University Health System
Pediatric Dosing and Monitoring Protocol

Enoxaparin

- All patients &/or families should receive teaching prior to discharge on this medication.
- For doses < 20mg, the Sunrise entry titled "Enoxaparin Inj. 20mg/ml PEDI" should be used

Initial Enoxaparin Dose Based on Age and Indication

Age Group	VTE Treatment	VTE Prophylaxis
Infants < 2 months old	1.5mg/kg/dose SC every 12 hours	0.75mg/kg/dose SC every 12 hours
Infants ≥ 2 months and children ≤18 years	1mg/kg/dose SC every 12 hours	0.5mg/kg/dose SC every 12 hours **OR** (if weight is greater than 40kg) 40mg once daily or 30mg every 12 hours

Monitoring

- Baseline labs- CBC, Chem 7
  - Dosage adjustments should be made for CrCl < 30 mL/min (dose once daily instead of q 12 hours)
- CBC should be checked 24 hours after first dose for all patients and then every other day through Day 10 of therapy for hospitalized patients and on Day 7 for discharged patients for signs of heparin induced thrombocytopenia.

LMW Heparin Assay (Anti-Xa) Monitoring for Treatment Dosing

- Due to variability in dose response, routine monitoring of the LMW Heparin concentration (Anti-Xa) in children and neonates receiving **treatment dose** enoxaparin is necessary.
- Draw first LMW Heparin assay **4 hours after the 3RD dose**.
- Lab is titled "**LMW heparin assay**" in Sunrise, and results are located in the results tab, under coagulation**.**
- **Target LMW Heparin concentration (Anti-Xa) for treatment is 0.5 – 1 units/mL**
- Target LMW Heparin concentration (Anti-Xa) for prophylaxis is 0.2 - 0.4 units/mL

Dose Adjustments for Treatment Dose Enoxaparin in Pediatrics

LMW Heparin Assay (Anti-Xa) (units/mL)	Hold Next Dose	Dose Change	Repeat LMW Heparin Assay
< 0.35	No	↑ 25%	4 hours after next dose
0.35 – 0.49	No	↑ 10%	4 hours after next dose
0.5 – 1	**No**	**No change**	**Once weekly**
1.1 – 1.5	No	↓ 20%	4 hours after next dose
1.6 - 2	No	↓ 30%	4 hours after next dose
> 2	YES- Hold until < 0.5 units/mL	↓ 40%	Every 12 hours until level < 0.5 units/mL

Warfarin Bridging

- Overlap warfarin for at least 4-5 days **AND** until 2 therapeutic INRs on separate days are achieved.

Reference:
Monagle P, Chalmers E, Chan A, et al. Chest 2008;133(suppl);887S-968S.

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