University of Mississippi Medical Center / Mississippi Critical Care Organization (MiCCO)
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Anticoagulation Dosing Recommendations for COVID-19 Patients

The following dosing recommendations apply to all COVID-19 positive and rule out adult patients at UMMC.

D-dimer < 3000 ng/mL *or* plt < 100,000

Standard prophylactic anticoagulation:

Normal: Enoxaparin 40 mg SQ daily

- BMI 40 - 49: Enoxaparin 40 mg SQ twice daily
- BMI > 50: Enoxaparin 60 mg SQ twice daily

Renal failure (CrCl <30)/CRRT: Heparin 5000 SQ every 8 hrs or Enoxaparin 30 mg SQ daily

- BMI ≥ 40: Heparin 7500 units SQ every 8 hrs

**Note: OB recommending standard prophylactic dosing in status post C-section pts. Recommend reading OB note for guidance.

**Note: Please contact neurology or neurosurgery prior to protocol initiation, or any additional anticoagulation or antiplatelet therapy concerns, in patients with stroke or neurological issues.

No pharmacy follow-up

D-dimer ≥ 3000 ng/mL *and* plt ≥ 100,000

Enhanced prophylactic anticoagulation:

Normal: Enoxaparin 0.5 mg/kg SQ twice daily*

Renal failure (CrCl 15-30): 0.5 mg/kg SQ once daily*

- Serum anti-Xa peak should be drawn 4 hrs after the 3rd dose and repeated with each dose adjustment
- **Anti-Xa goal**: 0.2 – 0.5 IU/mL (see algorithm below for dose changes)

*Enoxaparin - *Max 100 mg/dose; Round doses to the nearest enoxaparin syringe size (30, 40, 60, 80, and 100 mg)*

iHD/CRRT: COVID Heparin infusion (Anti-Xa adjustments built in order)

Anti-Xa goal achieved

Yes → **Continue current dosing**

No → **See below - ¥Prophylactic Enoxaparin Dose Adjustment**

Additional monitoring recommendations:

- Review prior to admission meds to ensure not previously on Therapeutic Anticoagulation
  - If so, please **maintain Therapeutic Anticoagulation**
- Repeat platelet count (**CBC**) 1-2x weekly
- If patient labeled 'Resolved' or considered convalescing, discuss possibility of reducing to standard prophylaxis
  - If dosing reduced to standard prophylaxis dosing, pharmacy to sign off
- Consider checking TEG and fibrinogen if there is progressive organ failure or clinical thrombosis
- ****Providers*** - Consider empirically continuing prophylaxis for post-discharge in patients with hypercoagulability. Should consider if patient has ongoing VTE risk factors or may benefit from extended post-hospital VTE prophylaxis

Enoxaparin Anti-Xa Serum Concentration Monitoring

Serum Anti-Xa peak (Heparin, Anti-Xa Lab Order) should be drawn 4 hours after the third or subsequent enoxaparin dose (no sooner than the third dose). Repeat serum Anti-Xa peak with each dose adjustment, and with any significant change in renal function. **Results can be found in the Special Coag Studies Misc under the Results Review tab*

¥Enhanced Prophylactic Enoxaparin Dose Adjustment Based on Anti-Xa Concentration

Anti-Xa < 0.2 IU/mL: Increase enoxaparin dose by 10 - 20 mg to the nearest syringe size
Anti-Xa 0.2 - 0.5 IU/mL: no change
Anti-Xa > 0.5 IU/mL: Decrease enoxaparin dose by 10 - 20 mg to the nearest syringe size