

Initiation, Maintenance and Duration of Therapy

This guideline is not intended for patients on ECMO, cardiac bypass pump, hemodialysis or continuous renal replacement therapy. Refer to specific guideline for these situations.

Initiation of therapy

- Obtain blood for CBC, PT, aPTT.
- Loading heparin dose: **75-100 units/kg IV** over 10 minutes.
 - **Loading dose may not be indicated in certain clinical situations with increased bleeding risk.**
- Calculate initial maintenance heparin dose based on age and weight.

Initial maintenance dose:

≤ 1 year 28 units/kg/hour IV
> 1 year 20 units/kg/hour IV

- Obtain blood for aPTT and/or heparin level **4 to 6 hours** after administration of the loading dose (no earlier).
- Adjust heparin to maintain the aPTT at **60-85 sec** (or an aPTT which usually correlates to a heparin level of 0.35 to 0.7) using **Table 1**.
- Obtain blood for aPTT and/or heparin level **4 to 6 hours after every** change in infusion rate.
- Use heparin level to calibrate aPTT levels. Obtain aPTT at least daily if using heparin levels to titrate dosing.

Table 1 - Heparin Adjustment

aPTT (seconds)	Bolus (units/kg)	Hold infusion (minutes)	Rate change (units/kg/hour)	Repeat PTT
≤ 50	50	0	↑10%	4 hours
50-59	0	0	↑ 10%	4 hours
60-85	0	0	No Change	24 hours
86-95	0	0	↓10%	4 hours
96-120	0	30	↓10%	4 hours
≥ 120	0	60	↓15%	4 hours

Duration of therapy

The duration of heparin therapy is dependent upon the primary problem.

- **General recommendations:**

- **May start warfarin as early as day 1 if long-term anticoagulation is planned.**
- **UFH/enoxaparin should be discontinued no earlier than day 6 and after INR has reached goal range for 2 consecutive days.**
- **May convert to LMW heparin/enoxaparin when clinical situation allows.**

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.