Reviewed 06/2026
Clinical Practice Guidelines
TPIPS Committee
UnityPoint Health St. Lukes – Sioux City

Prophylaxis, Detection and Therapy of Deep Venous Thrombosis and Thromboembolism Algorithm

Table 1: Deep Vein Thrombosis Prophylaxis Therapy

	Preferred		**Alternative**
Patient Population	**CrCl > 30 mL/min**	**CrCl < 30mL/min**	
Weight <50kg	Enoxaparin 30 mg SubQ daily	Heparin 5000 units SubQ BID	Heparin 5000 units SubQ TID
Traumatic brain injury **or** spinal cord injury **or** solid organ injury	Enoxaparin 30 mg SubQ BID	Heparin 5000 units SubQ TID	Heparin 5000 units SubQ TID
Pregnant **or** Age > 65 years **or** CrCl 30-60 mL/min	Enoxaparin 30 mg SubQ BID		Heparin 5000 units SubQ TID
Age < 65 **and** Weight ≥ 50-120kg **and** CrCl > 60 mL/min	Enoxaparin 40 mg SubQ BID		Heparin 5000 units SubQ TID
Age < 65 **and** Weight ≥ 120kg **and** CrCl > 60 mL/min	Enoxaparin 60 mg SubQ BID		
ESRD/HD, CrCl < 30 mL/min		Heparin 5000 units SubQ TID	
Isolated orthopedic injury	Consider alternative monotherapy with Aspirin 81mg PO BID		
Contraindication to Prophylaxis	• Lower extremity venous duplex at 48-72 hours, and then at least weekly. Consider SCDs. Start pharmacologic prophylaxis as soon as not contraindicated. • High risk patients that need to be cleared before DVT prophylaxis starts: Closed head injury with bleed, spinal cord		

	Preferred	Alternative
	injury, and solid organ injury.	

- Consider Sequential Compression Devices (SCDs) for all patients on admit
- Aspirin 81mg BID for 0-4 weeks at discharge may be used for extended prophylaxis for high risk / limited mobility patients
- Consider GI prophylaxis if patient has a history of gastrointestinal bleed or is older age and on concomitant NSAIDS

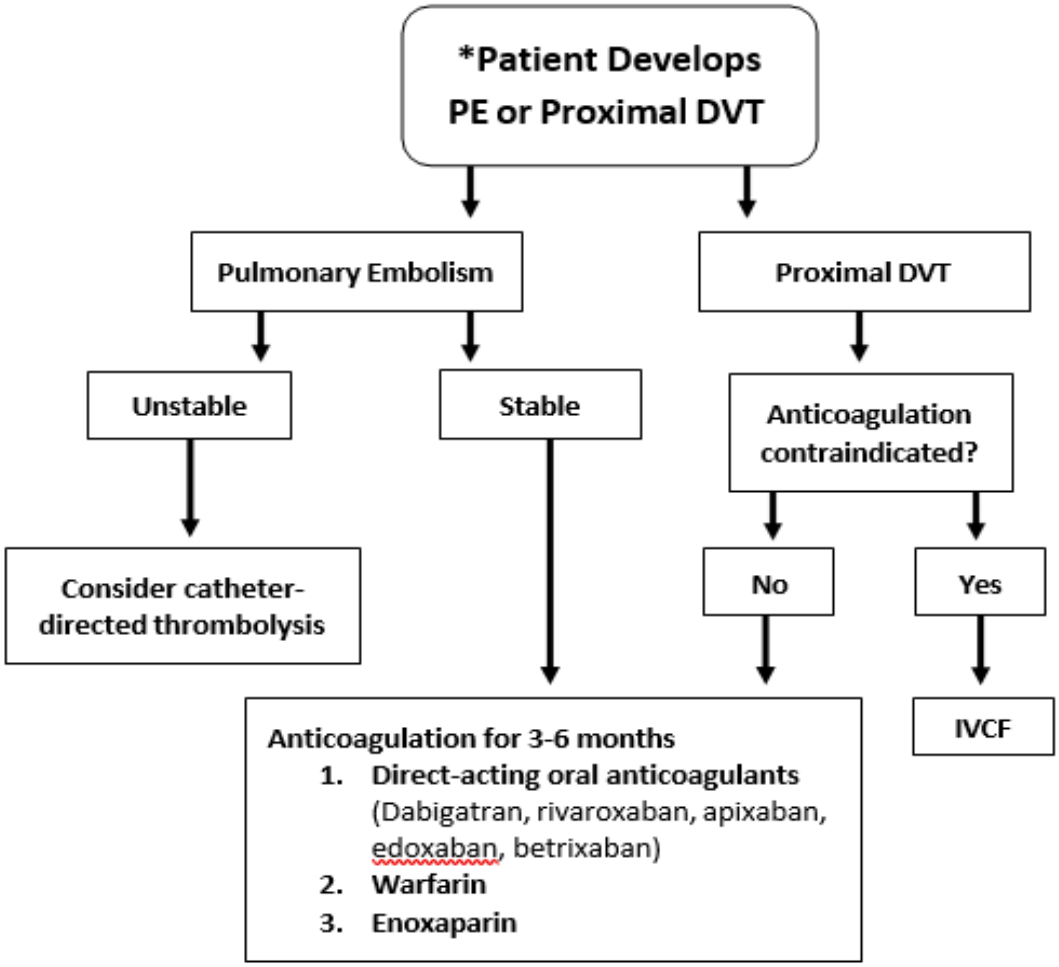

Table 2: Special Population Deep Venus Thrombosis Therapy

Patient population	Anti – Xa Goal	If Anti-Xa is low, then	If Anti-Xa is High, then
Pregnant **or** Age > 65 years **or** CrCl 30-60mL/min	0.2 to 0.4	Increase to 40mg SubQ BID	Decrease to 30mg SubQ daily
Age < 65 **and** Weight ≥ 50-120kg **and** CrCl > 60 mL/min	0.2 to 0.4	Increase to 60mg SubQ BID	Decrease to 30mg SubQ BID
Age < 65 and Weight ≥ 120kg **and** CrCl > 60 mL/min	0.2 to 0.4	Increase to 80mg BID	Decrease to 40mg BID

* When initiating unfractionated heparin in patients with recent exposure to direct oral anticoagulants (DOACs), aPTT should be used for initial monitoring rather than anti-Xa levels. Factor Xa inhibitors such as apixaban, rivaroxaban, and edoxaban can falsely elevate anti-Xa assays, leading to inappropriate down-titration of heparin and subsequent under-anticoagulation. Dabigatran may also affect coagulation assays, though its impact on anti-Xa is minimal. Because aPTT is less susceptible to DOAC interference, it provides a more accurate assessment of heparin activity during the transition period. Once the DOAC has sufficiently cleared, typically within 48 hours depending on the agent and renal function, monitoring may be transitioned back to anti-Xa–based titration, which remains the preferred method for heparin dose adjustment in patients without recent DOAC exposure.

References:

1. Yorkgitis, B.K. et al. (2022). American Association for the Surgery of Trauma/American College of Surgeons-Committee on Trauma Clinical Protocol for inpatient venous thromboembolism prophylaxis after trauma. *J Trauma Acute Care Surg, 92*(3), 597-604.
2. Grosso MJ, Kozaily E, Parvizi J, Austin MS. Aspirin Is Safe for Venous Thromboembolism Prophylaxis for Patients With a History of Gastrointestinal Issues. J Arthroplasty. 2021;36(7S):S332-S336.
3. Moukarbel GV, Bhatt DL. Antiplatelet therapy and proton pump inhibition: clinician update. Circulation. 2012;125(2):375- 380.
4. Sebaaly J, Covert K. Enoxaparin Dosing at Extremes of Weight: Literature Review and Dosing Recommendations. Ann Pharmacother. 2018 Sep;52(9):898-909. Doi: 10.1177/1060028018768449. Epub 2018 Mar 28.
5. Walker CK, Sandmann EA, Horyna TJ, Gales MA. Increased Enoxaparin Dosing for Venous Thromboembolism Prophylaxis in General Trauma Patients. Ann Pharmacother. 2017 Apr;51(4):323-331. doi: 10.1177/1060028016683970. Epub 2016 Dec 15.