

## FAQ regarding Anticoagulation for VTE Prevention in Pregnancy and COVID-19

### **1. What to do with anticoagulation for VTE prevention in an antepartum or postpartum patient who tests positive for COVID-19 but is not sick from COVID-19 and/or require admission to the hospital due to COVID-19?**

The BMC Anticoagulation in COVID-19 protocol was developed to address issues regarding anticoagulation in patients infected with COVID-19 requiring acute care hospitalization. We recognize that pregnancy is a hypercoagulable state, however there is limited data to suggest that infection with COVID-19 alone (without acute illness or requiring hospitalization) increases thrombotic risk (at least to influence anticoagulation management). As such, in these situations (both antepartum and postpartum) providers should follow the [Venous Thromboembolism \(VTE\) Prophylaxis in Hospitalized Patients](#) guidelines with the use of risk stratification and prophylaxis as in the absence of COVID-19.

### **2. What to do with anticoagulation for DVT prophylaxis in an antepartum or postpartum patient who is hospitalized due to sequelae from COVID-19?**

Data in this population is limited, however these patients should be approached as having increased risk of thrombosis. We (and other professional groups) suggest that all pregnant patients requiring hospitalization for COVID-19 should receive VTE prophylaxis. We suggest close collaboration among providers to determine the optimal VTE prophylaxis regimen (considering possible event of delivery and/or need for epidural anesthesia during hospitalization). Providers should follow the [Venous Thromboembolism \(VTE\) Prophylaxis in Hospitalized Patients](#) guidelines and may consider enhance prophylaxis options based upon illness severity.

The use of D-dimer is a key feature of our risk stratification tool in non-pregnant patient with COVID-19 requiring hospitalization. However, the D-dimer levels in pregnancy are often elevated and thus unreliable and should not guide risk stratification. This stratification should be determined based upon other clinical features including disease severity and location of care. There is an increased risk in those with moderate to severe disease severity [such as those with PaO<sub>2</sub>/FiO<sub>2</sub> ≤300 mmHg, SIC (or sepsis induce coagulopathy) score ≥4, or elevated SOFA score) or those requiring intensive unit level care. The incorporation of these clinical features may help guide providers in collaboration to the preferred prophylaxis regimen such as intermediate dosing regimens (including 0.5 mg/kg of enoxaparin twice daily).

It has been noted by other groups that intermediate dosing regimens often used in the third trimester, as suggested by the American and Royal Colleges of Obstetrics and Gynecology (ACOG and RCOG), may be a reasonable option for pregnant patients with COVID-19. Furthermore, in patients who are severely ill from COVID-19 (particularly those in the Intensive Care Unit), assessment for

venous thromboembolism and/or use of full-dose anticoagulation may be considered on a case by case basis.

**3. What to do with anticoagulation for VTE prevention upon discharge in an antepartum or postpartum patient who is hospitalized because of sequelae from COVID-19?**

Data in this population is limited, however there are anecdotal concerns that the risk for venous thromboembolism may be increased in pregnant patients infected and sick with COVID-19 who are discharged from the hospital. There may be benefit from extended post-hospital VTE prophylaxis (with standard prophylactic doses of low molecular weight or unfractionated heparin) in a selected subset of pregnant patients following hospital discharge.

- The use of extended VTE prophylaxis is not warranted in antepartum patients with asymptomatic infection or mildly symptomatic COVID-19.
- The use of extended VTE prophylaxis may be warranted for up to 2-4 weeks in antepartum patients with moderate to severe symptomatic COVID-19.
- The use of extended VTE prophylaxis for postpartum patients with asymptomatic infection or mildly symptomatic COVID-19 should be based upon indications in the absence of COVID-19 per the [Venous Thromboembolism \(VTE\) Prophylaxis in Hospitalized Patients](#) guidelines.
- The use of extended VTE prophylaxis for postpartum patients with moderate symptomatic COVID-19 may be consider for up to 6 weeks post-discharge.