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PREPARED FOR: Clinicians Involved in Caring for Hospitalized Patients with COVID-19

STANDARD TITLE: Venous thromboembolism (VTE) prophylaxis for COVID-19

Island Health clinicians should follow the clinical practice guidance of the British Columbia COVID-19 Therapeutics Committee (CTC) and COVID-19 Therapeutics Review and Advisory Working Group (CTRAWG). The current version of guideline is available at <http://www.bccdc.ca/health-professionals/clinical-resources/covid-19-care/clinical-care/treatments>. The purpose of this document is to provide information on implementation of the guidelines relating to the use of anticoagulant therapy in patients with COVID 19.

Severity of Illness	Island Health Recommendations for Implementation of the CTC/CTRAWG Guidelines			
<p>Critically Ill COVID-19 Patients <i>Hospitalized, ICU-based</i> Patients requiring respiratory support (high-flow oxygen, non-invasive ventilation, mechanical ventilation) and/or vasopressor/inotropic support</p>	The choice of agent and dose should consider the patient’s weight and renal function. We recommend the following doses for prophylactic-intensity in patients without high-risk features for bleeding*:			
	Dose based on estimated glomerular filtration rate (eGFR)			
	Weight (kg)	eGFR greater than or equal to 30mL/min	eGFR 20 to 29mL/min	eGFR less than 20mL/min
	40-100	Enoxaparin 30mg SUBCUT q12h	Enoxaparin 40 mg SUBCUT q24h	Heparin 5000 units SUBCUT q8h OR Consider clinical pharmacy consult for consideration of non-formulary Tinzaparin
Greater than 100	Enoxaparin 40mg SUBCUT q12h	Enoxaparin 60 mg SUBCUT q24h	Heparin 7500 units SUBCUT q8h OR Consider clinical pharmacy consult for consideration of non-formulary Tinzaparin	
<p>Severely Ill COVID-19 Patients <i>Hospitalized, ward-based, long-term care</i> Patients requiring supplemental oxygen therapy</p>	<p>In patients without high-risk features for bleeding*, we recommend enoxaparin 1 mg/kg SUBCUT Q12H unless there is a history of heparin induced thrombocytopenia.</p> <p>While enoxaparin is preferred, unfractionated heparin infusion following an approved following an approved clinical order set for titration to therapeutic PTT for titration to therapeutic PTT can be used as an alternative in the appropriate clinical setting at the clinician’s discretion.</p> <p>There is insufficient information to recommend the use of direct acting oral anticoagulants as an alternative to low molecular weight heparin for therapeutic anticoagulation in COVID-19.</p> <p>There is insufficient information on the use of other non-heparin anticoagulants such as fondaparinux and argatroban to provide a recommendation for or against the use of these agents in patients with COVID-19. Clinicians may wish to consult a hematologist if the use of these agents is being considered.</p> <p>If a patient has one or more high risk features for bleeding, clinicians should use their clinical discretion to select between intermediate-dose VTE prophylaxis, standard-dose VTE prophylaxis and non-pharmacologic VTE prophylaxis.</p>			
<p>Discharge Patients with known COVID-19 that have recovered and are discharged from hospital</p>	Anticoagulant therapy should be discontinued at the time of hospital discharge unless otherwise indicated.			

*High risk features for bleeding include: age 75 or greater, eGFR less than 30 mL/min, any coagulopathy, platelet count less than 50, use of dual antiplatelet therapy, recent history of serious GI bleed or recent intracranial condition (stroke, neurosurgery, aneurysm, cancer), epidural or spinal catheter.