



Title	<i>Heparin – Adult Infusion Chart</i>
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Developed by	<i>NHS Lothian – Sept 2018; reviewed Allison Carruthers May 2021</i>
Reviewed by	<i>Liz Leitch – Sept 2022</i>
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Health Inequality Impact Assessment (HIIA) <small>(only statutory for policies)</small>	<i>N/A</i>

Uncontrolled when printed

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 $100 \times 10^9/L$ 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.