Community Developed Resource

Anticoagulation guidelines for COVID 19 patients

Riverside Health System

COVID-19 and thrombotic disease considerations

- The available data on thrombotic risk are quite limited, however, most experts agree that the signal for increased thrombotic risk is sufficient to **recommend pharmacologic venous thromboembolism (VTE) prophylaxis in all hospitalized COVID-19 patients** as long as there is no contraindication. Missed doses are common and are likely associated with worse outcomes. Therefore, every effort should be made to ensure patients receive all scheduled doses.
- Severe COVID-19 is associated with high D-dimer levels which appear to predict mortality. It is also unknown whether antithrombotic treatments aimed at D-dimer thresholds improve outcomes. When possible, imaging confirmation of suspected VTE should be obtained to guide anticoagulation decisions.
- **Extended post-hospital VTE prophylaxis should be considered** in patients with COVID-19 (up to 45 days.) Experience from the MAGELLAN, APEX and MARINER studies suggest that in select patients without COVID-19, post-discharge thrombo-prophylaxis (particularly with a DOAC) may be beneficial if bleeding risk can be minimized. While no data specific to COVID-19 exist, it is reasonable to employ individualized risk stratification of thrombotic and bleeding risk, to consider patients with elevated risk of VTE [e.g. Reduced mobility, active cancer, prior DVT, ?elevated D-dimer (>2 ULN)]. VTE options include Apixaban 2.5 bid, rivaroxaban 10 mg daily or Enoxaparin SQ daily (prevention dose adjusted for weight).
- There is substantial controversy about the use of escalated doses of anticoagulants to prevent thrombotic events in COVID-19 so no recommendations are offered.
- **Critical illness with COVID-19** adds complexity to the use of oral anticoagulants [to include need for invasive procedure (intubation, central catheters, arterial procedures), drug-drug interactions, nutritional deficiencies, liver and renal dysfunction], therefore **parenteral anticoagulation is recommended** in most cases, particularly enoxaparin. In patients with deteriorating renal function or a CrCL </= 30 ml/min, unfractionated heparin should be considered.

COVID-19 and Thrombotic or Thromboembolic Disease. J of Am College of Card (*https://doi.org/10.1016/j.jacc.2020.04.031*)

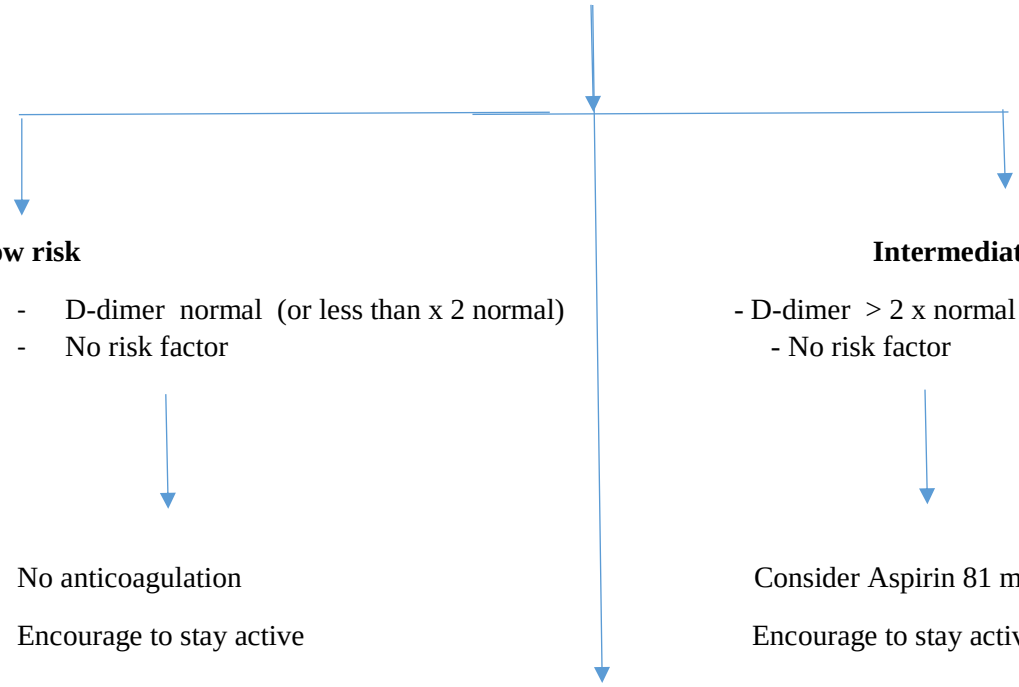
MAGELLAN (*https://www.nejm.org/doi/full/10.1056/NEJMoa1111096*)

APEX (*https://www.nejm.org/doi/full/10.1056/NEJMoa1601747*)

MARINER (*https://www.nejm.org/doi/full/10.1056/NEJMoa1805090*

Guidelines for prophylactic anticoagulation on discharge (for COVID 19 patients only)

No specific diagnosis/indication for long term anticoagulation



Low risk

- D-dimer normal (or less than x 2 normal)
- No risk factor

No anticoagulation

Encourage to stay active

Intermediate risk

- D-dimer > 2 x normal on discharge
- No risk factor

Consider Aspirin 81 mg daily PO

Encourage to stay active

High risk

D-dimer > 2x normal

AND – Immobility, prior VTE history, hormone use, obesity (BMI >30), history of cancer

AND – no bleeding risk or low bleeding risk (consider HAS-BLED score)

Consider the following for 6 weeks

- Enoxaparin 40 mg sq daily
- Apixaban 2.5 mg PO bid
- Rivaroxaban 10 mg daily

Follow with PCP in 4-6 weeks to determine need for anticoagulation.

*prophylactic anticoagulation for COVID 19 patients discharged from ED NOT recommended.