This guidance should not supersede clinical judgment. Should be used in conjunction with latest evidence and patient-specific characteristics

COAGULOPATHY IN PATIENTS INFECTED WITH COVID-19

- Severe cases of COVID-19 result in a cytokine storm, systemic inflammatory response and coagulopathy. COVID coagulopathy is more prothrombotic than hemorrhagic and is thought to be a result of an uncontrolled immunothrombotic response.
- Common findings: significantly increased D-dimer level, modest decrease in platelet count & PT prolongation and fibrinogen on the upper limit of normal

LABORATORY MONITORING:

- Admission: Follow COVID – 19 order set, additional labs based upon physician discretion

THERAPEUTIC ANTICOAGULATION PRIOR TO ADMISSION

- Continue prior to admission medication, if no contraindications
- Consider switching to enoxaparin or heparin for anti-inflammatory effect

VTE PROPHYLAXIS (see page 2 for recommendations)

- All highly-suspected or confirmed COVID-19 patients should receive pharmacologic VTE prophylaxis unless contraindicated (e.g., PLT <25, active bleeding)
- If unable to use pharmacologic prophylaxis, SCDs are recommended

BLEEDING RISK ASSESSMENT: If patient is on antiplatelet therapy ensure appropriate indication. Consider using the Improve Bleed Risk Assessment

VTE TREATMENT FOR CONFIRMED OR HIGH SUSPICION OF VTE IN ABSENCE OF TESTING (see page 2 for recommendations)

- For high VTE suspicion recommend early confirmatory testing (doppler or CTPE) while respiratory status allows for transportation. Later testing may result in negative results
- Use of heparins (LMWH, UFH) recommended due to anti-inflammatory effect
- Patients with confirmed new VTE, treat for 3 months with re-evaluation at 3 months for duration of therapy

EMPIRIC ANTICOAGULATION FOR COAGULOPATHY (see page 2 for recommendations)

- D-dimer in isolation should NOT define COVID induced coagulopathy
- Consider empiric anticoagulation when D-dimer > 2500ng/ml & on 6L O₂ or with 50% increase in O₂ requirements over 24 hrs or persistent clotting of lines/devices/filters despite appropriate VTE prophylaxis
- The intensity of anticoagulation should be based on the assessment of bleeding risk. For low bleeding risk: consider using a therapeutic dosing strategy, for high bleeding risk: consider using an intermediate dosing strategy
- After 5 days: reassess O₂ requirements, CRP, D-dimer and bleed risk to determine continuation, escalation or de-escalation

DISCHARGE VTE PROPHYLAXIS

- Patients with moderate to severe COVID disease with prolonged hospital stay may be at increased risk for VTE post discharge and should be educated on signs and symptoms of DVT/PE
- A VTE risk assessment should be performed at discharge and include an evaluation of VTE risk versus bleed risk (decision must be individualized)
- It is not recommended to use D-dimer alone to determine the need to provide VTE prevention therapy
- Therapeutic anticoagulation is not recommended in the absence of PE/DVT. In patients with a high suspicion and diagnostic testing could not be performed (every effort should be made prior to discharge) individualize the decision to prescribe therapeutic anticoagulation with appropriate follow up
- A recent COVID-19 illness ALONE should not alter the approach for VTE prevention in those undergoing elective surgery