

# ENOXAPARIN

<b>Indication</b>	<ul style="list-style-type: none"> <li>• Systemic anticoagulation<sup>1</sup></li> <li>• Prophylaxis against thromboembolism<sup>1</sup></li> </ul>										
<b>SUBCUTANEOUS</b>	<b>Presentation</b>	<ul style="list-style-type: none"> <li>• Pre-filled syringe 20 mg in 0.2 mL</li> </ul>									
	<b>Dosage</b> <sup>1</sup>	<ul style="list-style-type: none"> <li>• Dosage according to current age and indication (prophylactic or therapeutic)</li> </ul> <table border="1"> <thead> <tr> <th>Current age (months)</th> <th>Prophylactic dose</th> <th>Therapeutic dose</th> </tr> </thead> <tbody> <tr> <td>0–2 months</td> <td>0.75 mg/kg every 12 hours</td> <td>1.5 mg/kg every 12 hours</td> </tr> <tr> <td>More than 2 months</td> <td>0.5 mg/kg every 12 hours</td> <td>1 mg/kg every 12 hours</td> </tr> </tbody> </table>	Current age (months)	Prophylactic dose	Therapeutic dose	0–2 months	0.75 mg/kg every 12 hours	1.5 mg/kg every 12 hours	More than 2 months	0.5 mg/kg every 12 hours	1 mg/kg every 12 hours
		Current age (months)	Prophylactic dose	Therapeutic dose							
		0–2 months	0.75 mg/kg every 12 hours	1.5 mg/kg every 12 hours							
	More than 2 months	0.5 mg/kg every 12 hours	1 mg/kg every 12 hours								
<b>Preparation</b>	<ul style="list-style-type: none"> <li>• Baby less than 1.5 kg               <ul style="list-style-type: none"> <li>○ Draw up 10 mg (0.1 mL) of enoxaparin</li> <li>○ Add the 0.1 mL of enoxaparin to 0.9 mL of 0.9% sodium chloride</li> <li>○ Agitate syringe</li> <li>○ <i>Concentration now equal to 10 mg in 1 mL</i></li> <li>○ Prime the needle and reduce total syringe volume to the prescribed dose</li> </ul> </li> </ul>										
	<ul style="list-style-type: none"> <li>• Baby 1.5 kg or more               <ul style="list-style-type: none"> <li>○ Draw up 10 mg (0.1 mL) of enoxaparin</li> <li>○ Add the 0.1 mL of enoxaparin to 0.4 mL of 0.9% sodium chloride</li> <li>○ Agitate syringe</li> <li>○ <i>Concentration now equal to 10 mg in 0.5 mL (20 mg in 1 mL)</i></li> <li>○ Prime the needle and reduce total syringe volume to the prescribed dose</li> </ul> </li> </ul>										
<b>Administration</b>	<ul style="list-style-type: none"> <li>• Subcutaneous injection               <ul style="list-style-type: none"> <li>○ Rotate site of injection between left and right antero-lateral abdominal wall and thigh</li> <li>○ Do not rub injection site after administration<sup>2</sup></li> </ul> </li> </ul>										
<b>Special considerations</b>	<ul style="list-style-type: none"> <li>• Consult with paediatric haematologist before commencement and if:               <ul style="list-style-type: none"> <li>○ Cessation of enoxaparin is indicated for planned invasive procedures (e.g. lumbar puncture, epidural injection or surgery)</li> <li>○ Reversal of low molecular weight heparin therapy is required</li> <li>○ Serious bleeding occurs</li> </ul> </li> <li>• Reduce dose in renal impairment<sup>3</sup></li> <li>• Round doses for ease of calculation. May further dilute above preparations with 0.9% sodium chloride<sup>2</sup> to increase administration volume</li> </ul>										
<b>Monitoring</b>	<ul style="list-style-type: none"> <li>• Drug levels               <ul style="list-style-type: none"> <li>○ Wait until a minimum of 2 doses administered</li> <li>○ Collect sample for Anti Xa level exactly 4 hours post-dose<sup>4</sup></li> <li>○ Do not take sample from a line contaminated with standard heparin</li> </ul> </li> <li>• Aim for therapeutic drug level result of<sup>3</sup> 0.5 to 1 unit/mL</li> </ul>										
<b>Compatibility</b>	<ul style="list-style-type: none"> <li>• Fluids</li> <li>• 0.9% sodium chloride<sup>2</sup></li> </ul>										
<b>Incompatibility</b>	<ul style="list-style-type: none"> <li>• Not applicable to subcut injection of single medicine</li> </ul>										
<b>Interactions</b>	<ul style="list-style-type: none"> <li>• Not applicable to subcut injection of single medicine</li> </ul>										
<b>Stability</b>	<ul style="list-style-type: none"> <li>• Store below 25 °C<sup>5</sup></li> <li>• Discard unused contents of syringe<sup>5</sup></li> </ul>										
<b>Side effects</b>	<ul style="list-style-type: none"> <li>• Blood pathology: hyperkalaemia<sup>1</sup>, transient elevation of liver aminotransferases<sup>6</sup></li> <li>• Circulatory: haemorrhage<sup>1</sup>, bruising at injection site<sup>6</sup></li> </ul>										
<b>Actions</b>	<ul style="list-style-type: none"> <li>• A fractionated, low molecular weight derivative of heparin, with most of the same properties as heparin but with a longer duration of action<sup>3</sup></li> </ul>										



Monitoring of therapeutic dosage of enoxaparin	Anti Xa level (unit/mL)	Withhold next dose?	Change dose?	Repeat Anti Xa test
	Less than 0.35	No	Increase by 25%	4 hours post next AM dose
	0.35–0.49	No	Increase by 10%	4 hours post next AM dose
	0.5–1.0	No	No change	Weekly, 4 hours post AM dose Increase test frequency in consultation with paediatric haematology
	1.1–1.5	No	Decrease by 20%	4 hours post next AM dose
	1.6–2.0	For 3 hours	Decrease by 30%	Trough level before next dose, then 4 hours post next AM dose
	More than 2.0	Until trough Anti Xa less than 0.5 unit/mL	Decrease by 40%	Trough level before next dose and if not less than 0.5 unit/mL, repeat twice a day

*Source: Queensland Children's Hospital. Enoxaparin for paediatric patients*

<b>Abbreviations</b>	AM: ante meridiem (before midday, morning)
<b>Keywords</b>	Heparin, clexane, enoxaparin, anticoagulant, thrombus, thromboembolic prophylaxis, LMWH, therapeutic treatment, Anti Xa

The Queensland Clinical Guideline *Neonatal Medicines* is integral to and should be read in conjunction with this monograph. Refer to the disclaimer. Destroy all printed copies of this monograph after use.

## References

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## Document history

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