from the designated staff members a parent may administer oral medication but only in the presence of one staff member involved. Both designated members of staff must sign the Medicine Kardex administration record and record that the medicine was administered by a parent.

14.10 Covert administration of medicines

14.10.1 The covert administration of medicines is defined as the administration of medicines in disguised form, usually by means of food or drink, to patients who have previously refused to take the medicines. All patients have the right to refuse treatment. This right may be overturned only by application of the appropriate mental health or adults with incapacity legislation. Only medicines deemed essential may be administered covertly.

14.10.2 The legislation governing medicine administration in those who lack capacity is covered by the Adults with Incapacity (Scotland) Act 2000 and the Mental Health (Care and treatment) (Scotland) Act 2003. Detailed guidance on covert medicine administration can be found in "Covert Medication – Legal and practical guidance", Mental Welfare Commission for Scotland.

14.10.3 The use of covert means to administer medication is occasionally necessary but it is not justified in a patient who is capable of making decisions about their medical treatment. Covert medication given in these circumstances could be considered assault. Covert medication is no substitute for explanation and education.

Continues overleaf

14.10.4 The 2000 Act defines incapacity as being incapable of:

- acting or
- making decisions, or
- communicating decisions or
- understanding decisions or
- retaining the memory of decisions,

due to a mental disorder or the inability to communicate due to physical disorder. All possible assistance must be given to patients to aid their communication (e.g. interpreters) before a decision of incapacity can be made.

14.10.5 The covert administration of medicines must never involve restraint or force. This policy does not apply in emergency situations.

14.10.6 Medicines may be administered covertly only following discussion and agreement with the medical and nursing staff responsible for the patient's care and the patient's family and/or carers, and advocates. The lead practitioner must certify incapacity on an Incapacity Consent Form or other approved documentation (e.g. Section 47 certificate or other relevant documentation in relation to the Mental Health Act).

14.10.7 Medicines may only be administered covertly when it is in the best interests of the patient, that is, the medicine is necessary in order to save life, or to prevent deterioration in the patient's physical or mental health, or to ensure improvement in the patient's physical or mental health.

14.10.8 Where a young person under the age of 16 refuses a medicine, and is not deemed to be capable, consent to administer medicines covertly must be obtained from the capable adult with parental responsibility. If the person with parental responsibility consents, the medicine may be given covertly. If the person with parental responsibility does not consent, then the medicine should not be administered covertly. However, in exceptional circumstances, where the adult with the parental responsibility is absent, or is not acting in the best interests of the young person, the medicine may be given covertly if it is thought to be essential by the medical and nursing staff responsible for the young person's care.

14.10.9 While medicines are being administered covertly, the situation must be re-assessed regularly to take account of changes in the capability status of the patient. Regular attempts must be made to encourage the patient to take the medicine, by providing information and explanation.

14.10.10 Practical aspects of covert medicine administration must be considered at an early stage, including the safety of 'crushing' or 'dissolving' medication and the need to prescribe accurately and record covertly administered medicines on the usual documentation. Pharmacy should be contacted for advice where needed.

15. Supply of medicines for patients to take away from hospital

15.1 General principles

15.1.1 Patients will be provided with at least 7 days supply of all required medicines when they are discharged from hospital. This may be either via medicines dispensed prior to discharge and / or ongoing use of PODs brought in to hospital or by the issue of Patient Packs (see Section 13.4, Prescriptions for out-patients / Patient Packs). When a short course of treatment is required e.g. reducing course of steroids / short courses of antibiotics, the quantity of medicine required for the complete course will be provided, where appropriate, from the hospital pharmacy.

15.1.2 An authorised prescriber must write a prescription for current medicines on discharge from hospital, using the Discharge Prescription form, or it may be prescribed electronically. The prescription must comply with the guidelines for prescribing medicines. (See section 13, Prescribing medicines.)

15.1.3 Patients attending out-patient clinics will usually have changes in their medication / new medication initiated by their GP. If there is an immediate need to change medication or start new medicine or the medicine is designated 'Hospital Supply Only', the patient should receive their supply from the hospital pharmacy. Medicines should be requested on a Discharge Prescription form.

15.1.4 All medicines issued to patients to take away must be labelled to comply with legal requirements with:

- Name of patient.
- Name of medicine.
- Strength.
- Dosage instructions.
- Hospital name.
- Date dispensed.

15.1.5 The patient must be provided with adequate verbal and written information about his or her medicines, e.g. patient information leaflet.

15.1.6 A copy of the Discharge Prescription must be filed in the patient's medical notes, one copy supplied to the patient's GP, and one copy retained in the pharmacy.

15.2 Patient Packs

15.2.1 Certain wards / departments (e.g. A&E units, short-stay surgical units) may keep a small supply of pre-labelled medicines that can be issued to patients on discharge – these supplies are termed 'Patient Packs'.

15.2.2 Medicines that can be supplied as Patient Packs must be agreed by the Lead Clinician and Lead Clinical Pharmacist for that area. Patient Packs will be supplied from pharmacy with agreed labels / instructions attached.

15.2.3 Any medicine supplied as a Patient Pack must be appropriately documented following agreed SOPs. A separate local record of stock supplied should be kept in the ward / department.

15.2.4 Where medicines are issued to the patient directly from a ward or department using a Patient Pack, the Assigned Nurse / Midwife or Manager in Charge must ensure that medicines are issued only by staff that he or she has authorised, and that authorised staff are trained and competent in the processes involved in issuing medicines to patients and the checking procedures required.

15.3 Issuing discharge medication to patients

15.3.1 On receipt of the discharge medication at ward level, nursing or pharmacy staff must check that what has been prescribed on the discharge prescription agrees with the current Medicine Kardex (as the dose of certain medicines may be altered up until the point of discharge or may be discontinued).

15.3.2 If any discrepancy is found whilst checking the Discharge Prescription against the Medicine Kardex the prescriber must be contacted so that necessary amendments can be made. Discrepancies may be intentional but should be confirmed and documented in the patient's notes.

Continues overleaf

15.3.3 If a Medicine Kardex has been changed after the patient's Discharge Prescription has been dispensed, a new Discharge Prescription must be written. The original prescription and dispensed medication must be returned to pharmacy staff (the prescription will be destroyed and medicines reused, if appropriate). The new Discharge Prescription should be given to pharmacy staff for dispensing.

15.3.4 Nursing or pharmacy staff must also check the accuracy of the drugs supplied by pharmacy against the Discharge Prescription before issuing to the patient or patients representative.

15.3.5 Check that the following details are on the prescription:

- Patient's name.
- Patient's address.
- CHI number (and unit number).
- Ward or department.
- Prescriber's signature.

15.3.6 Check that the name on the Discharge Prescription matches the patient's name band and, if possible, get the patient to verbally confirm their name (or use other locally agreed means of confirming identity).

15.3.7 Check the following information on the label for each item against the prescription:

- The medicine.
- Name.
- Strength.
- Form.
- The dose.
- In quantity of tablets, liquid, etc.
- Frequency.
- Length of course, where applicable.
- Instructions for administration, where applicable.
- The patient's name.
- Check expiry date (if applicable) on medicines.

15.3.8 If the label instructions are different from the directions on the prescription, contact pharmacy staff to arrange amendment of the medicine labels.

15.3.9 Ensure that at least a 7-day supply of each medicine is provided unless a longer or shorter course of treatment is appropriate, e.g. post-op pain relief.

15.3.10 The nurse, midwife or pharmacist issuing the medication to the patient must sign the discharge prescription along with the patient or patient's representative in the appropriate spaces.

15.3.11 The discharge medication will be explained to the patient, or, when appropriate, to the carer, prior to discharge.

15.3.12 Patients should receive a copy of their Discharge Prescription on discharge, whether or not they require discharge medication. The patient's GP must receive a copy of the discharge prescription, either directly from the patient themselves or posted from the hospital. Local arrangements may allow copies of the prescription to be posted directly to the patient's GP and / or community pharmacy.

15.3.13 If a patient refuses to wait for their discharge drugs and does not return to collect their medication on the day of discharge, this should be documented on the Discharge Prescription. The General Practitioner (GP) should be contacted by telephone by the ward staff if an urgent prescription is required. The top copy of the Discharge Prescription should then be posted to the patient's GP for information.

15.3.14 Non-issued discharge prescription medications should be returned to pharmacy.

Controlled Drugs : Additional Requirements

15.3.15 All CDs issued to patients on Discharge / Pass prescriptions must be recorded in the Ward Controlled Drugs Register on the page "Controlled drugs on discharge prescription – Out". The entry must include the date of issue, the name, form, strength and quantity of each CD issued, the signature of the person making the issue, the signature of a witness and the patient's name.

15.3.16 When issuing Schedule 2 CDs to patients or their representatives on wards the nurse / midwife or pharmacist should ascertain to whom they are issuing the medicine and obtain a signature from that person on the prescription itself. In addition a record should be made in the Ward Controlled Drugs Register of:

- Whether the person who collected the CD was the patient, their representative or a healthcare professional acting on behalf of the patient.
- If the person who collected the CD was a healthcare professional, that person's name and address.
- If the person who collected the CD was the patient or their representative, whether evidence of identity was requested. (As a matter of good practice a note as to why this was not requested may be included but this is not mandatory.)
- Whether evidence of identity was provided by the person collecting the drug.

15.3.17 If the non-issued discharge prescription medication contains CDs, pharmacy must be contacted to arrange uplift.

15.4 Issue of medicines for injection by patients and carers

15.4.1 Patients and carers may need to prepare injectable medicines for self administration in clinical areas in NHS GG&C premises, e.g. as part of a training plan for Cystic Fibrosis patients. Injectable medicines may also need to be prepared by patients / carers / healthcare workers in a patient's home environment following discharge.

15.4.2 Injectable medicines for administration may be supplied entirely by the hospital pharmacy department via Discharge Prescription or partly by Discharge Prescription with the remainder being met by Community Pharmacy via a GP-generated prescription. In some instances, medicines may be delivered direct to patient's home by an approved home care supplier.

15.4.3 There are hazards associated with the preparation of medicines for injection and patients and carers must be suitably instructed and informed to ensure that these hazards are eliminated or minimised. Local SOPs will apply.

15.4.4 The information and instructions provided to patients and carers must be tailored to their individual needs and circumstances. Practitioners who are involved in supporting patients and carers should consider home, work and social circumstances when advising on the suitability of environments for preparation.

15.4.5 Patients and carers must be shown how to prepare their injections, and given adequate opportunity to practise under supervision until they are familiar and confident with the procedure and have achieved the necessary competence. Practitioners should re-assess the patient or carer's technique regularly. Records of initial instruction and re-assessment, as per local guidelines, should be kept, signed by practitioners involved, and the patient or carer.

15. 4.6 Written information and instruction on the preparation of injections should include:

- Storage requirements for each product.
- General good practice guidance on checking the medicines, the standard of the environment to be used, and preparation technique involved.
- Specific step-by-step instruction on the preparation of each product.

15.4.7 Practitioners responsible for patient care must ensure that appropriate information and instruction are made available to patients and carers who need to prepare injections.

16. Return and disposal of medicines

16.1 General principles

16.1.1 All medicines brought into hospital by patients remain their own property. They must be disposed of only with the consent of the patient, or the patient's representative. This consent must be documented, e.g. in the patient's medical records, nursing notes or locally approved documentation.

16.1.2 It is the responsibility of the Assigned Nurse / Midwife in Charge to ensure medicines which are expired or no longer required on the ward / department are returned to the Pharmacy Department.

16.1.3 The Appointed Registered Nurse / Midwife or Manager in Charge must ensure that a robust system is in place to regularly check expiry dates and rotate stock within their department. Particular attention should be paid to high-cost or rarely used non-stock items. These should be returned to pharmacy for re-issue well in advance of their expiry date.

16.1.4 Details of the ward / department medicine being returned, the reason for their return and the signature of the Assigned Nurse / Midwife in Charge must be entered on the three part Medicines Returned to Pharmacy form and the top two copies must be sent with the medicines in a sealed bag to the Pharmacy Department, either in person or in the locked box. (Medicines Returned to Pharmacy forms are available for the Pharmacy Department.)

16.1.5 All PODs (excluding CDs) that are no longer required must be returned to pharmacy for destruction. The PODs should be accompanied by a Medicines Returned to Pharmacy form, stating the patient's name and unit / CHI number and list all PODs sent for destruction. Detailed quantities of each medicine are not required unless the .medicine is included in the Desirable Drugs policy.

16.1.6 Containers or packages of returned medicines must be kept securely or under surveillance whilst in transit between the ward, theatre or department and pharmacy.

16.1.7 Within the hospital sector, Pharmacy Managers and the Regional Quality Assurance Pharmacist must ensure that SOPs dealing with waste management, including pharmaceutical waste, are in place. A contract must be made with an authorised carrier for the collection and disposal of pharmaceutical waste at regular intervals or on demand. All pharmaceutical waste must be segregated from pharmacy stock and promptly transferred to disposal containers. Pharmacists must ensure that consignment notes and any other requisite documentation are completed and copies kept complying with legal requirements.

Controlled Drugs : Additional Requirements

16.1.8 CDs that have expired or are no longer required will be disposed of in accordance with current legislation and guidance from the RPSGB. CDs must be rendered irretrievable or denatured during the destruction process.

16.1.9 Unused or partly used prepared individual doses of CDs can be destroyed in wards / theatres / departments (e.g. a part-used morphine PCA syringe that is no longer required, a part used morphine vial or syringe where only a portion has been administered). The part-used CD should be destroyed in the theatre / ward / department in the presence of a second person who may be a pharmacist, nurse / midwife or doctor. Appropriate records of the destruction of prepared but unused doses or partly administered doses must be recorded in the controlled drug register, recording the amount administered to the patient and the amount destroyed.

16.1.10 A separate section of the Ward Controlled Drugs Register should be used to record disposal of part-used infusions, syringes and epidurals prescribed, e.g. for Patient Controlled Analgesia (PCA). The volume of any unused portion of the syringe / epidural / infusion bag which is destroyed must be recorded in the CD register and witnessed by another member of staff.

16.1.11 Small quantities of stock CDs that are expired or are otherwise unsuitable for re-use can be disposed of in wards, theatres or departments by a pharmacist and witnessed by a registered nurse / midwife belonging to the ward or department. This must be documented in the Ward Controlled Drugs Register.

16.1.12 Patients own CDs that are no longer required must not be returned to pharmacy for destruction. They must always be destroyed at ward/department level.

16.1.13 A pharmacist and a registered nurse / midwife from the ward / department must witness the destruction of patients own CDs at ward level. The destruction must be recorded in the Ward Controlled Drugs Register.

16.1.14 All CDs should be rendered irretrievable before disposal. Where possible a commercial denaturing kit should be used to facilitate CD destruction. Local SOPs will apply.

16.2 Destruction of medicines at ward, theatre or department level

16.2.1 All medicines, including PODs, should be returned to pharmacy for destruction, with the exception of patients own CDs and small quantities of expired / part used / no longer required ward / department stock CDs.

Controlled Drugs : Additional Requirements

16.2.2 Patients own CDs no longer required, small quantities of stock CDs no longer required or out-of date stock CDs must be destroyed in the ward, theatre or department by a pharmacist and witnessed by a registered nurse / midwife belonging to the ward or department.

16.2.3 It is good practice to use commercially available CD denaturing kits. If this is not possible or practical, however, other means of denaturing CDs should be used. Local SOPs should be followed for each different formulation type (tablets / injections / patches etc).

16.2.4 A record of destruction of expired CDs or CDs that are otherwise unsuitable for re-use, including patients own controlled drugs must be made in the ward, theatre or department Ward Controlled Drugs Register. The register must be signed by the pharmacist destroying the CD and a registered nurse / midwife belonging to the ward, department or theatre concerned must sign the CD Register to witness this entry. The balance will be adjusted accordingly.

16.2.5 The pharmacy department must be contacted when a CD requires to be destroyed or returned to pharmacy e.g. unopened packs of CDs ordered specifically for a patient who no longer requires treatment. A pharmacist must attend the ward, department, theatre in person to uplift the CD. (In some sites, ward staff may be authorised to return CDs no longer required using a Medicines Returned to Pharmacy form. On these sites, local SOPs must be followed that ensure a complete audit trail is maintained and that the CDs are handled and transported securely at all times.)

16.2.6 CDs must not be returned to the pharmacy in the ward pharmacy box under any circumstances.

16.2.7 For excess ward stock of CDs, the Medicines Returned to Pharmacy Form must be completed, itemising the name, strength, form and quantity of all CDs being returned to the pharmacy. The top two copies will accompany the CDs being returned to pharmacy and the bottom (blue) copy will remain in the book on the ward, theatre or department.

16.2.8 The pharmacist will make an entry in the Ward Controlled Drug Register documenting the return to pharmacy or destruction of the CDs and will adjust the balance appropriately. A registered nurse / midwife in the area concerned must sign to witness this entry.

16.2.9 All CDs returned from wards / theatres / departments must be held securely prior to processing in pharmacy. Details of the returned CDs must be entered into the pharmacy Controlled Drug Register within 24 hours of receipt.

16.2.10 Once the CD return has been processed in the Pharmacy Department, the pink copy of the Medicines Returned to Pharmacy form will be sent back to the ward / department, along with a delivery note which will document the medicines returned to the pharmacy.

16.2.11 It is the responsibility of the Assigned Nurse / Midwife in Charge to ensure the Medicines Returned to Pharmacy form, delivery note and the entry in the ward CD register correlate. If any discrepancies are found they must be reported to the Lead Nurse / Midwife and Pharmacy Manager.

16.2.12 All CDs returned to the pharmacy must be checked to ensure that their quality and integrity have been maintained before they may be issued for re-use.

16.2.13 CDs that have been supplied via a GP prescription for use by a District Nurse or other healthcare professional in the patient's own home remain the property of the patient. The patient or their representatives should return unwanted CDs to the community pharmacy that dispensed them.

16.2.14 In exceptional circumstances, if a patient or patient's representative returns CDs directly to the hospital pharmacy for destruction, the CDs must not be issued for re-use by another patient. These should be documented in the Pharmacy Register for Destruction of Controlled Drugs and destroyed.

16.2.15 GPs and / or Community Pharmacies supplying CDs to patients must be informed by pharmacy of any CDs that are returned and destroyed in hospitals.

Continues overleaf

16.3 Destruction and disposal of Controlled Drugs belonging to the hospital pharmacy

16.3.1 All CDs to be destroyed must be written out of the pharmacy Controlled Drug Register and written into the Register for Destruction of Controlled Drugs, recording the CD name, form, strength, quantity being destroyed, the date of destruction and the signature of the authorised person in whose presence the CDs were destroyed.

16.3.2 Until they can be destroyed, obsolete, expired or unwanted CDs must be kept segregated from other stock CDs. They must be clearly identified as being for destruction to minimise the risk or errors and inadvertent supply.

16.3.3 Pharmacy stocks of CDs that have expired must be denatured prior to disposal, in the presence of a person authorised by the Scottish Executive Health Department.

16.3.4 It is good practice to use commercially available CD denaturing kits. If this is not possible or practical, however, other means of denaturing CDs should be used. Local SOPs should be followed for each different formulation type (tablets / injections / patches etc).

16.3.5 Once denatured, CDs must be disposed of by incineration or other safe means through a specialist contractor, according to legal requirements and current environmental standards. Local SOPs will apply. Consignment notes must be checked to ensure that the correct information has been entered prior to signing for removal of waste from the site.

17. Medication incidents

17.1 Medication incidents (and 'near-misses') can be clinical (e.g. administration of the wrong medicine to a patient) or non-clinical (e.g. medicine refrigerator turned off in error) in nature. When a medication incident or 'near-miss' is discovered, it should be formally reported in order to ensure that the appropriate corrective action is taken, to agree the appropriate preventative action is taken to avoid recurrence and to ensure systematic learning throughout the organisation.

17.2 A new single-system reporting mechanism for NHS GG&C is currently being developed. Until this reporting mechanism is in place, please continue to use existing means for reporting medication incidents and 'near-misses' (e.g. as per NHS GG&C Policy on the Management of Significant Clinical Incidents).

17.3 The person who discovers a medication incident or 'near-miss' must ensure the immediate remedial action is carried out, ensure the incident is reported, and inform the appropriate senior member(s) of staff in charge of the patient.

17.4 Any medicine may produce unwanted or unexpected adverse reactions. Any such confirmed or suspected adverse reaction to medicine (including vaccines and herbal remedies), blood products and radiographic contrast media should be reported via the UK wide 'Yellow Card' scheme (guidance on reporting can be found at www.yellowcard.gov.uk).

18. Defective medicines

18.1 Official notification of a defective medicine is issued as a Drug Alert from the Scottish Executive or the Medicines and Healthcare products Regulatory Agency (MHRA) or the manufacturer / supplier. Scottish Executive Drug Alerts include the required timescale for action.

18.2 The Pharmacy Manager must ensure that there are systems in place to check if the defective medicine has been issued for use within their site, and to facilitate withdrawal from use (in conjunction with ward / departmental staff) of any defective medicine that has been issued, within the required timescale for action.

18.3 If any member of staff has reason to believe that a medicine is defective, he or she must inform the Pharmacy Manager (or delegated deputy) immediately within pharmacy working hours, or contact the EDC pharmacist outwith working hours, if appropriate.

18.4 The person who discovers the defect must ensure that the product, container and other packaging are retained. If the defect has been discovered following reconstitution or mixing with another preparation, then the mixture, remaining unmixed constituents, and all containers and other packaging must also be retained. All retained materials must be placed in a sealed container, clearly marked "Do Not Use", and stored in the ward medicine cupboard or CD cupboard as appropriate.

18.5 The Pharmacy Manager must ensure that there are systems in place to investigate local reports of defective medicines, to withdraw from use other affected stock if appropriate, and to inform the Scottish Executive, via the Specialist Pharmacist in Public Health, if there are implications for the rest of the health service.

18.6 If a member of pharmacy staff, after receiving medicines from a supplier or returned from a ward, suspects a package has been tampered with he / she should secure the medicines in question in a sealed container, marked "Do Not Use", and inform the Pharmacy Manager (or delegated deputy) immediately. If at time of delivery a member of pharmacy staff suspects a package has been tampered with then he / she should refuse to accept it from the supplier.

18.7 Local SOPs for the reporting and monitoring of such defects must be followed.

Controlled Drugs : Additional Requirements

18.8 A pharmacist must uplift any defective CDs and return them to pharmacy as soon as possible during normal working hours and appropriate records must be made in the Ward Controlled Drugs Register.

Appendix 1

Herbal / Complementary medicines

The following principles should be applied when a patient has been using, or wishes to use, complementary medicines.

1.1 Complementary medicines include homeopathic, herbal, Chinese and other ethnic preparations and various 'supplements'. Aromatherapy products can also be included in this category.

1.2 Patients may be purchasing these preparations for use at home, whether or not they have been 'prescribed' or supplied by a 'specialist'.

1.3 These are not licensed medicinal products and the available preparations are not quality assured. In many cases there is little or no evidence-based information on the safety and efficacy of these products.

1.4 It is often difficult to know whether such preparations can safely be prescribed for, or administered to, hospital in-patients. If patients wish to continue receiving complementary medicines they usually take at home, or are found to be self-medicating with these products whilst in-patients, a risk assessment must be made considering any potential drug / disease interactions and patient-derived benefits. The local pharmacy department / Medicines Information centre should be contacted for further advice, if needed.

1.5 When taking a medication history, the doctor, nurse / midwife or pharmacist should prompt the patient to give information on all of the medicines being taken, whether prescribed by the GP or self-prescribed.

1.6 Any complementary medicines to be administered to in-patients (whether they are self-administering or not) must be prescribed on the Medicines Kardex.

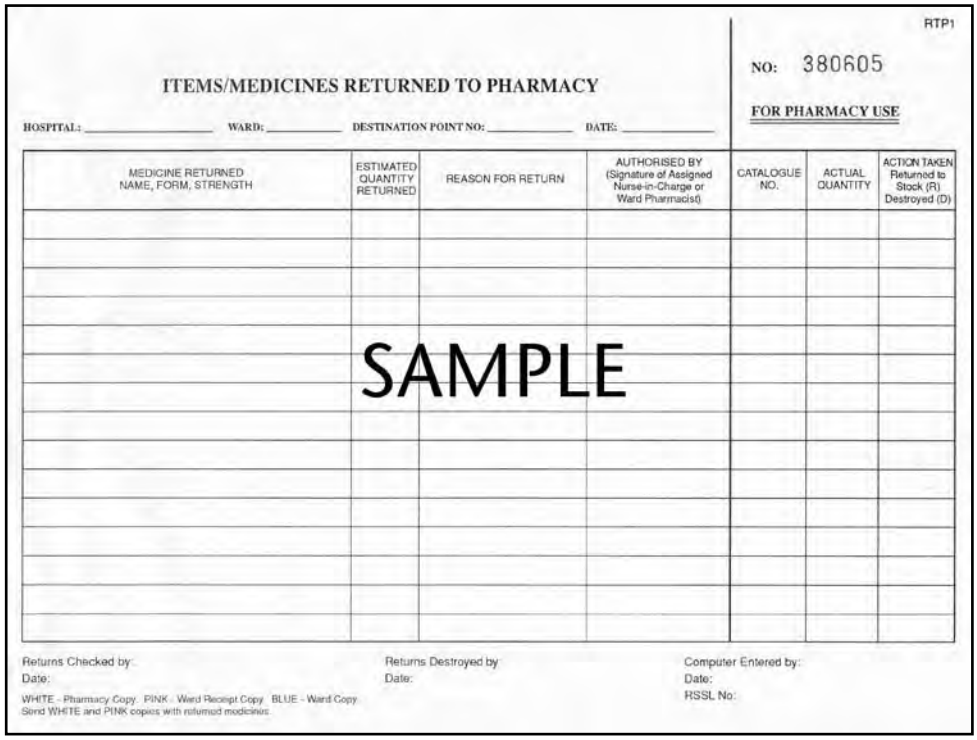
1.7 Patients wishing to use complementary medicines in hospital should be asked to provide their own supply in its original packaging.

1.8 When homeopathic preparations are being used as prescribed by a qualified GP or the Homeopathic Hospital, it may be possible to obtain further supplies via pharmacy.

1.9 Complementary medicines should be stored in a locked cupboard, as for conventional medicines, and administered under the supervision of nursing staff in the usual manner.

Appendix 2

Sample documents – Medicines Returned to Pharmacy form / Medicines Requisition form



RTP1

ITEMS/MEDICINES RETURNED TO PHARMACY

NO: 380605

FOR PHARMACY USE

HOSPITAL: _____ WARD: _____ DESTINATION POINT NO: _____ DATE: _____

MEDICINE RETURNED NAME, FORM, STRENGTH	ESTIMATED QUANTITY RETURNED	REASON FOR RETURN	AUTHORISED BY (Signature of Assigned Nurse-in-Charge or Ward Pharmacist)	CATALOGUE NO.	ACTUAL QUANTITY	ACTION TAKEN Returned to Stock (R) Destroyed (D)

SAMPLE

Returns Checked by:
Date:

Returns Destroyed by:
Date:

Computer Entered by:
Date:
RSSL No:

WHITE - Pharmacy Copy PINK - Ward Receipt Copy BLUE - Ward Copy
Send WHITE and PINK copies with returned medicines

Above - Medicines Returned to Pharmacy form.

Right - Medicines Requisition form.



PHARMACY REQUISITION 3305848

HOSPITAL _____ WARD/DEPT COMP NO. _____

WARD/DEPT _____

EXT. NO. _____ DATE _____

Quantity Requested	ITEM	Size/ Code	Computer CAT No.	Quantity Issued

SAMPLE

Ward/Department Use

Requisitioned By: _____
(Authorised Signatory eg Ward: Assigned Nurse in Charge)

Received from Pharmacy By:

Received and Checked on Ward/Department By:

Pharmacy Use

Authorised By: _____

Computer Entered By: _____

Picking List No: _____

Issued By: _____

Checked By: _____

White - Pharmacy Copy Pink - Pharmacy Receipt Copy Blue - Ward Copy

Appendix 3

Methadone – Guidance for Patients on Methadone Programmes

1.1 Introduction

Patients who are receiving prescribed methadone for substance dependence in the community are generally provided with a single dose on a daily basis by their pharmacist. Consumption of the dose may be supervised by the pharmacist. Patients may be in a programme supervised by their GP or by a specialist Drug Problem Service.

If a patient on a methadone programme is admitted to hospital, it is essential that hospital / community / Drug Problem Service colleagues work together to ensure that the supply arrangements are modified appropriately during the period of the hospital stay and at discharge.

1.2 Procedure

On admission, medical, nursing or pharmacy staff should:

- Contact the usual prescriber and / or community pharmacy to confirm the dose, and to inform him / her of the admission.
- Contact the community pharmacist to cancel or suspend the supply arrangements, and to check if consumption is supervised. Check when the last dose was given.
- Remove any of the medicine that is in the patient's possession for use during the hospital stay if suitable, or destruction if not suitable.
- Methadone administration to all in-patients should be supervised.

1.3 Discharge planning

- Contact the usual prescriber in the community to inform him / her of the agreed discharge date and time, confirm the current dose and when the last dose will be administered before discharge.
- Confirm that the usual prescriber in the community will make the necessary arrangements with the community pharmacist to provide a new prescription or re-instate the suspended prescription.
- Make sure that suitable arrangements have been made to allow the patient to collect the next due dose following discharge.

1.4 On discharge

- Administer the daily dose on the ward before the patient is discharged, unless alternative arrangements have been made.
- Inform the patient of the arrangements for the next dose.
- Do not return any unused supplies that were brought in on admission, and do not provide a discharge supply unless a single dose is required until the regular arrangement in the community is put in place.

1.5 Transitional care arrangements for new mothers

Women who no longer require medical or nursing / midwifery care, and who are transferred to the transitional care area while their babies remain in hospital may have difficulties travelling to their community pharmacy to collect their methadone. The required daily dose may be dispensed from the ward under the following circumstances:

- The woman has genuine difficulty in accessing the community pharmacist.
- The arrangement lasts no longer than seven days.
- The midwife or nurse who provides the daily dose follows agreed local guidelines.

Continues overleaf

1.6 Arrangements for parents / relatives / carers in a Methadone Programme

Occasionally, parents / relatives / carers who are in a methadone programme may be resident within the hospital due to nature of the patient's condition. In most cases, their methadone supply can continue from the original supplying community pharmacy or, if the distances involved in collecting the methadone are large, from a community pharmacy close to the hospital. Only in exceptional cases should methadone belonging to parents / relatives / carers be brought in to the hospital environment for consumption / storage. Any methadone belonging to parents / relatives / carers brought in to hospital should be cleanly annotated with relevant details (name, date of storage, quantity etc), recorded in the Ward Controlled Drugs Register on a page marked "Methadone – parents / relatives / carers" and locked in the controlled drug cupboard. The methadone should be issued to the parent / relative / carer on their request and in line with labelling instructions on the methadone bottle. The methadone consumption should be documented in the ward Controlled Drugs Register and the methadone consumption supervised. It is the responsibility of the parent / relative / carer to adhere to the prescribed dose – if their request for methadone exceeds the prescribed instructions on the label or their behaviour is giving cause for concern a senior member of medical staff should be contacted for advice.

Appendix 4

Desirable drugs (drugs liable to misuse)

1.1 A number of drugs (in addition to controlled drugs) have the potential to be misused / abused by both patients and staff. The local police authorities advise on drugs that are potentially misused within the NHS GG&C area and staff should be aware of the pattern of drug misuse within the local community. Any suspicious behaviour by staff or patients should be reported to the relevant person (e.g. patient's consultant / staff line manager). Misappropriation of any drugs by staff or patients will not be tolerated within NGS G&C.

1.2 Drugs potentially liable to misuse include:

- **All benzodiazepines**, including:
  - Chlordiazepoxide
  - Diazepam
  - Loprazolam
  - Lorazepam
  - Lormetazepam
  - Midazolam
  - Nitrazepam
  - Oxazepam
  - Temazepam
- **Analgesics**
  - Codeine
  - Dihydrocodeine
  - Tramadol
  - Ketamine
- **Hypnotics**
  - Zopiclone
  - Zolpidem
- **Other drugs**
  - The type of drugs potentially misused by patients / staff is continually changing. Examples include corticosteroids, sildenafil and laxatives.

1.3 Ordering, storage and administration requirements.

Temazepam must be ordered in the Ward Controlled Drugs Order Book in all acute settings and stored in the locked CD cupboard.

Other drugs may have local restrictions on ordering and storage requirements - local SOPs must be followed, if applicable.

1.4 If misappropriation of any drug is suspected the guidance in section 10.6, Action in the event of a breach of security, must be followed.

Appendix 5

Procedure for dealing with unauthorised drugs or other suspicious substances found in NHS hospital premises

1. General principles

1.1 Many patients who misuse drugs are treated every year in hospitals, either as a direct result of drug misuse or for other reasons. In some cases, the fact that a patient misuses drugs is already known to the medical, nursing / midwifery or pharmacy staff. In others, it is not. Sometimes, a patient may be found to be in possession of suspicious powders, tablets, capsules or other substances for which he or she does not have an adequate explanation. Although the exact nature of the substance may be unclear, it could be a drug such as heroin, cocaine, LSD or amphetamines. Possession of the drug may be an offence under the Misuse of Drugs Act, 1971 and Regulations made there under.

1.2 When a member of staff takes possession of the substance, he or she may be placed in a vulnerable position unless it can be demonstrated that the substance was taken for the purpose of delivering it into the safe custody of a person lawfully entitled to possess it or destroy it. It is therefore important that all actions relating to the taking into safe custody or destruction of suspected substances are fully and correctly documented and witnessed and the procedures below followed. Unless large quantities of drugs are involved, the main aim is to ensure that the drugs are handled and destroyed in a safe and legal manner.

1.3 Where large quantities of unauthorised drugs or other substances are found on a patient's person, the police should always be informed and fully assisted in their enquiries. It is recommended that in these circumstances the local Police Station is contacted directly. They may attend the ward and initiate enquiries. In these circumstances, public interest overrides that of confidentiality.

1.4 Experience has shown that the discovery in the hospital setting of quantities of unauthorised drugs consistent with the patient's own personal use rarely leads to successful prosecution. Furthermore, a heavy handed response can compromise patient care and cause considerable disruption of ward routines and the waste of much time and effort. The police are well aware of this and do not wish to compromise patient care. They recognise that the delicacy of the circumstances demands a balanced and sensitive approach. Consequently, following discussions with Strathclyde Police, it is recommended that the decision to contact the police or dispose lawfully of the substance should be taken jointly by the lead nurse / midwife in conjunction with the consultant with clinical responsibility for the patient.

2. Procedure when a patient is found to be in possession of unauthorised drugs or other suspicious substances

2.1 The member of staff finding the substance should immediately inform the Assigned Nurse / Midwife or Manager in Charge of the ward or department.

2.2 The assigned nurse / midwife in charge should contact the lead nurse / midwife on the hospital site and the consultant in charge of the patient and request their attendance.

2.3 The person finding the suspicious substance, the lead nurse / midwife for the site and the assigned nurse / midwife or manager in charge should complete Part A of the Form for Removal and Destruction of Unauthorised Drugs or Other Suspicious Substances (sample on page 64). An entry should also be made in a separate page in the ward / department CD register, headed "Suspicious Substances".

2.4 Where it is agreed by the lead nurse / midwife and the patient's consultant that the quantity of the substance found is consistent with patient's own personal use, then the hospital pharmacist should be requested to remove the substance for destruction. In this case, Parts B and C of the Form for Removal and Destruction of Unauthorised Drugs or Other Suspicious Substances should be completed as indicated, by the lead nurse / midwife, consultant, pharmacist and witness. One copy of the form should be filed in the patient's medical notes and one copy retained by the Pharmacy Department. If the patient objects to this course of action, the local Police must be contacted.

2.5 Where either the lead nurse / midwife or the consultant in charge, or both, consider that the quantity of the substance found is greater than is consistent with the patient's own personal use the local Police must be alerted.

2.6 If the local Police cannot attend within 24 hours, or if circumstances require, the suspicious substance and form should be transferred to the hospital pharmacy during working hours. Part C of the Form for Removal and Destruction of Unauthorised Drugs or Other Suspicious Substances should be signed by the receiving pharmacist.

2.7 If the Police attend, ward staff should endeavour to cooperate fully. In some cases, the police may not need to know the identity of the patient. However, if this information is required it should be disclosed by the lead nurse / midwife or consultant. In the investigation of an alleged criminal offence, confidentiality is unlikely to be a sufficient defence in law against disclosure.

2.8 Each case will be treated on its own merits and it is therefore not possible to indicate the precise action the police will take. However, the patient will never be questioned or removed from the ward or department if it is considered by the consultant in charge to be inappropriate on clinical grounds.

2.9 Following enquiries, the Police will remove the suspicious substance either directly from the ward or from the pharmacy if it had already been transferred there. In either case, Part E of the Form for Removal and Destruction of Unauthorised Drugs or Other Suspicious Substances should be signed by the police officer and the nurse / midwife or pharmacist witnessing the transfer. One copy should be given to the police, one copy retained by the Pharmacy Department and one copy filed in the patient's medical records.

See sample form overleaf - "FORM FOR THE REMOVAL OR DESTRUCTION OF UNAUTHORISED DRUGS OR OTHER SUSPICIOUS SUBSTANCES"

(Note: Local forms may vary in appearance but will record the same information.)

FORM FOR THE REMOVAL OR DESTRUCTION OF UNAUTHORISED DRUGS OR OTHER SUSPICIOUS SUBSTANCES

PART A **Description of substance removed from patient and placed in controlled drug cupboard.**
To be completed by the member of staff finding the drug and by the Ward or Departmental Manager.

Form: ..... (eg powder, tablets, capsules) Colour: ..... Quantity: .....

Removed from: Patient's initials and hospital number: .....

Ward/Dept: ..... Date: ..... Time: .....

Name of Finder: ..... Title: ..... Signed: .....

Ward/Dept Manager: ..... Title: ..... Signed: .....

Witnessed by Senior Nurse Manager: Signed: ..... Title: ..... Time: .....

SAMPLE

PART B **Action by Senior Nurse Manager and Consultant in charge of the patient.**

We, ... (Senior Nurse Manager) and ..... (Consultant in charge of the patient)

(1) are in agreement* **(2) are not in agreement*** that the unauthorised substances found on the person or property of the above patient are of a quantity consistent with his or her own personal use.

Action: **(1) We have therefore authorised the destruction of the substances by the Pharmacy Department.***

Action: **(2) We have therefore contacted the Drug Squad.***

Signed: ..... (Nurse Manager) Date: ..... Time: .....

Signed: ..... (Consultant) Date: .....

*Delete both items (1) or both items (2) as appropriate.

PART C **Collection and removal to Pharmacy**

Sealed container received by pharmacist:

Signed: ..... Date: ..... Time: .....

PART D **Confirmation of Destruction by Pharmacy**

I, ... confirm that I have destroyed the above substances in an authorised manner.

Signed: ..... Position: ..... Date: ..... Time: .....

Witnessed by: ..... Signature: .....

PART E **Collection by police (when required)**

Sealed container collected by:-

Officer's name: ..... Signed: .....

Witnessed by Nurse or Pharmacist Name : ..... Signature: .....

Date: ..... Time: .....

NB: White copy to be filled in patient's medical record Pink copy to be retained by Pharmacy Department Blue copy to be given to the Police (If appropriate)

02-706

Appendix 6

Multi-compartment medication devices

1.1 A multi compartment medication device is a container in which medicines can be dispensed for the day of the week and the time of day that the medicine is to be administered.

1.2 A multi compartment medication device may be helpful for a minority of patients with specific problems. However, they are time-consuming to fill and the risk of error is high. The following points must be considered before a patient is commenced on a multi compartment medication device:

- There are many reasons why patients fail to comply with instructions for medicines, some intentional and some unintentional.
- Sometimes failure to comply does not interfere appreciably with achieving the therapeutic goal.
- Unintentional non-compliance may be due to forgetfulness, lack of knowledge or clear information, inability to read or understand the instructions or inability to use the medicine or packaging. Most of these problems can be overcome by providing support and making alternative arrangements.

1.3 It is essential that there is a consistent and effective method, which is clearly documented as per local policy, to assess patients to ensure that they are suitable, and would benefit from a multi-compartment medication device. Patients using multi-compartment medication devices should be reviewed regularly to check that they continue to benefit and that the multi-compartment medication device is still required.

1.4 At discharge, if a community pharmacist normally dispenses a patient's medicines into a multi-compartment medication device, the medicines will be dispensed into the multi-compartment medication device in the hospital pharmacy. If the patient or carer normally fills the multi-compartment medication device from packs dispensed by the community pharmacist, the medicines will be supplied in packs as for other discharge medicines.

Appendix 7

Medicines in Schedule 5 of the Prescription Only Medicines Order which can be supplied or administered by midwives without the directions of a doctor.

1.1 Exemption from restrictions on sale or supply (which shall be only in the course of their professional practice and in the case of ergometrine maleate only when contained in a medicinal product which is not for parenteral administration):

- Chloral hydrate
- Ergometrine maleate
- Pentazocine hydrochloride
- Phytomenadione
- Triclofos sodium

1.2 Exemption from restrictions on administration (which shall be only in the course of their professional practice and in the case of promazine hydrochloride, lignocaine and lignocaine hydrochloride shall be only while attending on a woman in childbirth):

- Diamorphine
- Ergometrine maleate
- Lignocaine
- Lignocaine hydrochloride
- Morphine
- Naloxone hydrochloride
- Oxytocins, natural and synthetic
- Pentazocine lactate
- Pethidine hydrochloride
- Phytomenadione
- Promazine hydrochloride

Glossary of terms

Accountable Officer	Officer in a health care organisation who is responsible for the safe and effective use of and management of controlled drugs. Appointment required by Controlled Drugs (Supervision and Management of Use) Regulations 2006.
Appointed Registered Nurse / Midwife or Manager in Charge	The senior nursing (or other professional) staff appointment for the ward or department (e.g. Ward Sister, Charge Nurse, Clinical Ward Manager, Lead physiotherapist etc).
Assigned Nurse / Midwife in Charge	The senior nurse or midwife on duty for the ward or department who has been identified as the Nurse or Midwife in Charge for that shift.
Audit trail	A system whereby all transactions regarding a specific medicine can be traced from the act of purchase to the point of use.
Authorised Nurse / Midwife	Any registered nurse / midwife who satisfies the criteria to enable him/her to administer medicines without supervision, i.e. First Level Registered Nurse or Second Level Nurse under the conditions outlined in Rule 18(2) of Statutory Instrument 1983 No 873. (No nurse should be expected to accept the responsibility for administering such medicines against his/her will and those who do accept the responsibility must remember the requirements of the NMC Code of Conduct.)
Authorised prescriber	A person who is authorised to undertake independent or supplementary prescribing according to current legislation. (See Department of Health website.)
Community Pharmacy	A retail pharmacy, i.e. not attached to an NHS hospital.
Controlled Drugs	Controlled Drugs (CDs) are classified in various schedules depending on their therapeutic usefulness and potential for harm. Each schedule has different requirements in relation to storage, handling, record-keeping. The classifications are set out in the current Misuse of Drugs Regulations.
Controlled Stationery	All stationery, which in the wrong hands, could be used to obtain medicines fraudulently.
Designated Nurse / Midwife	Any registered nurse / midwife who has been identified by the Appointed Nurse / Midwife in charge as competent and appropriate to perform a specific function and his/her designation as such has been communicated to and recognised by any other relevant professional.
Discrepancy	Difference between the quantity of drug that is physically present and that which is recorded as being present, e.g. quantity in the CD register or computerised stock control system differs to the actual physical amount.
EDC Pharmacist	Emergency Duty Commitment Pharmacist – a pharmacist who provides an on-call service out of regular working hours for emergencies
Immobilised (in reference to medicine trolleys)	Secured to a floor or wall, or inside a locked room.
Medicine	Medicinal products as defined in Section 130 of the Medicines Act i.e., a substance administered by mouth, applied to the body, or introduced into the body for the purpose of treating or preventing disease, diagnosing disease or ascertaining the existence, degree or extent of a physiological condition, contraception, inducing anaesthesia, or otherwise preventing or interfering with the normal operation of a physiological function.
Medicines liable to misappropriation	Those medicines whose potential for misappropriation is high. Note: This may include Family Planning products and steroids as well as the recognised drugs of abuse.

Misappropriation (of medicines)	Removal of medicines for unauthorised use, theft.
Operational Services Manager	Delegated senior member of staff with responsibility for operational issues.
Patients	Service users, clients, consumers or customers of the health services.
Patient Group Direction (PGD)	A written instruction to enable a healthcare professional to supply and/or administer a medicine to groups of patients who may not be individually identified before presentation for treatment. The majority of clinical care should be provided on an individual, patient-specific basis.
Patient Specific Direction (PSD)	A written instruction from a doctor, dentist or nurse prescriber to enable medicines to be supplied or administered to a named patient (e.g. entry in the patients notes).
Pharmacy Manager	The senior pharmacist on each hospital site with responsibility for ensuring the safe and secure handling of medicines and overall responsibility for the provision of pharmacy services.
Pharmacy Support Worker	Member of pharmacy staff who has completed SVQ level 2. They may have possession of medicine keys at ward / department level for the purposes of stock top-up. Not a pharmacy technician.
Pharmacy Technician	Member of pharmacy staff who has completed (or is in training to complete) a National Certificate in pharmaceutical Sciences and SVQ level 3. They may have possession of medicine keys at ward / department level for the purposes of stock top-up and Medicines Management duties.
Prescribe	Prescribing is the ordering of a medicine for an individual patient. In medicines legislation, certain medicines may be supplied only in accordance with a prescription by a doctor, dentist or other appropriate practitioner, and which meets the conditions specified in the Prescription Only Medicines (Human Use) Order 1997. The term has however become commonly used to describe authorising - by means of an NHS prescription - the supply of any medicine (Prescription Only Medicine, Pharmacy or General Sales List medicine) at public expense to a named patient.
Registered midwife	Any midwife who is currently registered with the NMC.
Registered nurse	Any nurse who is currently registered with the NMC.
Registered Operating Department Practitioner	Operating Department Practitioner whose name is on the register of the Health Professions Council and should be a member of the College of Operating Department Practitioners.
Registered Pharmacist	Person registered in the register of pharmacists maintained by the Royal Pharmaceutical Society of Great Britain.
Requisition (of medicines)	To make a formal, written request for a supply of a medicine for use in a ward or department. The requisition must be signed by an authorised signatory. Requisitions are usually made in stationery designed specifically for that purpose.
Ward Controlled Drugs Register	Bound book in which records are made of CDs received and administered in wards, theatres and departments.

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Notes

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Mental Health Services
Prescribing Management Group

Serotonin Syndrome

Background

Serotonin syndrome is the clinical manifestation of an increase in serotonin levels in the central nervous system characterised as a triad of features; alteration in mental state, neuromuscular abnormalities and autonomic hyperactivity. Serotonin syndrome is perhaps better described as a spectrum of serotonin toxicity from mild serotonergic features that may cause minimal concern to the patient or clinician, to severe life-threatening toxicity that should be considered a medical emergency .[1]

Incidence

In its mildest form, serotonin syndrome is probably relatively common, but under reported. Approximately 15% of patients taking an acute overdose of selective serotonin reuptake inhibitors (SSRIs) develop moderate serotonin syndrome.[2]

Aetiology

Serotonin syndrome can occur from any exposure to medication that increases intrasynaptic serotonin concentration in the central nervous system. This includes medications where the therapeutic aim is to increase serotonin levels e.g. SSRI antidepressants and medications where this effect is unintended e.g. linezolid. In practice, it is usually encountered as a result of overdose of serotonergic drugs or as a consequence of drug interactions e.g. via inhibition of metabolism of serotonergic drugs or when more than one drug affecting serotonin is taken. Occasionally, it can occur when one serotonergic agent is prescribed alone in susceptible individuals.

Drugs associated with serotonin syndrome [1-3]

Serotonin-reuptake inhibitors	Monoamine oxidase inhibitors	Serotonin-releasing agents	Others
Selective serotonin-reuptake inhibitors (SSRIs) e.g. fluoxetine, sertraline	Phenelzine, tranylcypromine	Amphetamines	Lithium
Serotonin noradrenaline reuptake inhibitors (SNRIs) e.g. venlafaxine, duloxetine	Moclobemide	Methylphenidate	Tryptophan
Tricyclic antidepressants (TCAs) e.g. clomipramine, amitriptyline	Linezolid	Synthetic stimulants e.g. ecstasy, cathinones	Buspirone
St John's wort	Parkinson's treatment e.g. selegiline, rasagiline		Vortioxetine
Opioid analgesics e.g. pethidine, tramadol, fentanyl	Methylene blue		

Severe serotonin syndrome toxicity is usually as a result of a combination of serotonergic agents that act via separate mechanisms.[3] Life-threatening cases have been reported with the use of MAOIs in combination with SSRIs, therefore washout periods must be observed to minimise this risk.

Serious toxic effects are thought to result from stimulation of $5HT_2$ receptors, [2,4] therefore drugs that act on other 5HT receptors or are serotonin antagonists have a low risk of serotonin toxicity e.g. triptans, antipsychotics, antiemetics, anticonvulsants.

Diagnosis of serotonin syndrome

Onset of serotonin syndrome is usually within a few hours of drug initiation or dose changes and diagnosis of serotonin syndrome is primarily clinical.[2,3] Absence of exposure to a serotonergic agent, excludes serotonin syndrome as a diagnosis.

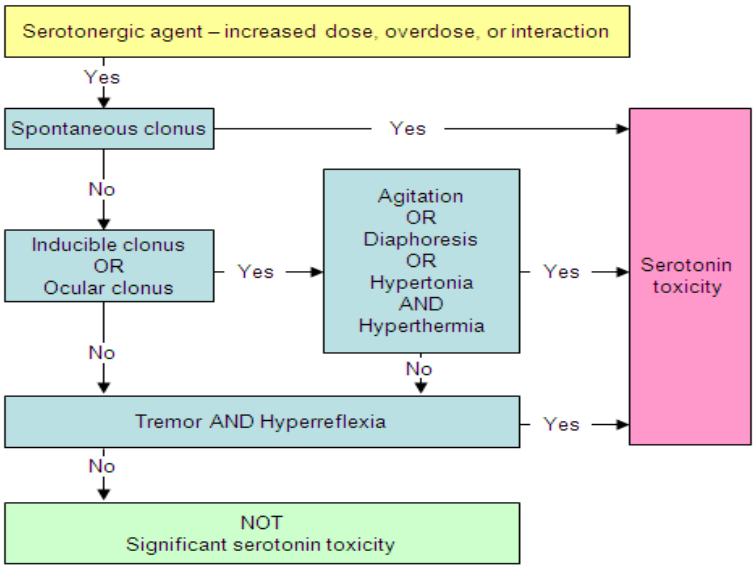
Symptoms of serotonin syndrome[1]		
Alterations in mental state	**Neuromuscular abnormalities**	**Autonomic hyperactivity**
Agitation	Tremors	Hypertension
Anxiety	Clonus	Tachycardia
Disorientation	Hyperreflexia	Tachypnea
Restlessness	Muscle rigidity	Hyperthermia
Excitement	Bilateral Babinksi signs	Mydriasis
		Diaphoresis
		Flushed skin
		Shivering
		Vomiting
		Diarrhoea
		Hyperactive bowel sounds
		Arrhythmias

Severe cases may result in complications such as seizures, rhabdomyolysis, multi-organ failure, coma and death.[2]

The Hunter Serotonin Toxicity Criteria (HSTC) are the most specific and sensitive diagnostic criteria and are less likely to miss early, mild or subacute forms of serotonin syndrome (although very mild symptoms of serotonin syndrome may not meet the HSTC).[3]

Serotonin toxicity exists in the presence of a serotonergic agent plus one of the following criteria: [5]

- Spontaneous clonus
- Inducible clonus AND agitation or diaphoresis
- Ocular clonus AND agitation or diaphoresis
- Tremor AND hyperreflexia
- Hypertonia AND pyrexia (temp> 38 °C) AND ocular or inducible clonus



Increasing severity of serotonin syndrome[3,6]

Mild	Moderate	Severe
Restlessness Nausea Diarrhoea Hyperreflexia	Agitation / anxiety Tachycardia Clonus Tremor Low fever / shivering Diaphoresis	Hyperthermia Rigidity Confusion Spontaneous clonus Convulsions

Differential diagnoses [3,7]

Differential diagnosis	Distinguishing features
Neuroleptic malignant syndrome	Absence of neuromuscular excitation* Presence of bradykinesia, lead-pipe rigidity and EPSE Slower onset of action History of exposure to antipsychotics (unless also on serotonergic drugs)
Anticholinergic toxicity	Absence of neuromuscular excitation* Bowel sounds absent, dry skin History of exposure to anticholinergic
Malignant hyperthermia	Absence of neuromuscular excitation* History of exposure to anaesthetic agent
CNS infection	Absence of neuromuscular excitation*
*hyperreflexia & clonus	

Management

Treatment of serotonin syndrome consists of discontinuing the serotonergic medication(s), assessing the severity of toxicity, providing supportive care and potentially the use of antiserotonergic treatment. In mild symptoms of

serotonin syndrome, discontinuing the implicated medication(s) usually resolves the presentation within 24-48 hours (the time course will depend on the clearance of the causative agent e.g. fluoxetine with a long half life will be much longer).[2]

Moderate to severe cases should be managed in an acute medical facility.

In moderate to severe toxicity, depending on the symptoms, the following should be considered: [2,3]

- assessment of airways, breathing and circulation
- hyperthermia should be treated with rapid cooling
- benzodiazepines for symptomatic relief of anxiety and agitation, muscle rigidity, myoclonus
- cyproheptadine (serotonin receptor antagonist)
- chlorpromazine as a serotonin receptor antagonist (reserved for severe cases and to clinicians with experience in its use for managing serotonin syndrome)

Restarting treatment

Once the symptoms have resolved and depending on the severity of the presentation and the likely explanation for the serotonin syndrome (e.g. increased dose, overdose, drug-drug interaction), it may be appropriate to consider recommencing a serotonergic medication at a lower dose under close monitoring. Alternative treatment with less serotonergic activity may need to be considered.

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SOP for Administration & Supply of medicines using a PGD

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Adult Symptomatic Relief Policy

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Adult Symptomatic Relief Policy Revision Information

Please record brief details of the changes made alongside the next version number. If the procedural document has been reviewed **without change**, this information will still need to be recorded although the version number will remain the same.

Version	Date	Brief Summary of Changes	Author(s)
1.0	Feb 2016	Consultation Draft	A Walker, D Meldrum
2.0	Apr 2016	Page 2 Bullet 1 Exemption for NRT added. Page 2 Bullet 2 Sentence for retrospective prescribing added. Page 2 Bullet 8 Details of how to record pre-admission NRT added Drug choice table K3 amended to indicate unsuitable for pre-admission use. Audit criteria 1 amended to exempt pre-admission NRT. New audit criteria added regarding recording of pre-admission NRT NRT policy & practice guidance added as Appendix 1	A Walker
3.0	April 2017	Page 5 Item K1, Dose changed from 2mg, now 1mg to 2mg (up to 20 cigarettes/day) Page 5 Item K1 Dose changed from 4mg, now 2mg to 4mg (>20 Cigarettes/day) Page 5 Item X Aspirin use changed to 'Rapid Anti-platelet Effect in suspected Myocardial Infarction'	A Walker
4.0	Mar 2018	Title changed from 'Adult and Older Adult Symptomatic Relief Policy' to 'Adult Symptomatic Relief Policy' Page 3 Responsibilities of prescriber and nursing staff clarified Page 3 Point 7. Clarification regarding information to be recorded for as required administration Page 4 Item B. Comments changed to ' Do not give at same time as other medication due to risk of impaired absorption' Page 4 Item D. Indication changed to 'laxative for acute constipation.' Maximum dose in 24 hours changed to 2 tabs or 10mls. 'Laxative effect within 8-12 hours' added. Seek medical advice if symptoms do not improve within '48 hours' Link to clozapine and constipation guidance added Page 4 Glycerin (glycerol) suppositories and sodium citrate microenemas removed Page 4 previous Item H. Loperamide removed due to numerous caveats surrounding its use e.g. C difficile and overflow constipation associated with clozapine Page 4 Item F. Sun protection added as indication Page 5. Item H. Sudocrem added as barrier/ antiseptic cream Page 5 Item X. 'soluble' changed to 'dispersible' Page 5. Reference to non-formulary preparations of co-codamol removed Page 6. Minor changes to audit criteria wording.	L Templeton

5.0	Jan 2023	Update to reflect introduction of HEMPA.	S Burke

NHS GG&C Mental Health Services
Adult Symptomatic Relief Policy

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Introduction

The Symptomatic Relief Policy is intended to allow nurses to exercise their professional judgement to administer a specific range of medicines to patients for the relief of minor ailments.

Scope

This policy is intended for use by all registered nursing staff and prescribers working within NHS GG&C Mental Health Inpatient settings Including Adult, Older Adult, Learning Disability, Addiction and Forensic Mental Health Inpatient Settings.

Symptomatic Relief Policy – staff roles and responsibilities

Prescriber responsibilities

1. The prescriber must prescribe 'MH *Symptomatic Relief Policy'* on HEPMA following normal prescribing procedures.
2. Where there are to be exceptions to the symptomatic relief policy, the prescriber should exclude these on HEPMA at the time of prescribing by adding an order note to appear when charting attached to the MH SRP placeholder. If the exclusion is no longer required subsequent to initial prescription, then the note should be suppressed.
3. For the NRT exemption (Appendix 1), the prescriber must prescribe 'MH *Symptomatic Relief Policy'* as soon as possible after the admission process is complete.

Nursing responsibilities

1. Medication may only be administered under the circumstances described within the Policy, noting the frequency, maximum doses and contra-indications.
2. The administering nurse must read the Policy and be familiar with all the indications and contraindications of the items contained within it.
3. The administering nurse must be fully aware of the patient's diagnosis, recent medical history, current health status and any medical alerts.
4. Patients must have been admitted/clerked in and the 'MH Symptomatic Relief Policy' placeholder added to the Inpatient Rx by medical staff before any medicine in the Symptomatic Relief Policy can be administered. Patients awaiting admission who are assessed as needing Nicotine Replacement Therapy are exempt from this requirement and nurses may administer oral NRT to patients in this circumstance. (Appendix 1)
5. The nurse must add and record the administration of an item from the Symptomatic Relief Policy within HEPMA (as per process in appendix 1). Attention should be given to any conflicts that arise on HEPMA and the appropriateness of administration discussed with medical staff.
6. For the NRT exemption (Appendix 2), nurses will record any NRT administered prior to admission in the nursing notes.
7. The nurse must make an entry in the patients' records for each administration of an item from the Symptomatic Relief Policy, noting the symptom experienced and effectiveness of the product administered. Additionally, nursing staff must report the use of symptomatic relief to the Multidisciplinary Team Meeting.
8. Severe pyrexia and sore throat may be indicative of infection secondary to drug induced blood dyscrasias, especially with clozapine. Likewise, other minor symptoms could indicate serious disease. Therefore, patients must be assessed by a doctor if their medical condition gives rise to concern
9. Laxatives should only be used for acute constipation where the nurse is certain of the diagnosis. Long term laxative use can be counterproductive leading to hypokalaemia and an atonic, non- functioning colon. If constipation persists beyond 48 hours, the patient must be reviewed by a doctor. Where constipation presents in someone prescribed clozapine, refer to the Guidelines for the Assessment and Treatment of Clozapine Induced Constipation. Clozapine & constipation guidance

Any symptoms experienced by patients, which are not relieved by the product administered from the Symptomatic Relief Policy, must be further assessed and medical opinion sought. The nurse must be aware of the appropriateness of the product for the condition being treated.

The BNF should be consulted for further information required on the listed products.

Medicines for Symptomatic Relief

MEDICINE	USE	DOSE	FREQUENCY	MAX.DOSE IN 24 HOURS	COMMENTS
A. PARACETAMOL	analgesic	1g oral/ rectal **Check for exclusions** see Comments	every 4 hours when required for pain or fever	4g	**For a patient known to have any of the following characteristics consult medical staff:** • **low body weight (< 50kg)** • **renal / hepatic impairment** • **glutathione deficiency (chronic malnourishment, chronic alcoholism)** Contra-indicated if already prescribed paracetamol containing products.
B. CO-MALADROX (e.g. MAALOX)	antacid	10mls	four times in a day after food	40mls	Do not give at the same time as other meds due to risk of impaired absorption especially enteric coated preparations and some antibiotics e.g. tetracycline or ciprofloxacin.
C. SENNOSIDE	laxative for acute constipation	2 tablets or 10mls	single dose at night	2 tablets or 10mls	Not to be used in patients with intestinal obstruction. Seek medical advice if symptoms do not improve within 48 hours or if they get worse. Laxative effect within 8-12 hours. For managing constipation in individuals on clozapine, refer to Guidelines for the Assessment and Treatment of Clozapine Induced Constipation. Clozapine & constipation guidance
D. ORAL RE-HYDRATION SACHET	oral re-hydration therapy	ONE sachet	after each loose motion	-	Refer if symptoms persist. Consult instructions for reconstitution and storage advice.
E. SUN BLOCK	sun protection/ drug induced photosensitisation	-	as required	-	Minimum SPF 30.
F. Emollient CREAM	dry skin	-	as required	-	Avoid in known allergy.

MEDICINE	USE	DOSE	FREQUENCY	MAX.DOSE IN 24 HOURS	COMMENTS
H. Barrier CREAM	barrier/ antiseptic cream	apply a thin layer	as required	-	For surface wounds, minor burns, bed sores, eczema. Avoid in known allergy.
J1. NICOTINE LOZENGES	prevention of nicotine withdrawal	1mg or 2mg (< 20 cigarettes/day) 2mg or 4mg (>20 cigarettes/day)	every 1 -2 hours	15 lozenges daily	Use the NHSGGC Formulary preparation. http://www.ggcprescribing.org.uk/
J2. NICOTINE GUM	prevention of nicotine withdrawal	2mg (< 20 cigarettes/day) or 4mg (>20 cigarettes/day)	every 1 -2 hours	15 pieces of gum daily	Use the NHSGGC Formulary preparation.
J3. NICOTINE PATCHES	prevention of nicotine withdrawal	low or medium strength patch (< 10 cigarettes/day or a medium or high strength patch (>10 cigarettes/day)	daily	one applied daily	Apply patch to dry, non-hairy skin on the hip, trunk or upper arm. Hold in position for 10-20 seconds to ensure adhesion. Place next patch on a different area. Use the NHSGGC Formulary preparation. Not suitable for pre-admission administration.
X. ASPIRIN	rapid anti-platelet effect in suspected myocardial infarction.	300mg dispersible	once only dose. Ask patient to chew or dissolve in small amount of water to drink.	once only dose for use in myocardial infarction.	This 'once only' dose would be in addition to any routine aspirin prescription. Contraindicated if patient has known allergy history involving non-steroidal anti-inflammatory drugs. Ensure medical emergency procedure activated. NB: Communicate administration of aspirin to medical receiving unit.

Before any medicines in this policy are administered, the Medicine Prescription Sheet must be checked to determine:-

- That a similar medicine has not already been prescribed, e.g. a medicine which contains PARACETAMOL.

MEDICINES WHICH CONTAIN PARACETAMOL INCLUDE CO-CODAMOL AND CO-DYDRAMOL

- That there is no recorded contra-indication e.g. allergy to the medicine to be administered.
- That the medicine itself has not already been prescribed, except for aspirin use in initial Myocardial Infarction treatment

Symptomatic Relief Policy: Audit Criteria

Criterion Statement	Standard	Exceptions
Patients must have been admitted/clerked in the 'MH Symptomatic Relief Policy' placeholder added to the Inpatient Rx by medical staff before any medicine in the Symptomatic Relief Policy can be administered	100%	***Except for pre-admission NRT.***
Any NRT administered prior to admission must be recorded in the clinical notes or admissions paperwork	100%	None
Medicines to be excluded from the symptomatic relief policy should be added to HEPMA at the time of prescribing by adding an order note to appear when charting attached to the MH SRP placeholder. If the exclusion is no longer required subsequent to initial prescription, then the note should be suppressed	100%	None
Medicines may only be administered as per the standards described within the Policy with regard to the frequency, maximum doses, contraindications and any conflict that arise on HEPMA	100%	None
Administration of an item on the Symptomatic Relief Policy is recorded on HEPMA at the time of administration	100%	None
Each administration of an item from the Symptomatic Relief Policy should be noted within the clinical record, noting the symptom experienced and effectiveness of the product administered	100%	None
There is evidence that symptoms experienced by patients, which are not relieved by the product administered from the Symptomatic Relief Policy have been further assessed and medical opinion sought	100%	None
The use of symptomatic relief must be reported to the Multidisciplinary Team Meeting	100%	None

Appendix 1

Process for recording administration on HEPMA

The guidance below assumes a prescriber has already prescribed the 'MH Symptomatic Relief Policy' on HEPMA.

Adding/Administering a drug for the first time from the MH SRP

- Open the patient's HEPMA Inpatient Rx
- Select 'ADD DRUG'
- Type MH into the search box and click 'Search'. A full list of drugs contained in the MH SRP and any PGDs will appear
- Select the drug you want and provided there are **no conflicts** and the dosage and frequency are appropriate, 'confirm' can be clicked on the conformation tab

The chosen drug e.g. MHSRP Paracetamol will then appear in the 'prn' section of the patient's HEPMA Inpatient Rx and administration tab.

- Administer and record the drug on HEPMA as normal.
- This process will need to be repeated for each drug within the policy at the point of first administration.

Subsequent administration

The drug selected will remain in the 'prn' section of the patient's HEPMA prescription unless it is discontinued or suspended. To administer subsequent doses simply follow the usual processes for administering any 'prn' drug.

Drugs excluded from administration using the MH SRP

Prescribers should actively excluded any relevant drugs from the SRP that are not appropriate to be administered by this approach. An example might be paracetamol where the patient is already prescribed a regular preparation that contains paracetamol.

The prescriber will flag any excluded drug by adding an order note to appear when charting attached to the MH SRP placeholder itself at the point of 'prescribing'. The note could then be titled 'SRP Exclusion - Paracetamol' for example, with any further information included in the body of the note.

That note would be visible to anyone seeking to administer any drug under the MH SRP.

Always check the full HEPMA prescription and notes before administering any drug from the MH SRP

Appendix 2

Nicotine Replacement Therapy (NRT)
Exception Circumstances Policy & Practice Guidance

Background

The NHS Greater Glasgow & Clyde Smoke Free Policy requires that all its premises and grounds be smoke free. NICE (NICE: PH48) recommends that all healthcare providers identify people who smoke, offer them advice and support to stop. This applies to all patients, visitors and staff. In the circumstance where a smoker is waiting to be admitted to one of our hospitals, and to alleviate the potential for them to experience acute withdrawal symptoms, we have a duty of care to meet that need with NRT.

Practice Guidance

In this scenario, a trained nurse should offer NRT to a patient in advance of the Symptomatic Relief Policy (SRP) being written up by the admitting/assessing medical practitioner, according to the guidelines laid out below.

1. **Patient arrives at ward for admission:**
   At arrival, patient should be informed of the smoke free policy and, if a smoker, reassured that they will be offered alternatives to help them to cope whilst in our care. If the patient states that they will find this difficult and if a medical practitioner is not at hand to prescribe, they can be offered emergency NRT from the SRP in the interim.

2. **Administration and recording guidance:**
   If assessed as at risk of nicotine withdrawal, registered nurses may administer oral NRT from the SRP for up to 24 hours or until a medical practitioner can be found (whichever is the lesser) in the following way:
   a. Assess patient's need for nicotine and ability to cope without a cigarette
   b. Administer oral NRT hourly or as required in accordance with SRP
   c. Record in clinical notes
      Raise issue with attendant medical practitioner when they arrive and ensure that SRP is written up on medication prescription sheet.

3. **Ongoing care**
   During and following the admission process, patients who usually smoke should be reminded that there is a hospital-based cessation support service which they can access at any time and that they can use alternative nicotine delivery devices such as e-cigarettes in accordance with the current policy.

If, following assessment by a medical practitioner, the patient is not admitted then the record of NRT administration remains in the assessment paperwork and is filed in the usual way.

If the patient is transferred to another hospital site, the clinical notes and record of all interventions will go with the patient in the usual way.

NHS Greater Glasgow & Clyde
Mental Health Services

Protocol for the use of Unlicensed Thioridazine

Indication

Thioridazine is an unlicensed antipsychotic medicine indicated for individuals (18 and over) who received and responded to thioridazine prior to July 2005 and who have failed to respond adequately to alternative medication. Its use is associated with dose related QTc prolongation that predisposes individuals to potentially fatal Torsades de Pointes. Due to this it was withdrawn from the UK market in July 2005. This protocol is designed to cover the use of thioridazine in the remaining few patients that remain on this treatment. In the unlikely event of a further patient request for thioridazine, a full unlicensed medication request form and a comprehensive psychiatric medication review completed by an experienced mental health pharmacist would be required to be submitted to the Prescribing Management Group (Mental Health) for approval.

Informed consent

Due to its unlicensed status, informed consent and explanation for the rationale of treatment choice must be obtained prior to treatment initiation.[1] Patient information explaining unlicensed medication in general terms is available via the Choice and Medication portal.[2] Where there is a lack of capacity, adherence to the principles within the Adults with Incapacity (Scotland) Act, 2000 and/or Mental Health (Care and Treatment) (Scotland) Act 2003 is mandatory.

Documentation

The consultant psychiatrist must make a clear record of the rationale for prescribing an unlicensed medication within the patient's case notes and document the discussion regarding consent.[1]

In-patient prescribing and administration

Nursing staff in the ward must be informed of the medicine's unlicensed status by the prescriber and ward clinical pharmacists must ensure that staff are aware of the unlicensed status.

When ordering thioridazine, the patient's initials and CHI should be included on the requisition as well as the phrase "as per protocol" for the order to be processed. A record of administration of unlicensed medication must be kept (as per unlicensed medication policy).[3] When entering administration on HEPMA, the drug batch number and expiry date should be recorded when prompted. It is the responsibility of the nurse in charge to ensure this occurs.

When supplying thioridazine from pharmacy, pharmacy staff must ensure that batch number is documented on the prescription or requisition.

Out-patient prescribing

Thioridazine will be supplied via the dispensary at Leverndale Hospital. GPs should not be asked to prescribe it. The consultant psychiatrist is responsible for ensuring that adequate physical health monitoring takes place (see details of monitoring requirements).

Review

Need for ongoing prescription of an unlicensed medicine should be assessed on a 6 monthly basis.

Approved by Prescribing Management Group (Mental Health)
Updated October 2020
Review date Oct 2023

Monitoring

MINIMUM MONITORING REQUIREMENTS FOR THIORIDAZINE TREATMENT [4]

	ECG	U&Es including Ca^{2+}, Mg^{2+} & K^{+}
Baseline	Yes	Yes
Before each dose increase	Yes	Yes
After a week of reaching 600mg daily	Yes	N/A
Six monthly intervals	Yes	Yes

- Gradually discontinue thioridazine over 1-2 weeks if QTc interval greater than 500msec.[5]
- Do not initiate thioridazine if baseline QTc interval is >450msec (males) and >470msec (females) [5]
- Any imbalance of Serum calcium, magnesium and potassium should be corrected if patient is to be initiated/ maintained on thioridazine

Dose range [5,6]

- Adult out-patient - up to 200mg daily (usually in divided doses)
- Adult inpatient – up to 600mg daily (usually in divided doses)
- Older adults – therapeutic dose is lower in this population therefore start lower and adjust according to response
- Adolescent – the use in adolescents is outwith this protocol.

Evidence base

Thioridazine is an effective antipsychotic but carries a high risk of causing serious adverse events.

Proposed mode of action

Thioridazine is a piperidyl substituted phenothiazine antipsychotic with antagonistic activity at D_1 and D_2 receptors.

Side effects [5,7]

Very common	(> 1 in 10)	sedation and drowsiness
Common	(<1/10 and >1/100)	dizziness, dry mouth, visual disturbance, nasal congestion, postural hypotension, galactorrhoea
Uncommon	(<1/100 and >1/1000)	confusion agitation, hallucinations, irritability, headache, nausea, vomiting, diarrhoea, constipation, lack of appetite, urinary incontinence or retention, ECG changes, tachycardia, amenorrhoea, menstrual disturbance, weight change, erectile dysfunction, abnormal ejaculation and abnormal LFTs

Rare	(<1/1000 and >1/ 10,000)	pseudoparkinsonism, convulsions, extrapyramidal symptoms, tremor, rigor, akathisia, dystonia, dyskinesia, hyperkinesia, tardive dyskinesia, pallor, tremor, cardiac arrhythmias, priapism, leucopenia, thrombocytopenia, agranulocytosis, hepatitis, dermatitis, skin rash, urticuria, photosensitivity, swelling of the parotid gland, hyperthermia, respiratory depression, retinitis pigmentosa**
Very rare	(<1/10,000)	depression, insomnia, nightmares, psychotic reactions, neuroleptic malignant syndrome*, paralytic ileus, Torsade de pointes, peripheral oedema, anaemia, leukocytosis
Not known		thromboembolism

Should a patient develop signs suggestive of neuroleptic malignant syndrome (NMS), all antipsychotics should be discontinued and immediate referral to an acute hospital is required.

**Pigmentary retinopathy has been reported during long term treatment and with high doses.

Contraindications[5]

- Hypersensitivity to thioridazine or any of the excipients
- Hypersensitivity to other phenothiazines
- Concomitant medication which prolongs QTc interval, inhibits cytochrome P450 2D6 or delays metabolism of thioridazine
- Severe heart disease particularly related to arrhythmias
- Congenital or acquired cytochrome P450 2D6 isoenzyme deficiency
- Comatose states and severe CNS depression
- History of haematological disorders
- Breastfeeding

Cautions[5]

- History of cardiovascular disease
- Risk factors known to predict for or aggravate arrhythmia – close monitoring
- Neuroleptic Malignant Syndrome (NMS) – may present with hyperthermia, muscle rigidity, autonomic instability, altered consciousness and elevated creatinine kinase levels
- Low leukocyte and/or neutrophil counts or a history of bone marrow depression – perform FBC regularly for first 3-4 months of therapy
- Postural hypotension- monitor blood pressure when starting treatment
- Narrow-angle glaucoma
- Urinary retention
- Constipation
- Hepatic impairment
- History of seizures
- When discontinuing thioridazine do so over a period of 1-2 weeks to avoid withdrawal symptoms

Interactions[5]

Concomitant medication	Potential interaction
CYP 2D6 inhibitors e.g. fluoxetine, paroxetine, fluvoxamine, pindolol, propranolol, moclobemide, sertraline* (weak, dose-related, moderate at 150mg daily)	May considerably delay the metabolism of thioridazine. The resulting elevations in thioridazine levels increase the risk of QTc prolongation and cardiac arrhythmias. (see contraindications)
Medications which prolong QTc interval	Increased risk of QTc prolongation and potentially fatal cardiac arrhythmias (see contraindications)
Tricyclic antidepressants	May result in increased plasma levels of either or both
Phenytoin	Can increase or decrease plasma levels of phenytoin
Barbiturates	Can reduce serum concentrations of both drugs
Anticoagulants	May decrease prothrombin time
CNS depressants e.g. alcohol, benzodiazepines, anaesthetics	Effects can be potentiated
MAOIs	Can prolong sedative and anticholinergic effect
Lithium	Potential neurotoxic complications
Anticholinergic medication	Exacerbate anticholinergic effects
Levodopa	Reduced efficacy of both
Adrenergic vasoconstrictors e.g. ephedrine, phenylephrine	Reduction in hypertensive effect
Quinidine	Myocardial depression
Antiarrythmic agents	May induce ECG changes
Thiazide diuretics	Severe hypotension
Antidiabetics	Interferes with carbohydrate metabolism
Antacids	May reduce absorption of thioridazine

*Sertraline- weak CYP 2D6 inhibitors, dose-related, moderate at 150mg daily[8]

References

1. GMC Good practice in prescribing and managing medicines and devices. Updated Dec14 http://www.gmc-uk.org/guidance/ethical_guidance/14316.asp

2. Choice and Medication. Unlicensed medications handy fact sheet and olanzapine PIL http://www.choiceandmedication.org/nhs24/

3. NHS Greater Glasgow and Clyde Area Drug and Therapeutics Committee Policies Relating to the Management of Medicines Section 9.1 Acute Unlicensed Medicines Policy (ULM Policy)

4. NHS Lothian. Shared Care Agreement. Thioridazine for the treatment of schizophrenia in adults. April 2016

5. Summary of Product Characteristics Thioridazin-neuraxpharm. Nov 2012 (obtained via IDIS)

6. Martindale. The Complete Drug Reference. https://www.medicinescomplete.com/mc/martindale/2009/ Accessed 8/8/17

7. Patient Information Leaflet. Thioridazin-neuraxpharm. Aug 2015

8. Bazire S. Psychotropic Drug Directory 2018; Lloyd Reinhold Publications

Approved by Prescribing Management Group (Mental Health)
Updated October 2020
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NHS Greater Glasgow and Clyde

CLINICAL GUIDELINE

Trazodone, appropriate formulation choice and use guide

A guideline is intended to assist healthcare professionals in the choice of disease-specific treatments.

Clinical judgement should be exercised on the applicability of any guideline, influenced by individual patient characteristics. Clinicians should be mindful of the potential for harmful polypharmacy and increased susceptibility to adverse drug reactions in patients with multiple morbidities or frailty.

If, after discussion with the patient or carer, there are good reasons for not following a guideline, it is good practice to record these and communicate them to others involved in the care of the patient.

Version Number:	*2*
Does this version include changes to clinical advice:	No
Date Approved:	17th Dec 2020
Date of Next Review:	17th Dec 2023
Lead Author:	Chris F Johnson
Approval Group:	Prescribing Management Group - Primary Care

Important Note:

The Intranet version of this document is the only version that is maintained.
Any printed copies should therefore be viewed as 'Uncontrolled' and as such, may not necessarily contain the latest updates and amendments.

Introduction

The cost of trazodone liquid rose by 260%, to cost NHSGGC an extra £995k in 2016/17. Since then the price has reduced but remain high. There was a 44% reduction in the number of patients receiving the liquid formulation 2016/17 to 2018/19. However there has been a 30% increase during 2019/20.

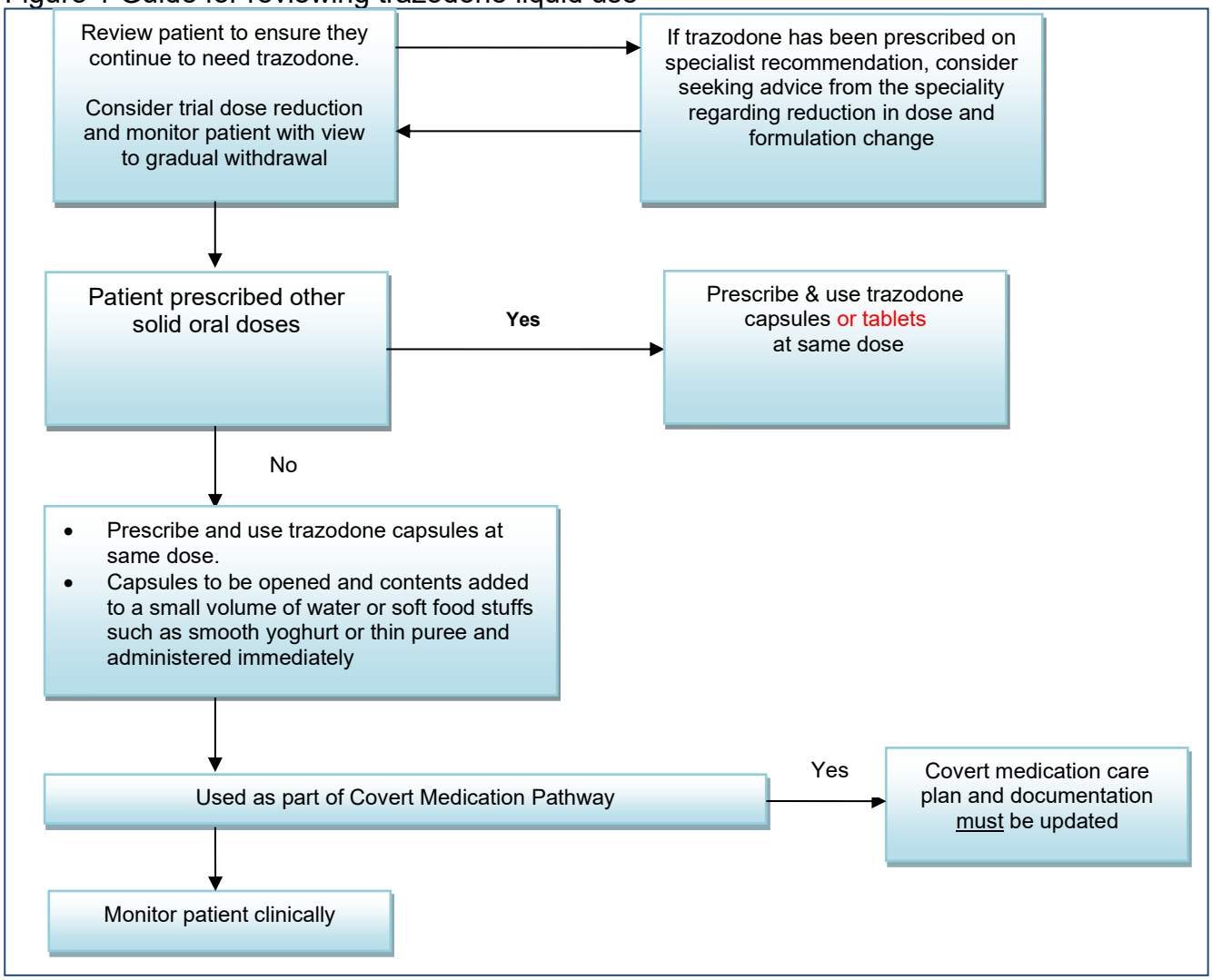
The continued use of trazodone liquid needs to be reviewed and alternative more cost effective options considered.

Trazodone Formulation	Equivalent mg content	Oct 2020 Scottish Drug Tariff Price
50mg/5ml liquid	120ml pack size	£24.40
50mg tablets	24 tablets	£5.71
50mg capsules	24 capsules	£1.32
100mg capsules	12 capsules	£1.28
150mg tablets	8 tablets	£1.42

Unlicensed use: Trazodone is licensed in the UK for the treatment of depression or anxiety. Most trazodone liquid is being used for an unlicensed indication. Liquid trazodone administered through a feeding tube is an 'off-label' use of the product. Mixing trazodone liquid with food or opening capsules and using contents are both unlicensed.

Prescribers are asked to consider whether trazodone is still necessary.
Trazodone is licensed in the UK for the treatment of depression or anxiety. Most trazodone liquid is being used for an unlicensed indication which is 'off-label' use. It may be possible to withdraw treatment. This should be done gradually unless the patient is on a low dose (50mg per day) and they have been taking the drug for less than 8 weeks.

Figure 1 Guide for reviewing trazodone liquid use



For patients needing to continue trazodone:

Unlicensed use: Mixing trazodone liquid with food or opening capsules and using contents are both unlicensed.

Level 7 Regular diet and Level 0 fluids

- For patients who are receiving other medicines in tablet or capsule form it is recommended that patients are asked to swallow the capsules.
- For patients unable to swallow the capsule, the capsule may be opened and the contents (bitter tasting) mixed with 15ml of water, smooth yoghurt or thin puree and administered immediately. The powder should not be mixed with anything too hot or cold. Avoid mixing with tea, coffee, ice-cream, sorbet, iced drinks, etc. Mixing with food is an unlicensed use.
- Patients receiving doses of 25mg, may be appropriate to change to half a 50mg tablet.

Modified diet level and/or thickened fluid

- The person administering the medicine should be aware of Speech & Language Therapy recommendations regarding International Dysphagia Diet Standardisation Initiative (IDDSI) levels for both diet and fluids required for the individual.
- Liquid trazodone preparations must not be mixed with thickener prior to administration as this may affect drug absorption and metabolism.
- **Mixing medicines in food**
    - Medicines should only be administered in food with the patient's knowledge and consent. Hiding medicines in food is considered "covert administration" and Covert Medication Policies should be followed, see below.
    - Liquid (doses <50mg and <5ml only) should be mixed with a small amount of smooth yoghurt or thin puree matching the individual's recommended diet level, and administered immediately. Mixing with food is unlicensed use of the medicine.
    - Capsule contents have a bitter taste. Capsule contents can be emptied into a small[1] (10ml) volume of smooth yoghurt or thin puree, in line with Speech & Language Therapy recommendations regarding IDDSI levels for both diet and fluids required for the individual, and needs to be administer immediately. The powder should not be mixed with anything too hot or cold. Avoid mixing with tea, coffee, ice-cream, sorbet, iced drinks, etc. Mixing with food is an unlicensed use.

Enteral feeding tubes

- Patients with a feeding or nasogastric tube, the 50mg capsules can be opened and contents mixed in 15ml of water until no visible particles are seen; flushes via an 8Fr NG tube without blockage (1).

Patients living at home

- Patients living at home can be prescribed capsules where appropriate and the patient or their carer, where able, should be encouraged to open capsules and mix contents with water or soft food stuffs such as smooth yoghurt or thin puree where appropriate.

Covert administration of medicines

Where trazodone is being administered covertly, Covert Medication Policies and Pathways and Covert Administration of Medication – Provision of Pharmaceutical Advice should be followed . Formal assessment and review should be documented and recorded in patients clinical notes.

[1] A small volume is advised to ensure that the prescribed dose of medicine is administered. Larger volumes will make it harder to ensure the prescribed dose of medicine is administered.

'Off-label' use
Trazodone is licensed in the UK for the treatment of depression or anxiety. Most trazodone liquid is being used for an unlicensed indication which is 'off-label' use. Liquid trazodone administered through a feeding tube is an 'off-label' use of the product. Do not crush trazodone tablets as there is no stability information available.

Prescribers, please document in patient's clinical notes that capsule contents are to be used and reference this guidance.

Opening and administering trazodone capsules:

For administration via feeding/nasogastric tube:
1. Gently ease open the capsule to release the powder.
2. Tip the powder into a medicine pot - be sure to obtain all the powder.
3. Mix the powder with 15ml of water.
4. Draw up the mixture in an oral, enteral or bladder-tipped syringe.
5. Stop the enteral feed.
6. Flush the enteral feeding tube with the recommended volume of water.
7. Flush the medication dose down the feeding tube.
8. Finally, flush with the recommended volume of water.
9. Re-start the feed, unless a prolonged break is required.

For administration orally:
1. Follow steps 1 to 3 above and administer to the patient.
2. If the patient finds the taste unpalatable. Tip the powder directly into a small amount of smooth yoghurt or thin puree and administer, see *'Textured Modified Diet and/or thickened fluids'*, above.

When opening capsules take care not to inhale any powder.

References
1. White R. Handbook of drug administration via enteral feeding tubes. 3rd ed. London: Pharmaceutical Press; 2018.

Other references:
- NHS Fife Area Drugs and Therapeutics Committee, Managing the use of trazodone liquid in NHS Fife 31/8/16
- NHS Fife Health and Social Care Partnership, Memorandum, To all NHS Fife hospital wards. Use of trazodone capsules instead of trazodone liquid for hospital patients, 31/8/16.
- NEWT Guidelines for Administration of Medication to Patients with Enteral Feeding Tubes or Swallowing Difficulties. Oct 2020. www.newtguidelines.com

Acknowledgements: With thanks to David Binyon and NHS Fife Health and Social Care Partnership who developed and agreed to share their: Use of trazodone capsules instead of trazodone liquid for hospital patients guidance Sept 2016.

NHS Greater Glasgow & Clyde
Mental Health Services

Good Practice Statement

Use of multi-dose compliance devices

Patient compliance with prescribed medication regimes can be variable. This can be compounded when patients have mental health issues or impaired cognition. Compliance devices can be useful for some patients but their use is not without issue. This statement provides some advice to support clinical staff to make appropriate decisions when considering the use of compliance devices.

Exclusion criteria

Requests for compliance devices are inappropriate in the following circumstances

- For any patient without a full assessment of their compliance capability
- Without confirmation that a community pharmacy is able to continue their supply in the community
- Where family members or care staff are able to administer or prompt patients to take medicine from original containers
- On discharge to a nursing home or care home setting where registered nurses administer medicines

Inclusion criteria

Requests for compliance devices are appropriate in the following circumstances

- When an assessment of compliance capability identifies them as the only practical solution to ensure treatment adherence
- As part of a planned self-medication programme
- In preparation for discharge where use of a compliance device will be required after discharge from hospital
- Where a compliance device was in use prior to admission
- Discharge to a care home or residential home with no access to registered staff to administer medicines
- On discharge to a care setting where care services supervise patients taking medicines
- On discharge home to support a relative to safely administer medicines to the patient where the relative is unable to administer medicines from standard containers or original packs

Practical points to consider

- Before requesting a compliance device speak to your ward clinical pharmacist with regards to alternatives and compliance assessment
- Can medication regimes be simplified to support compliance without resorting to a compliance device?
- Remember not all medication is suitable for inclusion in a compliance device and therefore patients may end up trying to take medicines from original packing, bottles and compliance devices at the same time. This may cause confusion and additional compliance problems.
- Give pharmacy at least 24 hour notice before requesting discharge medication in a compliance device

- Indicate clearly on immediate discharge letter (IDL) that a compliance device is required. It is good practice to record the name of the community pharmacy who will take on dispensing on the IDL.
- It is the responsibility of the multi-disciplinary team to identify the community pharmacy that will fill the compliance device after discharge.

NHS Greater Glasgow & Clyde
Mental Health Services

Sample compliance assessment form.

Patient's Name:……. CHI:…….

	COMPLIANCE ASSESSMENT CHECKLIST	*YES / NO*
1	Is the patient stable on their current medication (i.e. the medication is not subject to continual change)?	
2	Can the currently prescribed medication be simplified?	
3	Can the patient read, understand and carry out instructions on medication labels?	
4	Can the patient open medication bottles / remove medication successfully from foil packs?	
5	Does the patient have poor eyesight, difficulties with literacy or unable to comprehend standard labels?	
6	Does the patient have support at home to administer/prompt medication from standard packs?	
7	Have you identified a community pharmacy to take over dispensing after discharge?	

If the answer to question 1 is no, do not request a compliance device until treatment is stable.

If the answer to question 2 is yes, simplify medication regime before requesting a compliance device.

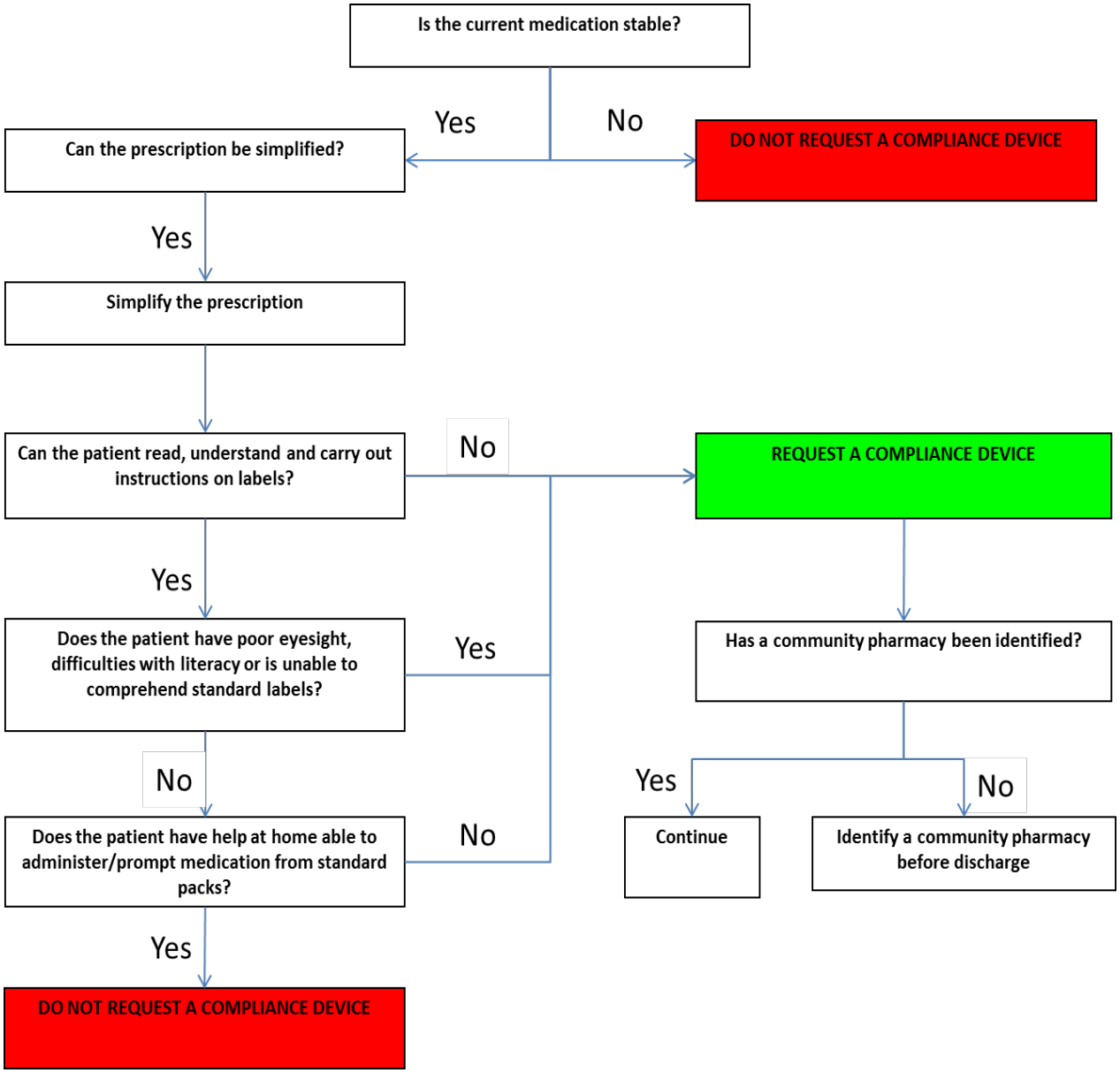
If the answer to questions 3 & 4 is yes a compliance device is not required.

If the answer question 5 is yes a compliance device may be appropriate but if the answer to question 6 is yes it may not be.

A community pharmacy to take over dispensing must be identified.

NHS Greater Glasgow & Clyde
Mental Health Services

Compliance device assessment flowchart



NHS Greater Glasgow & Clyde
Mental Health Services
Safer Use of Medicines Group

Safe Administration of Medicines

Use of a second staff member 'runners' to deliver medication to the patient

Background

Policy and guidance to support the safe administration of medicines is contained in the following document Safe & Secure Handling of Medicines Policy. In a few wards a practice has developed where the registered nurse undertaking medicines administration uses a colleague to take the medicine they have prepared to the intended patient (this is sometimes referred to a using a 'runner'). This practice is not authorised by the SSHM Policy and should be avoided and actively discouraged. In Mental Health Services there have been numerous medication incidents where medicines have been given to the wrong patient by nurses following this practice.

Position statement

The use of a colleague or 'runner' to take medicine to a patient on behalf of the registered nurse undertaking the medicines administration round is not permitted in GGC Mental Health Services.

Following a review of the risk of error and the number of reported errors associated with this unauthorised practice the Mental Health Safer Use of Medicines group in conjunction with the Chief Nurse and Professional Nurse Leads has concluded this practice must cease. Any area accustomed to using this approach must stop this unauthorised practice; undertake a risk assessment and implement alternative authorised practice with immediate effect. Wards are advised to contact local practice development nurses for advice on safer alternatives.

Good practice is considered to be

In circumstances where patients are unable to come to a treatment room or to the trolley for medication, the registered nurse undertaking the medicines round should prepare the patient's medicines, lock the trolley/treatment room and take the medicines in person to the patient for administration OR take the trolley to the patient and then administer the medicines directly to them.

MH SUM group

Chief Nurse and Professional Nurse Leads

March 2021

NHS Greater Glasgow & Clyde
Mental Health Services
Prescribing Management Group

Implementation of Prevent – the Valproate Pregnancy Prevention Programme in Mental Health Services

The Medicines and Healthcare products Regulatory Authority (MHRA) amended the marketing authorisation (or product licence) for all valproate products in April 2018. The MHRA took this action in response to increasing evidence of the teratogenic effects of valproate. Evidence now shows that 1 in 10 children born to women who took valproate during pregnancy will have a physical birth defect and up to 40% will have early developmental problems that can lead to significant learning disabilities. Valproate is now contraindicated in the following circumstances:

- In pregnancy
- In women of childbearing potential unless the conditions of the pregnancy prevention programme are fulfilled.

This means the use of valproate in women of childbearing potential without meeting the conditions of the pregnancy prevention programme is contraindicated and therefore off-label.

This document describes how Prevent- the valproate pregnancy prevention programme will be implemented within mental health services in NHS Greater Glasgow & Clyde.

What is Prevent- the valproate pregnancy prevention programme?

In essence the programme is a process to ensure that women of childbearing potential who are currently prescribed valproate or who may be considered for valproate treatment are fully informed of the potential risks of valproate to the unborn child and are provided with highly effective contraception to prevent an unplanned pregnancy.

To support this, the MHRA have produced a set of information resources to enable clinicians to undertake appropriate conversations with patients. These resources maybe found at the following link MHRA Prevent- the valproate pregnancy prevention programme materials .

The most relevant documents for psychiatrists are:

- Guide for Healthcare professionals (HCP)
- Patient guide
- Risk acknowledgement form

The process requires the patient to see a relevant 'specialist' for an **annual** risk review of her valproate treatment. The risk acknowledgement form must be completed on an annual basis to record the patient's understanding of the risks and her agreement to participate in the Prevent programme and use highly effective contraception. The MHRA defines highly effective contraception as;

- Copper intra-uterine device
- Levonorgestrel intra-uterine device
- Progestogen only implant

The HCP guide was updated in November 2019 and makes the following additional statements about contraception

Approved: June 2022
Review date: June 2024

Progestogen-only injections e.g. Depo-Provera have a typical-use failure rate of 6%, but this may be due to repeat injections being administered late. Progestogen-only injections may be considered highly effective **if** repeat injections are documented as having been administered on schedule by a healthcare professional.

User dependent methods of contraception are not considered highly effective.

There is an expectation that all patients who are of childbearing potential will agree to participate in the Prevent programme although the guidance does state the following:

'These conditions also concern women who are not currently sexually active unless the prescriber considers that there are compelling reasons to indicate that there is no risk of pregnancy. Individual circumstances should be evaluated in each case, involving the patient in the discussion, to guarantee her engagement, discuss therapeutic options and ensure her understanding of the risks and the measures needed to minimise the risk.'

This acknowledges that some existing patients may opt to remain on valproate treatment but having had the risks explained may choose not to participate in the prevent programme. Use of valproate in this circumstance is contraindicated and constitutes high risk off label prescribing. This should be the exception rather than the norm. Clearly documenting an individual's decision to opt out of the Prevent programme at the annual review using the standardised annual risk acknowledgement form is essential. The risk acknowledgement form is part of the MHRA's Prevent programme materials and as such, has been designed with the expectation that affected women will participate in the Prevent programme and be prescribed highly effective contraception. Therefore it is essential that any statements that are not applicable for individuals opting out of the Prevent programme e.g. around the use of highly effective contraception are annotated appropriately. In addition to the completion of the risk acknowledgement form for women opting out of Prevent, it is highly recommended that a clear, unambiguous entry is made within their case/ EMIS record to record their objection, the rationale for opting out and that the prescriber is content with this decision.

The following wording is suggested;

Following a full consultation with the patient discussing the risks of remaining on valproate without the use of highly effective contraception (as described within the MHRA's Prevent programme and risk acknowledgement form), I am of the view that it is appropriate for the patient to remain on valproate without the use of highly effective contraception. I have informed the patient that this is contraindicated and constitutes off label use. This will be subject to regular review.'

Process for initiating highly effective contraception

For out-patients requiring highly effective contraception a referral should made to the patient's GP to discuss and initiate this as defined by the MHRA.

For in-patients already on valproate and any women being considered for valproate treatment referral should be made to local Sandyford Sexual Health Services.

The guidance is clear that valproate treatment should not be initiated for new patients until pregnancy is excluded and highly effective contraception is in place.

What should you do now?

Psychiatrists are asked to familiarise themselves with the contents of Prevent- the MHRA's valproate pregnancy prevention programme and to conduct an annual risk review for all current patients affected by this at their next scheduled appointment or within the next 6 months whichever is sooner.

The annual risk acknowledgement form should be completed for each patient of childbearing potential and a copy uploaded to their EMIS record and another sent to their GP.

A warning should be added to the EMIS record for all women of childbearing age indicating that they are on valproate treatment, this should also be completed for those who receive valproate for another medical condition indicating which speciality is responsible and for those who are of child bearing age but are NOT of childbearing potential. One of the following warnings should be added:

- On valproate & subject to prevent programme
- On valproate for {insert condition}, prevent programme to be completed by {insert speciality}
- On valproate but NOT of childbearing potential

An expiry date should be added to the warning to assist in ensuring the process is completed annually.

Cohort of affected patients within GGC MHS

A recent audit showed there are 265 women, aged 18-55, open to MH services prescribed valproate, of these 138 have a diagnosis of epilepsy and 35 were not of child bearing potential. Of the 96 deemed to be of child bearing potential the audit showed:

33 (35%) had an EMIS warning present

42 (44%) had a Risk acknowledgement form on EMIS

17 (18%) had evidence that highly effective contraception is in place

Overall, compliance with the prevent programme had improved since the previous audit in 2020. However, it still falls short of the required standards to comply with this policy.

Prescribing Management Group – Mental Health

Update June 2022

Approved: June 2022
Review date: June 2024

NHS Greater Glasgow & Clyde
Mental Health Services
Prescribing Management Group

Valproate Risk Management Process for female patients already established on valproate[1]

Valproate is contraindicated in women of childbearing potential unless the conditions of the Prevent programme are fulfilled

Is the patient of child-bearing potential[2]?

No

Record details in case notes and EMIS and prescribe as normal. Ensure system in place for annual recall and review where appropriate[2]

Yes

Review the ongoing need for valproate.

Perform pregnancy test if necessary[3]. If pregnant **refer to Perinatal MH Service and consider discontinuing valproate.** Use the Prevent Patient Booklet to explain risks of valproate treatment and the requirement to enrol in the Prevent Programme if not already prescribed highly effective contraception[4].

Use the Prevent Annual Risk Acknowledgement form to record the patients understanding of the risks and agreement to participate in the Prevent Programme.

File a copy of the Annual Risk Acknowledgement Form in the case notes and upload to EMIS.

Add a warning to EMIS to indicate the patient is prescribed valproate and subject to the Prevent Programme

Ensure system in pl[illegible]or annual recall for review and recordi[illegible]risk

Out-patient

Refer patient to GP if required for prescription of highly effective contraception[4,5] and ongoing valproate. Include rationale for valproate and copy of annual risk acknowledgment form with referral.

In-patient

Arrange for initiation of highly effective contraception and prescribe valproate.[4,5]

On discharge ensure GP has a copy of the risk acknowledgement form

If a patient refuses to participate in the Prevent Programme and valproate remains the only viable treatment; record their understanding of the risks and their refusal to enrol in the Prevent Programme in their case record and review on at least and annual basis. The risk acknowledgement form must be used for this purpose. [6]

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NHS Greater Glasgow & Clyde
Mental Health Services
Prescribing Management Group

Valproate Risk Management Process for new female patients[1]

Valproate is contraindicated in women of childbearing potential unless the conditions of the Prevent programme are fulfilled

Is the patient of child-bearing potential[2]?

No

Record details in case notes or EMIS and prescribe as normal. Ensure system in place for annual recall and review where appropriate[2]

Yes

Perform pregnancy test if necessary[3]. If pregnant **DO NOT prescribe valproate.**

Use the Prevent Patient Booklet to explain risks of valproate treatment and the requirement to enrol in the Prevent Programme if not already prescribed highly effective contraception.[4]

Use the Prevent Annual Risk Acknowledgement form to record the patients understanding of the risks and agreement to participate in the Prevent Programme.

File a copy of the Annual Risk Acknowledgment Form in the case notes and upload to EMIS.

Add a warning to EMIS to indicate the patient is prescribed valproate and subject to the Prevent

Out-patient

Refer patient to GP for prescription of highly effective contraception and valproate[4, 5]. Include rationale for valproate and copy of annual risk acknowledgment form with referral.

Using valproate in a woman of childbearing potential without enrolment in the Prevent programme would be outwith the marketing authorisation. Women prescribed valproate should be encouraged to enrol.

Arrange for initiation of highly effective contraception and prescribe and valproate.[4,5]

On discharge ensure GP has a copy of the risk acknowledgement form.

NHS Greater Glasgow & Clyde
Mental Health Services
Prescribing Management Group

Valproate is contraindicated in women of childbearing potential unless the conditions of the Prevent programme are fulfilled

Notes:

1. These flowcharts should be used in conjunction with the Prevent Programme Guide for Healthcare Professionals

2. Valproate should not be used in female children or women of childbearing potential unless other treatments are ineffective or not tolerated. In other words it should be viewed as a treatment of last resort.
   A young female or woman may be considered **not** to be of child-bearing potential in the following circumstances (**n.b. This may not be an exhaustive list**)
   - Before puberty*
   - Post menopause
   - Confirmed infertility
   - Confirmed sterilisation
   - Confirmed hysterectomy

   * Where patients fertility status changes, e.g. post-puberty, the patient should be recalled for an annual review as required by the Prevent Programme.

3. Valproate preparations are contraindicated in pregnancy. If there has been unprotected sexual intercourse in the previous 3 weeks it is not possible to exclude pregnancy by means of a negative pregnancy test. In new patients, valproate treatment must be delayed until pregnancy can be excluded.

4. The MHRA defines 'highly effective contraception' to be those user independent methods such as the long acting reversible contraceptives (LARC); copper intrauterine device (Cu-IUD), levonorgestrel intrauterine system (LNG-IUS) and progestogen only implant (IMP) and female sterilisation, all of which have a failure rate of less than 1% with typical use.

5. For new patients, the guidance from the MHRA recommends highly effective contraception should be in place before the first valproate prescription is issued. Referral to Sandyford sexual health services will be required for inpatients to established on highly effective contraception. For outpatients, it is expected that GPs will make the onward referral to Sandyford services.

6. The presumption is that the majority of women will agree to be enrolled in the Prevent Programme and receive highly effective contraception. It is acknowledged however that some women after a full explanation of the risks may wish to remain on valproate treatment but decline highly effective contraception due to their specific circumstances. If the prescriber concurs with this position and agrees to continue valproate, full details of this must be recorded in the case record and within the risk acknowledgement form. This decision must be revisited on an annual basis for as long as the patient continues to take valproate and is of childbearing potential. Use of valproate without participation in the prevent programme is contraindicated and hence an off label use of the drug. The link below contains all the documentation relating to the Prevent Programme

   MHRA Valproate Prevent Programme Materials

Approved: June 2022
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NHS Greater Glasgow & Clyde

Mental Health Service

Use of Zuclopenthixol Acetate (Clopixol Acuphase)

Document Number:	**4**	MHS Number:	**33**
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Lead author:	**Andrew Walker**		
Approval Group:	**MH Quality & Clinical Governance Group**		

Important Note:

The Intranet version of this document is the only version that is maintained. Any printed copies should therefore be viewed as 'Uncontrolled' and as such, may not necessarily contain the latest updates and amendments.

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Appendix 1 – Zuclopenthixol Acetate Physical Health Monitoring Form 5

Guidelines for the use of Zuclopenthixol Acetate Injection

(Clopixol Acuphase®)

Key Points

- Zuclopenthixol acetate (Clopixol Acuphase®) is **NOT** quick acting and should **NOT** be prescribed if immediate sedation is required. It is a potentially toxic and hazardous drug, which has the potential to be used inappropriately. There is little published data to support its use in psychiatric emergencies.
- The advice and authorisation of a consultant psychiatrist must be obtained before zuclopenthixol acetate is prescribed.
- Zuclopenthixol must never be given to anyone who has not previously received treatment with a first generation antipsychotic.

1. Indications

Zuclopenthixol acetate should only be used, with extreme caution, for the treatment of acute psychosis or mania if:

1.1. The patient has required repeated injections of a short acting antipsychotic drug such as olanzapine or haloperidol IM, or sedative drugs such as lorazepam.

1.2. Giving repeated short acting antipsychotic injections would be inappropriate.

1.3. The patient has had a previous good response and shown good tolerability - it is best reserved for these patients.

1.4. Sufficient time has elapsed to assess the full response to previously injected drugs (60 mins after IM injection)

2. Conditions of Use

2.1. The advice and authorisation of a consultant psychiatrist must be obtained before zuclopenthixol acetate is prescribed.

2.2. Prior to prescribing the patient must be seen by the prescribing doctor. **Under no circumstances, zuclopenthixol acetate will be administered** against a verbal or faxed request. **Zuclopenthixol acetate should not be prescribed as a course.** The patient should be fully assessed by a doctor before each administration.

2.3. The multi-disciplinary team should consider withholding other antipsychotics for the duration of action (3 days following administration).

Zuclopenthixol acetate should never be administered:-

2.4. In an attempt to “hasten” the antipsychotic effect of other antipsychotics.

2.5. For **immediate sedation** (onset of effect is too slow)

2.6. At the same time as other parenteral antipsychotics or benzodiazepines (may lead to over sedation, which is difficult to reverse)

2.7. As a 'test dose' for Zuclopenthixol Decanoate depot

2.8. To a patient who is physically resistant (risk of intravasation and oil embolus).

Zuclopenthixol acetate should never be used for, or in the following:-

2.9. Patients who are neuroleptic naïve

2.10. Patients who are pregnant

2.11. Patients who are unconscious

2.12. Patients who are sensitive to Extra-pyramidal side-effects (EPS) or known to suffer from EPS

2.13. Patients with Parkinson's disease

2.14. Patient diagnosed with dementia with Lewy Bodies.

2.15. Patients who accept oral medication

Zuclopenthixol acetate should be used with caution in the following:-

2.16. Patients with renal or hepatic disorders

2.17. Patients with convulsive disorders

2.18. Patients with a history of cardiovascular disorders or risk factors for QTc prolongation e.g. hypokalaemia, hypomagnesaemia

2.19. Patients with dementia

2.20. Patients with risk factors for stroke

2.21. Patients with organic brain syndrome

3. Method of Administration

For deep IM injection only into the upper outer buttock or lateral thigh.

4. Onset and Duration of Action

The sedative effects usually begin to be seen 2 hours after injection and peak around 36 hours (corresponding to peak serum level). The effects usually last for up to 72 hours.

NOTE - Acuphase has NO PLACE in immediate sedation, as its action is NOT rapid.

4.1. DOSE

The lowest effective dose should be used to minimise adverse reactions.

Adults: The dose is 50-150mg IM (1-3mls) as a single dose, repeated if necessary after 2- 3 days. Some patients may need an additional injection between 1-2 days after the first injection. At least 24 hours must have elapsed between injections.

The duration of treatment should not exceed **TWO** weeks and the cumulative dose must not exceed 400mg, with no more than 4 injections given in total. There is no such thing as a "course of Acuphase".

The patient should be medically assessed before each administration.

Elderly; the dose may need to be reduced due to reduced metabolism and elimination with a maximum dose of 100mg per injection.

Patients with reduced renal or hepatic function; Contact pharmacy or the Specialist Medicines Information Service for Mental Health.

Dose of zuclopenthixol required	Equivalent volume of zuclopenthixol acetate 50mg/ml
25mg	0.5ml
50mg	1ml
75mg	1.5ml
100mg	2ml
150mg	3ml

5. Adverse Reactions

These are generally dose dependent and more likely in those with no previous exposure.

Common side effects	Less common
Drowsiness	Tachycardia
Movement disorders (akathisia, dystonia, Parkinsonian symptoms)	Urinary retention
Hypotension	Prolonged QTc interval
Raised prolactin	Neuroleptic malignant syndrome (NMS)
Constipation	

Consult the specific product characteristics for full prescribing information

6. Patient Monitoring

Because of the extended release, profile of Zuclopenthixol acetate observations should be continued for 72 hours.

(See the physical health monitoring form below - Appendix 1).

7. References

7.1. Maudsley Guidelines 12th Edition David Taylor et al page 616

7.2. Psychotropic Drug Directory 2016 Stephen Bazire pages 5, 159

7.3. SPC Clopixol Acuphase, last updated 1.7.16, accessed via www.medicines.org.uk 15.08.16

7.4. Cochrane Database of Systematic Reviews 18.4.2012, Issue 4. Art. No.: CD000525. Jayakody K, Gibson RC, Kumar A, Gunadasa S. Zuclopenthixol acetate for acute schizophrenia and similar serious mental illnesses.

7.5. Southern Health NHS Foundation Trust Guidelines for the use of Zuclopenthixol Acetate (Clopixol Acuphase ®) Version: 2 Nov 2014

7.6. Medusa I/V and I/M Drug Administration Guide, accessed 12.6.12

Appendix 1.

Zuclopenthixol Acetate (Clopixol Acuphase)
Physical Health Monitoring Form

Use for every dose administered – **USE A NEW FORM FOR EACH INJECTION**

Patient Name _____ CHI N° _____

Ward _____ Hospital _____

Monitor Pulse, Blood Pressure, Respiration & Temperature Every 4 hrs for 72 hrs.
If Any Abnormal Result Occurs, Contact The Duty Doctor Immediately

Time	Date/time	Pulse	Blood Pressure	Respiration	Temperature (deg C)	Initials
4 hours						
8 hours						
12 hours						
16 hours						
20 hours						
24 hours						
28 hours						
32 hours						
36 hours						
40 hours						
44 hours						
48 hours						
52 hours						
56 hours						
60 hours						
64 hours						
68 hours						
72 hours						

If unable to take observations, document the reason(s) why not and provide evidence that the patient is safe e.g. patient asleep

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My mental health

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Student mental health- NHS

How to cope with student life - MIND

Student Minds

Free apps for people in Scotland:

- Daylight (for anxiety and worry)
- Sleepio (for insomnia)

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05 July 2023

Next review:

05 January 2024

Reviewer Name(s):

NHS GGC MyPsych team

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NHS Inform: Healthy Living

Benefits of Physical Activity

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Financial support for students - Citizens Advice Scotland

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Case Presentation

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For Case Presentations, think about using the SBAR communication tool:

- Situation
- Background
- Assessment
- Recommendation

Below are some points to cover when presenting your case:

Give a summary of the **history.**

Discuss possible **predisposing, precipitating and maintaining** factors. Discuss any protective factors noted in the patient's history.

Discuss potential **risks** (including suicide, self-harm, alcohol, drugs, absconding, driving, any children involved, and harm to others).

Give likely **diagnosis** (with reasons for this) and **differential** diagnosis.

Suggest **further investigations** (e.g. bloods, ECG, imaging), and **further history** required (e.g. co history from family, friends or health workers, and history from previous case notes)

Discuss **management**, both **long-term** and **short-term** (e.g. immediate admission or crisis team follow-up). Use a **bio-psycho-social** approach.

Discuss likely **prognosis**, both for this acute episode, and lifelong.

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Mental State Examination

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Remember – the mental state should take into account not just your observations during the course of the interview but also information obtained on symptoms and signs during the course of this episode of illness. If there is evidence of disorder of thought form you should give examples of speech to demonstrate this.

Appearance and behaviour

General description

Build

Distinguishing features

Self-care

Rapport and eye contact

Interactions ie. guarded, cooperating etc

Intoxication

Body language ie. posture, psychomotor activity

Facial expressions ie. angry, relaxed

Unusual movements ie. medication side effects, tremors, tics

Mood

Subjective rating

Objective: Euthymic, elated, blunted, flat, labile.

Congruency

Speech

Rate, rhythm, tone, volume

Disorders of thought form (continuity of thought as reflected in speech/writing)

Form is the processing and organising of thoughts. Do they flow in a logical order?

- acceleration/retardation
- circumstantiality/loosening of association
- perseveration
- neologisms
- word salad
- Tangentiality
- Flight of ideas

Disorders of thought content

Pre-occupations (including suicidal ideation)

Overvalued ideas (including ideas of reference)

Obsessions/phobias

Delusions (including disorders of the possession of thought)

- primary, secondary
- disorders of the possession of thought (thought insertion, thought withdrawal, thought broadcasting

---

Disorders of perception

Derealisation/depersonalisation

Illusions

Hallucinations

Cognitive assessment

Orientation

Attention and concentration

Memory

Intelligence and general knowledge

Insight/judgement

Insight

What does the patient think is the explanation for their problems? What is their attitude to treatment/ supervision/ staying in hospital?

What do you think is causing the problem?

Is it possible that this could be a mental health problem?

What would help?

Would you be willing to try....?

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Physical Health in Psychiatry

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Physical health assessment is an essential part of a psychiatric assessment, and a psychiatrist should be skilled in physical examination, as well as mental state examination. There are various reasons for this:

- Physical examination is an essential part of the process of formulating a differential diagnosis for psychiatric presentations and ruling out organic causes (e.g. endocrine, infectious or neurological conditions)
- Psychotropic medications can have significant physical effects, including metabolic syndrome, hyponatremia and extra-pyramidal side effects
- Regular physical health monitoring is an essential part of treatment
- Patients with psychiatric conditions may be at risk of neglecting their physical health, or of being less able to communicate their concerns about their physical health
- Patients with psychiatric conditions are also at increased risk of being stigmatised and having difficulty accessing services.

The NHS Greater Glasgow and Clyde Physical Health Policy can be read here

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Psychiatric Case History

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Presenting complaint

- Patient's name
- Age
- Demographic information
- Reason for referral and by whom.

History of presenting complaint

- This is an account of the patient's history **in their own words.**
- Explore thoroughly what they presented with, for example, low mood, hearing voices, etc.
- Explore for other symptoms – mood, psychosis, anxiety
- Always think about **risk** – to health, safety or welfare to self or others

---

Past psychiatric history

- Diagnosis
- When first referred to psychiatry
- Treatment by GP for mental illness
- Current input – ?attends outpatient clinic, CPN, psychology, occupational therapy, 3rd sector support,
- Previous treatments, dates given, and what helpful
- Previous hospital admission
- Previous detentions under the Mental Health Act

- Previous deliberate self harm

Past medical history

- Any significant past or current medical history

Drug history

- Current medication
- Compliance
- Side effects
- Over the counter medication
- Drug allergies

If appropriate, then past medication history

Family history

- First ask a broad question to establish if anyone in the patient's family has suffered from mental illness.
- In cases of adoption or step-parents note information regarding biological and social family.
- For all first degree relatives – mother, father, siblings, children – age, age of death (if deceased) and cause of death, history of mental illness, history of physical illness, occupation, quality of relationship with patient in childhood and thereafter

---

Social history

- Housing – type of accommodation, any issues
- Employment, source of income
- Money worries – debt, money lenders, catalogues, loan sharks, gambling problems, etc
- Smoking
- Alcohol – amount, features of harmful use or dependency
- Drugs – what substances used, amount, features of dependency

---

Personal history

- History of birth trauma, place of birth
- Family circumstances in childhood
- Early (pre-school) childhood – developmental difficulties, bedwetting, temper tantrums,
- History of physical or sexual abuse
- Primary school – educational achievement, enjoyed/didn't enjoy, friends, trouble, suspension,

expulsion, truancy
- Secondary school - educational achievement, enjoyed/didn't enjoy, friends, trouble, suspension, expulsion, truancy, qualifications achieved, age of leaving school
- Further education – adjustment, qualifications
- Employment history – chronological list of jobs, how they were, relationships with colleagues, why they ended
- Current employment – how is it
- Relationships – past and present significant, how long did they last, how were they, why did they end
- Friendships – supportive, confiding?
- Hobbies/interests
- Religion

Forensic history

- Past and pending charges
- Previous convictions
- Previous imprisonment
- History of physical aggression, even if not charged

Premorbid personality

- Ask the patient to describe what they were like before they were ill
- How would their friends describe them
- Relationships – shy or makes friends easily, lasting or superficial friendships, few or many
- Prevailing mood – generally cheerful or gloomy, changes in mood
- Hobbies and interests
- How would they usually respond to stress

Mental state Examination

Appearance and Behaviour

Comment on dress, self care, movements (agitation, slowing, abnormal movements), rapport, appropriateness

Mood

Subjective – the patient's impression of their mood

Objective - elated, flat, euthymic, irritable, fearful, anxious etc. Congruent or incongruent.

Speech

Comment on rate, rhythm, tone and volume

Thought

Thought Content – particular concerns, worries, delusions, preoccupations

Thought form – any evidence of formal thought disorder e.g. thoughts pressured, thought-blocking, tangentiality, perseveration

Perceptual Abnormalities

Abnormal beliefs –overvalued ideas, delusions

Abnormal experiences – hallucinations (auditory, visual, tactile, olfactory). Also passivity, depersonalisation, derealisation

Cognition

Orientation – time place and person

Attention and concentration

Memory

Language

Fluency

Visuospatial

Insight

Does the patient think they are unwell?

Does the patient feel that treatment is needed?

Summary

2 sentences summarizing patient's name, age, demographics, significant clinical information, significant social information, anything else important in history

Differential diagnosis

1. Mood
2. Psychosis
3. Anxiety
4. Substance misuse
5. Organic

6. Personality
7. No mental illness

Aetiology

- Predisposing factors
- Precipitating factors
- Perpetuating factors

Investigations

- Biological/psychological/social

Management

- Physical treatment
- Psychological treatment
- Social treatment

Prognosis

The psychiatric case history may seem long in comparison with other histories. The student should to try and empathise, i.e. 'feel oneself into' the patient's internal experience. Sometimes it is better to complete a case history over several shorter sessions rather than over one long one.

Patients may struggle to answer questions for many reasons - for example, they may be responding to auditory hallucinations which are far more compelling to the patient that what a student or doctor is saying, they may have persecutory delusions which cause them to be guarded or hostile, or they may be confused and disorientated. It is important to try to formulate such difficulties as giving valuable information about a patient's mental state rather as a 'problem' because they don't give a 'good history'. It is often helpful to get a collateral history from a friend or relative of the patient.

Dr Angela Cogan

Consultant Psychiatrist, Hospital Sub Dean for Psychiatry

14 August 2013

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Risk Assessment

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Risk Assessment should include consideration of past/present behaviours, and also any protective factors.

It is common practice to use a standardised form of risk assessment, which may be specific to your health board.

Some points to consider:

- Self-harm
- Suicide
- Alcohol
- Illicit substances
- Driving
- Any children involved
- Self-neglect
- Harm to others
- Violence and aggression
- Exploitation by others
- Physical health
- Falls
- Absconding

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ECT

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- Mind-ECT information
- RCPsych patient information leaflet on ECT
- Royal College of Psychiatrists Position Statement on ECT 2017
- Scottish ECT Accreditation Network (SEAN) - ECT Guide

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Guidelines

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For a selection of up-to-date guidance on a wide range of psychiatric presentations, see the following:

- NICE Guidelines
- SIGN Guidelines
- British Association for Psychopharmacology Guidelines

Condition-Specific

- ADHD in Adults
- Anorexia Nervosa (MARSIPAN guidance currently in revision)
- Schizophrenia
- Delirium (SIGN 157: Risk reduction and management of delirium)
- Bipolar Disorder

Prescribing

- The Maudsley Prescribing Guidelines (access via NHSGGC Athens account)

Management of emergencies

- Management of Acutely Disturbed Patients (NHSGGC Guideline)
- Management of Alcohol Withdrawal (NHSGGC Guideline)
- Treatment of Paracetamol Overdose (NHSGGC Guideline)
- Resuscitation algorithms
    - Adult Basic Life Support

- Advanced Life Support

Child protection

Policy

- RCPsych College Reports
- Scottish Government Mental Health Strategy

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Legal

Capacity

Mental Health Act

Other legislation



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Patient information

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Patient information resources are particularly helpful in thinking about your approach to communication and explanation in OSCE stations:

NHS Inform patient information

Royal College of Psychiatrists patient information

Choice and medication patient information leaflets

Patient information on Functional Neurological Disorders

Patient information on Non Epileptic Attacks

Scottish Association for Mental Health (SAMH)

Self Help guides from SAMH

Emergency contacts

Last reviewed:

05 July 2023

Next review:

05 January 2024

Reviewer Name(s):

NHS GGC MyPsych Team

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Psychology

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NHS Inform Self Help Guides

Living Life to the Full - self help life skills online course

Psychology Tools - worksheets for use in therapy

RCPsych patient information on psychotherapies

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Next review:

05 January 2024

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Transgender healthcare

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Abstract

Transgender people in Scotland, UK, tell stories of their treatment by NHS healthcare professionals.

Resources

Use the button below to access this resource item.

Access this resource

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NHSGGC Videos

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Assessment of Suicide Risk



Assessment of Auditory Hallucinations



Capacity Assessment on a Manic Person



Assessment of Mood and Related Symptoms



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RCPsych Tutorials and videos

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RCPsych Psychiatry in Practice Clinical Series Tutorials

RCPsych CASC Example Videos

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ICD Codes

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ICD10: Diagnostic Codes from the World Health Organisation. Include these when writing up cases. -go to chapter V: Mental and Behavioural Disorders

ICD11: Diagnostic Codes from the World Health Organisation. These are new and you may also see these used throughout your placement.

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Addenbrookes Cognitive Examination

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Addenbrookes Cognitive Exam: This is a neuropsychological examination which covers many cognitive domains and can give an indication of nature of deficits. It is often used to screen for a cognitive impairment in a patient or for any progression in cognitive impairment.

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CAGE Questionnaire

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CAGE Questionnaire: Quick screening test for potential alcohol problems.

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Glasgow Coma Scale

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Glasgow Coma Scale

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Author(s):

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NHS Library Services

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Using NHS Scotland libraries

To take full advantage of our libraries you will need to become a member. All students on placement are entitled to join and once you've completed an Athen registration form you will be able to borrow books and access our services. You can join the library by signing up for a NHS Scotland Athens account here.

Books and more

You can browse and borrow from a wide range of books, ebooks, reports and DVDs. The majority of these can be kept for up to four weeks and you can renew items in person, by phone or by email. To find what you are looking for use the Library Search via the Knowledge Network.

Study space and resources

Most libraries offer quiet study space; please speak to local library staff about internet access via NHS computers and/or your personal device.

Online resources

You will find that many of our key online resources are available by accessing the NHS Scotland Knowledge Network (http://www.knowledge.scot.nhs.uk/). It includes thousands of full text journal articles and e-books, and databases - including Medline, Cinahl and the Cochrane Library - which allow you to carry out detailed searches of the literature and access a wealth of full text resources. To access the services you will need an NHS Scotland Athens account; all students on placement are entitled to r for an account. You can set up your Athens account from the Knowledge Network homepage. Advice and

support in using these resources is available from Library staff.

Contact us

Contact details for all NHS library services can be found online here:
http://www.knowledge.scot.nhs.uk/home/help-and-training/library-services.aspx

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Getting Published

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- You can access Good Clinical Practice (GCP) training for research for free via the National Institute for Health Research. This is a requirement for researchers conducting clinical trials, but is also very helpful in other types of research.

- NHS Scotland has a subscription for BMJ Case Reports.

If you would be interested in submitting a case report we encourage you to discuss with your undergraduate tutor and supervising clinicians in the first instance.

Lots of support is available for authors and up to four authors can be included on each report – multidisciplinary submissions are welcomed.

There will be no cost to authors. You can see the content of BMJ Case Reports using your NHS Scotland ATHENS username and password - which you can register for at www.knowledge.scot.nhs.uk.

BMJ provide a consent form that must be signed by patient or next of kin before publication.

Contact your local library for access to BMJ Case Reports:

http://www.knowledge.scot.nhs.uk/home/help-and-training/library-services.aspx

- Students are also invited to make submissions (400 - 600 words) to FuturePsych, the associate magazine of the RCPsych.

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Getting Inspired

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There are many inspirational resources to get you thinking about psychiatry.

Personal experiences in Literature

- "Brain on Fire: My Month of Madness", Susannah Cahalan
- "An Unquiet Mind: A Memoir of Moods and Madness", Kay Redfield Jamison
- "The Diving Bell and the Butterfly", Jean-Dominique Bauby
- The Man Who Mistook his Wife for a Hat", Oliver Sacks
- "How We Got Barb Back", Margaret Hawkins
- "The Reason I Jump", Naoki Higashida
- Temple Grandin
- Jonny Benjamin

Popular Science

- "The Inflamed Mind: A radical new approach to depression", Ed Bullmore

Scientific Papers

- The Mental Elf: National Elf Service
- History of Psychiatry
- FuturePsych - the Magazine for associate members of the RCPsych

Neuroscience

- Online Resources recommended by the British Neuroscience Association
- RCPsych Neuroscience Project - Find out how neuroscience is being integrated into training and clinical practice in psychiatry

Films

- dis-sociated: a Feature documentary on Dissociative Disorders
- Louis Theroux (documentaries covering a range of issues including eating disorders, perinatal mental health, alcohol dependence)
- 'Happy Man – Losing my Best Friend' BBC iplayer TV series

Gaming

- Hellblade This game, developed with input from psychiatrists, neuroscientists and people with lived experience, gives a portrayal of the experience of psychosis.

Arts

- Scottish Mental Health Arts Festival

Podcasts

- "I hear voices": A series on a woman's experience of having schizophrenia and the way this has impacted her
- 'Telling it Like it Is – Schizophrenia'**:** a woman with schizophrenia talks about her symptoms and experiences
- "Word of Mouth" 30-minute podcasts on communication with people who have conditions, such as, dementia, autism, dyslexia and adults with learning difficulties. By Michael Rosen
- '1800 seconds on Autism' -series of podcasts by autistic hosts Robyn Steward, Jamie Knight and guests.
- 'All in the Mind' - Radio 4 Episode including a segment on Autism in the Somali culture and the difficulty a Somali mother had with explaining autism to her community
- RCPsych Podcasts

Twitter

- QUB Psychiatry Society
- @EdPsychiatrySoc
- @GUPIGroup
- @DundeePsych
- @UoAPsychSoc

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Revision Resources

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- medschoolpsychiatry.com
- Trickcyclists
- Geeky Medics
- Old Age Psychiatry resources from the RCPsych
- TrOn modules
- Free Eating Disorders Training for Medical Students and Foundation Doctors

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Author(s):

Maytal Wolfe

Reviewer Name(s):

NHS GGC MyPsych Team

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Tips from the Royal College of Psychiatrists

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Tips from the Royal College of Psychiatrists

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Author(s):

NHSGGC MyPsych Team

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Beyond My Placement (Student Societies, Special Interest and Electives)

Special Interest

Student Societies

Medical Electives

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Career information

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Choose Psychiatry in Scotland

Career information from the Royal College of Psychiatrists

- Choose Psychiatry Video
- How to become a psychiatrist
- Become an RCPsych Student Associate / Foundation Doctor Associate-Sign up for Free
- RCPsych Awards, Prizes & Bursaries

Thinking of applying for psychiatry training?

RCPsych Specialty Training Guides

Take a look at the Core Training Curriculum.

Working in Scotland

- NES Foundation School Website
- Scottish Medical Training Website

Work in Scotland

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RC PSYCH
ROYAL COLLEGE OF PSYCHIATRISTS

CHOOSE PSYCHIATRY in Scotland

NHS Education for Scotland



Welcome.

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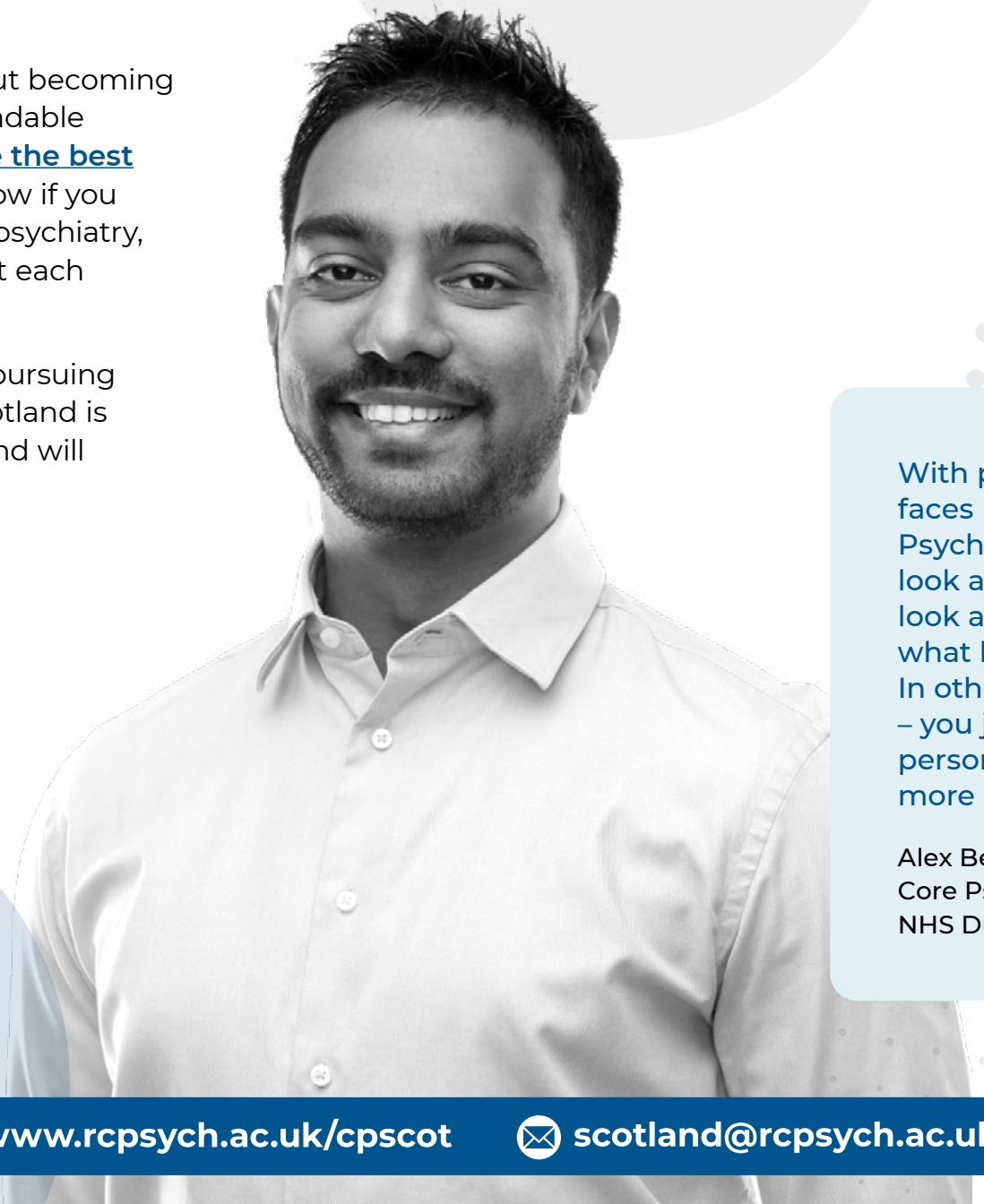
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Studying medicine : Why psychiatry?

Want to find out more about becoming a psychiatrist? Our downloadable guide **Be the brightest | Be the best** contains all you need to know if you are considering a career in psychiatry, including information about each specialty and how to train.

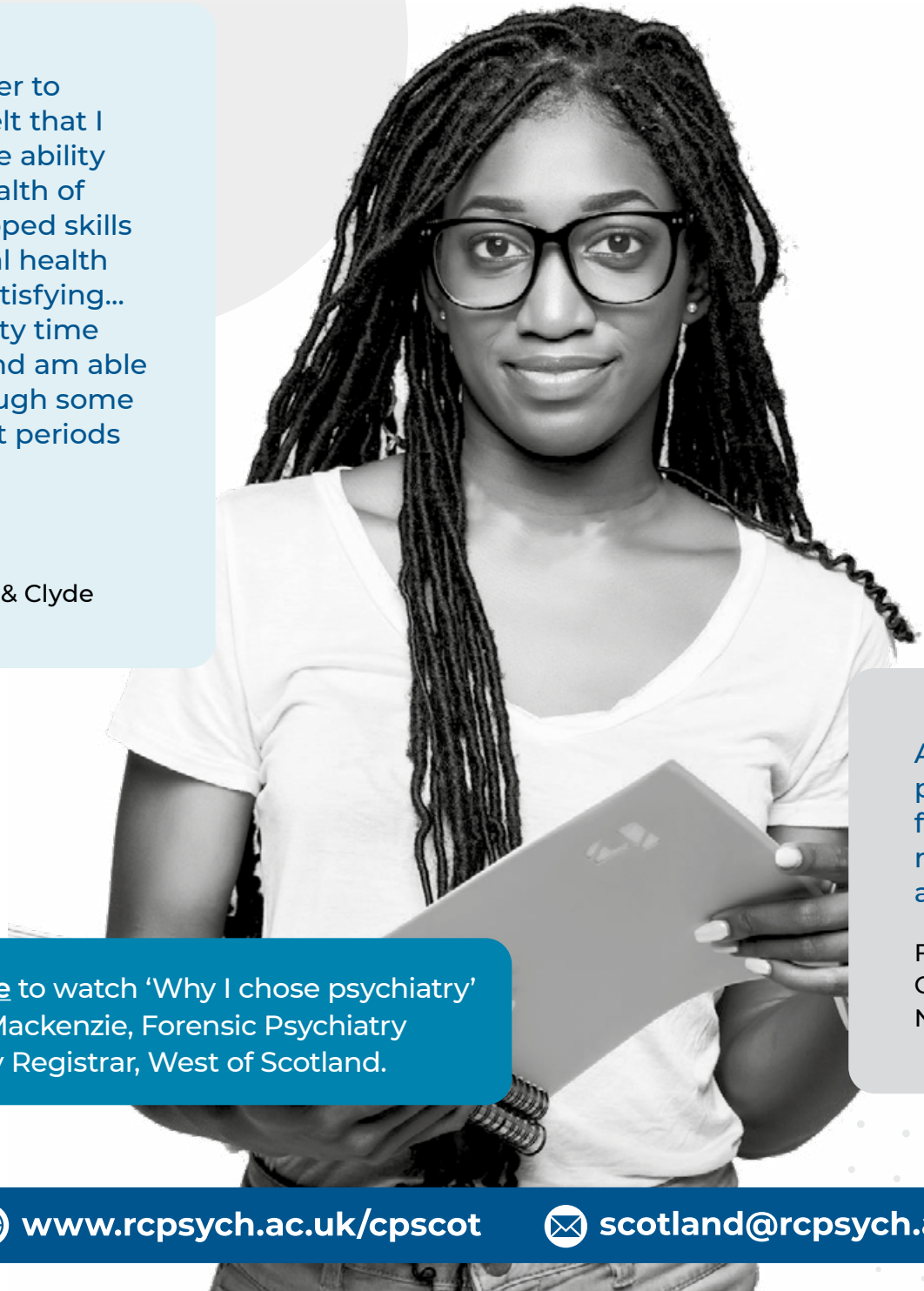
A supplementary guide to pursuing a career in psychiatry in Scotland is currently in development and will be available shortly.



> With psychiatry it's the faces I'm most interested in. Psychiatry encourages you to look at people as individuals, look at their life history and what brought them to you. In other medical fields – you just don't get that personal touch, results are more interminable.
>
> Alex Beadel
> Core Psychiatry Trainee
> NHS Dumfries & Galloway

Since I switched over to psychiatry, I have felt that I have, along with the ability to treat physical health of my patients, developed skills to treat their mental health which I find very satisfying... I get to spend quality time with my patients and am able to assist them through some of the most difficult periods of their lives.

Prerna Ambardar
ST4
NHS Greater Glasgow & Clyde

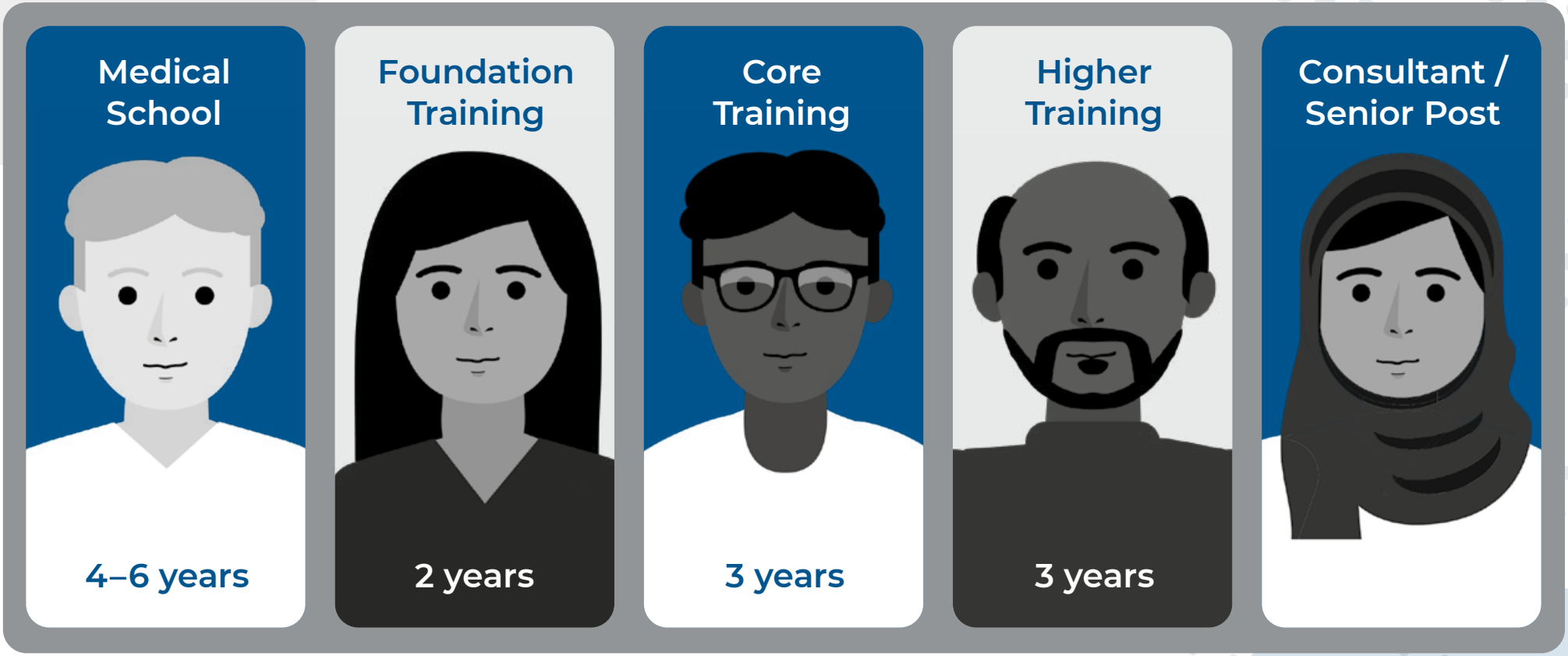


A career in psychiatry provides an opportunity to form meaningful therapeutic relationships with patients and their families.

Fiona McGibbon
Consultant Older Adult Psychiatry
NHS Highland

Click here to watch 'Why I chose psychiatry' by Alan Mackenzie, Forensic Psychiatry Speciality Registrar, West of Scotland.

Training : Psychiatry pathway



Welcome : Royal College of Psychiatrists in Scotland

The Choose Psychiatry in Scotland (CPS) campaign aims to promote the specialty across the nation, by engaging with the profession and those considering entering the medical psychiatric workforce.

By connecting with medical students, foundation doctors, trainees and consultants alike, we can showcase this medical field to encourage and support our next generation of clinicians.

The campaign is being run by the Royal College of Psychiatrists in Scotland (RCPsychiS) which opened in 1994. We are a Devolved Nation and Council of the Royal College of Psychiatrists (RCPsych), and have over 1,400 Members, Fellows, Affiliates and Pre-Membership Trainees in Scotland.

RCPsych is the professional medical body responsible for supporting psychiatrists throughout their careers, from their traineeship through to retirement.

As the professional medical body for psychiatry in Scotland, we set standards and promote excellence in psychiatry and mental healthcare.

We lead, represent and support psychiatrists nationally to government and other agencies, aiming to improve the outcomes of people with mental illness, and the mental health of individuals, their families, and communities.

CHOOSE PSYCHIATRY in Scotland

Join us : Royal College of Psychiatrists

If you are interested in psychiatry as a career, or even if you're just curious, becoming a Student Associate or Foundation Doctor Associate of the Royal College of Psychiatrists is a great way to discover more about the specialty. It's **FREE** and comes with a range of benefits.

Choose Psychiatry on **Twitter**

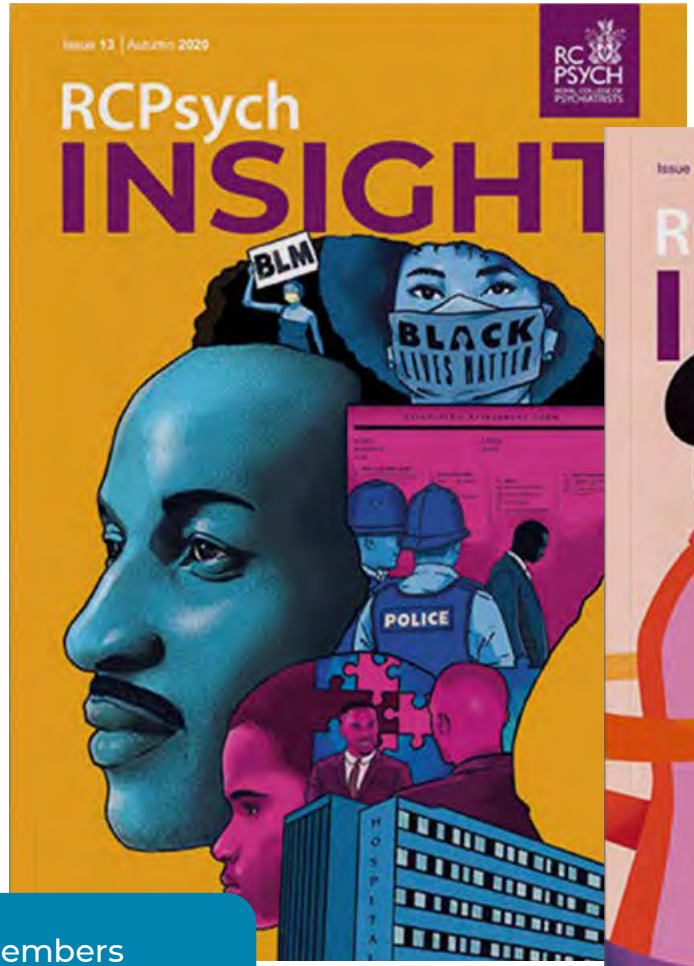


Sign up to free membership with the College: www.rcpsych.ac.uk/become-a-psychiatrist/choose-psychiatry/what-next

Find out more : Member benefits

Member benefits

- Online access to the British Journal of Psychiatry and our other journals
- Discounted entry to the biggest psychiatry conference in the UK, our International Congress
- Discounts on our publications and our eLearning resource CPD Online
- Regular newsletter to keep you in touch with the College and psychiatrists



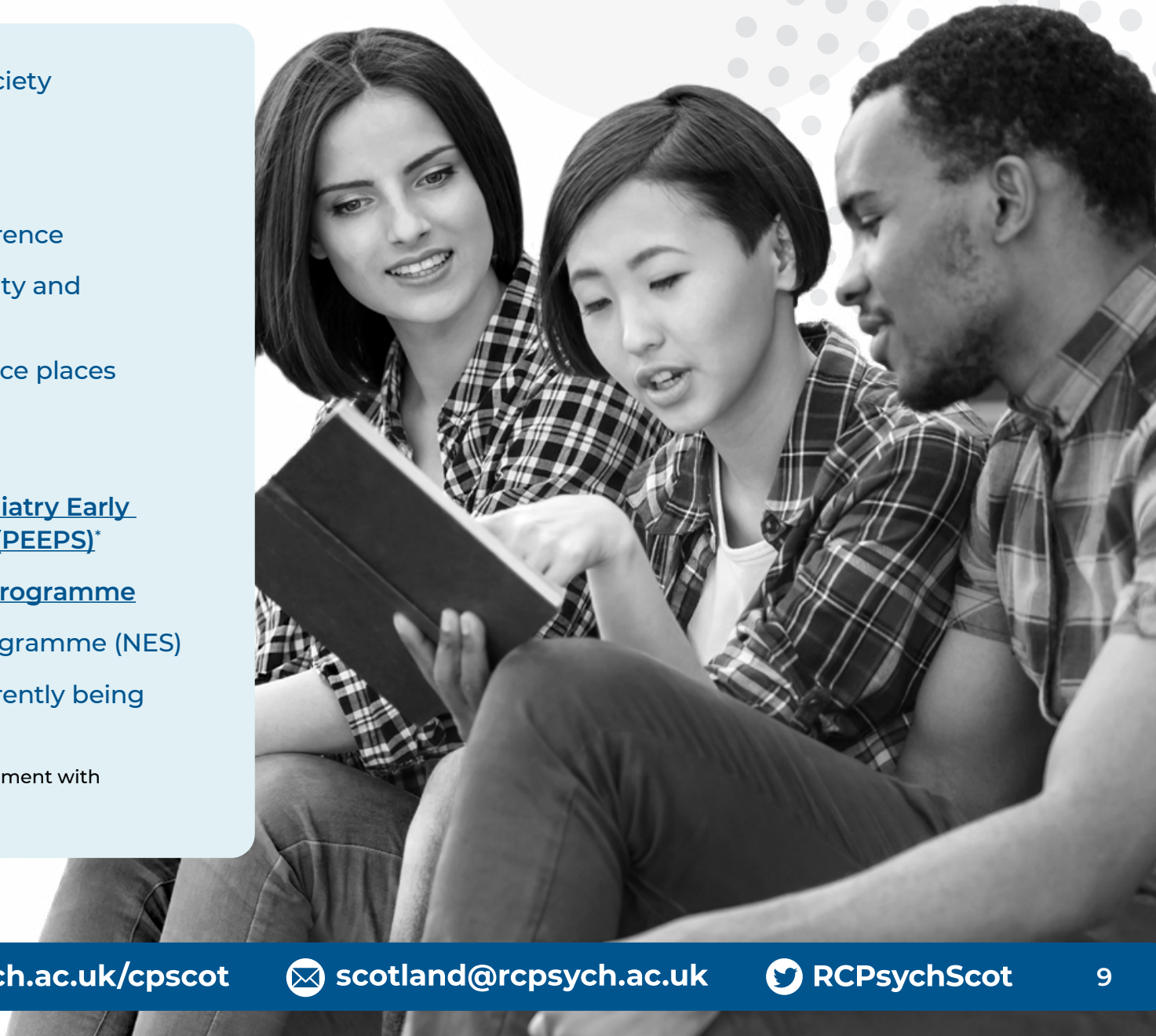


Click here to download our Members quarterly magazine *Insight*, packed with news from psychiatrists across the UK.

Opportunities : Getting involved

- Join your University Psychiatric Society
- Attend local Psychiatry Schools
- Psychiatry Attachments / Electives
- National Student Psychiatry Conference
- Attend RCPsychiS Academic, Faculty and CPS events
- RCPsychiS bursaries (free conference places and travel expenses up to £100)
- RCPsych 'Psych Star' Scheme
- Local Mentoring Schemes ie Psychiatry Early Experience Programme Scotland (PEEPS)*
- RCPsych Foundation Fellowship Programme
- Foundation Priority Placement Programme (NES)
- Foundation Years Champions (currently being developed in the West)

*Available at Edinburgh University and in development with Glasgow University



Psychiatric Trainees Committee : Supporting you

The Psychiatric Trainees Committee (PTC) is a national community representing psychiatric trainees within the UK. It believes passionately that by driving improvements in the quality of training and through supporting and valuing each other, we can improve the quality of care and the lives of people with mental illness.



Surg Lt Cdr Luke Baker
Chair, Psychiatric Trainees Committee



Dr Shevonne Matheiken
Vice Chair



Dr Rosemary Gordon
Co-secretary

Click here to find out more about Your Psychiatric Trainees Committee representatives (Scotland Division).

Get in touch

Follow the PTC on Twitter

Follow the PTC on Facebook

ptcsupport@rcpsych.ac.uk

RCPsych in Scotland : Events

The College in Scotland holds two Academic Conferences each year – at the end of January (Winter Meeting) and September (Autumn Meeting).

In addition, it holds Faculty Conferences throughout the year:

+ Addictions
+ Child & Adolescent
+ General Adult
+ Intellectual Disability
+ Forensic
+ Old Age
+ Liaison
+ Medical Psychotherapy
+ Perinatal
+ Eating Disorders



Check out our **events calendar**. We normally offer two free medical student / foundation doctor spaces at each event. Currently we are also offering bursaries to attend our events. These offer a **FREE** place as well as **up to £100 for travel and accommodation expenses.**

RCPsych in Scotland : Get in touch



Royal College of Psychistrists in Scotland (Staff Team)

+ Laura Hudson – Manager
  laura.hudson@rcpsych.ac.uk
+ Aidan Reid – Policy Officer
  aidan.reid@rcpsych.ac.uk
+ Angela Currie – Coordinator (Wed–Fri)
  angela.currie@rcpsych.ac.uk
+ Susan Richardson – Coordinator (Mon–Wed)
  susan.richardson@rcpsych.ac.uk
+ Laura Varney – Devolved Nations Press Officer
  laura.varney@rcpsych.ac.uk

Scottish Medical Schools : Psychiatric Societies

University of Aberdeen Psychiatric Society

uoapsychsoc@outlook.com

@uoapsychiatrysoc

@uoapsychiatrysoc

University of Edinburgh Psychiatric Society

edinpsychsoc@gmail.com

@EdinburghUniPsychiatrySoc

@EdPsychiatrySoc

@EdPsychiatrySoc

University of St Andrews Psychiatry Society

stapsychiatrysoc@gmail.com

@stapsychiatrysoc

stapsychiatrysoc

University of Dundee Psychiatry Society

psychiatrysoc@dmail.dundee.ac.uk

@UoDPS

@uodps

@UniversityofDu1

Glasgow University Psychiatry Interest Group

glasgowpsych@googlemail.com

@glasgowpsych

@GUPIGroup

Further information : Online resources

- RCPsych Choose Psychiatry
- Guidance for Medical Schools
- My Psych App
- NHS Education Scotland
- Scottish Foundation School Training
- British Medical Association
- General Medical Council
- Study Materials for Students



Psychiatry quiz : What do you know?

1. Do you believe that people who are depressed...

a should pull themselves together
b are weak
c need help and support
d only have themselves to blame

2. To become a psychiatrist, which of the following must you study after Highers in Scotland)?

a psychology
b anthropology
c medicine
d psychotherapy
e sociology

3. Which of these would a psychiatrist not deal with?

a depression
b a heart bypass
c intellectual disabilities
d anorexia
e autism

4. Where can psychiatrists work?

a hospitals
b residential homes
c prisons
d schools
e courts of law
f all of the above

5. How long does it take to train to become a psychiatrist after medical school?

a about 3 years
b about 5 years
c about 8 years

6. What qualities does a good psychiatrist need?

a good communication skills
b scientific background
c genuine interest in how people think and feel
d good investigative skills
e all of the above

7. Which of these would a psychiatrist not treat?

a adolescents
b adults
c children
d animals
e older people

8. In terms of public health, which psychiatric disorder is most common?

a schizophrenia
b depression
c eating disorders
d drug addiction

9. Which of the following categories of people are vulnerable to developing mental illness?

a people of low intelligence
b people with weak personalities
c older people
d everyone

Answers: 1c, 2c, 3b, 4f, 5c, 6e, 7d, 8b, 9d







NESD1342 Royal College of Psychiatrists: Choose Psychiatry in Scotland Welcome Pack | Designed by the NES Design Team

Choose Psychiatry videos

Warning: This guideline is 19627671 day(s) past its review date.

Choose Psychiatry YouTube Channel

A career that makes a difference: Choose Psychiatry

Five Reasons Why:

- Chris
- Arthita
- Aisha

RCPsych Meets Dr Akira Fukutomi

Last reviewed:

05 July 2023

Next review:

05 January 2024

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NHSGGC Becoming a Doctor

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Thinking of Studying Medicine?

Medicine is one of the most challenging but rewarding careers available. The combination of daily academic stimulation, technical procedural skills and working with patients, their families and the wider healthcare team is one which few other professions can offer.

Medicine is a profession that is open to everyone. There is no “right” person to be a doctor but all doctors are united by a passion for patient care and a dedication to their profession.

Working as a Doctor means you will train in and probably spend the majority of your career working within the National Health Service (NHS). The NHS is Scotland’s largest single employer and one of the largest healthcare employers in the world. The Chief Executive of NHS Scotland heads the directorates and is accountable to ministers for the efficiency and performance of the service and the work of the 14 NHS Boards and 8 Special Health Boards.

Find out more about NHS Scotland

The life of a doctor is not for everyone – long hours and witnessing distressing illness in patients at times can be stressful and emotionally demanding. But for those who are passionate about the profession the job satisfaction cannot be beaten.

If you are considering applying to study medicine we have created a number of resources you can access from the menu below to help you gain an insight into the career.

Please note that NHS Greater Glasgow and Clyde supports a number of programmes but is not responsible for content of an external website or involved the selection of candidates for programmes.

Open all

Further resources +

Last reviewed:

05 July 2023

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05 January 2024

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Other Useful Information

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There are may resources and groups where you can get support for your application.
Find enclosed links to some of these resources.
Please note that this is not an exhaustive list.

Open all

Medical ethics +

You Can Be A Doctor +

Medic Insight Glasgow +

Medic Insight Dundee +

Aberdeen Medic Outreach Society +

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05 January 2024

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Managing violence and aggression

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If you are dealing with a patient who is exhibiting violence or aggression please refer to your **local guidelines.** Below are some general principles:

1. Consider **safety** first:

- Always involve other members of your MDT. Particularly those who are trained in patient restraint.
- If you're not in a mental health hospital you may need to phone security.

2. If it is safe to do so, attempt **verbal de-escalation**

- Use calm, non threatening body language
- Express empathy
- Can you identify a trigger for this patient's behaviour?

3. Consider using sedative **medications** such as:

- First line: benzodiazepines
- Second line: antipsychotics - use with caution
- REFER TO LOCAL GUIDELINES AND CONSIDER DISCUSSING WITH A SENIOR

4. Consider the **legal implications**. Do you think the patient might require:

- detention under the mental health act?
- adults with incapacity form?

For more information, please follow the link in Resources below, which will take you the the **NICE Guidelines** for managing violence and aggression in patients with mental illness.

Open all

Resources +

Last reviewed:

25 April 2023

Next review:

24 October 2023

Author(s):

Medical Education Fellow, NHS Lothian

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Risk Assessment

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Risk Assessment should include consideration of past and present behaviours, as well as any protective factors.

It is common practice to use a standardised form of risk assessment, which may be specific to your health board.

Some risk areas to consider are:

- Self-harm
- Suicide
- Alcohol
- Illicit substances
- Driving
- Any children involved
- Self-neglect
- Harm to others
- Violence and aggression
- Exploitation by others
- Physical health
- Falls
- Absconding

Some specific considerations in relation to risk assessment following self-harm or suicide attempt c
seen in the following table. It can be helpful to structure your assessment to explore what happened b e,

during and after the event. There is also a helpful framework for assessing risk to self in the resources section below.

[redacted]

Social context?

Mental illness?

Substance misuse?

Any previous attempts of self harm/suicide?

Any trigger for this attempt?

Was it planned or impulsive?

Any final acts? E.g. Writing a note, writing a will

[redacted]

Lethality of the attempt?

Perceived lethality?

Thoughts during the attempt?

Did they try to prevent discovery?

[redacted]

How did they come to the attention of services?

Did they tell someone?

Any regret?

Any ongoing intent?

Open all

Resources

Last reviewed:

25 April 2023

Next review:

24 October 2023

Author(s):

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Detaining a patient under an Emergency Detention Certificate (EDC)

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How to detain a patient under an EDC +

Resources +

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Adults with Incapacity Act (AWI)

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How to assess capacity +

The Adults with Incapacity Act +

Resources +

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Cognitive Assessments

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Do you need to assess your patient's cognition? Below are links to some cognitive assessments that you could use.

The ACE III is a comprehensive cognitive assessment (scored out of 100) used by Psychiatrists as part of the diagnosis for Dementia.

The MoCA is a shorter screening tool (scored out of 30) that may be more appropriate for an initial assessment of cognition in the ward or community setting. There is an online training module now in place to maintain the validity of the MoCA. This allows you to access and use the assessment. You can access the training here.

The 4AT is a very quick screening tool used specifically for detecting Delirium.

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ICD-11

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The International Classification of Diseases 11th Revision (ICD-11) came into effect in January 2022. It provides diagnostic guidance and criteria for human diseases including 'Mental, behavioural or neurodevelopmental disorders'.

Follow the link in Resources below to take you directly to an online version of the ICD-10.

You will find information about mental illness in 'Section 6'.

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Resources +

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Mental Health Assessment

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Presenting issue

- Patient's name
- Age
- Demographic information
- Reason for presentation
- If referred in then by whom

History of presenting issue

- This is an account of the patient's history **in their own words.**
- Explore thoroughly what they presented with, for example, low mood, hearing voices, etc.
- Explore for other symptoms – mood, psychosis, anxiety
- Always think about **risk** – to health, safety or welfare to self or others

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Psychiatric history

- Diagnosis
- When first referred to psychiatry
- Treatment by GP for mental illness
- Current input
  - attends outpatient clinic?
  - CPN?

    - psychology?
    - occupational therapy?
    - 3rd sector support? (eg. support worker, or other support from a charity)
- Previous treatments, dates given, and what was helpful
- Previous hospital admission
- Previous detentions under the Mental Health Act
- Previous episodes self harm

Medical history

- Any significant past or current medical history

Medication history

- Current medication
- Compliance
- Side effects
- Over the counter medication
- Allergies

If appropriate, then past medication history

Family history

- First ask a broad question to establish if anyone in the patient's family has suffered from mental illness.
- In cases of adoption or step-parents note information regarding biological and social family.
- For all first degree relatives – mother, father, siblings, children – age, age of death (if deceased) and cause of death, history of mental illness, history of physical illness, occupation, quality of relationship with patient in childhood and thereafter

---

Social history

- Housing – type of accommodation, any issues
- Employment, source of income
- Money worries – debt, money lenders, catalogues, loan sharks, gambling problems, etc
- Smoking
- Alcohol – amount, features of harmful use or dependency
- Drugs – what substances used, amount, features of dependency

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Personal history

Please note that there is no need to go into details about previous traumas if that information is already

known. There is a risk of re-traumatising the patient. It is enough to say ‘we are aware that X was a difficult time in your life – I don’t need to know any more just now unless you think it affects what we plan today’ or similar.

- History of birth trauma, place of birth
- Family circumstances in childhood
- Early (pre-school) childhood – developmental difficulties, bedwetting, temper tantrums,
- History of physical or sexual abuse
- Primary school – educational achievement, enjoyed/didn’t enjoy, friends, trouble, suspension, expulsion, truancy
- Secondary school - educational achievement, enjoyed/didn’t enjoy, friends, trouble, suspension, expulsion, truancy, qualifications achieved, age of leaving school
- Further education - qualifications
- Employment history – chronological list of jobs, how they were, relationships with colleagues, why they ended
- Current employment – how is it
- Relationships – past and present significant, how long did they last, how were they, why did they end
- Friendships – supportive, confiding?
- Hobbies/interests
- Religion

Forensic history

- Past and pending charges
- Previous convictions
- Previous imprisonment
- History of physical aggression, even if not charged

Premorbid personality

- Ask the patient to describe what they were like before they were ill
- How would their friends describe them
- Relationships – shy or makes friends easily, lasting or superficial friendships, few or many
- Prevailing mood – generally cheerful or gloomy, changes in mood
- Hobbies and interests
- How would they usually respond to stress

Summary

2 sentences summarizing patient’s name, age, demographics, significant clinical information, significant social information, anything else important in history

Differential diagnosis

1. Mood
2. Psychosis
3. Anxiety
4. Substance misuse
5. Organic
6. Personality
7. No mental illness

Aetiology

- Predisposing factors
- Precipitating factors
- Perpetuating factors

Investigations

- Biological/psychological/social

Management

- Physical treatment
- Psychological treatment
- Social treatment

Adapted, with thanks, from Dr Angela Cogan's (Consultant Psychiatrist, Hospital Sub Dean for Psychiatry) article entitled 'Psychiatric Case History' 14 August 2013 in the MyPsych Student Toolkit.

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Mental State Examination

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The MSE (Mental State Examination) is the equivalent of the physical examination you would perform on a patient as part of a physical health assessment.

It is important to note that patients who present with mental health problems require a physical health assessment as part of their assessment also. For more details on this please read the 'Physical Health Assessment' section of the App.

How to Perform an MSE

Although the mental state examination should focus carefully on your observations during the course of the interview, you should also incorporate information obtained on the person's presentation during the course of this episode of illness. If there is evidence of disorder of thought form you should give examples of speech to demonstrate this.

Structure of the MSE

Appearance and behaviour

General description

Self-care

Rapport and eye contact

Activity/retardation, pre-occupation/attentiveness, irritability etc

---

Mood

Euthymic, elated, depressed, labile, incongruous, blunted

Speech

Rate, rhythm, tone, volume

Disorders of thought form (continuity of thought as reflected in speech/writing)

- acceleration/retardation
- circumstantiality/loosening of association
- perseveration
- neologisms
- word salad

Disorders of thought content

Pre-occupations (including suicidal ideation)

Overvalued ideas (including ideas of reference)

Obsessions/phobias

Delusions (including disorders of the possession of thought)

- primary, secondary
- disorders of the possession of thought (thought insertion, thought withdrawal, thought broadcasting

---

Disorders of perception

Derealisation/depersonalisation

Illusions

Hallucinations

Cognitive assessment

Orientation

Attention and concentration

Memory

Intelligence and general knowledge

Insight/judgement

Insight

What does the patient think is the explanation for their problems? What is their attitude to treatment/ supervision/ staying in hospital?

Adapted from the article entitled 'Mental State Examination' from the MyPsych Student toolkit.

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Mental Welfare Commission

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The Mental Welfare Commission for Scotland is an organisation that protects the rights of patients with mental illness.

Their website provides useful information for clinicians about the mental health legislation and what good practice looks like.

They also have an advice line for clinicans. You can use this if you have questions about:

- the mental health act
- the incapacity act
- care and treatment of patients with a mental disorder

You will find a link to their website in the Resources section below.

Open all

Resources +

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Physical Health Assessment

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The Foundation Programme Curriculum explicitly emphasises the need for physical and mental health to be considered in tandem.

A physical health assessment is an essential part of a full mental health assessment. This generally includes:

- A systems review in the history
- Physical examination
- Bloods (the tests you need to request may vary between health boards)
- An ECG

You should check your health board's policy to find out the details of what is expected in your local area.

Reasons for doing a physical health assessment on a patient presenting with apparent mental illness:

- Physical examination is an essential part of the process of formulating a differential diagnosis for psychiatric presentations and ruling out organic causes (e.g. endocrine, infectious or neurological conditions)
- Psychotropic medications can have significant physical effects, including metabolic syndrome, hyponatremia and extra-pyramidal side effects
- Regular physical health monitoring is an essential part of treatment
- Patients with mental illness may be at risk of neglecting their physical health, or of being less able to communicate their concerns about their physical health
- Patients with mental illness are also at increased risk of being stigmatised and having difficulty

accessing services.

Adapted from the 'Physical Health in Psychiatry' article in the MyPsych Student Toolkit.

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Referring to Mental Health Services

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When referring to mental health services, you may find it useful to use the standard SBAR approach. Below is an outline of information that the mental health team will likely want to know about the patient when you are referring them.

Situation

- Patient name, age, and CHI number
- Presenting issue(s)
- Current legal status of the patient

Background

- Current input from mental health services
  - are they seen by the community team?
  - do they have a CPN (Community Psychiatric Nurse)?
- Previous contact with mental health services
  - Have they ever been admitted to a Psychiatric hospital?
  - Have they ever been detained under the mental health act?
  - Any history of self harm?
- Patient's social situation
  - Do they have any social support?
  - Social care involvement?
  - For children, details about their home situation are particularly important

Assessment

- Findings from the history
- Findings from the mental state examination
- Brief summary of physical health status and any recent investigation/observation results
- Differential diagnosis
- **Risk assessment**

Recommendation

- What is your plan for this patient?
- Reason for referral
    - Would you like advice from the mental health team?
    - Would you like a review from the mental health team?

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The Mental Health Act (MHA)

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The Mental Health Act (Care and Treatment) (Scotland) Act 2003 provides detailed information about the three main types of detention that your patients might be under:

- an Emergency Detention Certificate (EDC) - see part 5 of the Act (linked below in Resources)
- a Short Term Detention Certificate (STDC) - see part 6
- a Compulsory Treatment Order (CTO) - see part 7

STDCs and CTOs can only be completed by Approved Medical Practitioners (AMP) so you will not use these yourself during your foundation training. However you may have patients that have been detained under these orders and will therefore need to understand what this means for your patient and their care.

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Anxiety and Panic Disorders

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Consent to Treatment +

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Dementia and chronic cognitive impairment

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Differential diagnosis +

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Drug and Alcohol Dependence

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Alcohol in the acute hospital +

Alcohol Withdrawal +

Alcohol in the community +

Drug dependence +

Opioid replacement +

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Eating Disorders

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Functional Disorders

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Personality Disorders

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Psychotic Disorders, including Bipolar Affective Disorder

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Self-Harm

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Vulnerable Adults

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What action to take +

Resources +

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Choose Psychiatry in Scotland

Interested in a career in Psychiatry in Scotland?

The link below will take you to the 'Choose Psychiatry in Scotland' page on the RCPsych Website where you will find lots of useful information, including:

- Why choose Psychiatry?
- The wide range of career options within Psychiatry
- What the training programme looks like
- How to apply for Core Psychiatry Training

As a Foundation Doctor you can also join the college for free as a Foundation Doctor Associate!

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The Foundation Programme

If you would like to find out more about the Foundation Programme please find a link to the UK Foundation Programme Website below.

Remember also to keep on top of your Foundation Portfolio on TURAS, also linked below.

TURAS Portfolio >

UK Foundation Programme Website >

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NES Wellbeing Resources

NHS Education Scotland (NES) host a number of wellbeing resources on their website including:

- a wellbeing hub
- a telephone support line
- e-learning modules on TURAS

Follow the link below to access these.

NES Staff Wellbeing Webpage ›



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BMA Wellbeing Resources

The British Medical Association is an organisation who's main role is to represent, support and negotiate on behalf of all UK doctors and medical students.

Follow the link below to the 'wellbeing' section of the BMA website. Here you can find information about how to access:

- counselling
- peer support
- reasonable adjustments
- help with burnout
- and much, much more

Link to 'Your Wellbeing' on the BMA Website >

Link to BMA Contact Information >

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NHS Staff Wellbeing Apps

NHS staff have been given free access to a number of wellbeing apps to support with their mental health and wellbeing.

Have a look at the link below!

Wellbeing apps for NHS staff



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Other sources of Support

Remember, there are lots of people available to support you.

Some other places you could access support and advice include:

- Your clinical or educational supervisor
- Your foundation programme director
- Occupational health
- Your medical indemnity provider

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East Region

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South East Region

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NHS Dumfries and Galloway

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NHS Greater Glasgow and Clyde

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Anaphylaxis - recognition and management (MHS 32)

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Resources

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NHS GG&C

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Reviewer Name(s):

Lead Clinical Pharmacist, Clinical Effectiveness Pharmacist

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Administration of covert medication and in dysphagia

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General guidance +

Use of thickeners +

A - Z advice +

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Adult symptomatic relief policy

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Guidance +

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Controlled drugs - advice for checking stock (MHS MRG 10)

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Resources

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Controlled drug prescription requirements

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Background +

Electronic Immediate Discharge Letter +

Pass prescriptions +

Pass prescription example +

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Covert medication policy (MHS 53)

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Dispensing outwith pharmacy hours

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Background +

Procedure +

Out of hours pass medication issues form +

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PMG-MH

Reviewer Name(s):

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Medication outwith prescribed times

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Background +

Principles +

HEPMA process +

Flowchart +

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Safer use of medicines group- mental health.

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Ordering and reconciling desirable drugs

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Medications +

Ordering procedure +

Reconciliation +

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08 February 2023

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Ordering pass medication-HEPMA

Open all

Procedure +

Pass medication form +

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Physical health monitoring of cognitive enhancers

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Acetylcholinesterase inhibitors +

Memantine +

Cognitive enhancer summary +

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Physical healthcare policy (MHS 20)

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Prescribing, administration and recording of as required psychotropics

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Background +

Prescribing principles +

Administration and recording +

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Procedure for the Administration of Controlled Drugs within In-patient Areas

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Preparation +

Checking prescription +

Procedure for administration within the treatment room +

Procedure for administration outwith the treatment room +

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Procedure for the Administration of Medicines within In-patient Areas

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Preparation for administration +

Checking prescription +

Static medicines trolley procedure +

Mobile medicines trolley procedure +

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08 February 2023

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Safe secure handling of medicines in hospital wards (MHS MRG 01)

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Safe use of insulin

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Prescribing insulin +

Labelling insulin preparations +

Storage of insulin preparations +

Administering insulin +

Educational resources +

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Author(s):

MH Safer Use of Medicines group

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Use of a second staff member ‘runners’ to deliver medication to the patient

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Background +

Position statement +

Good practice +

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Use of multi-dose compliance devices

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Background information +

Exclusion criteria +

Inclusion criteria +

Practical points to consider +

Compliance aid assessment pathway +

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Use of patients own drugs

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Background +

Procedure - medicines dispensed normally +

Procedure - medicines dispensed in a compliance device +

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Accessing medicines out of hours

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Procedure +

Accessing clozapine out of hours protocol +

Emergency cupboard list +

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Emergency cupboard list and procedure for out of hours access (MHS MRG 12)

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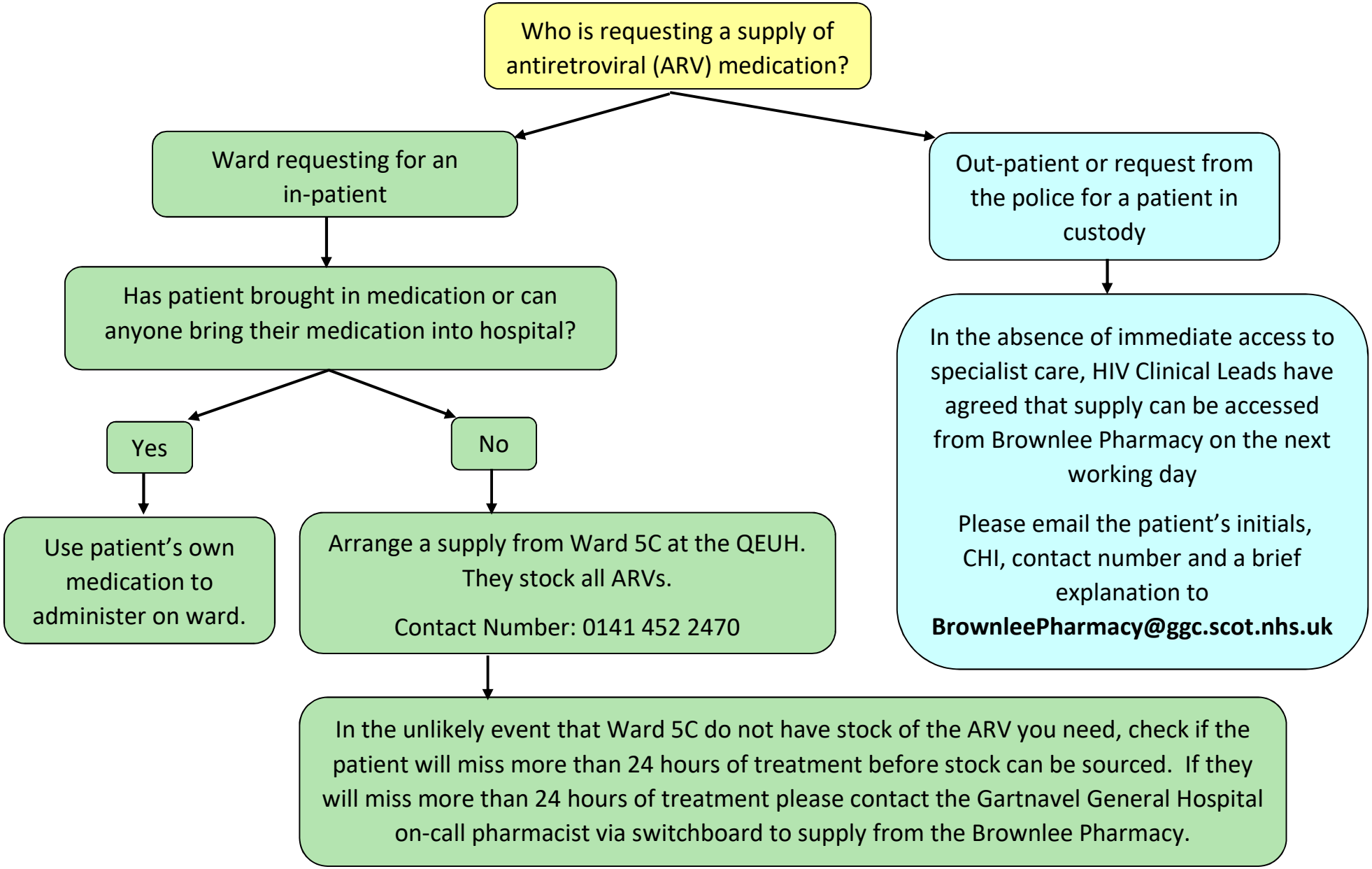
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Guidance for On-call Pharmacists Dealing with Requests for Antiretrovirals for HIV Treatment



Generated: Gayle Rothnie 01/11/2021 Approved: Kathryn Brown 01/11/2021 Review: 01/11/2023

11 March 2015

PRESS SUMMARY

Montgomery (Appellant) v Lanarkshire Health Board (Respondent) [2015] UKSC 11
On appeal from [2013] CSIH 3

JUSTICES: Lord Neuberger (President), Lady Hale (Deputy President), Lord Kerr, Lord Clarke, Lord Wilson, Lord Reed, Lord Hodge

BACKGROUND TO THE APPEAL

The appellant, Nadine Montgomery, gave birth on 1 October 1999 at Bellshill Maternity Hospital, Lanarkshire. As a result of complications during delivery, her baby was born with serious disabilities. Mrs Montgomery sought damages on behalf of her son alleging negligence of the respondent Board's employee, Dr McLellan, who was responsible for her care during her pregnancy and labour. Mrs Montgomery has diabetes. Women with diabetes are more likely to have large babies and there is a 9-10% risk of shoulder dystocia during vaginal delivery (the baby's shoulders being too wide to pass through the mother's pelvis). Though this may be resolved by emergency procedures during labour, shoulder dystocia poses various health risks to the woman and baby. Mrs Montgomery had raised concerns about vaginal delivery but Dr McLellan's policy was not routinely to advise diabetic women about shoulder dystocia as, in her view, the risk of a grave problem for the baby was very small, but if advised of the risks of shoulder dystocia women would opt for a caesarean section, which was not in the maternal interest.

Following the decision of the House of Lords in *Sidaway v Board of Governors of the Bethlem Royal Hospital and the Maudsley Hospital* [1985], the Lord Ordinary held that whether a doctor's omission to warn a patient of risks of treatment was a breach of her duty of care was normally to be determined by the application of the "*Bolam* test" (*Bolam v Frierm Hospital Management Committee* [1957] i.e., whether the omission was accepted as proper by a responsible body of medical opinion, which could not be rejected as irrational. Given the expert medical evidence for the Board, the *Bolam* test was not met. The Lord Ordinary accepted that where treatment involves a "substantial risk of grave adverse consequences", in some cases a judge could conclude that a patient's right to decide whether to consent to that treatment was so obvious that no prudent doctor could fail to warn of the risk. In the Lord Ordinary's view, the risk of shoulder dystocia, though significant, did not in itself require a warning since in most cases shoulder dystocia was dealt with by "simple procedures" and the chance of a severe injury to the baby was "tiny". Following *Sidaway,* he also noted that if a patient asks about specific risks, the doctor must answer, but did not accept that Mrs Montgomery asked such questions.

The Inner House of Session refused Mrs Montgomery's reclaiming motion and upheld the Lord Ordinary's conclusion. Since both courts held that no duty owed was to her, the issue of causation did not arise. Both nonetheless held that Mrs Montgomery had not shown that, had she been advised of the risk, she would have elected to undergo a caesarean, thus avoiding the risks to the baby.

JUDGMENT

The Supreme Court unanimously allows the appeal. Lord Kerr and Lord Reed give the lead judgment with which Lord Neuberger, Lady Hale, Lord Clarke, Lord Wilson and Lord Hodge agree. Lady Hale gives a concurring judgment.

REASONS FOR THE JUDGMENT

Lord Kerr and Lord Reed find that since *Sidaway*, it has become clear that the paradigm of the doctor-patient relationship implicit in the speeches in that case has ceased to reflect reality. It would be a mistake to view patients as uninformed, incapable of understanding medical matters, or wholly dependent on information from doctors. This is reflected in the General Medical Council's guidance. Courts are also increasingly conscious of fundamental values such as self-determination. **[74-80]** Societal and legal changes point towards an approach to the law which treats patients so far as possible as adults capable of understanding that medical treatment is uncertain of success and may involve risks, of accepting responsibility for risks affecting their lives, and of living with the consequences of their choices. This entails a duty on doctors to take reasonable care to ensure that a patient is aware of material risks inherent in treatment. Further, because the extent to which a doctor may be inclined to discuss risks with patients is not determined by medical learning or experience, applying the *Bolam* test to this question is liable to result in the sanctioning of differences in practice attributable not to divergent schools of thought in medicine, but merely to divergent attitudes among doctors as to the degree of respect owed to their patients. **[81-85]**

Lord Kerr and Lord Reed reason that an adult of sound mind is entitled to decide which, if any, of the available treatments to undergo, and her consent must be obtained before treatment interfering with her bodily integrity is undertaken. The doctor is under a duty to take reasonable care to ensure that the patient is aware of any material risks involved in proposed treatment, and of reasonable alternatives. A risk is "material" if a reasonable person in the patient's position would be likely to attach significance to it, or if the doctor is or should reasonably be aware that their patient would be likely to attach significance to it. Three further points emerge: first, assessing the significance of a risk is fact-sensitive and cannot be reduced to percentages. Second, in order to advise, the doctor must engage in dialogue with her patient. Third, the therapeutic exception is limited, and should not be abused. **[86-91]**

In the present case, Dr McLellan ought to have advised Mrs Montgomery of the substantial risk of shoulder dystocia. The Court of Session focused on the relatively small consequent risk of grave injury to the baby. However, shoulder dystocia itself is a major obstetric emergency; the contrast with the tiny risks to the woman and baby involved in an elective caesarean is stark. **[94]** On causation, the courts below had in mind the supposed reaction of Mrs Montgomery if advised of the minimal risk to the baby of a grave injury consequent on shoulder dystocia. The lower courts should have focused on her likely reaction if advised of the risk of shoulder dystocia itself. Dr McLellan's unequivocal view was that Mrs Montgomery would choose a caesarean if so advised; indeed that is precisely why she withheld that information. **[101, 103]** The Lord Ordinary considered the doctor to be an impressive witness. The only reasonable conclusion is that had Dr McLellan discussed dispassionately with Mrs Montgomery the risk of shoulder dystocia, the potential consequences, and the alternatives, she probably would have elected for a caesarean section. **[104]**

Lady Hale reasons that it is impossible to consider a particular procedure in isolation from its alternatives. Pregnancy is a powerful illustration. Where either mother or child is at heightened risk from vaginal delivery, doctors should volunteer the pros and cons of that option compared to a caesarean. We are concerned not only with risks to the baby, but also risks to the mother. **[109-114]** Dr McLellan's view that caesareans are not in maternal interests is a value judgment; once the argument departs from purely medical considerations, the *Bolam* test is inapposite. A patient is entitled to take into account her own values and her choices must be respected, unless she lacks capacity. She is at least entitled to information enabling her to take part in the decision. **[114-115]**

References in square brackets are to paragraphs in the judgment

NOTE

This summary is provided to assist in understanding the Court's decision. It does not form part of the reasons for the decision. The full judgment of the Court is the only authoritative document. Judgments are public documents and are available at: http://supremecourt.uk/decided-cases/index.shtml

NHS Greater Glasgow & Clyde
Mental Health Services
Prescribing Management Group

Guidance for Physical Health Monitoring of Cognitive Enhancers

It is recommended that all patients commenced on a cognitive enhancer (donepezil, rivastigmine, galantamine or memantine) should initially have basic monitoring of physical health parameters carried out by secondary care services.

Although often well tolerated, these medications can have significant side effects and physical health monitoring is required to mitigate some risks (e.g. bradycardia and weight loss common side effects with acetylcholinesterase inhibitors, hypertension common side effect with memantine).

It is recommended the following measures are carried out as a minimum (although some services may wish to carry out additional monitoring):

Acetylcholinesterase inhibitors:

Before treatment, inform patient and carer of potential adverse effects. Provide Patient Information Leaflet when possible, available via choice and medication website.

In addition to the table below, other physical health checks as felt to be clinically indicated – e.g. physical examination, renal function should be carried out.

	Blood pressure/Pulse	Weight	Adverse effects**	ECG***
Baseline (at initiation of medication)	✔	✔ **e.g. via MUST**		**only if indicated**
1 week after starting treatment* & after any dose increase	✔		✔	
Before dose increase	✔	✔ **if clinically indicated**	✔	
4 weeks after stabilised on maximum tolerated dose	✔	✔	✔	

*Keep in mind that it may take time for the GP to issue the prescription. This monitoring would start 1 week after the first dose is taken.

**See summary table below and appendix 1.

***Consider cardiac status during workup (refer galantamine blog & Medicines Update Extra bulletin for risk factors associated with QTc prolongation). If cardiac risk identified obtain U&Es and ECG at baseline and once stable therapeutic dose is established

No routine monitoring is required unless felt to be clinically indicated. ECGs should only be carried out when clinically appropriate, for example if cardiac symptoms emerge or a patient is started on medication known to cause QTc prolongation

Memantine

The guidance below applies when memantine is used as a single agent or to augment treatment with a cholinesterase inhibitor.

Approved by PMG-MH: December 2022
Review date: December 2024

Before treatment, inform patient and carer of potential adverse effects. Provide Patient Information Leaflet when possible, available via choice and medication website.

In addition to the table below, other physical health checks as felt to be clinically indicated – e.g. ECG, physical examination, renal function should be carried out.

	Blood pressure/Pulse	Adverse effects**
Baseline (at initiation of medication)	✔	
7 days after starting treatment*	✔	✔
14 days after starting treatment*	✔	✔
After dose titration completed*	✔	✔
4 weeks after stabilised on maximum tolerated dose	✔	✔

*If slower dose titration indicated adjust physical monitoring as appropriate.

**See summary table below and appendix 2.

No further routine monitoring is required unless felt to be clinically indicated. e.g. repeat of renal function

Cognitive enhancer summary

Medication	Licensed Indication	Oral Dose (other doses indicated for patches)	Common adverse effects (See SPC and BNF for full details)
Donepezil	Mild to moderately severe Alzheimer's dementia.	Start at 5mg daily at night. After one month can be increased to 10mg once daily.	Adverse effects include GI disturbances (nausea, vomiting and diarrhoea), reduced appetite and weight loss, bradycardia dizziness and syncope, headache, tiredness and fatigue, agitation and anxiety, urinary incontinence, sleep disturbance, muscle cramps, seizures.
Rivastigmine oral	Mild to moderately severe Alzheimer's dementia / Mild to moderately severe dementia in idiopathic Parkinson's disease. Dementia with Lewy Bodies	Start at 1.5mg twice daily with morning and evening meals. Increase dose by 1.5mg twice daily at a minimum of two weekly intervals, if tolerated, to maximum of 6mg twice a day. Effective dose is 3 to 6 mg twice a day; to achieve maximum therapeutic benefit patients should be maintained on their highest well-tolerated dose.	As above

Rivastigmine transdermal patch	Mild to moderately severe Alzheimer's dementia / Mild to moderately severe dementia in idiopathic Parkinson's disease. Dementia with Lewy Bodies	Started with 4.6mg/24h. After a minimum of four weeks of treatment and if well tolerated the dose should be increased to 9.5mg/24h, this is the daily recommended effective dose, which should be continued for as long as the patient continues to demonstrate therapeutic benefit. If well tolerated and only after a minimum of six months of treatment at 9.5mg/24h, the treating physician may consider increasing the dose to 13.3mg/24h in patients who have demonstrated a meaningful cognitive deterioration and/or functional decline	Transdermal administration (patch) is less likely to cause side effects although may cause skin reaction/rash. Provide instruction to ensure correct use of patches to reduce risks e.g. skin rash, risk of multiple patch application
Galantamine – use modified release preparation	Mild to moderately severe Alzheimer's dementia.	Starting dose 8mg once daily in the morning with food, increased to 16mg after 4 weeks (minimum effective dose) May be increased to 24mg daily after 4 weeks if tolerated.	As Above Rarely serious skin rash*
Memantine	Moderate to severe Alzheimer's disease.	5mg daily for 7 days, then 10mg daily for 7 days, then 15mg daily for 7 days then to 20mg daily. Doses may be split if clinically appropriate	Dizziness, headache, constipation, somnolence, bradycardia and hypertension, heart failure, venous thromboembolism and rarely seizures

*If skin reaction occurs stop immediately.

If adverse effects emerge consider reducing to previously tolerated lower dose as clinically indicated or if severe discontinue treatment or consider an alternative preparation e.g. rivastigmine patch.

Audit Criteria

Criteria	Standard	Exceptions
Patient information leaflet provided	100%	
Baseline physical health checks completed	100%	ECG only required for those with cardiac risk identified.
Further physical health checks completed at recommended intervals	100%	

Cognitive enhancer SLWG, November 2022

Appendix 1- Side Effect Checklist for donepezil, rivastigmine and galantamine

Patient Name			**CHI Number**				
Medication	**Donepezil** ☐	**Rivastigmine Capsules** ☐	**Rivastigmine Patches** ☐	**Galantamine** ☐			
Assessment Date			**Name of Assessor**				
Blood Pressure			**Pulse**				
Over the past week have you experienced any of the following, and if so, to what extent?			**Never**	**Mild**	**Moderate**	**Severe**	**Tick if Distressing**
1.	**I have been nauseous or vomited**						
2.	**I have had diarrhoea**						
3.	**I have had decreased appetite**						
4.	**I have felt dizzy or unsteady on my feet**						
5.	**I have fainted/lost consciousness**						
6.	**I have felt my muscles cramping**						
7.	**I have felt tired or fatigued**						
8.	**I have had a headache**						
9.	**I have not slept as well as normal**						
10.	**I have felt more anxious or agitated**						
11.	**I have passed urine when I didn't want to**						
12.	**I have had uncontrollable movements of my face or body**						
13.	**I have developed a rash or skin problem**						
Only ask the following questions to those prescribed rivastigmine patches			**Never**	**Mild**	**Moderate**	**Severe**	**Tick if Distressing**
14.	**I have noticed a rash where my patch was applied**						
15.	**Please provide a description**						

Appendix 2- Side Effect Checklist for memantine

Patient Name		**CHI Number**				
Assessment Date		**Name of Assessor**				
Blood Pressure		**Pulse**				
Over the past week have you experienced any of the following, and if so, to what extent?		**Never**	**Mild**	**Moderate**	**Severe**	**Tick if Distressing**
1.	**I have felt more tired or fatigued**					
2.	**I have felt dizzy or unsteady on my feet**					
3.	**I have fainted/lost consciousness**					
4.	**I have had a headache**					
5.	**I have had problems opening my bowels (constipation)**					
6.	**I have felt confused/more confused**					
7.	**I have had uncontrollable movements of my face or body**					
8.	**I have been short of breath***					
9.	**I have noticed swelling in one of my legs***					
10.	**I have had unexplained chest pain***					
***If any of the following have occurred, consider seeking urgent medical assessment**						

NHS Greater Glasgow & Clyde
Mental Health Services

Procedure for Ordering and Reconciling Desirable Drugs

The following procedure has been developed to improve the security of desirable drugs. The aim of the procedure is to support practical scrutiny of drugs that may be subject to misappropriation. There is no intention to have ward staff account for every single dose of the drugs listed, rather by daily scrutiny, staff will identify unusual usage that would prompt further investigation. The following medications are classified as 'desirable' and will be managed via systems which involve increased vigilance, scrutiny and security:

1. Diazepam
2. Dihydrocodeine
3. Lorazepam
4. Nitrazepam
5. **Temazepam**
6. **Tramadol**
7. Zolpidem
8. Zopiclone
9. Codeine containing products in areas of high use.

The above list will be subject to regular review. This list represents the core set of drugs that must be scrutinised following this procedure. Other drugs may be included in the process at the discretion of Senior Charge Nurses or local nurse managers e.g. codeine containing products in areas of high use. Please note only solid dosage forms (tablets/capsules) are subject to this policy. Liquids and injections are excluded as they are much less likely to be misappropriated.

All drugs from the list must be ordered using the procedure below and stored in the appropriate ward cupboards (which must be locked at all times) when not in use on the trolley, with the following exceptions:

1 - Temazepam must be stored in the controlled drug (CD) cupboard at all times.

2 – Temazepam & tramadol must be ordered using a Controlled Drug Order book.

3 – Of the list above only temazepam must be stored in the CD cupboard. It would be good practice to store other desirable drugs in a separate cupboard or shelf within a cupboard from other drugs.

4 – Pass medications are not subject to scrutiny under this procedure

5 – Patients own drugs are only subject to scrutiny if they are being used to administer prescribed doses to the patient concerned.

Ordering procedure

1. Wards should only keep a minimal stock of desirable drugs, sufficient to meet the needs of their patients.
2. Wards should only stock desirable drugs that are prescribed and being used, or are likely to be used e.g. lorazepam as required.
3. Desirable drugs will be included on ward stock lists. **The total amount required for 7 days should be ordered on this weekly 'top up' order.**
4. Any desirable drugs required outwith the weekly 'top up' must be ordered on a separate pharmacy requisition (indent) from other (non-desirable) medications (See Exception 2 above).

5. Separate requisitions are for unexpected/emergency use e.g. when a new patient is admitted or the prescribed dose has changed, until the weekly amount required is ordered via 'top up' again.
6. Each indent for desirable drugs must be short ruled and signed by the nurse in charge of the ward **and** a second registered member of regular ward or bank nursing staff. When wards have only one registered member of staff on duty, a second signature by a registrant from another ward if possible is acceptable. That nurse must be satisfied there is a genuine need to order the desirable drug(s). To facilitate this they may wish to see the relevant HEPMA entry. If the need is urgent and a second signatory is unavailable, a single signatory is acceptable. It would be good practice for Senior Charge Nurses or their deputy to review orders placed for desirable drugs on a weekly basis.
7. The indent should be sent or scanned and emailed to the appropriate hospital pharmacy for dispensing the original indent should be sent to pharmacy marked '' 'sent by email' with the date and time, as soon as possible.
8. Pharmacy will alert the ward Senior Charge Nurse if they identify any unusual ordering patterns where possible.
9. Once dispensed, the medication will be sent to the ward with the delivery note. Ideally, two registered nurses will check the drugs received against this delivery note and the ward copy of the original indent. However, one registered nurse may do this if staffing levels mean two registrants are unavailable. Where possible, the signatory should not be the nurse who raised the order with pharmacy. If everything is correct, sign the 'Received by' section of the indent and delivery note and file them appropriately. If there are any discrepancies with the order, staff should contact pharmacy immediately. All desirable drugs should be stored securely without delay and any discrepancies rectified as soon as possible.
10. In the event of requiring to borrow desirable drugs from another ward, the ward requiring the medication should take the prescription sheet (Kardex) or show the HEPMA entry to the ward lending the desirable drug to satisfy the lending ward that there is a valid need to borrow. A registered nurse from each ward must sign the medication transfer form.
11. If a ward is unable to borrow the required medication out of hours, the nursing page-holder should be contacted to determine whether a supply is available in any of the emergency cupboards throughout NHSGGC. If not, the out of hours pharmacy service should be contacted via switchboard if the medication is required before pharmacy opens again and if no appropriate alternative can be prescribed.

Reconciliation

1. If desirable drugs are no longer required by a ward, contact pharmacy who will advise whether it can be reused elsewhere, returned to pharmacy or destroyed by a member of pharmacy staff in the presence of a registered nurse.
2. All wards must reconcile ward stock of desirable drugs once a day by completing the attached Appendix 1, 'Desirable Drug Reconciliation Form'. These forms once completed should be kept on the ward for 3 months and then discarded. The daily check will

    - Identify the total number of doses (tablets/capsules) of each drug being reconciled
    - Highlight any obvious variation from the usage day to day e.g.

      If the zopiclone balance today is 14 tablets fewer than yesterday and over the previous week the count reduced by 7 tablets per day then nurses would alert the senior charge nurse who would investigate further

- **Note**: the procedure does **not** require wards to maintain running balances accounting for every dose administered. The intention is to identify unusual patterns and trigger further scrutiny if they emerge.

3. Any discrepancies found must be reported to the ward Senior Charge Nurse and Lead Nurse as soon as possible. Out of hours the appropriate Response nurse / page holder should be contacted. A Datix report should be completed at ward level. It is the responsibility of management to inform pharmacy and if appropriate the Controlled Drug Accountable Officers team.
4. If any drugs are dropped or unusable for any reason, they should be recorded on the reconciliation from and then immediately destroyed. This must be undertaken by a registered nurse, who will record this following the process described in the SOP for the Safe Disposal of Medication within In-patient Areas.
5. If a partial dose is to be administered (e.g. lorazepam 500 microgram) then the remaining portion of the tablet should be disposed of appropriately in drug waste bins and recorded on the reconciliation form. This must be undertaken by a registered nurse, who will sign and date the entry on the reconciliation form
6. The Senior Charge Nurse or their deputy should review and check the 'Desirable Drug Reconciliation Form' and desirable drug orders on a weekly basis and ensure that correct procedures are being followed. (See appendix 2 – Desirable Drug Weekly SCN checklist)
7. This procedure will be subject to regular audit and review. Any failure to comply may result in formal investigation. Annual audits will be carried out as part of peer audit using attached Appendix 3 'Procedure for Ordering and Reconciling Desirable Drugs Audit Form'.

Mental Health Safer Use of Medicines Group

NHS Greater Glasgow & Clyde
Mental Health Services

Appendix 1 **Desirable Drug Reconciliation Form**

Medication ……
(Name, strength and form. Use a separate sheet for each preparation)

Day	Date	Time	Quantity counted	Quantity received from pharmacy	Checked by SIGN	Checked by PRINT	Witnessed by SIGN	Witnessed by PRINT	Comments

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Appendix 2: Senior Charge Nurse Weekly Desirable Drug Checklist

Ward: Date:

Item	Yes	No	Comments
Is temazepam stored correctly			
Are all the core list drugs in stock being reconciled daily?			
Are any additional drugs being reconciled daily?			
Is there a separate reconciliation sheet for each drug & preparation?			
Have any additional indents for desirable drugs been sent to pharmacy this week?			
Was the additional order appropriate?			
Have all orders been received, checked and reconciled correctly?			
Have any drugs been transferred to or borrowed from another ward?			
Have any drugs transferred or borrowed been reconciled properly?			
Have any dropped or unfit for use doses been recorded and disposed of correctly?			
Have any half doses been recorded and disposed of correctly?			
Have any unusual patterns of usage been identified by the daily checks?			
Has a Datix report been submitted for each unusual event identified?			
Were any such patterns raised with the SCN for investigation?			

Weekly check undertaken by (sign & print)

……

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Appendix 3 Procedure for Ordering and Reconciling Desirable Drugs Audit Form

Ward: ……..Date:……. Completed by: ……

Re-audit Date: ……

Note each audit result by recording: Yes (1) No (2) N/A (3)

Audit Standard	Results	Comments
1. Are wards using the approved Desirable Drug Reconciliation Form?		**If no what are they using?**
2. Is there evidence of daily checking with 2 registered nurses?		**Note how many time in the past 2 weeks this happened**
3. Is there evidence of SCN or deputy reconciliation on a weekly basis?		
4. Is temazepam found on the trolley at time of the audit?		
5. Do all desirable drugs on the trolley have a corresponding prescription?		**Including routine and "as required"**
6. Are all core list desirable drugs in the ward being reconciled?		
7. Are indents for desirable drugs signed for appropriately? **Both for ordering and receiving		
9. Is the desirable drug procedure available in the clinical area?		
10.Are staff aware of these procedures?		**Check with 2 members of nursing staff on duty**
11. Where in the ward are desirable drugs stored?		

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Prescribing Management Group

Guidance on the management of Extrapyramidal Side Effects

Extrapyramidal side effects (EPSE) and movement disorders can manifest as several symptoms, detailed in the tables below. It is important that staff are aware of the clinical features and treatments for the different EPSE symptoms.

All antipsychotics have the potential to cause EPSE but it is more common with first generation antipsychotics (e.g. flupentixol, haloperidol) and the effect tends to be dose related. Caution should be used in prescribing other medication likely to cause EPSE such as sodium valproate, lithium and some antidepressants and the patient should be monitored closely for additive effects.

Following initiation of an antipsychotic patients should be monitored for emergence of EPSEs on a weekly basis and for 2 weeks after target dose reached. After dose increases patients should be monitored for 2 weeks.

Akathisia - A state of inner restlessness, with a strong desire/compulsion to move	
Clinical features	- Foot stamping when seated - Crossing/uncrossing legs - Rocking from foot to foot - Pacing up and down - Akathisia may be mistaken for psychotic agitation and has been linked with suicidal ideation and aggression towards other
Rating scales	Barnes akathisia scale (appendix 1)
Prevalence	Approximately 25%, less with second generation antipsychotics in decreasing order; aripiprazole, lurasidone, risperidone, olanzapine, quetiapine and clozapine.
Time taken to develop	Occurs within hours to weeks of starting antipsychotics or increasing the dose. Tardive akathisia can take longer to develop and persist after antipsychotics have been withdrawn
Treatment	Depending on the clinical circumstances; - Reduce antipsychotic dose - Change to an antipsychotic with a lower propensity for akathisia - Anticholinergics (e.g. procyclidine) are usually ineffective - Benzodiazepines can be used short term during initiation - The following drugs may reduce akathisia (all unlicensed for this indication- see Maudsley for dosing);

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	o Propranolol o Clonazepam (low dose) o H_2 antagonists e.g. Mirtazapine, trazodone The Maudsley- Practice guidelines for physical health conditions in psychiatry has a good flow chart showing treatment options (Athens login required)

The following guidance is adapted from The Maudsley Prescribing Guidelines in Psychiatry [1] and The Maudsley Practice Guidelines for Physical Health Conditions in Psychiatry [2]

Dystonia - Uncontrolled muscular spasm in any part of the body	
Clinical features	- Abnormal face and body movements - Oculogyric crisis (eyes rolling upwards) - Torticollis (head and neck twisting to the side) - Inability to swallow or speak clearly - In extreme cases, back may arch or jaw dislocate
Rating scales	No specific scale
Prevalence	Approximately 10% but more common; - In young males - In neuroleptic naïve - With high potency antipsychotics Rare in the elderly
Time taken to develop	Can occur within hours of starting antipsychotics (minutes if given via IM or IV)
Treatment	Anticholinergic drugs given PO, IM or IV depending on the severity of the symptoms; - Example PO anticholinergic*: procyclidine 2.5mg three times daily, increased in steps of 2.5mg-5mg daily if required, up to maximum 30mg daily in 2-4 divided doses* [3] - For procyclidine IM dosing please consult the summary of product characteristics. The maximum IM procyclidine dose is 20mg daily [4] but in acute crisis doses of up to 30mg can be used. - Elderly patients may be more susceptible to the anticholinergic effects of procyclidine and a reduced dosage may be required - Response to IM takes ~20 minutes - If after 3 doses of IM, symptoms have not resolved then patient should be transferred to acute care

	- Remember: patient may be unable to swallow Reduce dose or switch to an antipsychotic with lower propensity

Tardive Dyskinesia – Abnormal movements	
Clinical features	- Lip smacking or chewing - Tongue protrusion 'fly catching' - Pill rolling or piano playing (choreiform hand movements) - Pelvis thrusting - Severe orofacial movements can lead to difficult speaking, eating or breathing. Symptoms can worsen under stress.
Rating scales?	Abnormal Involuntary Movement Scale (AIMS) (appendix 2)
Prevalence	5% of patients per year of antipsychotic exposure. More common in; - Older age - Affective illness - Those who have had acute EPS early in treatment - Genetic predisposition - Length of exposure to antipsychotics
Time taken to develop	Months to years. Approximately 50% of cases are reversible
Treatment	Depending on the clinical circumstances; - Stop anticholinergic if prescribed - Reduce dose of antipsychotic - Change to an antipsychotic with lower propensity for tardive dyskinesia - Clozapine is the antipsychotic most likely to be associated with resolution of symptoms, quetiapine may also be useful. - Tetrabenazine is licensed for the treatment of TD, starting at 12.5mg and titrating to 25-75mg/day.

Pseudoparkinsonism	
Clinical features	- 'mask like' face - Resting tremor - Rigidity - Cogwheeling - Bradykinesia - Bradyphenia
Rating scales	Simpson-Angus EPS Rating Scale (appendix 3)
Prevalence	Approximately 20%. More common in: - Elderly females - Those with pre-existing neurological damage
Time taken to develop	Days to weeks after initiation or dose changes
Treatment	Depending on the clinical circumstances; - Consider cautious dose reduction of causative agent - If side effects persist, consider switching to an antipsychotic with lower propensity to cause parkinsonism (aripiprazole, quetiapine, olanzapine, clozapine) - Prescribing an anticholinergic, monitoring for side effects (dry mouth, constipation, urinary retention, cognitive impairment). Review use regularly. *Example agents: procyclidine 2.5mg three times daily, increased in steps of 2.5mg-5mg daily if required, up to maximum 30mg daily in 2-4 divided doses* [3] - After 3 months should be gradually withdrawn, to prevent cholinergic rebound, and restarted if symptoms reappear [5]

[1] Taylor, D. et al.The Maudsley Prescribing Guidelines in Psychiatry 12th Edition; 2015

[2] Taylor, D. et al. The Maudsley Practice Guidelines for Physical Health Conditions in Psychiatry. 2021.

[3] BNF

[4] Summary of Product Characteristics. Kemadrin 5mg/ml solution for injection. [Accessed 23/12/21] https://www.medicines.org.uk/emc/product/2336/smpc

[5] Psychotropic drug directory 2020/21. Stephen Bazire.

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Appendix 1- Barnes akathisia scale (BARS)

Instructions:
Patient should be observed while they are seated, and then standing while engaged in neutral conversation (for a minimum of two minutes in each position). Symptoms observed in other situations, for example while engaged in activity on the ward, may also be rated. Subsequently, the subjective phenomena should be elicited by direct questioning.

Objective
0 Normal, occasional fidgety movements of the limbs
1 Presence of characteristic restless movements: shuffling or tramping movements of the legs/feet, or swinging of one leg while sitting, *and/or* rocking from foot to foot or "walking on the spot" when standing, but movements present for less than half the time observed
2 Observed phenomena, as described in (1) above, which are present for at least half the observation period
3 Patient is constantly engaged in characteristic restless movements, *and/or* has the inability to remain seated or standing without walking or pacing, during the time observed

Subjective
Awareness of restlessness
0 Absence of inner restlessness
1 Non-specific sense of inner restlessness
2 The patient is aware of an inability to keep the legs still, or a desire to move the legs, *and/or* complains of inner restlessness aggravated specifically by being required to stand still
3 Awareness of intense compulsion to move most of the time *and/or* reports strong desire to walk or pace most of the time

Distress related to restlessness
0 No distress
1 Mild
2 Moderate
3 Severe

Global Clinical Assessment of Akathisia
0 *Absent.* No evidence of awareness of restlessness. Observation of characteristic movements of akathisia in the absence of a subjective report of inner restlessness or compulsive desire to move the legs should be classified as pseudoakathisia
1 *Questionable.* Non-specific inner tension and fidgety movements
2 *Mild akathisia.* Awareness of restlessness in the legs *and/or* inner restlessness worse when required to stand still. Fidgety movements present, but characteristic restless movements of akathisia not necessarily observed. Condition causes little or no distress.
3 *Moderate akathisia.* Awareness of restlessness as described for mild akathisia above, combined with characteristic restless movements such as rocking from foot to foot when standing. Patient finds the condition distressing
4 *Marked akathisia.* Subjective experience of restlessness includes a compulsive desire to walk or pace. However, the patient is able to remain seated for at least five minutes. The condition is obviously distressing.
5 *Severe akathisia.* The patient reports a strong compulsion to pace up and down most of the time. Unable to sit or lie down for more than a few minutes. Constant restlessness which is associated with intense distress and insomnia.

The Barnes Akathisia Rating Scale is scored as follows:
Objective Akathisia, Subjective Awareness of Restlessness and Subjective Distress Related to Restlessness are rated on a 4-point scale from 0 – 3 and are summed yielding a total score ranging from 0 to 9.
The Global Clinical Assessment of Akathisia uses a 5-point scale ranging from 0 – 4.

Appendix 2- Abnormal Involuntary Movement Scale (AIMS)

Instructions:

There are two parallel procedures, the examination procedure, which tells the patient what to do, and the scoring procedure, which tells the clinician how to rate what he or she observes.

Examination Procedure:

Either before or after completing the examination procedure, observe the patient unobtrusively at rest (e.g., in the waiting room).

The chair to be used in this examination should be a hard, firm one without arms.

1. Ask the patient whether there is anything in his or her mouth (such as gum or candy) and, if so, to remove it.

2. Ask about the 'current' condition of the patient's teeth. Ask if he or she wears dentures. Ask whether teeth or dentures bother the patient 'now'.

3. Ask whether the patient notices any movements in his or her mouth, face, hands, or feet. If yes, ask the patient to describe them and to indicate to what extent they 'currently' bother the patient or interfere with activities.

4. Have the patient sit in the chair with hands on knees, legs slightly apart, and feet flat on floor. (Look at the entire body for movements while the patient is in this position.)

5. Ask the patient to sit with hands hanging unsupported – if male, between his legs, if female and wearing a dress, hanging over her knees. (Observe hands and other body areas).

6. Ask the patient to open his or her mouth. (Observe the tongue at rest within the mouth.) Do this twice.

7. Ask the patient to protrude his or her tongue. (Observe abnormalities of tongue movement.) Do this twice.

8. Ask the patient to tap his or her thumb with each finger as rapidly as possible for 10 to 15 seconds, first with right hand, then with left hand. (Observe facial and leg movements.) [±activated]

9. Flex and extend the patient's left and right arms, one at a time.

10. Ask the patient to stand up. (Observe the patient in profile. Observe all body areas again, hips included.)

11. Ask the patient to extend both arms out in front, palms down. (Observe trunk, legs, and mouth.) [activated]

12. Have the patient walk a few paces, turn, and walk back to the chair. (Observe hands and gait.) Do this twice. [activated]

Scoring Procedure

Complete the examination procedure before making ratings.

According to the original AIMS instructions, one point is subtracted if movements are seen only on activation, but not all investigators follow that convention.

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Items 1-9 are scored based on: None (0); Minimal (1); Mild (2); Moderate (3); Severe (4)	
Facial and oral movements	
1. Muscles of facial expression e.g. movements of forehead, eyebrows, periorbital area, cheeks. Include frowning, blinking, grimacing of upper face	1 2 3 4
2. Lips and perioral area e.g. puckering, pouting, smacking	1 2 3 4
3. Jaw e.g. biting, clenching, chewing, mouth opening, lateral movement	1 2 3 4
4. Tongue Rate only increase in movement both in and out of mouth, not inability to sustain movement	1 2 3 4
Extremity movements	
5. Upper (arms, wrists, hands, fingers) Include movements that are choreic (rapid, objectively purposeless, irregular, spontaneous) or athetoid (slow, irregular, complex, serpentine). Do not include tremor (repetitive, regular, rhythmic movements)	1 2 3 4
6. Lower (legs, knees, ankles, toes) e.g. lateral knee movement, foot tapping, heel dropping, foot squirming, inversion and eversion of foot	1 2 3 4
Trunk movements	
7. Neck, shoulders, hips e.g. rocking, twisting, squirming, pelvic gyrations. Include diaphragmatic movements	1 2 3 4
Global judgements	
8. Severity of abnormal movements. Based on the highest single score on the above items.	1 2 3 4
9. Incapacitation due to abnormal movements.	1 2 3 4
10. Patient's awareness of abnormal movements. No awareness (0); Aware, no distress (1); Aware, mild distress (2); Aware, moderate distress (3); Aware, severe distress (4)	1 2 3 4
Dental status	
Current problems with teeth and/or denture	Yes (1) No (0)
Does patient usually wear dentures?	Yes (1) No (0)

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Appendix 3- Simpson-Angus scale

Scaling:

The Simpson Angus Scale is composed of 10 items investigating 5 domains.

Domains	Number of items	Cluster of items	Direction of domains
Gait	1	1	Higher score = Greater impact of Neuroleptic-induced parkinsonism
Rigidity	6	2-7	
Glabella tap	1	8	
Tremor	1	9	
Salivation	1	10	

Scoring of domains:

		Sources
Item scaling	5-point Likert Scale with 0 meaning complete absence of the condition, and 4 meaning presence of the condition in extreme form	Simpson GM and Angus JW (1970)[1]
Weighing of items	No	Simpson GM and Angus JW (1970)[1]
Range of scores	Global score ranging from 0 to 4.	Simpson GM and Angus JW (1970)[1]
Scoring procedure	Global score: Sum of item scores divided by 10	Simpson GM and Angus JW (1970)[1]
Interpretation and Analysis of missing data	NA- clinician rated	
Interpretation of multiple answers for one item	NA- clinician rated	
Interpretation of scores	Simpson GM and Angus JW considered scores up to 0.3 within the normal range. Janno S et al. found that the optimal SAS mean score cut-off value is higher than the commonly used 0.3 and suggested a new cut-off value of 0.65 for screening Neuroleptic-induced parkinsonism.	Simpson GM and Angus JW (1970)[1] And Janno S et al. (2005)[2]

[1]Simpson GM, Angus JW. A rating scale for extrapyramidal side effects. Acta Psychiatr Scand Suppl. 1970; 212:11-9

[2]Janno S, Holi MM, Tuisku K, Wahlbeck K. Validity of Simpson-Angus Scale (SAS) in a naturalistic schizophrenia population. BMC Neurol. 2005 Mar 17; 5(1):5

1. GAIT: The patient is examined as he walks into the examining room, his gait, the swing of his arms, his general posture, all form the basis for an overall score for this item. This is rated as follows:	
0 = Normal	☐
1 = Diminution in swing while the patient is walking	☐
2 = Marked diminution in swing with obvious rigidity in the arm	☐
3 = Stiff gait with arms held rigidly before the abdomen	☐
4 = Stooped shuffling gait with propulsion and retropulsion	☐

2. ARM DROPPING: The patient and the examiner both raise their arms to shoulder height and let them fall to their sides. In a normal subject a stout slap is heard as the arms hit the sides. In the patient with extreme Parkinson's syndrome the arms fall very slowly:	
0 = Normal, free fall with loud slap and rebound	☐
1 = Fall slowed slightly with less audible contact and little rebound	☐
2 = Fall slowed, no rebound	☐
3 = Marked slowing, no slap at all	☐
4 = Arms fall as though against resistance; as though through glue	☐

3. SHOULDER SHAKING: The subject's arms are bent at a right angle at the elbow and are taken one at a time by the examiner who grasps one hand and also clasps the other around the patient's elbow. The subject's upper arm is pushed to and fro and the humerus is externally rotated. The degree of resistance from normal to extreme rigidity is scored as follows:	
0 = Normal	☐
1 = Slight stiffness and resistance	☐
2 = Moderate stiffness and resistance	☐
3 = Marked rigidity with difficulty in passive movement	☐
4 = Extreme stiffness and rigidity with almost a frozen shoulder	☐

4. ELBOW RIGIDITY: The elbow joints are separately bent at right angles and passively extended and flexed, with the subject's biceps observed and simultaneously palpated. The resistance to this procedure is rated. (The presence of cogwheel rigidity is noted separately.)	
0 = Normal	☐
1 = Slight stiffness and resistance	☐
2 = Moderate stiffness and resistance	☐
3 = Marked rigidity with difficulty in passive movement	☐
4 = Extreme stiffness and rigidity with almost a frozen elbow	☐

5. FIXATION OF POSITION or Wrist Rigidity: The wrist is held in one hand and the fingers held by the examiner's other hand, with the wrist moved to extension, flexion and both ulner and radial deviation:	
0 = Normal	☐
1 = Slight stiffness and resistance	☐
2 = Moderate stiffness and resistance	☐
3 = Marked rigidity with difficulty in passive movement	☐
4 = Extreme stiffness and rigidity with almost a frozen wrist	☐

6. LEG PENDULOUSNESS: The patient sits on a table with his legs hanging down and swinging free. The ankle is grasped by the examiner and raised until the knee is partially extended. It is then allowed to fall. The resistance to falling and the lack of swinging form the basis for the score on this item:	
0 = The legs swing freely	☐
1 = Slight diminution in the swing of the legs	☐
2 = Moderate resistance to swing	☐
3 = Marked resistance and damping of swing	☐
4 = Complete absence of swing	☐

7. HEAD DROPPING: The patient lies on a well-padded examining table and his head is raised by the examiner's hand. The hand is then withdrawn and the head allowed to drop. In the normal subject the head will fall upon the table. The movement is delayed in extrapyramidal system disorder, and in extreme parkinsonism it is absent. The neck muscles are rigid and the head does not reach the examining table. Scoring is as follows:	
0 = The head falls completely with a good thump as it hits the table	☐
1 = Slight slowing in fall, mainly noted by lack of slap as head meets the table	☐
2 = Moderate slowing in the fall quite noticeable to the eye	☐
3 = Head falls stiffly and slowly	☐
4 = Head does not reach the examining table	☐

8. GLABELLA TAP: Subject is told to open his eyes wide and not to blink. The glabella region is tapped at a steady, rapid speed. The number of times patient blinks in succession is noted:	
0 = 0 - 5 blinks	☐
1 = 6 – 10 blinks	☐
2 = 11 – 15 blinks	☐
3 = 16 - 20 blinks	☐
4 = 21 and more blinks	☐

9. TREMOR: Patient is observed walking into examining room and is then reexamined for this item:	
0 = Normal	☐
1 = Mild finger tremor, obvious to sight and touch	☐
2 = Tremor of hand or arm occurring spasmodically	☐
3 = Persistent tremor of one or more limbs	☐
4 = Whole body tremor	☐

10. SALIVATION: Patient is observed while talking and then asked to open his mouth and elevate his tongue. The following ratings are given:	
0 = Normal	☐
1 = Excess salivation to the extent that pooling takes place if the mouth is open and the tongue raised.	☐
2 = When excess salivation is present and might occasionally result in difficulty in speaking	☐
3 = Speaking with difficulty because of excess salivation	☐
4 = Frank drooling	☐

Mental Health Services

Standard Operating Procedure for the Administration of Controlled Drugs within In-patient Areas

Service Manager:	Andrew Walker, Lead Clinical Pharmacist, and Lorraine Cribbin, Acting Chief Nurse
Approved by:	Mental Health Services Clinical Governance
Date approved:	February 2023
Date for review:	February 2026
Version:	2

Mental Health Services

Standard Operating Procedure for the Administration of Controlled Drugs within Inpatient Areas

Objective

To describe the procedure required for administration of Controlled Drugs (CDs) within Inpatient Mental Health services.

This should be viewed in conjunction with the following documents:

- NHSGGC Safe and Secure Handling of Medicines in Hospital Wards, Theatres and Departments
- NHSGGC Procedure for the Use of Patients Own Drugs
- Standard Operating Procedure for the Administration of Medicines within Mental Health Inpatient Areas

Please Note

In hospitals, two designated registered members of staff must always participate in the administration of CDs, one witnessing the procedure and one administering the medicine (the exception is when one of the members of staff is a suitably competent Student Nurse). Responsibility ultimately rests with the person administering the CD, unless this is a student nurse, where responsibility lies with the registered nurse witnessing the administration. At least one practitioner must be a permanent member of staff within the ward.

All staff involved in the administration of medicines should have knowledge of the medicines involved. This should include normal dosage, side effects, precautions and contraindications.

The administration of non-controlled drugs and controlled drugs should be treated singly and should be administered as consecutive ward rounds.

Note: when two practitioners are involved they must independently check and verify all aspects of the process before jointly administering

The whole administration period for Controlled Drugs must be witnessed by the two practitioners involved in the procedure.

Please note the use of a colleague or, 'runner' to take medicine to a patient is not permitted. If the patient is unable to attend the treatment room the procedure for outwith the treatment room must be followed.

Preparation for administration of Controlled Drugs

1. Ensure any equipment required is prepared and ready for use where appropriate. This includes the following:
   - HEPMA system
   - Ward Controlled Drug Record Book(s)
   - Controlled Drug cupboard keys
   - Medicine Cups or appropriate receptacles
   - Water
   - Purple apron and/or signage as per NHSGGC No Interruptions Policy
   - Current BNF
2. Please ensure the designated area for preparation is a clear and uncluttered surface.

Checking the HEPMA record

Read the appropriate patients HEPMA system data carefully

1. Two Registered Nurses must check stock of Controlled Drugs against both the HEPMA system and Controlled Drug Record Book to confirm availability prior to the first patient entering the room.
2. Identify roles for both practitioners as i.e. witness and administrator. The roles should not be swapped throughout the process of administration.
3. Ensure patients prescription is complete and identifying the following:
   - Start date
   - Medicine form i.e. elixir, tablet, caps
   - Dose
   - Route
   - Time due
   - Prescriber
   - Allergies

Procedure for administration within the treatment room

1. Both practitioners check Ward Controlled Drug Record Book to reconcile stock balance of prescribed medicine against amount in the controlled drug cupboard prior to patient entering the room.
2. HCSW (or appropriate other i.e. student nurse or registered nurse) to escort patient to the treatment room as delegated by the registered nurses.
3. Ensure the environment where administration is to take place is clean, tidy and free from interruptions.
4. Confirm the identity of patient following process described in the Safe identification of patients- Policy & procedure (MHS 21) (nhsggc.org.uk)
5. Confirm the patient's allergy status
6. Both practitioners must accurately confirm the Controlled Drug(s) to be administered to patient from the HEPMA system.
7. Unlock and open drug cupboard and controlled drug cupboard door.
8. Both practitioners check the prescription medicine label i.e. medicine name, form, dose and expiry date.
9. Dispense medicine into appropriate receptacle.
10. Ensure both the witness and the administrator witness the patient ingesting the prescribed medicine.
11. Offer water as required.
12. Ensure Ward Controlled Drug Record Book is updated and signed immediately according to who administered and who witnessed the administration.
13. The administrating practitioner then makes a HEPMA system entry to confirm administration of prescribed medicine.
14. If prescribed medicine refused or not given for any reason this must be documented on recording sheet and the responsible doctor informed, if necessary.
15. Ensure area is left clean and tidy.

Procedure for administration outwith the treatment room

1. Both practitioners check Ward Controlled Drug Record Book to reconcile stock balance of prescribed medicine against amount in the Controlled Drug cupboard.
2. Check patient is available within the ward area.
3. Within the treatment room both practitioners must accurately confirm the Controlled Drug(s) to be administered to patient from the HEPMA system.
4. Unlock and open drug cupboard and controlled drug cupboard door.
5. Check the prescription medicine label i.e. medicine name, form, dose and expiry date.
6. Dispense medicine into appropriate receptacle.
7. Both practitioners should then take the medicine, HEPMA laptop and the Ward Controlled Drug Record Book to the area where the patient is.
8. Confirm the identity of patient following process described in the Safe identification of patients- Policy & procedure (MHS 21) (nhsggc.org.uk)
9. Confirm the patient's allergy status.
10. Ensure both the witness and the administrator witness the patient ingesting the prescribed medicine.
11. Offer water as required.
12. Ensure Ward Controlled Drug Record is updated and signed immediately according to who administered and who witnessed the administration.
13. The administering practitioner then makes an appropriate HEPMA entry to confirm administration of prescribed medicine.
14. If prescribed medicine refused or not given for any reason this must be documented on recording sheet and the responsible doctor informed, if necessary.
15. Ensure area is left clean and tidy.

Mental Health Services

Standard Operating Procedure for the Administration of Medicines within <u>In-patient</u> Areas

Service Manager:	Andrew Walker, Lead Clinical Pharmacist, and Lorraine Cribbin, Acting Chief Nurse
Approved by:	Mental Health Clinical Governance Group
Date approved:	February 2023
Date for review:	February 2026
Version:	2

Mental Health Services

Standard Operating Procedure for the Administration of Medicines within Inpatient Areas

Objective

To describe the procedure required for administration of medicines within inpatient Mental Health Services. This Standard Operating Procedure has two streams. These describe the procedure for both a static and mobile medicines trolley.

This should be viewed in conjunction with the following documents:

- NHSGGC Safe and Secure Handling of Medicines in Hospital Wards, Theatres and Departments NHSGGC Procedure for the Use of Patients Own Drugs.
- NHSGGC Symptomatic Relief Policy
- SOP for The Administration of Control Drugs within Inpatient Mental Health Services

Please Note

Medicines may be administered by a sole Registered Nurse providing they have been authorised to do so by the Appointed Registered Nurse or Manager in Charge, except in the following circumstances when two practitioners are required, one as a witness and one to administer the medicine:

- Controlled Drugs
- Insulin
- Complex calculations involved (e.g. two or more separate calculations needed)
- Intravenous medicines (including IV potassium). N.B. a nurse MUST NOT give IV medicines unless they can produce evidence that they have successfully completed IV Administration Training and have been assessed as competent

Note: when two practitioners are involved they must independently check and verify all aspects of the process before jointly administering

The administration of medication (with regards to use of the static or mobile trolley) should be adaptable and responsive to conditions within the ward environment **(e.g. Patient need, resources available, ward environment**) on that day and not default to static as the primary location for administration. However on the main should reflect a patient centred approach to the **task** of medicine administration.

The use of a colleague or 'runner' to take medicine to a patient on behalf of the registered nurse undertaking the medicines administration round is not permitted. If patients are unable to attend the treatment room for medication the mobile medication trolley process described below should be followed or the registered nurse undertaking the medicines administration round should take the medicines to the patient themselves.

Distractions should be minimised while medicines are being selected, prepared and administered.

The administration of non-controlled drugs and controlled drugs should be undertaken separately and administered as consecutive ward rounds.

Student nurses undertaking medicines administration as part of their training must be closely supervised by a registered practitioner.

Patients may only self-administer medicines as part of an authorised self-medication programme and must be appropriately supervised.

All staff involved in the administration of medicines should have knowledge of the medicines involved. This should include normal dosage, side effects, precautions and contraindications.

Preparation for administration of medicines

1. Ensure Equipment required is prepared and ready for use where appropriate. This includes the following:
   - HEPMA system, any supplementary charts and any concurrent prescribing tool (including recording document)
   - Medicine trolley keys
   - Medicine Cups or appropriate receptacle
   - Water and appropriate receptacle
   - Purple apron and/or signage as per NHSGGC No Interruptions Policy
   - Medicine crusher for crushing/cutting tablets where appropriate
   - Current BNF

2. Ensure stock is sufficient prior to commencing medicine procedures

Checking HEPMA record

1. Read the appropriate patients electronic prescription on the HEPMA system carefully
2. For all prescriptions, ensure the following:
   - **Please note** there may be a concurrent prescription tool i.e. detoxification regime or reducing dose schedule
   - Start date
   - Medicine
   - Dose
   - Route
   - Time due
   - Prescriber
   - Allergies

Static Medicine Trolley Procedure

1. HCSW (or appropriate other i.e. student nurse or registered nurse) to escort patient to the treatment room as delegated by the registered nurse.
2. Confirm the identity of patient following process described in the Safe identification of patients- Policy & procedure (MHS 21) (nhsggc.org.uk).
3. Ensure the environment where administration is to take place is clean, tidy and free from interruptions.
4. Where appropriate check patients vital signs are within normal limits.
5. Confirm the patient's allergy status.
6. Unlock and open medicine trolley.
7. Check the prescription medicine label i.e. the name, form, dose and expiry date.
8. Check HEPMA administration history to ensure dose has not already been given.
9. Confirm medication with patient and verify verbal informed consent.
10. Dispense into appropriate receptacle and administer as prescribed.
11. Offer water as required.
12. Observe patient whilst medication is taken.
13. Record on the HEPMA system and (if required) concurrent prescription tool.
14. If prescribed medicine self-administered record clearly**,** including the time of administration.
15. If prescribed medicine refused or not given for any reason this must be documented HEPMA system and the responsible doctor informed, if necessary.
16. Close and secure medication trolley.
17. Ensure area is left clean and tidy.

Mobile Medicine Trolley Procedure

1. Registered Nurse to release medication trolley from wall if taking trolley out of treatment room.
2. The trolley should remain locked until patient is located and the process of administration begins.
3. Confirm the identity of patient following process described in the Safe identification of patients- Policy & procedure (MHS 21) (nhsggc.org.uk).
4. Where appropriate check patients vital signs are within normal limits.
5. Check for allergies.
6. Unlock and open medication trolley.
7. Check the prescription medicine label i.e. the name, form, dose and expiry date.
8. Check HEPMA administration history to ensure dose has not already been given.
9. Confirm medication with patient and verify verbal informed consent.
10. Dispense into appropriate receptacle and administer as prescribed.
11. Offer water as required.
12. Observe patient whilst medication is taken.
13. Record administration on HEPMA system and (if required) concurrent prescription tool.
14. If prescribed medicine self-administered record clearly**,** including the time of administration.
15. If prescribed medicine refused or not given for any reason this must be documented on HEPMA and the responsible doctor informed, if necessary.
16. Close and secure medication trolley.
17. Ensure area is left clean and tidy.

NHS Greater Glasgow & Clyde
Mental Health Services

Community Lithium Bundle

Lithium is a useful drug, particularly in the maintenance treatment of bipolar affective disorder, recurrent depression and self-injurious behaviour. Most patients prescribed lithium are looked after by community teams. Lithium has a narrow therapeutic index, with a significant potential for toxicity, careful monitoring is required for safe use. If lithium treatment is not managed properly there is a potential risk of significant harm.

This document recommends evidence based interventions for use in community services that will enhance lithium patient safety. This bundle is intended to support community teams to comply with the Good Practice Guidelines (nhsggc.org.uk)

The document consists of the following elements

1. Key Lithium Facts – to provide staff with a basic understanding of lithium treatment
2. Effective Lithium Care Planning – to support the development of appropriate care plans
3. EMIS lithium review template – a dataset describing the elements of an EMIS template to record lithium reviews
4. Risks and significant drug interactions
5. Patient, carer & staff education
6. Information sources
7. Self-audit tool
8. Appendices

How to use this bundle

1. Discuss and issue key facts document to staff
2. Do a baseline self-audit to identify local lithium quality improvement targets
3. Develop a local plan to include lithium as a need within individual care plans
4. Ensure care plans include all the elements described in this bundle
5. Utilise the lithium review checklist
6. Repeat the self-audit every 12 months

Version 1 February 2023
Review date: February 2025

Key Facts – Lithium:

1. A very useful drug used to stabilise mood, manage treatment resistant depression and help self-injurious behaviour.

2. Brands are not interchangeable. Medicines reconciliation should identify the brand of lithium the patient is taking. Patients should remain on the same brand. When prescribing please state brand name and generic name in brackets e.g. PRIADEL (LITHIUM CARBONATE). Advice on converting tablet to liquid please see page 6.

3. Has a narrow therapeutic index i.e. the dose required for a therapeutic effect is often not much lower than the dose that will cause a toxic effect. The risk of toxicity is increased by reduced kidney excretion of the drug causing increased blood serum levels. This can be caused by a variety of factors;
    - Dehydration
    - Deterioration of kidney function
    - Infections
    - Co-administration of interacting medications e.g. diuretics, or anti-inflammatory analgesics (ibuprofen, naproxen)

    If toxicity is suspected take a level immediately and withhold the dose until level confirmed.

4. Serum blood levels of lithium should be checked;
    - 5- 7 days after a dose change has been prescribed
    - If patients become physically unwell
    - In stable patients on a 3 monthly basis
    - If there is any suspicion of toxicity a level should be taken immediately, regardless of when the last dose was taken

    Routine levels should be taken 12 hours after the last dose. Renal function, thyroid function, calcium levels and weight should be checked every 6 months (Good Practice Guidelines (nhsggc.org.uk)). ECG should be checked annually if clinically indicated

5. Serum concentrations:

    - > 1.0mmol/L may have potentially serious adverse effects
    - > 1.5mmol/litre may be fatal and require immediate medical treatment.

Early clinical features of toxicity are non-specific and may include apathy and restlessness which may be confused with a patient's underlying mental state. Other symptoms include;

- Vomiting/diarrhoea
- Loss of appetite
- Confusion, slurred speech, abnormal drowsiness/sluggishness
- Severe tremor or twitching
- Muscle weakness
- Blurred vision, ringing in the ear
- Dizziness/loss of balance, clumsiness

For more information contact a senior clinician or clinical pharmacist.

Effective Lithium Care planning

The safe use of Lithium is an identified care need for patients receiving this treatment. All patients using lithium should have a person centred care plan for this.

Elements of an effective care plan:

1. Routine monitoring

   - Care plans should contain details of the monitoring schedule for each patient.
   - CMHTs must have a system of recording and reporting to key workers and medical staff lithium level results received over the telephone. This should include proactive follow up of pending results. All staff must be aware of the importance of communicating this information.
   - CMHTs must have local systems in place to follow up and review patients who fail to attend routine monitoring appointments

2. Managing side effects and preventing toxicity

   - Care plans should encourage the use of the lithium side effect checklist (Good Practice Guidelines (nhsggc.org.uk)) which is also available as a template within EMIS
   - Care plans should promote awareness of and proactive assessment for the causative factors leading to lithium toxicity.

3. Patient & carer education

   - Care plans should detail the regular assessment of patients' educational needs and information provided.
   - Care plans should detail, where appropriate, an assessment of carers' educational needs and information provided.

4. Communication

   - Care plans should identify communication pathways necessary to promote effective information sharing with GPs, other CMHTs and/or hospital wards. (See template letter appendix 1)

   The information to be shared across interfaces includes

   - Lithium brand and dose
   - Last lithium level results
   - Target lithium levels
   - Results of physical health monitoring
   - Compliance with treatment
   - Dates of next routine monitoring

EMIS lithium review checklist (appendix 2)

This checklist, which can be found as a template on EMIS, is designed to support the safe use of lithium treatment and should be completed whenever a patient on lithium is seen or reviewed. All CMHT patients prescribed lithium must have the following warning added to their EMIS record '**On lithium treatment**'.

Action items:

1. **Care planning –** lithium has been identified as a need within the care plan.
2. **Level monitoring –** an initial lithium level is taken (as a 12 hour trough) 5 -7 days after starting treatment and a plan for on-going monitoring has been established. This will include appropriate monitoring after any dose change or where there is a suspicion of toxicity or a worsening in the patient's physical health.
3. **Education –** appropriate education and appropriate written information on lithium is available for patients, carers and staff.
4. **Potential drug interactions –** any existing drugs with significant potential for interaction are reviewed e.g. NSAIDs, ACE inhibitors, Diuretics.
5. **Side effect monitoring –** a systematic approach to lithium side effect monitoring has been established and monitored through the care plan and reported to the MDT. The side effect check list in the Good Practice Guidelines (nhsggc.org.uk) is recommended.
6. **Compliance –** with treatment is assessed every 6 months.
7. **Physical health care –** all relevant physical health monitoring for lithium patients described in the Mental Health Services Physical Health Policy is undertaken.
8. **Communication** – appropriate communication with GPs is provided in a timely fashion.

Risk factors and significant drug interactions

Lithium toxicity is a medical emergency. Causative risk factors include

- Dehydration – reduced fluid intake or increase fluid output (excessive urination, sweating, vomiting, diarrhoea)
- Deterioration in renal function (age)
- Infections
- Co-administration of interacting medicines

Staff in CMHTs should be vigilant for risk factors and drug interactions at every clinical contact. Details of medicines issued to patients by GPs can be found in the Emergency Care Summary (ECS) within the Clinical Portal. Patients should be asked about use of medicines they purchase over the counter.

The following list of drugs are commonly associated with a risk of toxicity due to reduce renal lithium clearance

- Non-steroidal anti-inflammatory drugs (NSAIDs) e.g. ibuprofen, diclofenac, naproxen
- Thiazide or related diuretics e.g. bendroflumethiazide
- Angiotensin Converting Enzyme (ACE) inhibitors e.g. enalapril, lisinopril, ramipril
- Angiotensin- II receptor antagonists e.g. candesartan, losartan
- Loop diuretics e.g. furosemide

- Potassium-sparing diuretics & Aldosterone antagonists e.g. spironolactone
- Metronidazole

Converting Priadel tablets to liquid

It is sometimes appropriate to convert patients stabilised on Priadel tablets to an equivalent dose of Priadel liquid. A 200mg of Priadel tablet is approximately equal to 5mls of Priadel liquid. Priadel liquid doses should be given twice a day. E.g.

To convert a patient prescribed Priadel 800mg as tablets they would switch to 10ml twice a day of Priadel liquid.

Patient, carer & staff education

Patients' information needs should be reviewed on an annual basis and appropriate information provided using the resources listed below.

The information needs of carers, where appropriate, should be reviewed on a regular basis and appropriate information provided using the resources listed below.

The Lithium Patient Information Standards (nhsggc.org.uk) should be followed

Resources for patient & carer information

NHS GG&C leaflet - Information for patients about Lithium (available from Leverndale Pharmacy)
www.choiceandmedication.org/nhs24/
http://www.birmingham.ac.uk/Documents/college-les/psych/ld/medicine-information/Lithium.pdf

Resources for staff education

Staff in CMHTs should have an understanding of the key points regarding lithium treatment.

Pharmacy education sessions – available on request for teams

MyPsych website

MyPsych App available on App store or Google Play

Produced by Mental Health Prescribing Management Group

February 2023

Community Bundle Audit Criteria

The following criteria should be audited by community teams on an annual basis

Criteria	Standard
EMIS alert	100%
Nursing care plan includes lithium	100%
Care plans include a detailed monitoring schedule	100%
Patient lithium educational needs are assessed annually	100%
Education provided is recorded on EMIS	100%
Lithium side effects assessed at every clinical contact	100%
Potential drug interactions assessed at every clinical contact	100%
Compliance is assessed every 6 months	100%
Physical health needs are assessed as per the NHS GG&C policy	100%
Robust communication across interfaces is in place	100%

CMHT:		**Number of patients prescribed lithium**		
Criteria	**Standard**	**Yes**	**No**	**Percentage**
EMIS alert	100%			
Nursing care plan includes lithium	100%			
Care plans include a detailed monitoring schedule	100%			
Patient lithium educational needs are assessed annually	100%			
Education provided is recorded on EMIS	100%			
Lithium side effects are assessed at every clinical contact	100%			
Potential drug interactions are assessed at every clinical contact	100%			
Compliance is assessed every 6 months	100%			
Physical health needs are assessed as per the NHS GG&C policy U&Es Thyroid function ECG (if indicated) Calcium Weight/BMI Reproductive status	100%			
Robust communication across interfaces is in place	100%			
Audit completed by:			**Date:**	

Bundle short life working group members

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NHS Greater Glasgow & Clyde
Mental Health Services

Appendix 1

Lithium Clinic Report

Enter relevant location Address

Health & Social Care Partnership Tel:

Dear Dr..... Date:.....

Patient:	**CHI:**

Was seen at the lithium clinic/Bipolar Hub on.....

- Current dose is.....
- No changes.
- Change to .....

(Complete or delete as appropriate)

Test	**Results**	
	Date:	
Lithium level (& target range)		Comments
U&Es	Normal or abnormal (please delete)	
Renal fucntion	Normal or abnormal (please delete)	
Thyroid	Normal or abnormal (please delete)	
Calcium	Normal or abnormal (please delete)	
Weight		
BMI		
Interacting drugs		

(Please enter any advice/requests or relevant information here)

Yours sincerely

Appendix 2

Lithium Review Checklist

This checklist is designed to support the safe use of lithium treatment and should be considered at every review for patients prescribed lithium. Only the pertinent elements of the check list need be reviewed at each review

Enter date of Review meeting: *DD / MM / YYYY*

Current lithium preparation & dose

Last lithium level

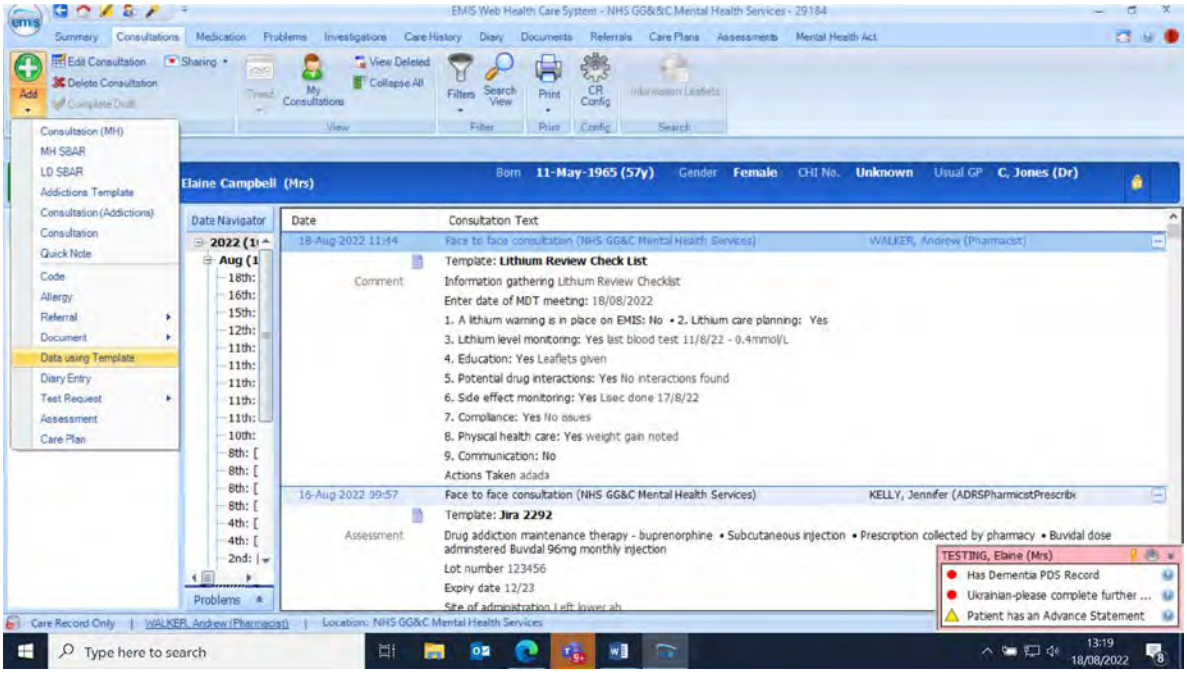
Action items:

	At this review:	Yes	No
1.	**A lithium warning is in place on EMIS** – every patient prescribed lithium should have the following warning 'On lithium treatment' added to their EMIS record for as long as they remain on treatment.		
2.	**Lithium care planning** –lithium has been identified as a need within the care plan.		
3.	**Lithium level monitoring -** an initial lithium level is taken (as a 12 hour trough) 5 -7 days after starting lithium and a plan for on-going monitoring has been established. This will include appropriate monitoring after any dose change or where there is a suspicion of toxicity or a worsening in the patient's physical health.		
4.	**Education –** appropriate education and appropriate written information on lithium is available for patients, carers and staff.		
5.	**Potential drug interactions –** any existing drugs with significant potential for interaction are reviewed e.g. NSAIDs, ACE inhibitors, Diuretics.		
6.	**Side effect monitoring –** a systematic approach to lithium side effect monitoring has been established and monitored through the care plan and reported to the MDT. The side effect check list in the Safe Lithium Treatment Good Practice Standards is recommended.		
7.	**Compliance –** with treatment is assessed every 6 months.		
8.	**Physical health care –** all relevant physical health monitoring for lithium patients described in the Mental Health Services Physical Health Policy is undertaken.		
9.	**Communication** – appropriate communication with GPs is provided in a timely fashion.		

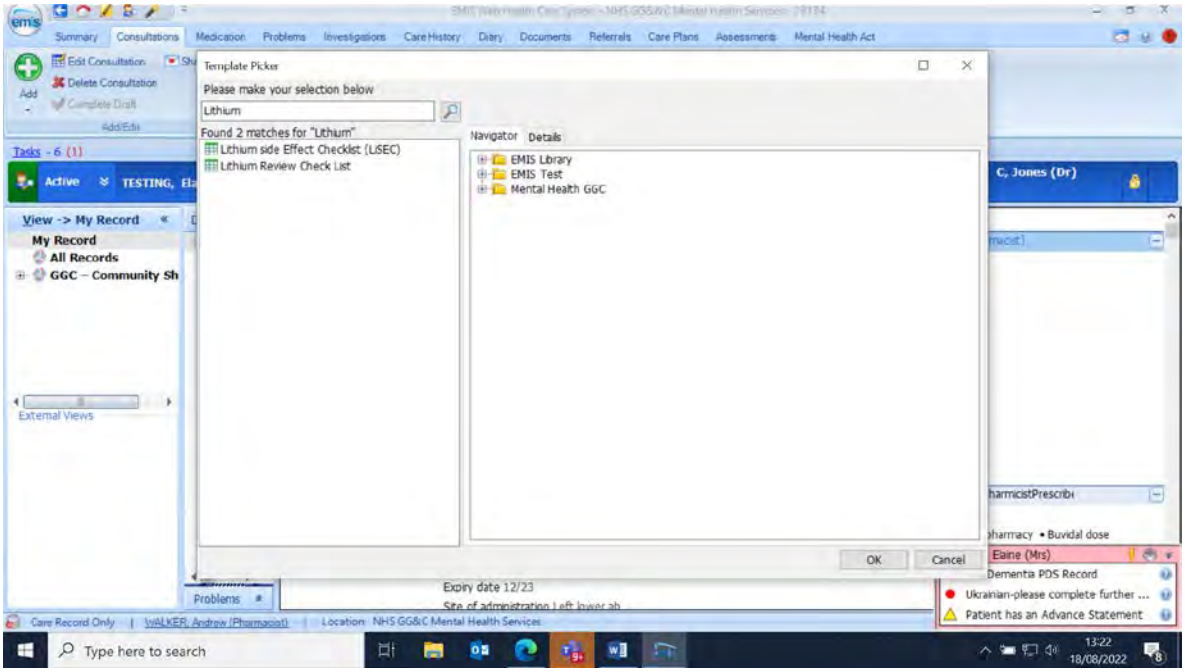
Note an electronic version of this template is available on EMIS.

EMIS template screenshots

In the consultation click the ‘Add’ dropdown under the green button then click ‘Data using Template’



Type lithium into the search box and click the magnifying glass



Select the template you want then click ok. It will open up and should be self-explanatory after that.

Procedure for Ordering Pass Medication within Greater Glasgow & Clyde Mental Health Services and Associates HEPMA Update

Important Note:

The Intranet version of this document is the only version that is maintained.
Any printed copies should therefore be viewed as 'Uncontrolled' and as such, may not necessarily contain the latest updates and amendments.

Document Number:	**MHS 37b- Ordering Pass Medication (HEPMA)**
Lead Manager:	**MH SUM Group**
Responsible Director:	**Nurse Director Partnerships & Lead Associate Medical Director**
Approved by:	**MH Quality & Clinical Governance Group**
Date approved:	August 2022
Date for Review:	August 2023
Replaces previous version: [if applicable]	

Revision/Amendment Information

Please record brief details of the changes made alongside the next version number. If the procedural document has been reviewed **without change**, this information will still need to be recorded although the version number will remain the same.

Version	Date	Brief Summary of Changes	Author(s)
2	July 2018	Scope broadened in keeping with other guidance. Reference and link added to MRG14. Pharmacy added to staff group who can authorise passes. Noted added that forms are in pdf format. Reference and link added to NHS GG&C Faxing Policy. Medical prescriber replaced by appropriate prescriber for who can write CD prescriptions. Pass request form updated	MHS SUM group
3	July 2022	Updated to reflect HEPMA introduction	MHS SUM group

Procedure for Ordering Pass Medication

Scope

This procedure is intended for use by all registered nursing staff and prescribers working within NHS GG&C Mental Health Inpatient settings, including Adult, Older Adult, Learning Disability, Addiction and Forensic Mental Health Inpatient Settings.

Procedure

With appropriate planning, all pass medication can be ordered, dispensed and delivered to wards for patients on time. In exceptional circumstances, if necessary and outwith pharmacy hours, passes may be dispensed from ward stock following procedures outlined in MRG 14 Dispensing outwith pharmacy hours

Step 1

Staff from the multi-disciplinary team will document in EMIS the duration of the pass plus any requirement for 'as required' medication.

Step 2

Complete the first two sections of the pass medication request form in full. As this is simply a request to supply individually labelled medicines for a patient for the period of their pass this may be done by nursing, pharmacy or medical staff.

- The details of any 'as required' medication i.e. the medicine name and number of doses should be clearly written on the 'as required/special instructions' section of the request form. Special instructions might also include requests for a compliance device if previously agreed with pharmacy.
- If the pass is to be repeated, a new pass medication request form will need to be completed for each episode of leave (common for Learning Disability and Forensic patients).
- **The nurse, pharmacist or doctor completing the form must sign and date the 'Signature/date' part of the second section of the request form.**
- If any of these details are not included, pharmacy will not dispense the pass prescription.

Note:
Pass Medication Request Forms will not be available as pre-printed stationary. They are 'pdf' files and should be printed off for use when required.

Step 3

When sections 1 & 2 of the Pass Request Form have been completed, the form ***should be scanned and emailed to the* appropriate generic pharmacy email address *(e.g. Leverndale.Pharmacy@ggc.scot.nhs.uk.).*** Where there is an onsite dispensary, the form may be taken to pharmacy.

Step 4

Pharmacy staff will access HEPMA and print of the MAC to dispense the prescriptions.

Pharmacy will dispense the patient's medication and complete in full the pharmacy section of the Pass Medication Request Form.

Step 5
The dispensed pass medication and a copy of the completed form will be returned to the ward. Upon receipt in the ward they should be stored appropriately until required by the patient.

Step 6
Prior to issuing the pass medication to the patient, a qualified nurse must check the contents of the pass supply against the Pass Medication Request Form and the HEPMA prescription. The purpose of this check is to pick up any dispensing errors or identify any changes to the patient's prescription that may have taken place since the pass was ordered. Any discrepancies must be notified to pharmacy immediately and if necessary, a new pass medication request ordered using the procedure above. If everything is correct the nurse must sign and date section 4 of the form.

Step 7
On handing the pass medication supply to the patient or their representative a signature must be obtained. This is a requirement on the NHS GG&C Safe & Secure Handling of Medicines Policy. The Pass Medication Request Form should then be filed appropriately in the patient's notes.

A HEPMA user with appropriate permissions should suspend all meds using 'All Orders' in 'InpatientRx', selecting 'Short Term Leave' as the reason. If a patient has had a drug suspend for clinical reasons before going on pass add a patient note saying, 'Patient on pass {add name of the drug} suspended for clinical reasons prior to pass, review by doctor on return'.

Section 4 in request form should be completed to confirm that medications have been suspended.

Upon the patients return, 'All Orders' should be used to resume all meds. However, this will resume all medicines including any which may have been previously suspended for clinical reasons. Therefore, if this applies ask a doctor to review the relevant medicine when the patient returns.

Exceptions

1. Controlled Drugs – The system above may be used for any non CDs on the patient's prescription. However, CDs required for the pass must be ordered on a separate prescription, compliant with the relevant legislative requirements and written by an appropriate prescriber.
2. Local policy must be followed for any passes dispensed out with normal pharmacy hours.

The current system for discharge prescriptions will remain unchanged.

PASS MEDICINES REQUEST FORM

Section 1				
Patient's Name		CHI (10digits):		(Address Label)
Ward/Hospital:		RMO:		

Section 2 Pass Information

PASS DATE FROM: Date: ……Time: …….

TO: Date: …… Time: …….

If prescription to be repeated please state how often: ……

Compliance device required:

'As required' Medicine/Special Instructions:

1.

2.

3.

Authorised signature	**Name**	**Designation**	**Date**

Section 3 Pharmacy (to be completed by pharmacy)

Medicines Supplied

	Brand, strength & quantity dispensed		***Brand, strength & quantity dispensed***

Dispensed by: …….. Checked by : ……..……Date: ……..

Section 4: Checked and issued from ward by

Name: Designation:

Date: **Meds suspended on HEPMA:**

Patient/representative signature: ……

NHS Greater Glasgow & Clyde
Mental Health Services
Prescribing Management Group

Guidance for use of olanzapine embonate long acting injection (Zypadhera) in GGC

1. Background

Olanzapine Long Acting Injection (Zypadhera®) is indicated for the maintenance treatment of adult patients with schizophrenia whose condition has been sufficiently stabilised during acute treatment with oral olanzapine and who have been assessed as having adherence problems with long-term oral medication.

Olanzapine LAI has a side effect profile similar to oral olanzapine but does carry a small but significant risk of post-injection syndrome, therefore patients must be monitored in a healthcare facility by an appropriate healthcare professional for 3 hours after the administration of each injection.

2. Scope

This guideline gives advice to prescribers and other healthcare professionals on the use of olanzapine embonate (LAI) and appropriate monitoring of patients following administration.

3. Before prescribing

- Olanzapine LAI has not been accepted for use by the Scottish Medicines Consortium (SMC) therefore is non-formulary. Requests will be considered by the Prescribing Management Group for Mental Health (PMG-MH). PMG-MH authorization through the Peer Approved Clinical System (PACS2) is required prior to prescribing
- Consideration must be given to which healthcare facility the patient will receive the injection (both in the short and longer term). There must be clear communication and agreement with community services that there is adequate measures in place for future administration
- If the patient is subject to a Compulsory Treatment Order under the Mental Health (Care&Treatment) (Scotland) Act 2003, olanzapine LAI must be specified on the T2/T3B form
- Clinical considerations – for further prescribing information please refer to the most up to date summary of product characteristics for Zypadhera®
- Patient criteria:
    - A medication history should be completed by pharmacy to ensure the patient meets the criteria for use of olanzapine embonate LAI i.e. the patient must require treatment with depot medication and previous trials of both a typical depot and Risperidone OR Paliperidone OR Aripiprazole LAI must have been unsuccessful
    - Must have a history of response and tolerability to oral olanzapine
    - Must be advised of the risk of post injection syndrome, information leaflet available on choice and medication

Approved by PMG(MH) February 2022
Review date February 2025

- Due to the risk of post injection syndrome, they must be advised of the need for them to be observed in a healthcare facility for three hours after each injection

4. Dose

Target oral olanzapine dose	Recommended starting dose of ZYPADHERA	Maintenance dose after 2 months of ZYPADHERA treatment
10 mg/day	210 mg/2 weeks or 405 mg/4 weeks	150 mg/2 weeks or 300 mg/4 weeks
15 mg/day	300 mg/2 weeks	210 mg/2 weeks or 405 mg/4 weeks
20 mg/day	300 mg/2 weeks	300 mg/2 weeks

In renal or hepatic impairment, a lower starting dose should be considered (e.g. 150mg every 4 weeks).

5. Administration

Olanzapine LAI should only be administered by deep intramuscular gluteal injection by a healthcare professional trained in the appropriate injection technique.

All staff involved in the administration must undertake the training resources available on the Zypadhera® website (registration required). A signed and dated printed copy of the company training material should be returned to their manager to confirm completion.

Once reconstituted, olanzapine LAI should be used immediately. However, if not used right away it will retain efficacy for up to 24 hours at room temperature and will re-suspend if shaken vigorously. Any olanzapine LAI that has been reconstituted for longer than 24 hours must be discarded.

6. Monitoring

Pre-administration

It should be confirmed that the patient is alert and does not appear sedated prior to administering olanzapine LAI.

Temperature, pulse, respiratory rate (TPR) and blood pressure (BP) are required to be monitored and recorded on a NEWS observation chart/EMIS prior to each administration of olanzapine LAI.

Post-administration

After **each** injection, patients should be observed in a healthcare facility by appropriately qualified personnel for at **least 3 hours** for signs and symptoms consistent with olanzapine post injection syndrome.

After administration, the patient must be checked **every 15 minutes for the first hour**, thereafter, **every 30 minutes for a further 2 hours**. The patient's level of consciousness and orientation to time and place should be assessed and ensure they are not displaying any symptoms of post-injection syndrome (see section 7). This should be recorded after each administration on the observation record chart (appendix 1) and an entry made within the patients EMIS record.

After 3 hours, post-injection syndrome is unlikely to occur. Out-patients may be allowed to return home if:

- It is confirmed that the patient is alert, orientated and absent of any signs and symptoms of post injection syndrome
- They travel to their destination accompanied by someone
- They know they must not drive or operate machinery for the rest of that day

7. Post-injection syndrome

- Post-injection syndrome is related to excessive olanzapine plasma concentrations caused by unintended partial intravascular injection and occurs in a small number of people (less than 1 in 1400 injections), even with appropriate injection technique
- Median time to onset of symptoms within 25 minutes
- Post-injection syndrome is seen within one hour of injection in 80% of cases
- If post-injection syndrome is not evident within one hour, it rarely occurs within 1 to 3 hrs (less than 1 in 7000 injections) and very rarely after 3 hours (less than 1 in 10000)
- In all cases full recovery was reported to have occurred within 24 to 72 hours after the injection
- For further information on the treatment of olanzapine overdose refer to the Toxbase database (log in required)

Symptoms of post-injection syndrome are consistent with olanzapine overdose and typically include:

- Sedation (ranging from mild to severe)
- Delirium (disorientation and cognitive impairment)
- Confusion
- Dysathria (slurred speech)
- Ataxia
- Agitation
- Anxiety
- Hypertension
- Dizziness
- Movement disorders or EPSE
- Seizure activity

If the patient displays any symptoms of post-injection syndrome, medical advice should be sought immediately and vital sign monitoring commenced:

Temperature, pulse, respiratory rate, oxygen saturations and blood pressure should be monitored every 15 minutes for 90 minutes after symptoms of post-injection syndrome develop. Thereafter, monitor these signs every 30 to 60 minutes until symptoms resolve.

Medical staff should determine where the most appropriate setting for continued monitoring is.

Trigger points for concern may include:

- Progressive sedation levels with reduced consciousness
- Respiratory rate reduction to 10 breaths/minute
- Irregular or slow pulse < 50/min
- Rapid pulse increase
- Fall in BP < 80mm Hg systolic or < 50mm Hg diastolic
- Increased temperature
- Development of cyanosis

If post-injection syndrome occurs:

- Immediately call for medical assistance
- Dial 999
- Give supportive care
- A&E staff should be informed of the olanzapine LAI administration

If parenteral benzodiazepines are essential for the management of post injection adverse reactions, careful evaluation of clinical status for excessive sedation and cardiorespiratory depression is recommended.

NHS Greater Glasgow & Clyde
Mental Health Services
Prescribing Management Group

Appendix 1- Olanzapine LAI Observation Record Chart (please complete for each administration)

Patient Name: _____ CHI: _____
Date and Time of Administration: _____
Ward: _____

Pre-injection

Patient alert and ambulatory (able to walk about) YES/NO
Temperature, pulse, respiration rate and blood pressure documented on NEWS chart/EMIS YES/NO

Post- Injection

Time	Conscious level (see below)	Orientated to time/place: Y/N	Post Injection Syndrome – signs / symptoms. See below. Y / N	Staff signature
Pre-injection				
15 mins				
30 mins				
45 mins				
1 hour				
1.5 hours				
2 hours				
2.5 hours				
3 hours				

Conscious level assessment:

1. Awake and active
2. Awake but calm
3. Asleep but rousable
4. Asleep and unrousable

Post injection syndrome – Signs and Symptoms:

- Delirium (Confusion, aggression, agitation, anxiety, disorientation)
- Extrapyramidal side effects, cramps in extremities
- Difficulty with tongue or lip movements or slurred speech. Difficulty with balance, walking, speaking, swallowing, eating or seeing
- Weakness / Dizziness
- High blood pressure or seizure activity

For any patient who scores 4 on the conscious level assessment or who shows signs/symptoms of Olanzapine Post Injection Syndrome, call 999 immediately. For non-urgent concerns contact on-call/duty doctor.

Approved by PMG(MH) February 2022
Review date February 2025

NHS Greater Glasgow & Clyde
Mental Health Services

Procedure for Ordering and Reconciling PGDs

The following procedure has been developed to support the ordering and reconciliation of the three newly developed PGDs for the Mental Health Assessment Units and the Community Mental Health Acute Care Services:

1. Diazepam
2. Zopiclone
3. Promethazine

The PGD stock must be ordered using this procedure and stored in safe storage.

Ordering procedure

1. Teams should only keep a minimal stock for PGDs, sufficient to meet the needs of their patients.
2. PGD stock must be ordered on a separate pharmacy requisition (indent) from other (non-desirable) medications
3. The indent should be sent or scanned and emailed to Leverndale hospital pharmacy for dispensing, the original indent should be sent to pharmacy marked 'sent by email' with the date and time, as soon as possible.
4. Pharmacy will dispense the required item(s) provided all the requirements on the indent are correct. If they are not, the team will be contacted to request that the indent be corrected.
5. Once dispensed, the medication will be sent to the team with the delivery note. A registered nurse must check the drugs received against this delivery note and the team copy of the original indent. If everything is correct, they should sign the 'Received by' section of the indent and delivery note and file them appropriately. If there are any discrepancies with the order, staff should contact pharmacy immediately.

Reconciliation

1. If PGD stock is no longer required by a team, contact Leverndale pharmacy who will advise whether it can be reused elsewhere, returned to pharmacy or destroyed by a member of pharmacy staff in the presence of a registered nurse
2. All teams must reconcile ward stock for PGDs once a day by completing the attached Appendix 1, 'PGD Reconciliation Form'. These forms once completed should be kept by the team for 3 months and then discarded. The reconciliation process will involve two registered nurses (or 1 registrant and a suitable competent student nurse, accountability lies with the registrant) physically counting the stock and maintaining a running balance. Any discrepancies found must be reported to the Team Lead/Senior Charge Nurse and Lead Nurse as soon as possible. Out of hours the appropriate Response nurse / page holder should be contacted. A Datix report should be completed at ward level.
3. If any drugs are dropped or unusable for any reason, they should be recorded on the reconciliation form and then immediately destroyed. This must be witnessed by two members of registered staff.

4. The Senior Charge Nurse should reconcile and check the 'PGD Reconciliation Form' on a weekly basis and ensure that correct procedures are being followed.
5. This procedure will be subject to regular audit and review.

Mental Health Safer Use of Medicines Group

August 2022

NHS Greater Glasgow & Clyde
Mental Health Services

Appendix 1 **PGD Reconciliation Form**

Medication ……
(Name, strength and form. Use a separate sheet for each preparation)

Day	Date	Time	Quantity Received	Quantity Issued	Balance	CHI	Checked by SIGN	Checked by PRINT	Witnessed by SIGN	Witnessed by PRINT

NHS Greater Glasgow and Clyde

NHS GG&C - Mental Health Services

Policy & Procedures for the Safe Identification of Patients

Important Note:

The Intranet version of this document is the only version that is maintained.
Any printed copies should therefore be viewed as 'Uncontrolled' and as such, may not necessarily contain the latest updates and amendments.

Document Number:	**MHS 21**
Lead Manager:	**A Walker, MH SUM Group**
Responsible Director:	**Lead Associate Medical Director**
Approved by:	**MH Quality & Clinical Governance Group**
Date approved:	August 2022
Date for Review:	August 2025
Replaces previous version: [if applicable]	2.0

Policy & Procedure for the Safe Identification of Patients

Please record brief details of the changes made alongside the next version number. If the procedural document has been reviewed **without change**, this information will still need to be recorded although the version number will remain the same.

Version	Date	Brief Summary of Changes	Author(s)
1.0	April 2015	First edition	A Walker
2.0	April 2018	Positioning of introduction and policy statement swapped. Policy statement strengthened to make the use of a clear system mandatory. CHI number added to templates for characteristics and photo labels. The requirement to have an auditable system added to section 6 –verbal confirmation	A Walker
3.0	August 2022	Updated to reflect HEPMA introduction	A Walker

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1. Introduction & Background

The correct identification of patients is necessary for core tasks associated with the provision of safe and effective care within health services. Within general hospital inpatient services, the wearing of an identification wristband assists in identification of patients and is considered standard practice by both healthcare staff and patients. However, in mental health services, the wearing of such wristbands has never been fully established, nor is it considered wholly appropriate or culturally acceptable for all patients/clients. Consequently, there are particular risks associated with the correct identification of patients in a number of situations for example, in the administration of medicines. A commonly reported adverse events reported in the Datix incident reporting system are errors in which medicines have been given to the wrong person. The primary purpose of this policy is to reduce the risk of medication errors and thereby increase patient safety.

This document describes a number of alternative options services may consider using to establish a patient's identity prior to the administration of medicines. Each clinical area should agree and implement the methods they are going to use.

2. Policy Statement

This policy sets out to ensure that:

- Each clinical area across GG&C Mental Health Services agrees and records their procedure for the recording a patient's identity to support safer medicines administration.
- All clinical areas have a robust and auditable system in place to ensure that all clinical staff effectively establish the patients' identity. **This formal process for establishing a patient's identity must be followed by all staff when administering medication.**
- To reduce the risk of medication errors and thereby increase patient safety.
- All staff governed by the GG&C Mental Health & Learning Disability Services and HSCPs accurately establish the patients' identity prior to administering every dose of medication.

All staff involved in administering routine medication must be aware of and apply this policy and relevant professional bodies (NMC, GMC etc) guidance in relation to the administration of medicines.

3. Scope

This policy is applicable to all inpatient mental health services across NHS Greater Glasgow & Clyde Mental Health & Learning Disability Services and should be adopted within community settings where necessary. **This policy does not apply to the Prison Service or Police Custody suites.**

This policy must be applied in conjunction with:

- Adults with Incapacity (Scotland) Act (2000) part 5, Authority to Treat
- Mental Health (Care And Treatment) (Scotland) Act 2004
- NHS Greater Glasgow & Clyde (2008) Safe & Secure Handling of Medicines
- NHS Greater Glasgow And Clyde (2017) Consent Policy On Healthcare Assessment, Care and Treatment
- NHS Greater Glasgow And Clyde (2009) Caldicott, Confidentiality and Data Protection
- NHS Code Of Practice on Protecting Patient Confidentiality
- NHS Greater Glasgow And Clyde (2009) Information Governance Policy

NHS Greater Glasgow and Clyde (2011) Photography & Video Recordings of Patients for Clinical and Service Use

4. Consent

Before taking a photograph of any patient consent must be given and recorded with in the patient's record.

5. Procedure

This policy requires each clinical area to adopt one of the standard auditable methods of confirming a patient's identity prior to the administration of medicines listed below.

1. **Photographic identification**
2. **Wristbands**
3. **Physical characteristics labels**
4. **Verbal Verification (must be used in conjunction with methods 1 – 3 above)**

Each ward/department/area **must** determine which primary option(s) best suits their situation and then develop a system in line with this policy and procedure to ensure that this option is routinely practiced within the area/ward/department. The principle of **EVERY PATIENT EVERY TIME** applies.

With the introduction of HEPMA there is no paper prescription sheet and photographs therefore will be uploaded as an image added to a patient note within the HEPMA system (Appendix 2)

5.1 Information and Consent

Where services choose to adopt the use of photographic identification, staff members will

- Explain to patient the purpose and use of the photograph i.e. to assist in the safe identification of patients during administration of medicines, missing person procedure (not relevant to community)
- Seek the patient's consent for the photograph to be taken and make a record of this in their case records.
- In instances where a patient lacks capacity to consent, consider the use of Adults with Incapacity (Scotland) Act (2000).

5.2 Taking the Photograph and Securing to Relevant Documentation

After explaining the purpose and uses of the photograph the staff member will take a 'head and shoulder' photograph of the patient using the digital camera.

The staff member will ensure the following:

(a) The patient removes any hat or other garments/items, which may partially or fully obscure their face in a photograph.

(b) The photograph is taken in an area away from other patients or visitors

(c) The photograph is taken with a blank wall or self-coloured curtain as a background (if possible)

The staff member will check the photograph on the camera viewer to ensure that the image is clear and recognisable. The image will then be added to the patient's HEPMA record as described in appendix 2. Once added to the HEPMA system, the camera memory card and computer files must be cleared immediately.

5.3 Change in Patient's Appearance - Retaking Photograph
If the patient has a significant change in appearance for example weight gain or loss, change of hair colour, a new photograph should be taken, with their consent. The reason for taking a new photograph should be discussed with the patient and consent should be sought again.

In instances where the patient refuses to give further consent, an alternative method such as recording the patient's characteristics should be used and recorded as outlined below.

5.4 Patient Confidentiality - Storage of Records
Once the photograph has been secured to the care Record and prescription sheet it forms part of the patient record and will be treated with the same level of confidentiality as other medical records.

5.5 Photographic Identification Not Suitable
There may be instances where a patient is unwilling to remove garments/items, which may obscure their face, and therefore the use of photography will not aid in the positive identification of the individual. In this circumstance or in instances where the patient does not give consent for a photograph to be taken the staff member will record that the patient has been unwilling to consent to a photograph and where possible give a reason.

5.6 Procedure for Patient Identification Wristbands
In wards where this is deemed to be the preferred method of safe patient identification the patient's identification band must be applied on admission to hospital, or once the patient has entered a department for treatment.

There are three core identifiers that uniquely identify a patient when used in combination. These three core identifiers **must** be included on the wristbands of all patients:

1. First Name
2. Last Name
3. CHI Number

5.7 Procedure for adding Physical Characteristic description as a patient note in HEPMA
To add a note describing the patient's physical characteristics take the following steps:

- Open the patient record on HEPMA and click on the 'PATIENT NOTES' section.
- Add a new note with appropriate title and select 'Note to appear when charting' as the note type.
- Enter the details below as note:
    - Patient's name
    - CHI number
    - Eye colour
    - Hair colour
    - Height
    - Build
    - Distinguishing marks
    - Ethnic origin

6. Procedure for verbally confirming Identity

Before administering medication on each occasion staff should ask the patient to confirm their name and date of birth. The registered nurse should check that this information corresponds with the prescription sheet in front of them. If it does not medicines should not be administered until the identity of the patient can beconfirmed.

If a relative/carer or significant other is collecting medication, for example clozapine, on a patient's behalf then staff should ask them to confirm the patients name and date of birth.

REGARDLESS OF THE METHOD CHOSEN BY A TEAM TO CONFIRM A PATIENT'S IDENTITY THE PRINCIPLE OF EVERY PATIENT EVERY TIME WILL APPLY.
i.e. when staff administer medication they are required to use an auditable system to formally identify each patient every time.

Appendix 1

ADULTS WITH INCAPACITY
(SCOTLAND) ACT 2000

Certificate of Incapacity under Section 47 of the Adults with Incapacity (Scotland) Act 2000

I _____ (name)

of _____ (address)

*am the medical practitioner primarily responsible for the medical treatment of; or

*am a person who is *a dental practitioner/an ophthalmic optician/a registered nurse and who satisfies such requirements as are prescribed by the Adults with Incapacity (Requirements for Signing Medical Treatment Certificates) (Scotland) Regulations 2007 and who is primarily responsible for treatment of the kind in question of:

_____ (name)

of _____ (address) D D M M Y Y (date of birth)

for whom the *guardian/welfare attorney/person appointed by intervention order/nearest relative/carer

is _____

I have examined the patient named above on D D M M Y Y (date). I am of the opinion that *he/she is incapable within the meaning of the Adults with Incapacity (Scotland) Act 2000 ("the 2000 Act") in relation to a decision about the following medical treatment:

_____

because of (nature of incapacity) _____

_____

_____

This incapacity is likely to continue for _____ months.

*I therefore consider it appropriate for the authority conferred by section 47(2) of the 2000 Act to subsist from:

D D M M Y Y (date of examination) until D D M M Y Y, being a period which does not exceed one year from the *date of the examination on which this certificate is based/date of revocation of the certificate issued previously by me; or

*I am of the opinion that (a) *he/she is suffering from *a severe or profound learning disability/dementia/a severe neurological disorder; and (b) *what he/she is suffering from is unlikely to improve within the meaning of the Adults with Incapacity (Conditions and Circumstances Applicable to Three Year Medical Certificates) (Scotland) Regulations 2007/ Y Y and therefore consider it appropriate for the authority conferred by section 47(2) of the 2000 Act to subsist until:

D D M M Y Y being a period which does not exceed three years from the *date of the examination on which this certificate is based/date of revocation of the certificate issued previously by me.

The authority conferred by section 47(2) of the 2000 Act shall subsist for the period specified above or until such earlier date as this certificate is revoked.

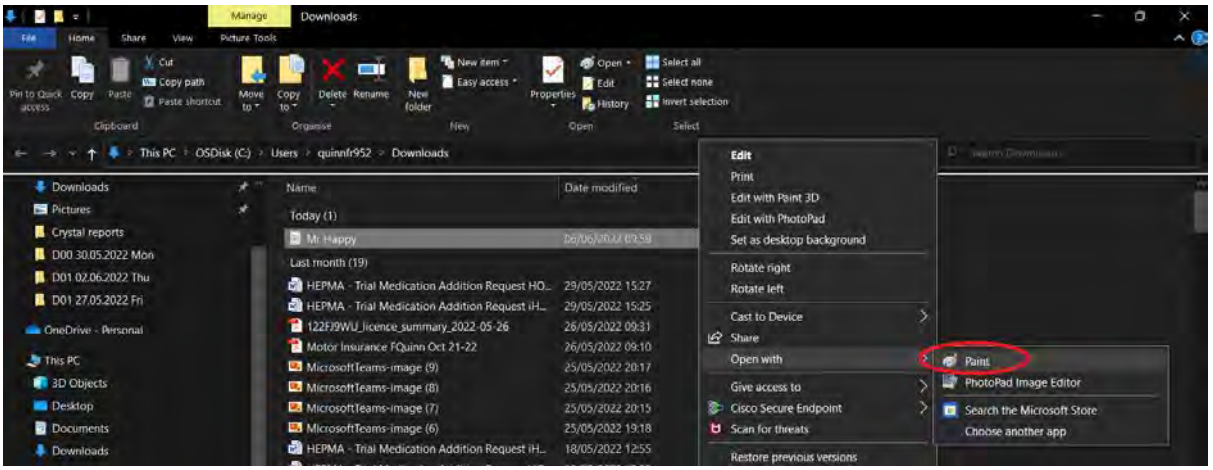
In assessing the capacity of the patient, I have observed the principles set out in section 1 of the 2000 Act.

Signed _____ Date D D M M Y Y

*delete as appropriate

Appendix 2: Procedure For Adding JPEG Image to HEPMA Patient Note

- Obtain a digital image of the patient e.g. take a photo using an NHS digital camera, email to an NHS email address, open email and save/download image onto a NHS PC/laptop.
- Open 'File Explorer' and locate the downloaded file.
- Right click on the file and select 'Open with' then 'Paint'. The Image should then open in the Microsoft Paint Program.



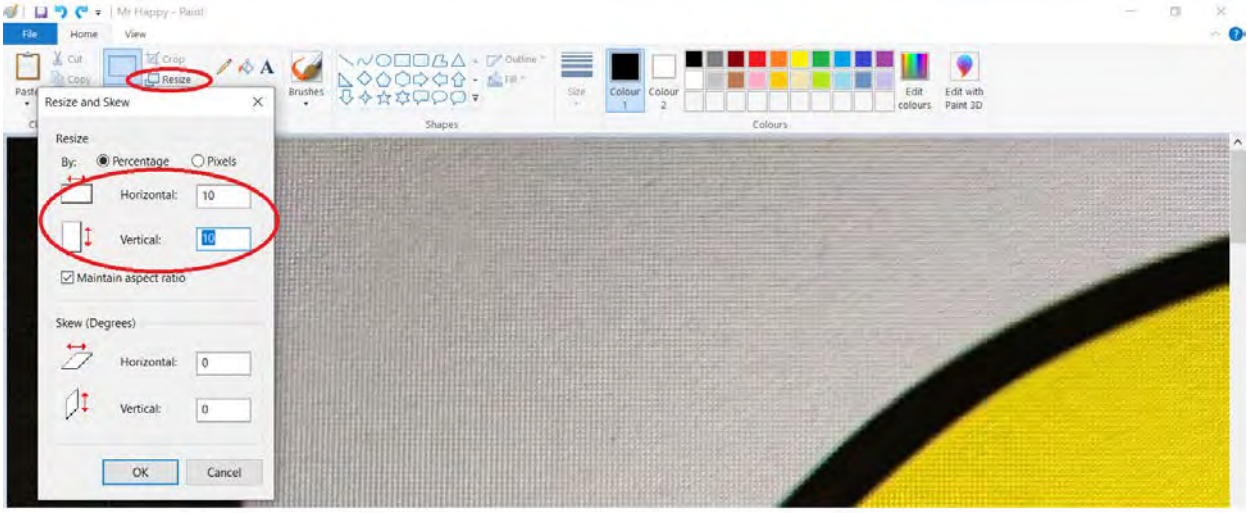
Resizing and Saving

The image may have to be resized if too large.

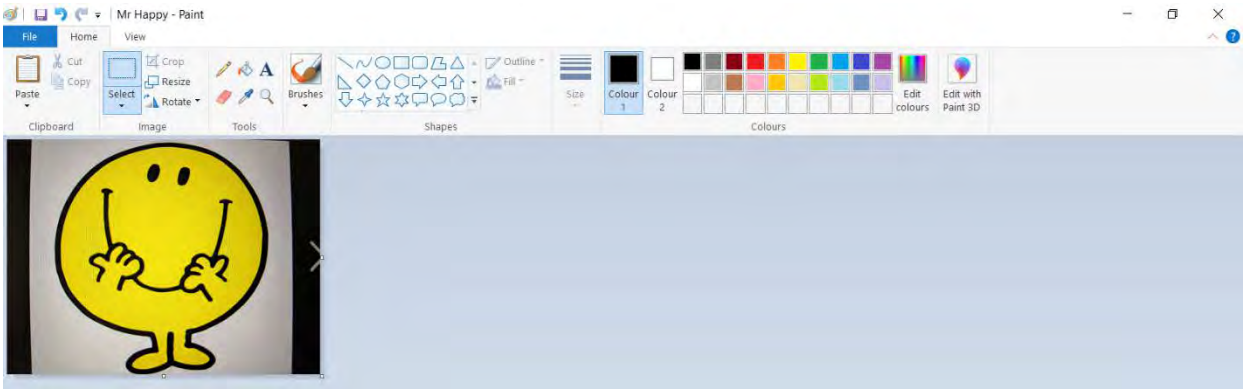
- To select the whole image for resizing, click 'Select' then 'Select all'.



- Click 'Resize' and enter values as a percentage for required resize.

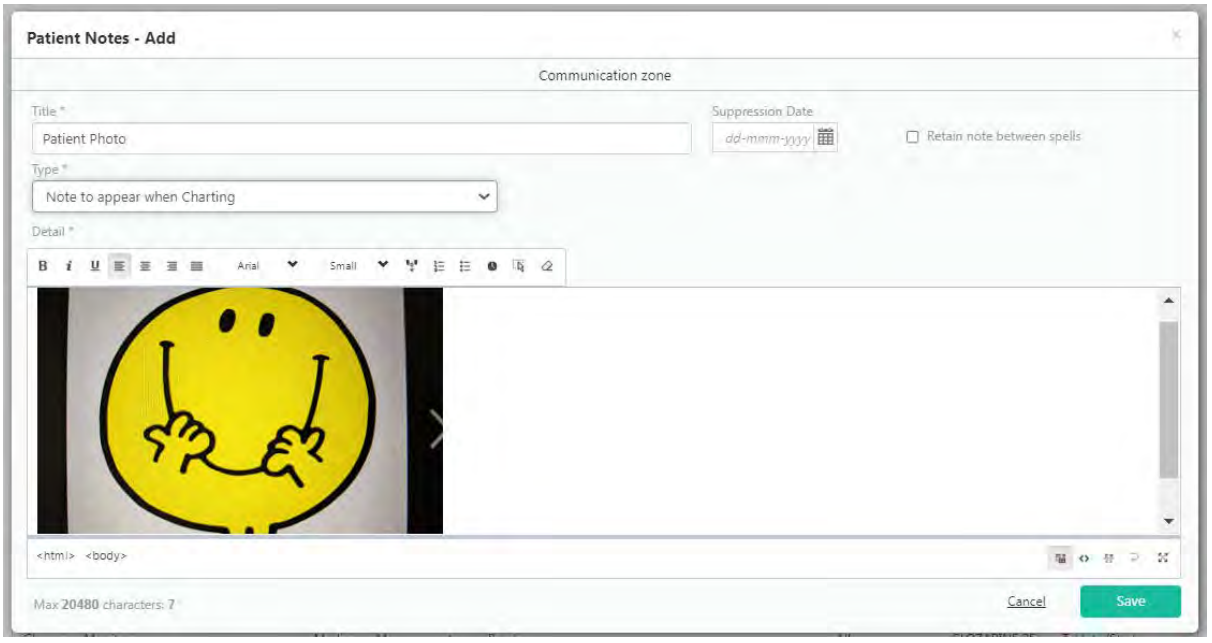


- Click ‘OK’ and if the file size is acceptable, click File>Save As>JPEG Picture.



Copying and Pasting to HEPMA Patient Note

- Open the JPEG file.
- Select the whole image as per earlier instructions then right click on the image and click ‘copy’.
- Open the patient record on HEPMA and click on the ‘PATIENT NOTES’ section.
- Add a new note with appropriate title and select ‘Note to appear when charting’ as the note type.
- Right click in the main body of the note and click ‘paste’ to insert the image. Text is also required in addtion to the image (e.g. Patients name) then the note can be saved.



Any saved documents/images of the patient other than the HEPMA note must be deleted from all devices when this process is complete

Standard Operating Procedure for the Administration and Supply of Medicines using a Patient Group Direction (PGD)

Lead author:	Andrew Walker
Approved by:	Prescribing Management Group- Mental
Date approved:	August 2022
Date for review:	August 2023
Version:	1

Standard Operating Procedure for the Administration and Supply of Medicine using a Patient Group Direction (PGD)

Objective

To describe the procedures required to dispense take home medication for patients using a Patient Group Direction authorised through the PGD governance group and locally by the Lead Medic and Nurse.

This should be viewed in conjunction with the following documents:

- NHSGGC Safe and Secure Handling of Medicines in Hospital Wards, Theatres and Departments
- NHSGGC No Interruptions for the Preparation and Administration of Medicines Policy

Staff Category

Medicines may be supplied to patients through a PGD by a **competent registered nurse** that meets the staff characteristics within the PGD framework, and who can exercise professional accountability and judgement in the best interest of their patients.

Scope

This SOP relates to the PGD's currently in use for the NHSGGC Mental Health Assessment Units and Community Mental Health Acute Care Services (CMHACs). These are:

- Diazepam
- Zopiclone
- Promethazine

The administration and supply of medicines through a PGD must be undertaken in a methodical manner and must meet the criteria within the authorised PGD without exception.
Distractions should be minimised while medicines are being selected, prepared, administered or issued.
Staff involved in administering and supply of medicine through a PGD **must** undertake training in the use of PGD's and have signed a local master copy to confirm competence.
The local Nurse Team Leader should store a local Master copy which must be kept alongside the PGDs.



CMHACS MHAUs pgd training nov 2(

Staff should also have completed the TURAS module on PGDs prior to administering any medicine in relation the PGDs:
https://learn.nes.nhs.scot/45104/pharmacy/patient-group-directions-pgds

All staff involved in the administration or supply of medicines should have knowledge of the medicines involved. This should include normal dosage, side effects, precautions and contraindications.

Teams require local induction arrangements for new staff to be inducted on the use of PGDs – this should form part of local induction packs.

Each staff member is required to sign that they have read and understood the PGD and completed the appropriate training for the following -


Diazepam 2mg PGD approved 2021.pdf


Promethazine 25mg pgd approved 2021.


Zopiclone 7.5mg pgd approved 2021.

The lead clinician and lead professional nurse must sign each of the PGDs to provide that local authorisation.

Each PGD will include frequency of audit and who is responsible within each team.

Preparation for supply of medicines

Ensure equipment required is prepared and ready for use where appropriate. This includes the following:

- PGD
- Adequate supply of medicines within the PGD
- Medicine trolley/cupboard keys
- Signage as per NHSGGC No Interruptions Policy


No interruptions sign.pdf

- Current BNF or from within the MyPsych App

Checking Patient Group Direction

Read the appropriate PGD to ensure the nurse is clear on the:

- Drug to be supplied through PGD
- Criteria for use
- Exclusion criteria
- Dose
- Number of doses for supply

- Medicine form i.e. tablet
- Dose times
- Allergies

Procedure

- The Patient should be seen in an environment free from interruptions and distractions in line with NHSGGC No Interruptions Policy where possible
- Consider and confirm inclusion criteria for use of the PGD through relevant checklist
- Access EMIS and CLINICAL PORTAL to ensure exclusion criteria is not met
- Ensure consideration is given to highlighted contraindications
- Staff must then check the identity of the patient and check for allergies
- Check patient's vital signs if required
- Discuss use of PGD with patient and confirming inclusion or exclusion criteria
- Confirm prescribed medication with the patient
- Confirm other medicines have not already been supplied
- Check pre pack to ensure correct dose and number of doses supplied correspond with the PGD
- The patient's name should then be written on the pre-pack medication box.
- Ensure adequate verbal and written information around safe self-administration and storage is provided and that patient understands same
- The nurse must then record the issuing of the pre pack medicine supply on EMIS, the PGD recording document and the PGD Reconciliation Form
- An entry should be made on EMIS to reflect both the medicine supply given, and the information supplied around safe administration and storage
- Ensure where possible a follow up appointment is given to the patient and is in line with PGD requirements
- Ensure communication is sent to patients GP and RMO if applicable. A letter should be completed on Winvoice Pro and sent to the GP, this will also generate the letter to be uploaded to EMIS. Teams may wish to have agreed draft template letters for each PGD available on their shared drive for easy completion.
- PGD stock can be ordered when required however delivery will only be once per week, this is usually a Thursday or Friday. Staff should therefore ensure stock is checked following every administration and ordered thereafter *based on appropriate minimum and maximum stock levels.*
- Daily reconciliation of stock should be undertaken by two registered staff, one of whom could be a student nurse assessed as competent, accountability remains with the registrant.
- The stock quantities should reflect what teams actually use. Staff should order an initial stock then alter depending on usage.
- Store the medication in a locked cupboard and the key in a secure area. Consider ordering a key safe for the PGD supply cupboard.
- Staff should complete the PGD Medicines Key Log for removal and return of the key.


PGD Medicines Key Log July 22.pdf


Diazepam PGD assessment checklis


Promethazine PGD assessment checklis


Zopiclone PGD assessment checklis

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My Clinical Attachment Resources

Introduction

Year 4 Learning Outcomes

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My Assessment

ePortfolio requirements for the Mental Health block

Year 4 ePortfolio

Year 4 Workplace Based Assessment Booklet



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Useful Information

Year 4 MBChB Reading List

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Timetable

ROCE Book

Reading List

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My Assessment

Aims and Objectives

Summary of Knowledge

Assessments



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My Clinical Attachment Resources

Centralised timetable

Clinical Attachment Logbook

Content of Attachment

History Taking & Mental State Examination

Introduction to Psychological Medicine

Learning Objectives

List of Clinical Presentations

Physical Examination in Psychiatry

Psychiatry Block Assessment Forms

Undergraduate recommended texts

Undergraduate Tutors

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My Assessment

Course Aims and Objectives

Course completion checklist (VERY IMPORTANT)

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Useful Information

Medical School

Section of Psychological Medicine and Key Contacts

Resources for Psychiatry

Support for Students



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Introduction to Undergraduate Psychiatry

Warning: This guideline is 19628650 day(s) past its review date.

One in four of us will experience mental health problems at some time in our lives – that ranks with heart disease and cancer as being amongst the nation's biggest health problems. As doctors, we can make a real difference to people with mental health problems and our treatment and support can help to change lives. Co-morbid mental illness complicates the presentation and management of physical illnesses and often has a significant bearing upon prognosis. All doctors must have the skills to recognise and treat psychiatric morbidity and we need to be able to listen to, assess and manage individuals who present or behave in an unusual way.

The Psychiatry course is linked between year 4 and 5. In year 4 you learned the theory behind how to take a Psychiatric History and complete a Mental State Examination. In year 5 you will get the opportunity to practice those skills and develop your abilities to assess and manage patients with mental health problems using person centred bio-psycho-social approaches within a team setting.

The assessment, care and treatment of people with a mental disorder is one of the most stimulating and interesting areas of medicine. You will use medical, scientific and interpersonal skills to work with people of all ages and from all walks of life, challenging stigma and managing risks whilst considering legal and ethical aspects of care for some of the most vulnerable members of our society.

Some students struggle with these challenges, others thrive on them. Either way, you won't find psychiatry boring!

Dr Robert Clafferty

Consultant Psychiatrist

Year 5 Psychiatry Module Organiser robert.clafferty@nhslothian.scot.nhs.uk

Last reviewed:

21 April 2020

Next review:

01 May 2021

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Assessment

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Capacity

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Mental Welfare Commission for Scotland - Adults with Incapacity Act

Scottish Government Adults with Incapacity Act - Part 5 Medical Treatment Flowchart & Certificate

Last reviewed:

05 July 2023

Next review:

05 July 2024

Reviewer Name(s):

NHS GGC MyPsych Team

MyPsych

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Mental Health Act

Warning: This guideline is 19627489 day(s) past its review date.

The Law - Mental Welfare Commission for Scotland

Key Mental Health Act documentation

Last reviewed:

05 July 2023

Next review:

05 July 2024

Reviewer Name(s):

NHS GGC MyPsych Team

Digital Health & Care Innovation Centre

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Other legislation

Warning: This guideline is 19627489 day(s) past its review date.

Adult Support and Protection (Scotland) Act

Criminal Procedure (Scotland) Act 1995

Mental Welfare Commission - Laws & Rights

Last reviewed:

05 July 2023

Next review:

05 July 2024

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Special Interest

Warning: This guideline is 19627671 day(s) past its review date.

Some ways to build your psychiatry experience:

- Become a Student Associate of the RCPsych here. This is free, and gives you access to electronic subscriptions and newsletters, free entry to events, and free online psychiatry modules
- RCPsych Awards, Prizes and Bursaries - there are many opportunities for funding development of your interest in psychiatry.
- RCPsych Summer and Autumn Schools - free inspirational courses for medical students from the RCPsych
- Scottish Mental Health Arts Festival

Last reviewed:

05 July 2023

Next review:

05 January 2024

Reviewer Name(s):

NHS GGC MyPsych Team

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Medical Electives

Warning: This guideline is 19627671 day(s) past its review date.

This is by no means an exhaustive list, but hopefully will give you some ideas about where might offer psychiatry placements, how to approach organisations and where you can look for sponsorship/bursary/grants. Most organisations will support elective students, so if you are interested in attending a particular location then you can usually contact the organisation directly.

UK

Kings College, London

Oxford University

Leicester-forensic services

USA

Yale University, New Haven

American Psychiatric Association-HIV Psychiatry

University of Pennsylvania, Philidelphia

NYU, New York

Scholarships:

Royal Medical Benevolent Fund

Royal Society of Physicians and Surgeons Glasgow

Remember that your own university may have its own fund for assisting medical students on elective.

Last reviewed:

05 July 2023

Next review:

05 January 2024

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Introduction

In Year 1, you were taught the importance of psycho-social factors to medical practice generally, and in Year 3, you were introduced to key psychiatric and psychological topics (see Learning Guides for Years 1 to 3). Before beginning the block, you should ensure that you are familiar with the information taught previously. This knowledge will be assumed.

In Year 4, you will be taught fundamentals of the practice of clinical psychiatry, especially assessment and management skills. This will build on the year 3 learning objectives. During the first week, you will receive some clinical teaching and be introduced to psychiatric sub-specialties. Thereafter you will have opportunities for a range of clinical experiences.

Hopefully you find the resources in this app helpful. Please contact us if there are any further resources that we can provide on this platform to aid in your training. Please note that further resources are available through MyMBChB.

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MBChB Year 4

Mental Health Aims and Learning Outcomes

This guide provides the Aims and Learning Outcomes (LOs) for the Mental Health block. The Year 4 and Years 1-3 learning outcomes will be examined in the Year 4 summative (degree) written and clinical examinations.

While you may see some of the conditions and presentations listed, it is very unlikely that you will see them all. This reflects clinical practice, and so you should ensure that you take personal responsibility to build on your pre-existing knowledge from the early years using textbooks and other learning materials, e.g. completing online available case-based learning, to expand your knowledge.

The lists are not a complete summary of the expected learning you should achieve. In particular, you should also seek opportunities to experience and appreciate:

- Clinical reasoning – the process of weighing different items of information gathered during a clinical assessment to arrive at an informed level of confidence in further management
- Prioritising clinical workload
- Multidisciplinary working
- The interface between mental health and other specialties
- Ethical considerations
- Realistic Medicine

Mental Health Block Introduction

Your placement in psychiatry is designed to be an immersive clinical learning experience. It should build on your mental health learning from Year 3. As a Year 4 medical student, you will be expected to continue developing your knowledge base of mental health, while developing skills essential for effective practice in a clinical environment. The approach to the learning aims and outcomes will help identify where condition specific knowledge is to be developed, but also overarching method and practice of psychiatry.

Aims

Approach a patient and perform a psychiatric history, mental state examination and where needed a relevant collateral history to determine a reasonable differential diagnosis
Be able to formulate this to communicate in terms of present factors, precipitating, perpetuating, and predisposing factors of a case
Understand and be able to formulate a risk assessment and its importance in psychiatric care and management
Develop your practice to have an awareness of the impact of psychiatric disorders on individual and their family and their social status and the stigma mental health can carry

Learning Outcomes

By the end of the block you are expected to:

Demonstrate effective communication with patients in challenging situations or with specific difficulties
Demonstrate effective communication with colleagues, patients, relatives and carers at explaining diagnoses and formulating management plans.
State the indications and terms of the Adults with Incapacity (Scotland) Act 2000
State the indications and terms of the Mental Health (Care and Treatment) (Scotland) Act 2003
Discuss the importance of informed consent in developing treatment plans
Identify normal life transitions and the difference between mental disorders and normal human behaviour
Recognise the stigma associated with mental disorders and how this can impact on patients and their families
Discuss the wider role of allied health professionals including occupational health, social care and voluntary support groups working alongside doctors in primary, secondary and tertiary care to support the recovery of patients
Define the role of the multi-professional team in patient care at different levels of care and mental disorder severity

Common/Important Presentations

As Year 4 is based within the clinical environment, you will find patients do not initially present with a condition, but with a range of signs and symptoms. It is essential to build your understanding of common or important clinical presentations so you can relate to your knowledge on clinical conditions. Below are presentations that are deemed important or common and relate to your learning in Mental Health.

Level of Knowledge Expected for Common/Important Presentations

- Focussed Psychiatric History
- Perform a mental state examination
- Identify differential diagnosis
- Formulate a management strategy (diagnostic and therapeutic)

Common / Important Presentations:

- Abnormal eating or exercising behaviour
- Addiction
- Anxiety, phobias, OCD
- Auditory hallucinations
- Behaviour/ personality change
- Behavioural difficulties in childhood
- Childhood trauma
- Chronic abnormal pain
- Confusion
- Decreased appetite
- Elation / Elated mood
- Elder abuse
- Fatigue
- Fixed abnormal beliefs
- Learning disability
- Loss of libido
- Memory loss
- Mental capacity concerns
- Mental health problems in pregnancy or post-partum
- Overdose
- Palpitations
- Pressure of speech
- Self-harm
- Sleep problems
- Somatisation / medically unexplained physical symptoms
- Struggling to cope at home
- Substance use in Pregnancy
- Suicidal thoughts
- Threats to harm others
- Visual hallucinations
- Eating Disorders

Common/Important Conditions

Year 4 will provide the opportunity to see a broad range of clinical conditions. You should use these opportunities to build upon your knowledge base developed in Years 1 -3. The list of conditions below should be used as a checklist to ensure your study is directed towards the relevant areas. Use the ABC Level of knowledge indicator as a guide to ensure your knowledge of each condition is at an appropriate level. In this descriptor a level 'A' condition will require the most comprehensive understanding, while a level 'C' will require the least. This document is a guide only and exam content could include A, B and / or C conditions.

Level of Knowledge Expected for Common/Important Conditions

C	• Key findings from history, physical and Mental State Examination (MSE) • Demonstrate and apply knowledge of the condition to support inclusion in a realistic differential diagnosis
B	• Key findings from history, physical and Mental State Examination (MSE) • Demonstrate and apply knowledge of the condition to support inclusion in a realistic differential diagnosis • Investigations • First line treatment
A	• Aetiology including neuroscience theory of disease • Epidemiology • Key findings from history, physical and Mental State Examination (MSE) • Demonstrate and apply knowledge of the condition to support inclusion in a realistic differential diagnosis • ICD 10 diagnostic criteria • Investigations • Formulate a management strategy including the mechanism of action, indications, side effects, interactions and contraindications for any psychotherapeutic intervention • Prognosis and risk assessment

Condition		Year 4 Level
Mood Disorder		
Anxiety Disorders: Generalised		A
Depression		A
Self-Harm/Overdose		A
Acute Stress Reaction		B
Anxiety Disorder: Post-Traumatic Stress Disorder		B
Psychosis		
Bipolar Affective Disorder		A
Schizophrenia		A
Cognition		
Delirium		A
Dementia		A
Substance Misuse		
Drugs of Abuse	Alcohol	A
	Benzodiazepines	B
	Heroin	B
	Stimulants	C
Learning Disability		
Mild		B
Moderate		B
Severe		B
Eating Disorders		
Anorexia		B
Bulimia		B
Other		
Autism Spectrum Disorder		B
Personality Disorder		B
Somatisation		B
Attention Deficit Hyperactivity Disorder		C

ePortfolio requirements for the Mental Health block

As part of this block you will be expected to:

Clinical Case logs

Complete the case logs for each of the conditions below:

- Psychotic Disorder
- Cognitive Impairment
- Depression
- Substance Misuse
- Plus observation of a new patient assessment

Complete the 3 linked online cases

Upload workplace-based assessments:

- Case Report
- Case Report 2/GP Letter
- Mini-CEX

End of block Reflective Assessment

Complete a reflection on your learning experiences during the block

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The electronic portfolio (ePortfolio)

Reflection is an essential activity that we use every day in clinical practice. You should take time to reflect on your learning and practice. Spending time on your personal development is important and can help you identify areas of strength or weaknesses requiring further development and help you take ownership of your own learning. We would encourage you to learn something new every day. It's important that you gain practice and experience with e-portfolios as you will continue to use these throughout your medical career, so try to get into the habit of regularly making entries.

The ePortfolio requirements for individual blocks can be found in the block webpage on MyMBChB. It will be your responsibility to complete the personal development plan, enter your reflections into the log of clinical cases, upload completed workplace-based assessments and submit the end of block reflective piece. Completion of the ePortfolio will be required for the satisfactory completion of each block.

Your Personal Development Plan

A personal development plan (PDP) is a framework to help you reflect on your skills and performance, identify areas that you need to develop and then plan how you are going to achieve this.

The purpose of your PDP is to enable you to set your personal goals for your learning in each block, to act to achieve those goals and to reflect on your progress. Whilst your goals can be challenging, but it is important to write goals that are realistic, attainable and achievable in the block by using SMART goals so that you are not building failure into your objectives.

- **Specific** – What are you trying to achieve? Outline a clear goal. Unclear goals are unlikely to be achieved.
- **Measurable** – How will you be able to monitor your progress? When will have you achieved your goal? How will you know?
- **Achievable** – Is your goal attainable and achievable within the block?
- **Realistic** – Is your goal both realistic and relevant to your studies? NB goals can also include generic skills such as presentation skills.
- **Timely** / **time-bound** – Will you be able to reach you goal by the end of the block?

You may find at the end of the block that you haven't achieved exactly what you set out to do. Reflect on what you have achieved, keep reviewing and updating your goals.

Clinical case logs

For your clinical case log, the description of the case should be a few lines to jog your memory and highlight what you are going to reflect about. There should not be any patient identifiable data present e.g. 45 year old man.... Only include information that is relevant (e.g. no need to comment on all blood results if you are not reflecting on them/ doesn't add value).

In medicine patterns of illness and patient behaviours are complicated and require a great deal of understanding. Reflecting on experiences is an important activity, thinking with the purpose of evaluating your experiences can help improve understanding.

Ask yourself:

What did I learn from that experience?

What went wrong or was challenging and why?

What am I worried about?

What and how could I do something better?

For the reflection section of the case logs, you should highlight what you have learnt. Maximum 250 words.

Assignment Submissions

The assignment submission area is used to upload the assignments required for the block such as 'Workplace Based Assessments (WPBA)'. WPBA do not require further marking and should be uploaded into the ePortfolio as 'Assessment not for marking'.

This area can also be used to upload documents which do require marking. These submissions should be uploaded into the 'Assessment for Marking' submission area.

Case - based learning activities

In Year 4 there will be an increased emphasis on case-based learning activities. There will be some essential core cased based activities linked to the ePortfolio which you will be expected to complete as part of the block requirements.

End of Block Reflection

Each block will have an end of block reflection. Your reflection should be uploaded to the Reflection section of the ePortfolio for marking. For guidance on reflective practice for medical students please see the GMC's Reflective Practitioner

A deadline is a deadline. If you leave your ePortfolio to the last minute, you are unlikely to be able to complete your submissions, particularly the workplace-based assessments. This can cause stress and result in an ePortfolio that may not help your development.

Portfolio building is part of lifelong learning and is a requirement of postgraduate training. So, understanding the value of using a portfolio, gathering and presenting evidence, and using reflective practice at this early stage will benefit you throughout your career.

You will also have access to your own personal ePortfolio area. Here you can upload other evidence of your professional development, for example, certificates of completion of online learning modules.

YEAR 4 MBChB

CLINICAL ASSESSMENT FORMS

2020-2021







CLINICAL BLOCK ASSESSMENTS

Workplace Based Assessments

The Mini-CEX (Clinical Evaluation Exercise)

This tool is used to assess your clinical interactions by observing an actual clinical encounter; for you to receive feedback on particular clinical skill/s to help you to continue to develop your clinical skills. It is suitable for use in a community-based, out-patient, in-patient or acute care setting. Strengths, areas for development and agreed action points should be identified following each mini-CEX encounter. You need to take the marking form along with you

The encounter could be a focused history or a relevant examination. You may then be asked about areas of diagnosis and management. The exact format will vary with the ward/outpatient setting. The mini-CEX is designed to provide feedback and therefore you should be assessed undertaking the actual clinical encounters normally expected of you e.g. clerking in a new patient.

Multiple mini-CEX assessments are known to be as valid as other forms of assessment when repeated over time.

The Case Based Discussion (CbD)

This is a structured discussion of a case and is normally a planned activity. You may be able to choose a case you have recently been involved with or you may be assigned a suitable patient. You briefly present the case to your assessor and may the be asked about the interpretation of your history taking, decision making, and clinical reasoning. The CbD is designed to provide feedback to help you develop your clinical skills.

For both the mini-CEX and CbD, you should agree an action plan to continue to develop your clinical skills with your assessor.

Clinical Procedural Skills Logbook

You will be supplied with a Clinical Procedural Skills Logbook. This is used across 4th and 5th year to enable students to document their progress in achieving competencies in set procedural skills. This should be used alongside your assessment booklet.

Directly Observed Procedural Skills (DOPS)

This tool helps show your development in clinical skills and abilities. You should link DOPS directly to procedures in the curriculum for your stage of training. These should be used alongside your Clinical Procedural Skill Logbook.

DOPS are suitable for any practical skill performed in a community-based, out-patient, in-patient or acute care setting. It is designed to provide feedback that should be of help to you. Therefore, you should be assessed undertaking any procedure relevant to your block for example, venesection. DOPS can be supervised by any member of staff competent to perform the procedure themselves. This can include FY trainees and other healthcare professionals.

It is your responsibility, as a Senior Medical Student, to ensure these forms are completed and submitted on time where applicable to your ePortfolio

ASSESSOR INFORMATION

Thank you for completing this assessment for this student**.** *We would also encourage you to contact Dr Laura Gates, Year 4 Lead l.gates@abdn.ac.uk and/or Morag Simpson, Years 4&5 Administrator morag.simpson@abdn.ac.uk should you have any specific concerns about a student.*

Mini-CEX (Clinical Evaluation Exercise): Year 4

The mini-CEX is designed to provide feedback on skills essential to the provision of good clinical care, by observing an actual clinical encounter. It is a "snapshot" of a doctor or student/patient interaction.
The mini-CEX is suitable for use in a community-based, out-patient, in-patient or acute care setting. Not all elements need be assessed on each occasion. The form samples a range of areas within the curriculum.

These can be completed by any senior member of staff e.g. ST3 or above, SASG or GP colleague.
You need not have prior knowledge of the student. This should not be delegated to a junior member of staff. Having selected a willing and appropriate patient, you should then direct the student to perform a relevant history and examination, which may also cover investigation and diagnosis. The observed process should take no longer than 15-20 minutes. Immediate feedback should take no longer than 5 minutes.

Specific points:

- *Focus of clinical encounter:* Diagnosis should include an assessment of the student's examination skills and their abilities to reach a provisional diagnosis.
- *Complexity of case:* Please score the difficulty of the clinical case for the level of a Year 4 student at this stage of the course.
- *Feedback:* In order to maximise the educational impact of using mini-CEX, you and the student need to identify agreed strengths, areas for development and an action plan.

Case Based Discussion (CbD): Year 4

This should normally be a planned activity. The student will usually select a case or staff may select/suggest a case. A period of 10-15 minutes should be set aside for the CbD.

The student should present a brief summary of the case and the issues it raises. The clinician should focus on one or two aspects of the case, such as information gathering and interpretation, diagnostic approach, management planning, communication, and should initiate an exploratory discussion. Questions should be open e.g. what diagnoses did you consider? rather than closed questions, you are trying to explore the student's clinical reasoning and insight.

Give constructive, feedback. What went well and which areas need development? Agree specific actions with the student to help them achieve their developmental goals.

It is the student's responsibility to upload the completed forms to their electronic portfolio.

Thank you very much for completing these forms and feeding back to the student.

Year 4 Assessment: Mini- Clinical Evaluation Exercise (CEX)

Please complete questions or circle appropriate response.

Student ID No.	**Student name**		
Assessor	**Assessor Grade**	Consultant	SAS
		GP	>ST3

(This must not be completed by a foundation or core training doctor)

Year 4 Block	Acute Medicine & Critical Care	Mental Health	Surgery & Critical Care
	GP	Long -term conditions & Integrated Care	Reproduction & Child Health

Clinical setting	GP	Inpatient	Outpatient	ED
Main Clinical problem(s)				

Complexity of case			**Focus of clinical examination**			
Low	**Average**	**High**	**History**	**Diagnosis**	**Management**	**Explanation**

Please grade the following areas using the scale below:	**Unsatisfactory**	**Pass**	**Good**	**Very Good**	**Excellent**	
1. History taking	1	2	3	4	5	**n/a**
2. Physical examination	1	2	3	4	5	**n/a**
3. Mental state examination	1	2	3	4	5	**n/a**
4. Communication skills	1	2	3	4	5	**n/a**
5. Clinical judgement	1	2	3	4	5	**n/a**
6. Professionalism	1	2	3	4	5	**n/a**
7. Organisation/Efficiency	1	2	3	4	5	**n/a**
8. Overall clinical care	**1**	**2**	**3**	**4**	**5**	**n/a**

*U/C: Please mark this if you have not observed the behaviour and therefore feel unable to comment.

Anything especially good?	**Suggestions for development**

Agreed action:

Signed

Assessor .....Trainee.....

Year 4 Assessment: Case based Discussion (CbD)

Please complete questions or circle appropriate response.

Student ID No.	**Student name**		
Assessor	**Assessor Grade**	Consultant	SAS
		GP	>ST3

(This must not be completed by a foundation or core training doctor)

Year 4 Block	Acute Medicine & Critical Care	Mental Health	Surgery & Critical Care
	GP	Long -term conditions & Integrated Care	Reproduction & Child Health
Who chose case?	Clinician selected	Learner selected	Random

Provide a brief summary of the case discussed:			
Complexity of case	Straightforward	Some complex features	Complex
Main focus of discussion (circle as many as relevant)		History / clinical findings	Differential diagnosis
Investigations	Management plan	Communication	Ethics

Comment on what was done well and the areas for improvement.
Note- constructive feedback is required if the assessment is to be useful.

What was done well?

What could have been done better? (if none, please state 'none')

Suggestions for development: (should be specific, realistic actions)

Signed
Assessor .....Trainee.....

Thank you for completing this assessment for this student. **We would also encourage you to contact Dr Laura Gates, Year 4 Lead l.gates@abdn.ac.uk and/or Morag Simpson, Years 4&5 Administrator morag.simpson@abdn.ac.uk should you have any specific concerns about a student.**

Direct Observation of Procedural Skills (DOPS)
For medical undergraduate assessment of core procedural skills

Assessor Name……Student Name: ……..……..

Procedure being observed (CAPITALS)……

Indication for procedure/diagnosis (CAPITALS)……
Please mark one of the boxes for each component of the exercise on a scale of 1 (extremely poor) to 5 (extremely good). A score of 1 is considered unsatisfactory, 2 borderline, 3 or 4 indicates successful performance and 5 indicates outstanding performance. Please note that your scoring should reflect the performance of the students against that which you would reasonably expect at their stage of training and level of experience.

You must justify each score of 1-2 with at least one explanation/example in the comments box. Please feel free to add any other constructive and relevant comments about the student's strengths and weaknesses.

	Unsatisfactory	Pass	Good	Very good	Excellent
Demonstrates understanding of indications					
Obtains informed content					
Demonstrates appropriate knowledge of procedure and anatomy					
Technical ability					
Demonstrates appropriate & safe handling of equipment					
Demonstrates asepsis before, during & after procedure if appropriate					
Completes required communications (written & verbal) appropriately (content, clarity, professional to required personnel including patient and carers)					
Deals with any unexpected events appropriately (e.g. failure to cannulate vein)					
Overall professionalism & patient consideration					
Assessor's comments on student performance					

Assessor signature ……..**Date**……

Student signature ……..**Date**……

Thank you for completing this assessment for this student**. We would also encourage you to contact Dr Laura Gates, Year 4 Lead l.gates@abdn.ac.uk and/or Morag Simpson, Years 4&5 Administrator morag.simpson@abdn.ac.uk should you have any specific concerns about a student.**

Year 4 MBChB Reading List

ESSENTIAL READING

Editor(s): J Alastair Innes, Anna R. Dover and Karen Fairhurst, **Mcleod's Clinical Examination**, Elsevier (digital version available)

Editor(s): Adam Feather, David Randall, Mona Waterhouse, **Kumar and Clark's Clinical Medicine**, Elsevier (digital version available)

Or

Editor(s): Stuart H. Ralston, Ian D Penman, Mark WJ Strachan and Richard Hobson, **Davidson's Principles and Practice of Medicine**, Elsevier

Editor(s): Michael M. Henry, Jeremy N. Thompson, **Clinical Surgery**, Elsevier

Anne MR Agur, Arthur F Dalley, **Moore's Essential Clinical Anatomy**, Wolters Kluwer Health

RECOMMENDED READING LISTS - BY SPECIALTY

Anaesthetics and Intensive Care

Matthew Gwinnutt, Carl L Gwinnutt, Clinical Anaesthesia (Lecture Notes), Wiley-Blackwell

For reference:

Editor(s): Tim Smith, Colin A Pinnock, Ted Lin, **Fundamentals of Anaesthesia**, Cambridge University Press

Child Health

Editor(s): Tom Lissauer, Will Carroll, **Illustrated Textbook of Paediatrics**, Elsevier
Robert Goodman, Stephen Scott, Child and Adolescent Psychiatry, Willey-Blackwell

For reference:

Robert M. Kliegman, Joseph St., **Textbook of Paediatrics**, Elsevier

Neil McIntosh, Peter J. Helms, Professor Rosalind L. Smyth, Stuart Logan, Forfar & Arneil's **Textbook of Pediatrics**, Churchill Livingston

Department of Medicine for the Elderly

Claire G. Nicholl, Jane Wilson, **Elderly Care Medicine (Lecture Notes)**

For reference:

Editor(s): Jean-Pierre Michel, B. Lynn Beattie, Finbarr C. Martin, Jeremy D. Walston, Oxford **Textbook of Geriatric Medicine**, Oxford University Press

Editor(s): Alan J. Sinclair Dr John E. Morley Professor Bruno Vellas, **Pathy's Principles and Practice of Geriatric Medicine**, Wiley

Howard M. Fillit, Kenneth Rockwood, John B Young, **Brocklehurst's Textbook of Geriatric Medicine and Gerontology**, Elseveir

Editor(s): Stephen Jackson Paul Jansen Arduino Mangoni, **Prescribing for Elderly Patients**, Wiley

Dermatology

John A. Savin, Mark V. Dahl, John A. A. Hunter, **Clinical Dermatology**, Wiley-Blackwell

For reference:

D. A. Burns, S. M. Breathnach, R. H. Champion, J. L.Burton, **Rook's Textbook of Dermatology**, Wiley-Blackwell

Rona M MacKie, **Clinical Dermatology**, Oxford University Press

Emergency medicine

Jonathan P. Wyatt, Robert G. Taylor, Colin Gratham, Kerstin Hogg, **Oxford Handbook of Acute Medicine**, Oxford Medical Handbooks

Nigel Raby, Laurence Berman, Simon Morley, Gerald de Lacey, **Accident and Emergency Radiology: A Survival Guide**, Saunders Elseveir

For reference:

Editor(s): Judith E Tintinalli, O. John Ma, **Tintinalli's Emergency Medicine: A Comprehensive Study Guide**, McGraw-Hill

ENT

Will Hellier, Rogan J. Corbridge, Essential ENT Practice, Hodder Arnold

Haematology

For reference:

A. V Hoffbrand, David P. Steensma, **Essential Haematology**, Willey-Blackwell

Drew Provan, T. P Baglin, Inderjeet Dokal, Johannes de Vos, **Oxford Handbook of Clinical Haematology**, Oxford University Press

Infectious Diseases

Hamish McKenzie, Robert Laing, Alexander Mackenzie, Pamela Molyneaux, Abhijit Bal, **Infectious Disease: Clinical Cases Uncovered**, Wiley-Blackwell

For reference:

John E. Bennett, Raphael Dolin, Martin J. Blaser, Mandell, Douglas, **Bennett's Principles and Practice of Infectious Diseases**, Elseveir

Mental Health

Michael Gelder, Richard Mayou and John Geddes, **Psychiatry: An Oxford core text**, Oxford Core texts

Michael Gelder, Richard Mayo and, John Geddes, **Oxford handbook of psychiatry**, Oxford Medical Handbooks

Cornelius L. E. Katona, Claudia Cooper and Mary Robertson, **Psychiatry at a glance**, Wiley-Blackwell

For reference

Ed: John E. Cooper, **Pocket guide to ICD-10**, Churchill-Livingston

David M Taylor, Thomas RE Barnes and Allan H Young, **Maudsley Prescribing Guidelines**, Wiley-Blackwell

Michael Gelder, Paul Harrison and Philip Cowen, **Shorter Oxford textbook of Psychiatry**, Oxford

Neurology

Gerant Fuller, Mark Manford, Neurology: **An Illustrated Colour Text**, Churchill Livingston

AR Crossman, D Neary **Neuroanatomy: An Illustrated Text**, Churchill Livingston
Kenneth Lindsay & Ian Bone, Neurology and Neurosurgery Illustrated, Churchill Livingston

Obstetrics and Gynaecology

Editor(s): Ian M. Symonds, Sabaratnam Arulkumaran, **Essentials Obstetrics and Gynaecology**, Elsevier (digital version available)

Andrew Thomson Philip Owen Brian Magowan, **Clinical Obstetrics and Gynaecology**, Elsevier (digital version available)

Oncology

Peter Hoskin, Robert Glynn Jones, Peter Ostler, **Clinical Oncology: Basic Principles and Practice,** CRC Press

Jim Cassidy, Donald Bissett, Roy A. J Spence, Miranda Payne, Gareth J Morris-Stiff, **Oxford Handbook of Oncology**, Oxford University Press

Ophthalmology

Peng T Khaw, Peter Shah, **ABC of Eyes**, Willey-Blackwell

Bruce James, Anthony Bron, **Lecture notes: Ophthalmology**, Willey-Blackwell

John Forrester, Andrew Dick, Paul McMenamin, Fiona Roberts, Eric Pearlman, **The Eye: Basic Sciences in Practice**, Elsevier (digital version available)

Orthopaedics

David J. Dandy, Dennis J. Edwards, **Essential Orthopaedics and Trauma**, Elsevier

Ashley Blom, David Warwick, Michael Whitehouse, **Apley & Solomon's System of Orthopaedics and Trauma**, CRC Press

For reference:

Ronald McRae, Max Esser, **Practical Fracture Treatment**, Elsevier

Mark D. Miller, Stephen R. Thompson, **Miller's Review of Orthopaedics**, Elsevier

Palliative medicine

Robert Twycross, Andrew Wilcock, **Introducing Palliative Care**, Pharmaceutical Press

Donna Dickenson, Malcolm Johnson, Jeanne Samson Katz, **Death, Dying and Bereavement**, SAGE Publications

Fiona Randall, RS Downie, **Palliative Care Ethics**, Oxford Medical Publications

For reference:

Editor(s): Nathan I Cherny, Marie Fallon, Stein Kaasa, Russell K Portenoy, David Currow, **Oxford Textbook of Palliative Care**, Oxford Medical Publications

Plastic surgery

For reference:

Alan McGregor Ian McGregor, **Fundamental Techniques of Plastic Surgery and Their Surgical Applications**, Churchill Livingstone

I. F. K. Muir, T. L. Barclay and J. A. D. Settle, **Burns and their treatment**. Third edition, Butterworth

Rheumatology

Editor(s): Ade Adebajo, Lisa Dunkley, **ABC of Rheumatology**, Wiley

Learning Outcomes

Welcome to your 4 week psychiatry attachment!

We hope that you will enjoy this varied block, as the main aim is to give you opportunities to get confident conducting a psychiatric interview and mental state examination in patients with mental illness and/or disorder. You will spend time attached to the mental health teams across Tayside, and have the chance to meet in-patients and out-patients in a variety of settings. There will be a couple of tutorials through each week, and different options to see specialist clinics and Electroconvulsive Therapy. We will check your progress with a verbal case presentation at weeks 2 and 4, and expect a written case discussion by the end of the block. The marks for your second case presentation and written case will be used to grade you for the block. You are also required to hand in a timetable of all of the learning activities you have attended during your 4 weeks.

For all of the details about the attachments (including a range of extra resources, the study guide, assessment examples and marking scheme) please see the other parts of this site. If you have any questions in advance of your block then get in touch with Dr Christopher Pell or Hilary Freed. Once you have started the block you will work with a main consultant each week who will be able to oversee your learning and advise of any tweaks or changes to your timetables.

Abbreviated Block Objectives

- To become proficient at taking and presenting a full psychiatric history from a range of patients in different settings
- To be able to assess and describe a patient's mental state in a comprehensive and structured way
- To present two verbal case presentations to your consultant
- To understand the different specialisms within psychiatry by spending times in a variety of set
- To understand the varying roles of the multidisciplinary team by shadowing doctors, community

psychiatric nurses, occupational therapists, physiotherapists or psychologists
- To appreciate the complexity and impact of mental disorder on the lives of patients through writing up a full case discussion.

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Timetable

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ROCE Book

You will find the following parts of your ROCE book relevant to your psychiatry placement:

- Psychiatric History
- Mental State Examination
- Mental Health Act
- Art Therapy (although OT, Physio, psychology equally valid)
- Electroconvulsive Therapy



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Reading List

Psychiatry Reading List - University of Dundee

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General Block Info

Psychiatry in Tayside -Year 4 Block Medical Student Information

General Information

General Advice

You may well feel de-skilled when it comes to taking a history and doing mental state examination – this is normal! If you feel apprehensive and unprepared at first when you talk to a patient, chat informally until you are more relaxed and have established good rapport. Ask them about what they have been doing on the ward, or join in with them whatever ward activity is going on. Some students prefer to start interviewing in pairs, with one concentrating on taking a thorough history whilst the other concentrates on assessing mental state. You can always swap over for the next person you see.

Ask nursing or medical staff which patients may be suitable/good/interesting and to whom you can talk. You will find that, in contrast to some placements, you do not feel that you are contributing much to things (there are not lots of bloods to do, antibiotics to give, X-rays to find, etc) – that's okay, sometimes you are doing good just by giving patients some time and passing on any information that you think is important. You can get involved in more practical procedures at the Lithium, Clozapine and Depot clinics and can also gain much by shadowing the ward based doctors.

If you can't find anything to do – just ask! There will always be something we can suggest.

Who to contact

Your timetable will help guide you as to some of the fixed things that happen during each week of th attachment. There is flexibility in this - sometimes things don't happen as planned, and other learnin

opportunities may arise. So long as you let you consultant know and get their agreement, it is fine to deviate from the timetable and attend other things, as long as you record this in your timetable.

Whilst GAP and OAP services are the largest in psychiatry, you can arrange to see other specialist services such as:

Forensic Psychiatry	Dr Ahammed
Liaison Psychiatry	Dr Stewart
Learning Disability	Dr Baldwin Dr Brewster Dr Haut

These services are generally based in Dundee or Perth and cover the whole region, and you are encouraged to contact one of the consultants running these services if you would like to arrange to shadow them. This again is best done at the start of the block as their time may be booked up already if you leave things until the very last minute! Dr Pell can provide further advice or contact details if you have a particular service you would like to attend.

During your placement, your consultant will invite you to attend ward rounds, team meetings, Mental Health Tribunals and outpatient clinics and you will be introduced to various other professionals in the multi – disciplinary team.

You should try to arrange to:

- Accompany a CPN (Community Psychiatric Nurse) or Case Worker on domiciliary visits.
- Meet with an MHO (Mental Health Officer), who is a specialist social worker, to find out more about their role, particularly in relation to the use of the Mental Health (Care and Treatment) (Scotland) Act 2003 and the Adults with Incapacity (Scotland) Act 2000.
- Meet the Occupational Therapists. Attend assessments/ home visits or Ward Activity Groups if possible
- Speak with our physiotherapists and learn about the role of exercise and health improvement for patients with mental illness.
- Attend a Mental Health Tribunal to see Scottish mental health legislation in action (Speak to your consultants to see when ones are timetabled in – although we sometimes only get a couple of days notice of these…).
- Take part with the Social Therapies group activities and use this as an opportunity to speak to patients more informally (see the weekly planner of activities on the inpatient wards).
- Shadow one of the junior doctors on a day on-call (or out of hours)
- Spend time with the Crisis Resolution and Home Treatment Team to see risk assessment and management, with intensive home treatment – based at Murray Royal Hospital and at Carseview Centre.
- Attend weekly postgraduate teaching sessions with senior medical staff and other students (Thursday mornings 10:00 – 12:00 from 6th September onwards)
- Attend a session of ECT (electroconvulsive therapy), on Tuesdays and Fridays at 09:00. There are ECT clinics in all three areas – Stracathro (Dr Ashleigh Duthie / Lesley Alexander), Dundee (Dr Thomas Glen / Kirsty Spence) and Perth (Dr Gary Cousland / Elma Low). Please arrange early on in your placement to make sure that there is space for you on the day – book with the ECT nurses or consultant.

Remember: If you are ever at a loose end then there will always be patients on the in-patient wards that you can interview and practice mental state examination or cognitive testing with.

Other Practicalities

Computer Access

Prior to starting your placement you should download and read through the Psychiatry Resources available on the rest of the PiP Psychiatry pages. Here you will find links to the Core Clinical Problems and the Block

Study Guide. You should also arrange for your LDAP account to be activated (or reset the password if you have forgotten this) so that you can use the NHS computers on site, as you will need this to access the EMIS Web electronic health record system used for all documentation in Psychiatry in Tayside.

Learning Resources

There is Eduroam Wifi access in all of the 3 main hospital sites – Stracathro, Carseview and Murray Royal Hospital – and patient wifi in many of the clinical areas on site. You can also borrow O2 dongles from the medical school to ensure you have access to the internet in more rural locations – contact Dr Richard Day about this if you want to borrow one.

There is Internet access on the NHS computers in all three areas, and in the accommodation block at Stracathro if you are staying on the site. Again - these computers require LDAP passwords which you should organise **before** starting the block via the medical school. Please note that access to personal emails (Dmail, Gmail, Hotmail, etc)), streaming media and social networking sites are generally blocked by the NHS firewall system – unfortunately we cannot resolve this as it is a blanket NHS policy. If you are having any issues getting access to the computers then please contact the NHS IT Helpdesk on **70444** and they can offer advice or reset passwords, etc.

A range of textbooks and journals are available for reference use in the Susan Carnegie Centre (admin office area). There is a full Psychiatry Library on the first floor at Carseview Centre, and similarly Murray Royal also has a range of text books which can be found in the Stalker Library.

A DVD of ECT treatment is available in the consultation videos section of the medblogs website. All students should have an Athens account which enables access to on-line books, journals and periodicals.

Personal Safety

Your personal safety is your responsibility – although you are very well supported in the wards by the nursing team and the general environmental safety measures, **you must always wear a Staff Alarm at all times when in the clinical areas of the hospital** (available with instructions from nursing staff on the wards). It is sensible to check first with the nursing staff that the patient who you plan to speak with is well enough for your visit, and to let the nurses know where you will be interviewing them. If at any time during an interview you feel uncomfortable: follow your instincts, leave the room, return to the office and tell nursing staff. If a patient becomes more threatening or aggressive then you should activate your alarm to summon immediate nursing assistance.

Please wear your identification badges and alarms in clinical areas at all times.

End of block

At the end of the block, please:

- remember to hand back any swipe cards, keys or alarms that you have
- ensure you have submitted your written case discussion to your supervisor for marking
- fill out the feedback form for the block (it’s the only way we can know what works and what doesn’t and allows us to make changes for future students)

- think about joining the Dundee Psychiatry Society (PsychSoc)
- look over the Royal College of Psychiatrists Student pages and join up as a Student Associate
- consider choosing psychiatry as a career! #choosepsychiatry
- remind other specialties to #ban the bash!

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Map of locations

Google Maps Placement Page

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Aims and Objectives

Your placements are linked to the GMC outcomes which you will be familiar with:

1. The doctor as a scholar and a scientist.

Apply to medical practice biomedical scientific principles, method and knowledge.

- Recognise links between symptoms and underlying neuropathophysiological function i.e. have an understanding of underlying neuroanatomy, pharmacology and physiology
- Relate underlying neuropharmacological mechanisms to therapeutic/medication options to be considered – understand the main neurotransmitter systems in the CNS
- Understand the basic neurochemical theories of depression, schizophrenia and dementia
- Know the main indications for, effects of and side effects of antidepressants, antipsychotics, mood stabilisers and drugs for treating dementia.
- Understand mechanisms underlying the experience of emotion, attention, memory, perception and learning.
- Understand the significance of genetics in mental disorder.

Apply psychological principles, method and knowledge to medical practice.

- Understand the role of human development and the life cycle in relation to biological, social and psychological origins of mental disorder.
- Understand the significance of stress and life events in the development of mental disorder.

Apply social science principles, method and knowledge to medical practice.

- Understand the meaning of “illness” to society and individuals and how it can impact on behav

Apply to medical practice the principles, method and knowledge of population health and the improvement

of health and health care.

- Be alert to and screen for common mental disorders in non psychiatric as well as psychiatric settings.
- Be aware of the increased risk posed to the physical health of individuals with mental disorder due to the illness itself, lifestyle issues (e.g smoking and diet), medication side effects etc and how to best manage these in psychiatric and other settings.
- Be aware of strategies employed by patient, family and team to minimise relapses
- Have some awareness of the public health issues related to mental disorder and drug and alcohol misuse.

Apply scientific method and approach to medical research.

- Be aware of evidence based practice in psychiatry

2. The Doctor as a practitioner.

Carry out a consultation with a patient.

- Be able to differentiate mental health problems from the range of normal responses to stress and life events.
- Be able to evaluate and describe patients presenting with abnormal fears and anxieties, pathological mood states, problematic or unusual behaviour and medically unexplained symptoms which may have a psychological origin.
- Take a full history from a patient with mental disorder (including relevant personal, family, social, drug and alcohol history, past psychiatric and medical history, current circumstances and supports)
- Evaluate information about family and other relationships and how they impact on an individual (may involve getting information from other sources)
- Carry out a mental state examination including a cognitive assessment if indicated. Understand the definitions of common psychopathological features and how to elicit them.
- Carry out a physical examination including a neurological examination if appropriate

Diagnose and manage clinical presentations.

- Consider the appropriate investigations in relation to excluding organic disease which may be causal, co-morbid or coincidental in patient with mental disorder.
- Carry out investigation of specific complications of mental disorders determined by the core problem e.g. in eating disorders and alcohols / drug misuse
- Be aware of different management options for patients with specific mental disorders considering the immediate, short and long term plans.
- Recognise multidimensional management plans for patients with mental disorders i.e. the physical, psychological and social aspects of their care (see biopsychosocial model)
- Be aware of the main psychological interventions for common mental disorders and how they fit with overall treatment plans.
- Be able to identify core features and common symptoms of mental disorders, use this and other information to make a differential diagnosis and use relevant national guidelines and local protocols

to make decisions.
- Observe clinicians discussing treatment options and plans with patients, carers and other members of staff, including whether to use mental health legislation

Communicate effectively with patients and colleagues in a medical context.

- Be able to write up, summarise and present a psychiatric case including making a formulation based on history and mental state examination, which helps to guide differential diagnosis
- Be able to use an empathic interview style which is suitable to engage individuals who may be reluctant, distressed or disturbed.
- Develop skills already acquired in active listening, reflection and summarisation, understanding and responding to non-verbal communication, using open and closed questions and building a rapport.
- Be able to develop a therapeutic relationship with patients and understand why this may be of particular importance in psychiatry.
- Be aware of and show sensitivity to the concerns that patients and their families may have about the stigmatising nature of mental illness.
- Be able to liaise with members of multidisciplinary team and recognise the importance of this way of working in psychiatric and other clinical settings.
- Observe clinicians discussing with patients and their families the nature of their illness, management options and prognosis.
- Demonstrate empathy in relation to the impact of the illness on the patient and family members
- Present cases to other clinicians and get feedback.

Provide immediate care in medical emergencies.

- Be able to evaluate any potential risk an individual presents to themselves and other people, particularly following an episode of deliberate self harm.
- Demonstrate an awareness of how to assess suicidal risk, recognise suicidal ideation in all patients and consider appropriate action.

Prescribe drugs safely, effectively and economically.

- Recognise what baseline investigations are required prior to commencing treatment e.g. lithium or Clozapine
- Be aware of the requirements for physical health monitoring patients with chronic mental disorders and on long term medication

Carry out practical procedures safely and effectively.

- Observes the administration of Electroconvulsive Therapy (ECT) or, if unavailable during your block, see the DVD of ECT.
- Take the opportunity to take blood, give intramuscular injections and do objective measures of side effects of medication at Clozapine and/or depot clinics.

Use information effectively in a medical context.

- Find, appraise and apply information gained from reading relating to a specific clinical case.

- Some patients will have extensive case notes which may require to be read and summarised to facilitate understanding of the case and past history.
- Some patients may be unable to give a full history and information may need to be ascertained from other sources.

3. The doctor as a professional.

Behave according to ethical and legal principles.

- Be especially aware of the sensitive nature of some of the information and be alert to issues of confidentiality
- Demonstrate an awareness of issues related to capacity, consent and confidentiality with patients with mental health problems.
- Be aware of ethical principles and the values that underpin them.
- Demonstrate an awareness of relevant mental health legislation e.g. Mental Health (Care and Treatment) Act Scotland 2003 and Adults with Incapacity Act.
- Be aware of stigma and its impact on patients, families and society

Reflect, learn and teach others.

- Recognise that mental disorders may present in any clinical setting and be alert to this as main or co-morbid problem in non – psychiatric settings.
- Develop a framework for recognising and making an initial assessment of common mental disorders.
- Reflect on your own attitudes to patients with mental disorder and think about that how might influence your approach.
- Reflect on your own mental health (and that of other people around you) and on the issues that might impact on it.

Learn and work effectively within a multi-professional team.

- Recognise the multidisciplinary nature of the care of patients with mental disorders and how different professionals and agencies work together to manage individuals with severe mental illness.
- Recognise the roles played by agencies outside health in the support and management of individuals with mental disorder e.g. local authority and social services, voluntary sector etc. and the role of the doctor (psychiatrist, GP and others) in co-ordinating care.

Protect patients and improve care.

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Summary of Knowledge

The successful student should be able to:

- Conduct a detailed and accurate psychiatric assessment including full history and mental state examination.
- Describe the prevalence and clinical presentation of common psychiatric conditions and how these may differ according to age and developmental stage.
- Explain the biological, psychological and socio-cultural factors which may predispose to, precipitate or maintain psychiatric illness and describe multi-factorial aetiology.
- Describe the common psychological and physical treatments, including the indications for their use, their method of action and any unwanted effects.
- Describe the range of services and professionals involved in the care of the mentally ill. As part of this students should be able to describe when psychiatrists should intervene and when other clinicians should retain responsibility.
- State the doctor's duties and the patient's rights under the appropriate mental health legislation and mental capacity legislation.
- Describe what may constitute risk to self (self harm and/or neglect, engaging in high risk behaviour and risk to others (including knowledge of child, adults with learning disabilities and elder protection requirements)
- Describe how to assess and manage psychiatric emergencies, which may occur in psychiatric, general medical or other settings. In particular be able to describe the elements of a risk assessment and the management of behavioural disturbance.
- Summarise the major categories of psychiatric disorders, for example using International Classification of Disease (ICD-10)
- Have a good working knowledge of the common psychiatric presentations included in the core [illegible] problems list:
    - Altered Mood

- Anxiety
- Arrested Intellectual Development
- Behavioural Problems in Adults
- Deliberate Self-Harm
- Eating Disorders
- Medically Unexplained Symptoms
- Memory Problems
- Misusing Drugs & Alcohol
- Psychological Responses to Trauma
- Psychosis

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Assessments

The Basics:

- **2 verbal cases - week 2 and week 4**
- **1 written case discussion**
- **Timetable of activities**

In more detail:

Overall block performance

The grading for this block is comprised of assessment of your overall attendance, participation and clinical skills. You are required to submit a copy of your timetable of activities undertaken during the block at the end of week 4.This should be emailed to Hilary Freed at hilary.freed@nhs.net

Verbal Case Presentations

You will be asked to verbally present two patients during the block – a full case history and mental state examination is expected. These should be different patients that you have interviewed yourself. If you are struggling to find someone, your consultant will be able to point you in the right direction. You should check with them at the start of the week when and where they want to hear your case.

The format for the these is typically that each student will be required to demonstrate their clinical skills by spending 1 hour with a patient to take a history, completing a mental state examination, and preparing a diagnostic formulation and management plan which they will present to the supervising consultant or deputy shortly afterwards.

You should arrange to present your cases to your consultant for the week at the end of weeks 2 and 4. Week 2 will allow the consultant to provide you with constructive feedback about your performance only,

whilst your performance at the end of Week 4 will contribute to your overall mark for the block.

Written Patient Presentation

You will be expected to complete a further written patient presentation during the psychiatry block. This should be written according to the general description of Patient Presentations in the Year 4 Handbook. This should be based on a patient that you have seen and interviewed yourself, and different from the two patients you present verbally.

In the discussion of management you should include consideration of investigations and treatment and also include a care plan for the patient. You **should** include a physical examination – in Psychiatric settings such an examination may not always be possible OR practical – but you will be expected to say why you did not examine the patient and use admission notes to supplement your case or add what you would look for on examination if you were able to perform it.

Please remember in the discussion section of your essay it is important to consider the patient from a multidisciplinary point of view, as your role as the psychiatrist is to oversee and coordinate other members of the MDT to provide the best care available. No amount of medication alone is going to fix the patient's relationship difficulties, homelessness or debt problems…

You should hand in your written case by the end of Week 4 to your consultant, as well as a copy to Hilary Freed. This can be emailed to hilary.freed@nhs.net

Marking Criteria
The grades defined on the overall assessment sheet are listed below:

Very good	65 to 69
Just Adequate	50 to 54
Definite Fail	35 to 46

There is now a detailed marking scheme for the written presentation to improve the consistency of the

assessment processes and feedback to students. There should a statement in the work either at the beginning or the end that the work is the student's own and not plagiarised. If there is any suspicion of plagiarism the department should be contacted directly. Marks should be deducted if there is patient identifiable information in the text. There is no maximum word limit for this piece of work. Areas of the written patient presentation that will be examined :

b)	Mental State Examination	(20 marks)
d)	Summary, Management and Discussion	(20 marks)
f)	Style, Grammar and Spelling	(10 marks)

Please note that these assessments must be completed to the Tutors' satisfaction during the psychiatry placements. Students can not progress to the end of year examinations without having completed them.

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Centralised timetable

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Medical School

Psychiatry Centralised Teaching

Tuesday Afternoons

All students are required to attend the clinical skills sessions which are held online on Tuesday afternoons (1330-1530). Links to these sessions will be emailed out approximately one week in advance. Topics covered are Mental State Examination, Risk Assessment, Capacity, Psychosis, with the final week being titled 'OSCE Practice'. These sessions consist of a 1 hour whole group teaching session on that weeks topic and then a 1 hour breakout session in smaller groups where they can practice history taking.

Thursday Afternoons

A series of remote lectures will be held online on Thursday afternoons and all students are required to attend. Links will be sent to students on a weekly basis. An example timetable is attached below.



BLOCK 2 **10.10.22 – 10.11.22**	**Week 1**	**13.10.22**	**11 am – 12 pm**	**Dr Catriona Neil**	**Learning Disability Psychiatry**
		13.10.22	**2-3 pm**	**Dr Sarah Holmes**	**Mood Disorders**
	Week 2	**20.10.22**	**12 – 1 pm**	**Dr Thomas Cullen**	**Aetiology & Management**
		20.10.22	**2- 4 pm**	**Dr Jason Lang**	**Neurodevelopment and Attachment Through the Lifespan**

		27.10.22	**1 – 2 pm**	**Dr Melanie Bryant**	**Psychotherapy**
		27.10.22	**3 – 4 pm**	**Dr Jonathan Macklin**	**Anxiety Disorders**
`		**03.11.22**	**2-3 pm**	**Dr Fahd Cheema**	**Psychotic Disorders**

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19 October 2022

Next review:

14 November 2022

Author(s):

MyPsych admin

Approved By:

NHS GGC MyPsych team

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Clinical Attachment Logbook

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PHASE 4

Psychiatry Log Book

Trainee name -

Student ID –

[redacted]		
	Date	**Signature**
[redacted]		

[redacted]		
· Start of Block meeting with educational supervisor		
[redacted]		
· End of Block meeting with educational supervisor		
[redacted]		
· CBD		
[redacted]		
· Case history 2		
[redacted]		
· Attendance with specialty service 2		
[redacted]		

· Attendance with specialty service 4		
[redacted]		
· Attendance at ward round 2		
[redacted]		
· Attendance at ward round 4		
[redacted]		
· Attendance at OP clinic 1		
[redacted]		
· Attendance at OP clinic 3		
[redacted]		
· Other -		
[redacted]		

[redacted]	[redacted]	[redacted]
· Other -		
[redacted]	[redacted]	[redacted]

Learning Objective	Achieved				
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Attitudes					
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
· Understand that psychiatric illness creates problems with stigma, how this affects patients and their families, and recognize your role in combating this stigma					
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

· Treat patients and their carers with professionalism and confidentiality.					
[redacted]					
· Appreciate the inter-relationship between physical and psychological symptoms and the need to be aware of psychological factors in all medical conditions					
[redacted]					
· Appreciate the function of the multidisciplinary team and the role of each of its members					
[redacted]					
Skills					
[redacted]					

[redacted]					
· Conduct a full psychiatric history					
[redacted]					
· Carry out an assessment of capacity					
[redacted]					
· Assessment of risk of harm to others					
[redacted]					
· Provide a differential diagnosis for each patient seen with evidence for and against each diagnosis					
[redacted]					
· Describe an appropriate management plan					

[redacted]					
· Use an interviewing style that is empathic and adaptable to specific situations, including interviewing distressed, disturbed or aggressive patients					
[redacted]					

Knowledge

[redacted]

Clinical Features and Management

[redacted]					
· Schizophrenia and other psychotic disorders, both chronic presentation					
[redacted]					

[redacted]					
· Mood disorders – bipolar affective disorder					
[redacted]					
· Dementia · Delirium					
[redacted]					
· Adjustment disorders					
[redacted]					
· Risk of harm to others					
[redacted]					
· Alcohol harmful use and					

dependence					
[redacted]					
· Learning disability psychiatry					
[redacted]					
· Depression and self harm in children and adolescents					
[redacted]					
· ASD					
[redacted]					
· Forensic psychiatry – common associations between crime and mental illness · Be able to discuss the prognosis of common psychiatric conditions					
[redacted]					
· Physical treatments –					

psychosurgery and ECT					
[redacted]					
· Cognitive behavioural therapy – main principles and applications					
[redacted]					
· Main agencies in the community for care and rehabilitation of patients with behavioural therapy – main principles and applications to mental illness					
[redacted]					

· Describe the doctor's duties and patient's rights under emergency provisions of the Mental Health Act					

Last reviewed:

19 October 2022

Next review:

04 September 2023

Reviewer Name(s):

NHS GGC MyPsych team

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Content of Attachment

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Seminar programme:

Seminars are organised on the first Wednesday day of the attachment and for the two subsequent Wednesdays. They are held at the Wolfson Medical School Building. Their aim is to give an introduction to the range of topics you are expected to study during the attachment. They cannot be completely comprehensive and need to be supplemented by personal study and clinically based teaching. It is essential that you have available a good text and a suggested list is given on Page 6.

Student case conferences:

Your Undergraduate Tutor should organise weekly case conferences where you will take it in turns to present a case to colleagues and discuss issues of formulation, diagnosis and management.

Clinical attachment:

Most attachments consist of 4 weeks general adult psychiatry and a one week placement in a specialist area. Specialties available will vary from hospital to hospital. In some attachments exposure to a sub-specialty may be integrated throughout the 5 weeks. Your attachment will include a significant amo community work. Psychiatry is practised in multidisciplinary settings and you should ensure that yo understand the role of other disciplines, including community psychiatric nurses, psychologists,

occupational therapists and social workers, in addition to that of the doctors in the team. In the first week you may wish to spend time talking with patients and getting comfortable with the presentations particular to psychiatry. After that however, it is important to hone your skills in history taking, mental state examination, diagnosis and management planning by seeing patients regularly and presenting cases to your Educational Supervisor, other doctors on the team and your fellow students.

Assessments:

Formative: a clinical examination will take place around the fourth week of the attachment. While it will be taken into account in your end of block assessment, its main aim is to give you the opportunity to assess your progress and identify areas for improvement. You should receive feedback from the examination on the day.

Summative: this consists of the "grid" assessment given to you by your Educational Supervisor at the end of your attachment and written/clinical assessments at the end of 5th year. Remember, it is your responsibility to ensure your Educational Supervisor completes the "grid" with you. The "grid" should then be returned to your Hospital Tutor who will forward the forms to Dr Cogan.

Last reviewed:

22 April 2020

Next review:

01 May 2021

Reviewer Name(s):

NHS GGC MyPsych team



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History Taking & Mental State Examination

Warning: This guideline is 19627828 day(s) past its review date.

Psychiatric History

The history should be given, as much as possible, in the patient's own words. Do not use jargon unless the patient does! You can show off your knowledge of how to label symptoms accurately when presenting the Mental State. If the patient experiences auditory hallucinations, give a verbatim quote of what is heard.

Introduction: (name, age, marital status, occupation, known previous contact, reason for referral)

Presenting Problem(s)

History of presenting problem(s)

Onset, course, other help sought, response to treatment so far

Symptom details

Precipitating events a) for illness; b) for seeking help

Family history

Family details (parents, siblings, ages)

Relationship with family members

Family history of psychiatric illness

Personal history

Pregnancy & birth

Early life – developmental milestones, memory of difficulties within family

Schooling – educational achievement, ability to form friendships

Occupational history

Sexual/relationship history (ask details appropriate to interview)

Serious life events

Present circumstances – current relationship, children, work, finances, recent stresses

---

Past psychiatric & medical history (including current medications)

Previous admissions

Admissions under the Mental Health Act

Previous treatment (medication or psychological)

Personality before illness (may require informant)

Current and past drug/alcohol use

if evidence of problem then detail:

- **a)** quantity, timing etc
- **b)** evidence of dependence
- **c)** harmful consequences of use

Forensic History

Mental State Examination

Remember – the mental state should take into account not just your observations during the course of the interview but also information obtained on symptoms and signs during the course of this episode of illness. If there is evidence of disorder of thought form you should give examples of speech to demonstrate this.

Appearance and behaviour

General description

Self-care

Rapport and eye contact

Activity/retardation, pre-occupation/attentiveness, irritability etc

---

Mood

Euthymic, elated, depressed, labile, incongruous, blunted

Speech

Rate, rhythm, volume, tone

Disorders of thought form (continuity of thought as reflected in speech/writing)

- acceleration/retardation
- circumstantiality/loosening of association
- perseveration
- neologisms
- word salad

Disorders of thought content

Pre-occupations (including suicidal ideation)

Overvalued ideas (including ideas of reference)

Obsessions/phobias

Delusions (including disorders of the possession of thought)

- primary, secondary
- disorders of the possession of thought (thought insertion, thought withdrawal, thought broadcasting

---

Disorders of perception

Derealisation/depersonalisation

Illusions

Hallucinations

Cognitive assessment

Orientation

Attention and concentration

Memory

Intelligence and general knowledge

Insight/judgement

Insight

What does the patient think is the explanation for their problems?What is their attitude to treatment/ supervision/ staying in hospital?

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19 October 2022

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01 August 2023

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NHS GGC MyPsych team

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Introduction to Psychological Medicine

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Welcome to Psychological Medicine. For the next five weeks, your clinical attachment in psychiatry will be based at one of the eight teaching hospitals linked to the Section of Psychological Medicine. At each site there is an Undergraduate Tutor who co-ordinates the teaching programme locally.

Your Team:

Under the direction of your Educational Supervisor, you will join a multidisciplinary team, usually comprising doctors, nurses, clinical psychologists, social workers and occupational therapists, and see how psychiatry is practiced in hospital, outpatient and community settings. You should also have the opportunity to see an aspect of a least one sub-specialty of psychiatry.

Confidentiality:

In many respects psychiatry is similar to other branches of medicine. However, there are important

differences. Patients with mental illness often have to cope not only with their illness and its consequences, but also with associated stigma and social exclusion. For these reasons, confidentiality, which is of utmost importance in all interactions with patients, is often of particular concern to psychiatric patients. Sometimes issues of confidentiality can become blurred with duties of care toward the patient, for instance, when on rare occasions, patients may attempt to ask you not to pass on information to other members of the clinical team. It is important to explain to patients that your involvement with them is as part of a team, each of whom will respect confidentiality. If you have any concerns you should discuss them with your educational supervisor.

What to wear?

The same standards of dress and behaviour toward patients and professional colleagues are expected as in any other branch of Medicine.

Your Undergraduate Tutor:

The Undergraduate Tutor co-ordinates placements at each hospital site. They will usually arrange to meet with you as a group on the first day of the block, to tell you about the hospital and local services, and to link you with your Educational Supervisor. If there are difficulties which cannot be resolved with your Educational Supervisor, you should talk to the Undergraduate Tutor in the first instance. A list of tutors and hospital placements is given on the next page.

Glasgow University Psychiatry Interest Group

The Glasgow University Psychiatry Interest Group (GUPIG) was founded in 2009 by a group of medical students with an enthusiasm for psychiatry. We organise monthly talks on issues related to psychiatry and psychology that are not part of the core undergraduate curriculum to encourage students' interest in psychiatry, all in a relaxed and social atmosphere. We have organized talks such as Psychiatry in Africa and Forensic Psychiatry, have arranged a revision night for finals exams and plan to hold future OSCE practice evenings and elective information nights.

Our aims are:

1. To support and develop interest in psychiatry by holding evening events such as interesting lectures, revision lectures, SSM and Electives information and charity events to fundraise on behalf of mental health

charities.

2. To raise awareness of, and promote positive attitudes towards mental health issues amongst medical students.

3. To support the work of mental health charities and local projects in Glasgow.

If you're interested in becoming a member or joining the committee please email: glasgowpsych@googlemaill.com or become a fan on our facebook page (G.U.Pig).

Everyone is welcome!

The GUPIG team

Medical student essay prizes

Several Faculties of the Royal College of Psychiatrists run essay prize competitions for medical students;

- Faculty of Learning Disability £250
- Faculty of Addictions £200
- Faculty of Child and Adolescent Psychiatry £500
- Faculty of Forensic Psychiatry £300
- Faculty of General and Community Psychiatry £500
- Faculty of Liaison Psychiatry £500

Additional information on how to enter are available from the Royal College of Psychiatrists website www.rcpsych.ac.uk. If you would like advice about preparing an essay to submit, please contact Dr. Craig Melville (c.melville@clinmed.gla.ac.uk)

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Learning Objectives

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Psychiatry Undergraduates Learning objectives

Aims of the attachment:

By the end of this block you will have attained knowledge regarding the scientific principles underlying modern psychiatry theory and practice, skills in order to apply this knowledge to clinical situations and attitudes necessary to identify and respond appropriately to psychological distress and disorder, not only in psychiatric settings but also throughout all areas of medicine.

Objectives and Intended Learning Outcomes for the attachment:

Attitudes:

By the end of your attachment in psychiatry you should be able to:

- Respond empathically to mental illness and psychological distress in all medical and broader settings.
- Understand that psychiatric illness creates problems with stigma, how this affects patients and their families, and recognize your role in combating this stigma.
- Be aware of the ethical dilemmas and controversies involved in the diagnosis and management of mental disorder
- Treat patients and their carers with professionalism and confidentiality.
- Understand when the patient's wish for confidentiality should be over-ridden.
- Appreciate the inter-relationship between physical and psychological symptoms and the need to be aware of psychological factors in all medical conditions
- Understand that your emotional responses to patients and patients' corresponding emotional responses to clinicians may influence the presentation and management of illness.
- Appreciate the function of the multidisciplinary team and the role of each of its members.
- Recognise when it is appropriate to refer a patient to psychiatry.

Skills:

By the end of your psychiatry attachment you should be able to:

- Conduct a full psychiatric history.
- Carry out a mental state examination, including cognitive assessment.
- Carry out an assessment of capacity.
- Assessment of suicide risk.
- Assessment of risk of harm to others.
- Explain how different biological, psychological and social factors may combine to precipitate psychiatric disorder.
- Provide a differential diagnosis for each patient seen with evidence for and against each diagnosis.
- Devise an appropriate investigation list.
- Describe an appropriate management plan.
- Present clinical findings in a clear verbal or written form.
- Use an interviewing style that is empathic and adaptable to specific situations, including interviewing distressed, disturbed or aggressive patients
- Explain to patients and their relatives the nature of their condition, its management and prognosis.

Knowledge:

During your psychiatry attachment you should gain the knowledge to address the following topics confidently:

Clinical Features and Management

- Schizophrenia and other psychotic disorders, both acute and chronic presentations
- Mood disorders – depression and bipolar affective disorder
- Anxiety – including generalized anxiety disorder, panic disorder, phobias, obsessive compulsive disorder and PTSD
- Dementia
- Delirium
- Personality disorders – especially emotionally unstable personality disorder and antisocial personality disorder
- Adjustment disorders
- Deliberate self harm
- Risk of harm to others

- Drug misuse and dependence
- Alcohol harmful use and dependence
- Medically unexplained symptoms
- Learning disability psychiatry - ???
- Perinatal psychiatry
- Depression and self harm in children and adolescents
- ADHD
- ASD - ???
- Eating disorders
- Forensic psychiatry – common associations between crime and mental illness
- Be able to discuss the prognosis of common psychiatric conditions

Treatment

- Physical treatments – psychosurgery and ECT
- Psychopharmocology–main indications, contraindications and side effects of:

1. Typical and atypical antipsychotics
2. Selective serotonin reuptake inhibitors
3. Nor adrenaline reuptake inhibitors
4. Combined reuptake inhibitors
5. Tricyclic antidepressants

6. MAOIs
7. Benzodiazepines
8. Mood stabilizers

- Cognitive behavioural therapy – main principles and applications
- Main principles and indications for counselling and psychotherapy
- Main agencies in the community for care and rehabilitation of patients with mental illness

Other

- Describe the doctor's duties and patient's rights under emergency provisions of the Mental Health Act

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NHS GGC MyPsych team



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List of Clinical Presentations

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These have been extracted, for your convenience, from the Master List of Clinical Presentations. You should remember that there are often important psychological aspects of *all* problems presenting in medicine, and that patients with psychiatric illness may present with other complaints as well. You should attempt to see patients from each category and write up approximately one case a week, with reflective summary, for your portfolio of cases. Your Educational Supervisor should also review these cases.

Acute confusion

Anxiety

Distorted body image

Hearing voices/odd ideas

I can't stop drinking/taking drugs

I keep washing my hands over and over

I'll kill myself

Low mood/tearfulness

Physical symptoms in the absence of physical findings

Progressive memory loss

Seeing things

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Physical Examination in Psychiatry

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Abstract

Physical examination is an essential part of psychiatric evaluation, and ongoing care (including monitoring effects of psychotropic medication, differential diagnosis, and self-neglect which can be a feature of many psychiatric presentations.)

Resources

Use the button below to access this resource item.

Access this resource

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Psychiatry Block Assessment Forms

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Years 4 & 5 Student Block Assessment

STUDENT NAME: _____SIGNATURE: _____ REG NO: _____

CONSULTANT NAME:_____ SIGNATURE: _____

CONSULTANT ADDRESS: _____

BLOCK: MED SURG O&G CH GP PSY (please circle) DATE COMPLETED: _____

		Above expectations	Around expectations	Below expectations

		for Year 4/5 student	for Year 4/5 student	for Year 4/5 student
A	Attendance and reliability			
C	Relationship with team			
D	Knowledge			
F	Clinical examination skills			

H	Communication skills			
[redacted]				
I	Standard of portfolio cases			
[redacted]				
K	Case-based discussion			
[redacted]				

Was the assessment form filled in by student and Educational Supervisor together? YES/NO

If the answer is no, please explain why:

[redacted]



Educational Supervisor Feedback to Student:

Areas suitable for improvement:

Information for students:

Please hand in form to Mrs Tracy Aitken, Operational Manager, Room 26, 1st Floor, Admin Building,

Gartnavel Royal Hospital, 1055 Great Western Road, Glasgow, G12 OXH. We also recommend you keep a copy for personal use.

University *of* Glasgow Medical School

Years 4 & 5 Student Assessment

			PASS GRADE				FAIL GRADE	
[redacted]								
Doctor as professional	A	Attendance and reliability	Highly dependable and conscientious.	Dependable and usually punctual	Usually present. Always gives warning of absence.	On time, most of the time. Usually gives warnings of absence	Occasionally unreliable. Sometimes gives warning if not attending.	Often unreliable. No warnings given if not attending
	[redacted]							

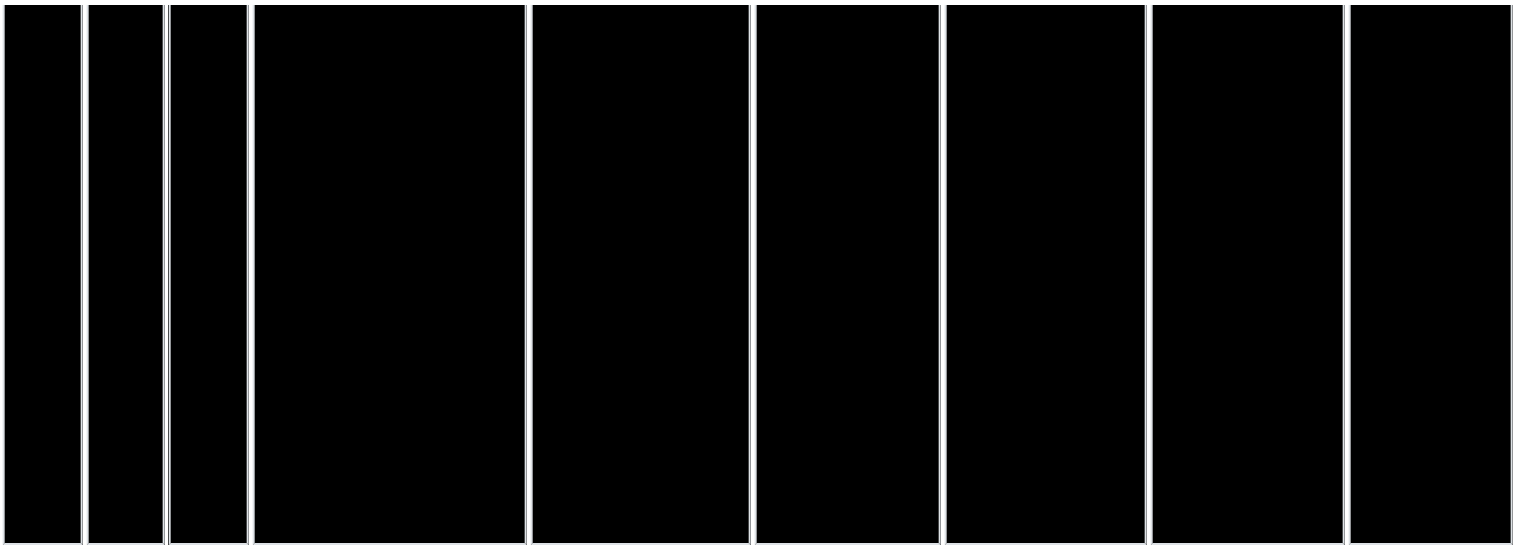
Approach to professional work	C	Relationships with colleagues	Rapidly fits into the team. Establishes good relationships, recognises the roles of each member of the team	Collaborates well. Usually easy to work with. Understands the roles of team members.	Understands roles of team members but makes no extra effort to communicate and collaborate	Limited understanding of the roles of team members. Just managing on the ward	Minimal interaction with team members. Limited communication skills, sometimes misunderstandings	Uncooperative. Disruptive. Does not fit well into the team

Clinical competence	E	History taking	Well organised, thorough and accurate. Consistently obtains relevant information	Organised, usually accurate. Obtains relevant information most of the time	Adequate, mostly accurate. Separates relevant from irrelevant information.	Demonstrates difficulty in separating relevant and irrelevant information but most relevant information obtained.	Poorly organised. Information gathered is often inaccurate and misses relevant information.	Disorganised and inaccurate. An unacceptable and unsafe performance.

			PASS GRADE				FAIL GRADE	
Clinical competenc	G	Clinical judgement	Consistently able to integrate all relevant information. Independently produces appropriate management plan for investigation.	Integrates information well and produces accurate differential diagnosis list. Produces appropriate management plan.	Able to integrate information and produce differential diagnosis with some prompting. Produce	Usually able to integrate information. Needs assistance with differential diagnosis and management plan.	Difficulty in integrating information and needs considerable assistance in constructing	Unable to integrate information. Regularly produces inappropriate differen

econt'd					s satisfactory management plan.		differential diagnosis and management plan.	tial diagnosis list.
Integr	J	Portfo	*STUDENTS ARE EXPECTED TO WRITE UP FOUR CASES PER BLOCK*					

at io n		li o c a s e s							



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Course Aims and Objectives

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Aims of the attachment:

By the end of this block you will have attained knowledge regarding the scientific principles underlying modern psychiatry theory and practice, skills in order to apply this knowledge to clinical situations and attitudes necessary to identify and respond appropriately to psychological distress and disorder, not only in psychiatric settings but also throughout all areas of medicine.

Objectives and Intended Learning Outcomes for the attachment:

You will be able to:

Knowledge:

- Identify processes involved in normal personality development
- Be aware of normal emotional reactions to stress and recognise when these become abnormal
- Explain how different biological, psychological and social factors may combine to precipitate psychiatric disorder
- Describe the clinical features of major psychiatry syndromes
- Demonstrate a thorough knowledge of psychological and physical treatments in psychiatry, including

their indications and their therapeutic and unwanted effects
- Describe, in detail, the assessment and management of psychiatric emergencies which may occur in general medical settings, including deliberate self-harm, alcohol withdrawal and other acute organic states, acute psychosis and behavioural disturbance
- Describe the doctor's duties and patient's rights under emergency provisions of the Mental Health Act
- Recognise when patients require referral for specialist help

Skills:

- Take a full psychiatric history, examine the mental state, and produce a case formulation which includes a description of clinical symptoms and signs, aetiological factors, differential diagnoses, management plan and evaluation of prognosis
- Adapt a full assessment to situations where time constraints or other circumstances make a targeted history and mental state more appropriate
- Present a case logically and coherently
- Use an interviewing style that is empathic and adaptable to specific situations, including interviewing distressed, disturbed or aggressive patients
- Explain to patients and their relatives the nature of their condition, its management and prognosis

Attitudes:

- Appreciate the inter-relationship between physical and psychological symptoms and the need to be aware of psychological factors in all medical conditions
- Recognise the stigmatisation associated with mental illness and how this can affect patients and their families
- Be aware of the ethical dilemmas and controversies involved in the diagnosis and management of mental disorder
- Appreciate the function of the multidisciplinary team and the role of each of its members
- As you progress through your attachment, acknowledge the importance of the therapeutic relationship between doctor and patient and how the timescale for change is lengthened in psychiatry.

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Course completion checklist (VERY IMPORTANT)

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TASK	DEADLINE	COMPLETED	SUBMITTED
[redacted]	[redacted]	[redacted]	[redacted]
Attendance to lectures and seminars	See timetable		
[redacted]	[redacted]	[redacted]	[redacted]
Produce at least 2 case studies (to be assessed by your supervisor)	First 2 weeks of placement		

Note: SSC students may produce 2 case studies OR an essay			
[redacted]			
Placement feedback	Done online		
[redacted]			
Formative Assessment – clinical examination	Around week 4 of placement Note: SSC students will have their formative assessment in Week 5		
[redacted]			
Send Supervisor's report to Tracy Aitken, Operational Manager, Postgraduate Office, GRH	Within 1 week of finishing clinical placement		

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Medical School

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MBChB information

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Section of Psychological Medicine and Key Contacts

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Seminars and teaching content are organised by the Section of Psychological Medicine, Division of Community Based Sciences. The Sub-Dean is responsible for overseeing all placements and ensuring that you receive appropriate clinical experience during your attachment. If you have problems or concerns with the attachment you should attempt to discuss these with your Educational Supervisor in the first instance. Ongoing problems should be brought to the attention of the Undergraduate Tutor. If difficulties cannot be resolved, or for any other issues relating to the programme, please contact the Sub-Dean.

Course Co-ordinator & Psychiatry Sub-Dean:

Dr Angela Cogan

c/o Mrs Tracy Aitken

Operational Manager – Postgraduate Psychiatry Trainees (West of Scotland)

Room 26, 1st Floor, Admin Building

Gartnavel Royal Hospital

1055 Great Western Road

Glasgow

G12 0XH

Tel:0141 211 0235

Email: Tracy.Aitken2@ggc.scot.nhs.uk

"We remind you of the goals of year 4/5:"

General learning outcomes for students during Year 4 and 5:

- To act professionally with the highest standards of personal integrity and reliability.
- To use the appropriate knowledge base of clinical subjects and of their underpinning sciences.
- To communicate effectively with colleagues, patients and patients' relatives.
- To be able to obtain a history and perform an examination related to all body systems and record and present the findings in an organised fashion.
- To be able to interpret findings from history, examination and investigations to produce an appropriate differential diagnosis and learn how to institute relevant management.
- To be able to assess prognosis and to plan and undertake continuing care.
- To be able to assess urgency of clinical situations and know when to seek help of others.
- To be able to perform relevant clinical procedures.
- To be able to work as a member of a team recognising the role of other health professionals, including an awareness of the management of the health service.
- To develop an ability to analyse personal strengths and weaknesses, with a life long commitment to learning.

Learning Objectives Specific to Psychiatry

Learn to take a history, perform a mental state examination, construct a differential diagnosis, plan

investigations and make a management plan for psychiatric patients.

Ensure an adequate understanding of **basic sciences** relevant tothe practice of psychiatry including applied anatomy, physiology and psychopharmacology.

Ensure an adequate understanding of **prevalence and clinical presentation** of common psychiatric conditions and how these may differ according to age and developmental stage.

Acquire ability to present psychiatric cases to your fellow students and to your educational supervisor.

Acquire an understanding of the assessment and management of psychiatric patients in the **emergency** situation, in either psychiatric or general medical or other settings, including management of behavioural disturbance.

Acquire an understanding of the assessment and management of psychiatric patients in the **acute** situation including the common psychological and physical treatments, including indications for their use, their method of action and any unwanted effects.

Acquire an understanding of the assessment and management of psychiatric patients with a view to **longer term rehabilitation** including a knowledge of the range of services and professionals involved in the care of the mentally ill.

State the doctor's duties and the patient's rights under the appropriate **mental health legislation** and **mental capacity legislation**.

Acquire ability to perform a risk assessment and to understand what may constitute **risk to self** and **risk to others**.

Explain the **biological, psychological and socio-cultural factors** which may **predispose** to, **precipitate** and **maintain** psychiatric illness and describe multi-factorial aetiology.

To reflect on the **impact of psychiatric disorder on the patient their family and dependants**

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Resources for Psychiatry

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Textbooks

• Psychology, Chapter 18, 'Abnormal Psychology', by Martin, Carlson and Buskist, *available at*

• **Understanding Other Minds: Perspectives from Developmental Social Neuroscience,** by Baron-Cohen, Tager-Flusberg and Cohen (eds), *available via the library*

• **Counseling Survivors of Sexual Abuse** by Diane Langberg -*Helpful overview of psychotherapy with examples*

• **Adaptive Interaction and Dementia: How to Communicate Without Speech** by Maggie Ellis

Videos

• **Crash Course Psychology 'Abnormal Psychology' playlist**
Easy overviews

• **The Secret Life of the Manic Depressive**
Documentary by Stephen Fry on his experiences of bipolar affective disorder

• **Schizophrenia and Mental Illness**
A video that gives an insight into what hearing voices is like

- **Clarification on dysthymia versus depression**
- **Understanding PTSD**
- **Delirium**
- **Antisocial Personality Disorder**
- **Anxiety disorders**
- **Learning disabilities**
- **Perinatal Psychiatry -** *long but interesting video on the need for dedicated perinatal services*

Further Reading

- **An Unquiet Mind** by Kay Redfield Jamieson - *A memoir by a clinical psychologist who has lived with bipolar affective disorder most of her life*
- **https://livingbeyondtheborderline.home.blog/** - *A blog dedicated to the experience of living with borderline personality disorder (now emotionally unstable personality disorder)*
- **Turtles All the Way Down** by John Green - *A young adult mystery novel about a girl struggling with OCD, based on Green's own experiences*
- **The Bell Jar** by Sylvia Plath, *along with her poetry collections - A fictionalised memoir of when Plath was first admitted to hospital, published within one month of her suicide*
- **Cut** by Patricia McCormick - *About the experience of deliberate self-harm*
- **It's All in Your Head** by Suzanne O'Sullivan - *About medically unexplained symptoms*
- **A New Name: Grace and Healing for Anorexia** by Emma Scrivener

Others:

- **Madness and Civilisation** by Michel Foucault
- **All the Bright Places** by Jennifer Niven
- **The Perks of Being a Wallflower** by Stephen Chbosky
- **Eleanor Oliphant is Completely Fine** by Gail Honeyman
- **It's Kind of a Funny Story** by Ned Vizzini

Resource list compiled by Natalie Clark, 4th year medical student, University of Glasgow, 2020

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Author(s):

Natalie Clarke, 2020

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▶ Announcements and latest updates

Support for Students

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University of Glasgow Financial Aid Services

University of Glasgow Disability Services

University of Glasgow Learning Enhancement and Academic Development Services

University of Glasgow Counselling and Psychological Services

Medical School Student Support

Peer Support

Student Representative Council - advice, clubs, events, services

University of Glasgow Sports Clubs

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Virtual Learning Environment (LEARN) resources

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In addition to accessing powerpoint slides for lectures and media hopper recordings from core lecture week and seminar teaching sessions, there are a variety of resources available on LEARN.

VIDEO

- Choose Psychiatry – a career that makes a difference
- Stephen Fry on the importance of Psychiatry
- Doctors from different specialties discuss the relevance of Psychiatry to their work
- Prince William discusses the importance of recognising Mental Health Need

COMPUTER ASSISTED LEARNING

- Depression
- Overdose
- Alcohol

YEAR 5 PSYCHIATRY BOOK CLUB BLOG

The course recommended text books (Crash Course in Psychiatry and Oxford Handbook of Psychiatry) have been summarised in a regular blog.

ROYAL COLLEGE OF PSYCHIATRISTS MENTAL HEALTH INFORMATION

Links to patient information leaflet

YEAR 5 PSYCHIATRY DISCUSSION BOARD

- Suggestion box for LEARN and curriculum development
- Ask it basket – frequently asked questions
- Peer resource Board – includes various resources e.g. links to articles, guidelines, podcasts, youtube videos, BMJ clinical review articles, simulated patient videos for interview practice.

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Author(s):

Dr Robert Clafferty

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Module Overview

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Essential theories of clinical Psychiatry and basic knowledge are covered in the core teaching week lectures - you can supplement this information with the recommended textbooks and resources as recommended in the resource list. The core lectures are available on media hopper to assist in your revision.

During your 6 week clinical placement you will have a chance to further your knowledge, develop your clinical skills and demonstrate professionalism. You will be primarily attached to a General Adult Psychiatry service with about half being in NHS Lothian placements and the rest in neighbouring health boards (NHS Fife, NHS Lanarkshire, NHS Forth Valley, NHS Dumfries and NHS Borders). All placements include several days in Psychiatry of Old age services plus a variety of sub specialty taster experience (depending on availability in the local services). Sub specialties may include Addiction, Forensic, Psychotherapy, Child and Adolescent, Intellectual Disability, Perinatal, Liaison or Eating Disorder exposure. You will have an opportunity to work with MDT colleagues and medical staff at various stages from FY2 to consultants within in patient and community settings. You will have an opportunity to observe ECT. You will have the chance to practice history taking, mental state examination, diagnosis, formulation and bio psychosocial treatment planning. You may wish to use the pebble pocket checklists to support peer learning and ask team members to observe you with patients and provide feedback – you should complete at least 3 observed clinical interactions with feedback using the pebble pocket template (or use the paper version and upload to pebble pad later).

Sometimes you may find you have unexpected down time – a patient may refuse to have a student observer during a clinic. You could use such opportunities to catch up on textbook or online backgr reading so you might want to be prepared with book/ laptop etc. You might be able to arrange impro teaching from other MDT staff who are usually very keen to help.

Each placement has a variety of teaching set up to help you meet your learning objectives. Local services may run tutorials, simulation, small group sessions or exam practice. To supplement your clinical placement we organise 6 days of seminar teaching on Thu/ Fri of weeks 2,4,6 of your placement when all central and peripherally placed students return to the Kennedy Tower at Royal Edinburgh Hospital, Morningside Edinburgh.

Attendance at clinical placement is mandatory and absence without prior explanation will be recorded as a professionalism issue. You will not receive a satisfactory professionalism form at the end of placement if attendance has been a major issue, a note of concern will be raised and you will not be able to progress. If you are unable to attend you must notify the Yr 5 coordinator and also let the local organiser of your placement know.

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01 May 2021

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Key Skills and Knowledge

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1. How to take and structure a Psychiatric History, including mental state examination and risk assessment
2. How to diagnose major mental disorders (using formal diagnostic criteria such as ICD-10)
3. How to organise a management plan within a bio-psycho-social framework
4. Identifying the aetiological factors of major mental disorders (predisposing, precipitating and perpetuating factors)
5. Recognising the legal and ethical aspects of psychiatric care including Mental Health Act, Adult with Incapacity and Adult Support and Protection legislation

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Clinical Placements

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The 6 week Psychiatry attachment is based in General Adult Psychiatry services but with the opportunity to spend some time in a range of psychiatric subspecialties including Old age, addiction, child and adolescent, Intellectual disabilities etc. If you have a particular interest in one subspecialty please let your placement tutor know and they will try to arrange for you to get experience in that field.

Psychiatry is a huge and varied branch of medicine and this is reflected in the range of undergraduate placements: some are in psychiatric hospitals, some in general hospitals, some in community based services (some encompass all of the above). Each placement will have its own programme detailing a brief introduction to the unit/team, a timetable and sometimes a checklist of tasks to do – ensure you receive a copy on arrival.

Whilst the core “book learning” for Psychiatry is delivered in the core lecture week and recommended resources, there is more to psychiatry than just learning facts – you need to experience it! The clinical placements are all about getting as much hands on experience as you can. This means interviewing patients, doing clerk ins, joining ward rounds, participating in home visits and clinics and perhaps accompanying a trainee doctor during out of hours on call.

As with any clinical placement, you should wear your name badge whenever in wards or in clinics and you should dress appropriately in line with the local NHS guideline. There is a common (mis) perception that Psychiatry is dangerous. In fact it is a lot less dangerous than some other branches of medicine, however you should take sensible steps to ensure your personal safety. You should be offered and instructed in the use of a personal alarm when in clinical areas, check with MDT staff that a patient you are going to is appropriate for interview, let colleagues know where you are and use a suitable interview space and let exit from room be impeded.

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Assessment

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- Three (minimum) direct clinical observations completed during the 6 week clinical attachment
- Satisfactory end of placement professionalism report
- Portfolio Case report (only for students doing Psychiatry in block 1,2,4 &5) There are exemplar Psychiatry portfolio cases and a link to the university portfolio case report format on LEARN
- End of semester Written Examination – Single best answer and very short answer Knowledge test will include several questions from Psychiatry.
- OSCE – approximately two stations in the end of year OSCE will be from Psychiatry

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Core Week Lectures

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Core lecture powerpoint presentations are available on LEARN in addition to Media hopper recordings.

- Introduction to Psychological aspects of Medicine Programme
- Introduction to Yr 5 Psychiatry
- Anxiety states and related conditions
- Eating Disorders
- Dementia and Neuropsychiatry
- Affective Disorders
- Forensic Psychiatry (inc dissocial personality and mental health law)
- Personality disorder
- Schizophrenia
- Learning Disability (inc developmental disorder)
- Child development and systemic practice

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Seminar Teaching

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Many sessions have accompanying powerpoint presentations and some are recorded and available on Media Hopper (but some are small group format which are not recorded)

- Schizophrenia Bipolar Psychopharmacology ECT
- Anxiety Depression Psychological Therapies
- Liaison Psychiatry self harm suicide
- Psychiatry of Old age Dementia Depression in over 65
- Substance misuse alcohol, drugs, overdose prevention, psychostimulants
- Child and Adolescent Neurodevelopmenta and Intellectual disability
- Forensic

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Aberdeen

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▶ Announcements and latest updates

Glasgow

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Glasgow University Psychiatry Interest Group

Research Contacts and Opportunities in Glasgow

There are lots of opportunities for psychiatry research in Glasgow, and students are welcome to get involved and gain experience in research projects.

Contacts include:

- Helen Minnis: Helen.Minnis@glasgow.ac.uk
- Jonathan Cavanagh: Jonathan.Cavanagh@glasgow.ac.uk

Mental Health Research Organisations:

- Mental Health and Wellbeing Research Group, University of Glasgow
- ACE (Adverse Childhood Experiences) Centre
- NHS Research Scotland Mental Health Network

Support for Students at University of Glasgow

- Nightline

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