Title	*Heparin – Adult Infusion Chart*
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Developed by	*NHS Lothian – Sept 2018; reviewed Allison Carruthers May 2021; reviewed Rachel McKaig, November 2025*
Approved by	*NHS Borders Anticoagulation Committee*
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Owner/Responsible Person	*McKaig, R*
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Reviewed by *(not applicable if version 1)*	*McKaig, R*
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Health Inequality Impact Assessment (HIIA) (only statutory for policies)	*n/a*
ID Number	*Clinical Governance & Quality Use only*

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NHS Borders
Adult Heparin Infusion Chart
(For standard bleeding risk)

Consultant		Name of Patient	
Hospital / Ward		CHI Number	
Weight (kg)		DOB	

Medicine (Approved Name)	Final Concentration	Total Dose	Volume	Route	Prescribed / Transcribed By Sign & print name
Heparin	1000 units/ml	20,000 units	20 ml	IV	

*Please note that in NHS Borders heparin sodium solution for infusion is available in a ready concentration of 1000units/ml so further dilution is not required. If in doubt, contact pharmacy for advice.

Initiation of therapy

- Check baseline FBC, INR, APTT, urea, creatinine
- Prescribe loading dose and infusion on the patients main Prescription Chart "as charted" and also prescribe the infusion on the Heparin Infusion Chart.
- Loading dose: 5000 units IV bolus. For patients with a high risk of bleeding e.g. elderly >70yrs, creatinine clearance <30ml/min or low body mass index, a loading dose may not be required.
- Immediately start continuous infusion of heparin (1000 units/ml) set at initial rate of 1,200 units (1.2 ml)/hr. If actual body weight over 120kg seek advice from haematologist.
- For patients with a high risk of bleeding, a lower starting rate may be required, such as 1,000 units (1.0ml)/hr.

Check APTT ratio 6 hours after the heparin bolus, then adjust rate to achieve therapeutic range of **2.0-3.0** using the **dose adjustment table** below.

Infusion Rate Instructions

	Date	Time	Rate ml/hr	Prescribed by	Adjusted by	APTT ratio	Reason for Change/Comment
Initial Rate							
Change 1							
Change 2							
Change 3							
Change 4							
Change 5							
Change 6							

Dose Adjustment Instructions

TARGET APTT RATIO: **2.0 - 3.0**

(if there is a high bleeding risk, a revised target ratio may be required: seek advice from Haematology)

APTT ratio	INFUSION ADJUSTMENT:	REPEAT APTT ratio:
>5.0	Stop for 1 hour and decrease rate by 500 units (0.5ml)/hr	2 hours
4.1-5.0	Decrease infusion rate by 300 units (0.3ml)/hr	6 hours
3.1-4.0	Decrease infusion rate by 200 units (0.2ml)/hr	6 hours
2.0-3.0	No change in infusion rate	next day AM
1.5-1.9	Increase infusion rate by 100 units (0.1ml)/hr	6 hours
1.2—1.4	Increase infusion rate by 200 units (0.2ml)/hr	6 hours
<1.2	Increase infusion rate by 400 units (0.4ml)/hr	6 hours

Other Instructions

- Monitor FBC daily.
- No IM injections, no non-steroidal anti-inflammatory drugs and no arterial punctures while on anticoagulants.
- If platelet count is less than 100 x10^9/L or if bleeding is noticed, stop heparin infusion and notify duty doctor immediately.
- If therapeutic range for APTT ratio is not reached within 24 hours, notify duty doctor.
- Do not stop the heparin infusion to check the APTT ratio
- Do not take the APTT ratio sample from the limb with the infusion (or the same line in the case of central lines)
- If the APTT ratio is over 4.0, call duty doctor.

Medicine	Heparin	**Infusion Device Type**		**Name of Patient**	
Concentration	1000 units/ml	**Device Service Number**		**Patient Number**	Or affix patient label
Expected Completion Time				**DOB**	

Preparation Details	Batch Number	Quantity	Date	Time	Prepared By	Checked By
Heparin						

Check infusion device 15 minutes after set up and then every hour thereafter. **Sign box when the device has been checked.**

A	B	C	D	E	F	G	H	I	J
Date	Time	Site check	Rate (ml/hr)	Volume (ml) remaining in syringe – visual check	Volume (ml) infused since last check – calculated from E	Total volume (ml) infused – calculated from E	Total volume (ml) infused – device reading	Initials (two to set up / change rate)	Comments

Syringe pumps must have the line purged and the volume recorded in column E. Start-up time may affect volume actually given to the patient.