Alaska Native Medical Center

Trauma Service

Guideline: Venous Thromboembolism Prophylaxis

VTE Prophylaxis Recommendations

General Trauma	**Admission for >24 hours** • Enoxaparin 30mg BID • If >100kg → enoxaparin 40mg BID
	Patients with Epidural Catheters • Hold chemical VTE prophylaxis for 12 hours prior to placing or removing epidural catheter • While epidural in place: Enoxaparin 40mg daily
	Clinical Contraindication to VTE Prophylaxis • Hold chemical VTE prophylaxis; document clinical reason • If unable to initiate VTE prophylaxis within 72 hours, consider IVC filter
Orthopedic Trauma	**Low Risk for VTE (Isolated Orthopedic Injury excluding High Risk Factors)** • Enoxaparin 40mg daily
	High Risk for VTE (Pelvic fracture, acetabular fracture, femur fracture with high energy mechanism (>20mph), multiple long bone fractures (if one is lower extremity), polytrauma) • Enoxaparin 30mg BID • If >100kg → enoxaparin 40mg BID
	Clinical Contraindication to VTE Prophylaxis • Hold chemical VTE prophylaxis; document clinical reason • If unable to initiate VTE prophylaxis within 72 hours, consider IVC filter
Neurosurgical Trauma	**Low Risk Head Injury (No moderate or high risk criteria)** • If Isolated Head Injury → start Heparin 5000u q8h if CT stable at 24 hours from injury • If Polytrauma → start enoxaparin 30mg BID if CT stable at 24 hours from injury
	Moderate Risk Head Injury (Subdural or epidural hematoma >8mm, contusion or intraventricular hemorrhage >2cm, multiple contusions per lobe, subarachnoid hemorrhage with abnormal CT angiogram, Evidence of progression at 24 hours) • If Isolated Head Injury → start Heparin 5000u q8h if CT stable at 72 hours from injury • If Polytrauma → start enoxaparin 30mg BID if CT stable at 72 hours from injury
	High Risk Head Injury (ICP monitor in place, Craniotomy, Evidence of progression at 72 hours) • Hold chemical VTE prophylaxis; document clinical reason • If unable to initiate VTE prophylaxis within 72 hours, consider IVC filter

Renal Impairment

For CrCl less than 30ml/min, Heparin 5000u q8h is recommended.

References:

Dhillon NK, Smith EJT, Gillette E, Mason R, Galinos B, et al. Trauma patients with lower extremity and pelvic fractures: Should anti-factor Xa trough level guide prophylactic enoxaparin dose? *International Journal of Surgery.* 2018;51:128-132.

Jacobs BN, Cain-Nielsen AH, Jakubus JL, Mikhail JN, Fath JJ, et al. Unfractionated heparin versus low-molecular-weight heparin for venous thromboembolism prophylaxis in trauma. *Journal of Trauma and Acute Care Surgery.* 2017 July;83(1):151-158.

Phelan HA, Wolf SE, Norwood SH, Aldy K, Brakenridge SC, et al. A Randomized, Double-Blinded, Placebo-Controlled Pilot Trial of Anticoagulation in Low-Risk Traumatic Brain Injury: The Delayed Versus Early Enoxaparin Prophylaxis I (DEEP I) Study. *Journal of Trauma and Acute Care Surgery.* 2012 Dec;73(6):1434-41.

Responsibility	Trauma
Written	May 2020
Approval	Trauma Clinical Core Business Group approved 11/16/2020. Medical Executive Committee approved 01/28/2021
Date last reviewed	May 2020
Date last revised	N/A
Supersedes	DVT Prophylaxis in Head Injury Patients