



Title	<i>Heparin – IV Drug Monograph – BGH Guidance</i>
Document Type	<i>Guideline</i>
Version Number	<i>V3.0</i>
CGQ & RDS ID Number	<i>Clinical Governance & Quality Use only</i>
Approval/Issue date	<i>September 2022</i>
Review date	<i>September 2024</i>
Owner/Responsible Person	<i>Leitch L liz.leitch@borders.scot.nhs.uk</i>
Developed by	<i>BGH Clinical Pharmacists – Sept 2018; reviewed Allison Carruthers Sept 2020</i>
Reviewed by	<i>Liz Leitch – Sept 2022</i>
Significant resource implications (financial/workload)	<i>N/A</i>
Approved by	<i>NHS Borders Anticoagulation Committee</i>
Health Inequality Impact Assessment (HIIA) (only statutory for policies)	<i>N/A</i>

Uncontrolled when printed

Heparin

Form	20ml vial of heparin sodium 1000 units/ml (Total 20,000 units/20ml)																																	
Diluent	Should be administered without further dilution.																																	
Method	Ready diluted:- Concentration 1000units/ml																																	
Administration	<p>Initiation of therapy</p> <ul style="list-style-type: none"> • Check baseline FBC, INR, APTT, urea, creatinine • Prescribe loading dose and infusion on the patients main Medicine 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. 																																	
<p>Check APTT ratio 6 hours after the Heparin bolus then adjust rate to achieve a therapeutic range of 2.0 – 3.0 using the dose adjustment table below.</p>																																		
<table border="1"> <thead> <tr> <th colspan="3">Dose Adjustment Instructions</th> </tr> </thead> <tbody> <tr> <td colspan="3">TARGET APTT RATIO: 2.0 - 3.0</td> </tr> <tr> <td colspan="3">(if there is a high bleeding risk, a revised target ratio may be required: seek advice from Haematology)</td> </tr> <tr> <td>APTT ratio</td> <td>INFUSION ADJUSTMENT</td> <td>REPEAT APTT ratio:</td> </tr> <tr> <td>>5.0</td> <td>Stop for 1 hour and decrease rate by 500 units (0.5ml)/hr</td> <td>2 hours</td> </tr> <tr> <td>4.1-5.0</td> <td>Decrease infusion rate by 300 units (0.3ml)/hr</td> <td>6 hours</td> </tr> <tr> <td>3.1-4.0</td> <td>Decrease infusion rate by 200 units (0.2ml)/hr</td> <td>6 hours</td> </tr> <tr> <td>2.0-3.0</td> <td>No change in infusion rate</td> <td>next day AM</td> </tr> <tr> <td>1.5-1.9</td> <td>Increase infusion rate by 100 units (0.1ml)/hr</td> <td>6 hours</td> </tr> <tr> <td>1.2-1.4</td> <td>Increase infusion rate by 200 units (0.2ml)/hr</td> <td>6 hours</td> </tr> <tr> <td><1.2</td> <td>Increase infusion rate by 400 units (0.4ml)/hr</td> <td>6 hours</td> </tr> </tbody> </table>		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
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Storage	<p>IV additives prepared outwith the hospital pharmacy aseptic unit, must be prepared immediately before the dose is given and remain stable for the length of time required for drug administration.</p> <p>DO NOT STORE ON WARD</p> <p>Vials containing injectable medicines must be used to prepare the IV injection for immediate use and then discarded. They must not be stored for further use.</p>																																	
Further Information	Syringes should not be allowed to run any longer than 24 hours and should be changed after this time period.																																	

This is abridged product information. For further details the product data sheet must be referred to or a pharmacist consulted.