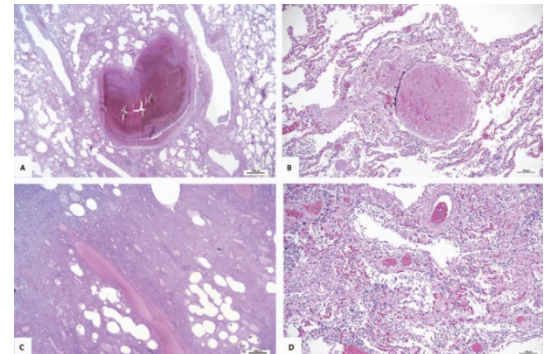


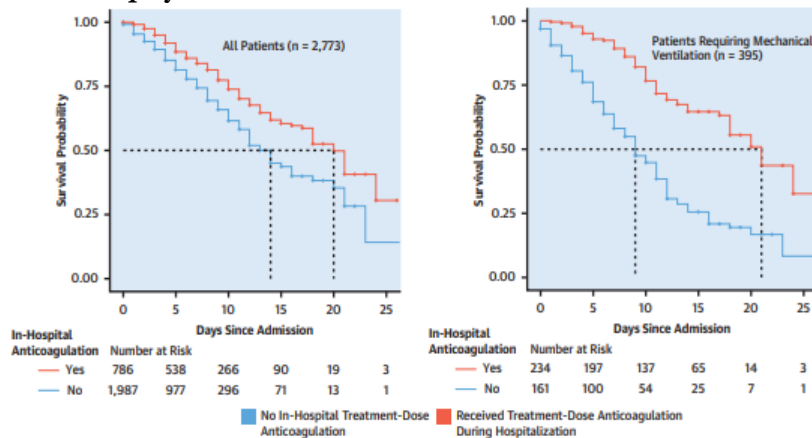
Venous Thromboembolism (VTE) in COVID-19

COVID-19 Associated Coagulopathy (CAC)

- Context:** High D-dimer and fibrinogen levels correlate with severity of infection in patients with COVID-19.
- Current:** Large and small vessels thrombosis has been observed on autopsy, even in patients on VTE prophylaxis.¹
- Cutting edge:** Pulmonary thrombosis may be more common than embolization. Anticoagulation may help large vessel involvement while anti-inflammatories may be the best approach to reducing small vessel thrombosis.



VTE Prophylaxis



- Context:** High-intensity prophylaxis improved thrombotic-free survival in H1N1 influenza.
- Current:** Therapeutic-dose anticoagulation may benefit critically ill COVID-19 patients.²
- Cutting Edge:** Benefits of high-intensity prophylaxis (LMWH 30 BID or UFH 7500 TID) may outweigh risks for critically ill patients with ARDS.

Diagnosis and Treatment

- Context:** CT angiogram is accurate for the diagnosis of VTE in the setting of COVID-19. VTE may be diagnosed clinically for patients who are not sufficiently stable to obtain these images.
- Current:** Parenteral anticoagulation with LMWH or UFH is recommended for treatment initiation for COVID-19 patients to help reduce staff exposure and drug accumulation related to drug-drug interactions or organ dysfunction.³
- Cutting Edge:** Transition from parenteral anticoagulation to direct oral anticoagulation (DOAC) once clinical stability is achieved and continue treatment for a minimum of three months.

References:

1. Sigurd F. Lax et al. Pulmonary Arterial Thrombosis in COVID-19 With Fatal Outcome: Results from a Prospective, Single Center, Clinicopathologic Case Series. *Ann Intern Med* 2020;173:350-361.
2. Ishan Paranipe et al. Association of Treatment Dose Anticoagulation with In-Hospital Survival Among Hospitalized Patients With COVID-10. *JACC* 2020;76(1):122-124.
3. Lisa K. Moores et al. Prevention, Diagnosis, and Treatment of VTE in Patients With Coronavirus Disease: 2019 CHEST Guidelines and Expert Panel Report. *CHEST* 2020;158(3):1143-1163.