

# Initiation and Maintenance

## Initiation of enoxaparin therapy

- Obtain blood for baseline CBC, PT, PTT.
- Calculate **enoxaparin dose (mg)** based on age, weight and indication. See Table 1

**Table 1 - Initial Dosing of Enoxaparin:**

LMW heparin indication	< 2 months of life	≥ 2 months of life
<b>Treatment dose</b> q 12 hours SQ	<b>1.5 mg/kg</b>	<b>1 mg/kg</b>
<b>Prophylaxis dose</b> q 12 hours SQ	<b>0.75 mg/kg</b>	<b>0.5 mg/kg</b>

**Maximum dose without a Hematology consult is 2 mg/kg q 12 hours**

## **Dosing for impaired renal function**

- If CrCl is <30ml/min/1.73m<sup>2</sup>, consider use of heparin as an alternative and consult Hematology for dosage recommendations.

## Maintenance and monitoring of enoxaparin

**Table 2 - Target LMW heparin levels:**

<b>Treatment</b>	0.5-1 units/ml
<b>Prophylaxis</b>	0.1-0.3 units/ml

Patients with <b>new thrombosis or extension of thrombus</b> while on enoxaparin	0.8-1.2 units/ml with hematology consult
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**Table 3 - Adjustment of treatment dose and monitoring based on LMW heparin level:**

<b>Adjustment of dose &amp; timing of levels based on LMW heparin level where target is treatment</b>			
	<b>First level</b> obtained 4 hours after <b>3rd</b> dose		
	After <b>first level</b> is received, subsequent adjustments are made based on the following table:		
<b>LMW heparin level (units/ml)</b>	<b>Hold next dose?</b>	<b>Dose change?</b>	<b>Repeat LMW heparin level</b>
< 0.35	No	↑ by 25%	4 hours after 2 <sup>nd</sup> dose
0.35-0.49	No	↑ by 10%	4 hours after 3 <sup>rd</sup> dose
0.5-1	No	No	4 hours after dose then 1x per week once 2 therapeutic levels are attained
1.1-1.5	No	↓ by 20%	4 hours after next dose
1.6-2	No	↓ by 30%	4 hours after next dose

> 2	Yes	↓ by 40%	q 12 hours until < 0.5
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- After initiation of therapy, the first LMW heparin level is drawn 4 hours after the 3rd dose of enoxaparin. Adjustment to the initial dose should not be made until the LMW heparin level obtained 4 hours after the 3rd dose is known.
- Enoxaparin dosing will be adjusted to standard administration times by nursing (8am & 8pm). This adjustment will be complete by the 3rd dose, so timing of lab draws for enoxaparin will usually be set for 1200 or 0000 depending on which time the 3rd dose would be given.
- If rapid anticoagulation is required the LMW heparin level may be drawn 4 hours after each dose until a therapeutic level is attained. [*Rapid anticoagulation ONLY*].
- Adjust treatment dose and further monitoring based on the LMW heparin level using Table 2.
- **This table applies only if there is no bleeding.**
- Additional monitoring is NOT required for prophylaxis dosing.
- Infants frequently require higher Enoxaparin doses: up to 1.7 mg/kg for term infants and 2 mg/kg for preterm infants. **Maximum does without a Hematology consult is 2 mg/kg q 12 hours.**

### References:

David, M., et al. Heparin and LMWH in Children. Thrombosis Interest Group of Canada. January 2007. <http://www.tigc.org/eguidelines/heparinchild07.htm>. Accessed 11/15/08.

Lexi-Drugs Online/Pediatric Lexi-Drugs Online, Enoxaparin, <http://online.lexi.com/crlsql/servlet/crlonline>, Copyright © 1978-2008 Lexi-Comp, Inc, Hudson, OH 44236

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*These guidelines do not establish a standard of care to be followed in every case. It is recognized that each case is different and those individuals involved in providing health care are expected to use their judgment in determining what is in the best interests of the patient based on the circumstances existing at the time. It is impossible to anticipate all possible situations that may exist and to prepare guidelines for each. Accordingly these guidelines should guide care with the understanding that departures from them may be required at times.*

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