

PREVENTION OF VENOUS THROMBOEMBOLISM

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VENOUS THROMBOEMBOLISM (VTE)

- Trauma patients have up to a 58% incidence rate
- Trauma patients with burns have up to a 65% incidence rate
- Missing 2 doses of VTE chemoprophylaxis increases the risk by 8.5x
- Do not hold VTE chemoprophylaxis for surgical procedures except:
 - Brain
 - Spine
 - Eye

Begin VTE prophylaxis in all trauma patients **within 24 hours of injury in patients without coagulopathy or increased risk of bleeding.** Every missed dose increases VTE risk.

RECOMMENDATIONS

- Universal sequential compression device
- No direct oral anticoagulants or aspirin.
- Use Enoxaparin 30mg SC BID if normal CrCl
- Weight-base dosed Enoxaparin or Heparin TID:
 - if $<50\text{kg}$ \rightarrow 0.5mg/kg
 - if $\text{CrCl} < 30 \text{ mg/dL}$ \rightarrow SC heparin 5000 U TID

IVC Filters – Retrievable are preferred. Limit duplex U/S to symptomatic patients OR if patients had delayed initiation of VTE prophylaxis/numerous missed doses.

SPECIAL POPULATIONS

Traumatic Brain Injury

- Stable 24-hour head CT prior to prophylaxis
- Consult neurosurgery
- Hold prophylaxis if intracranial monitor in place
- Interrupted leads to 600% increase in VTE rate

Spine Trauma Injury

- Consult spine surgeon
- Initiate VTE prophylaxis 48–72 hours post-op or post-injury
- Hold VTE prophylaxis for suspected spinal injury and neurologic deficits until imaging/consultation

Solid Organ Injury

- AAST grade 1-3 liver, spleen, kidney \rightarrow start prophylaxis start within 12-24 hours:
 - No hemodynamic instability
 - Serial hemoglobin stable
 - No ongoing blood transfusion
- AAST grade 4-5 \rightarrow splenectomy
 - Initiate post-op

Pregnant Patients

- Enoxaparin & heparin –
 - *Considered SAFE for use*
- Enoxaparin 30mg SC BID

Epidural/Paravertebral Catheters

- Enoxaparin: Hold 12-hour pre-procedure and 4-12-hour post-procedure
- Unfractionated heparin: Hold 4-6-hour pre-procedure and 1-hour post procedure
- Avoid missing doses of prophylaxis for epidural placement

Pediatric Patients

Pre-puberty prophylaxis not recommended

VTE Metrics

- ✓ SCDs within 24 hours of injury
- ✓ Chemical VTE prophylaxis within 24 hours of injury or document contraindication
- ✓ Zero missed VTE prophylaxis doses



IVC Filter Metrics

- ✓ Retrievable IVCs removed within 6 months
- ✓ Document:
 - Indication/exact location
 - Retrievable vs. Permanent
 - Manufacturer/Brand/Serial #/Lot #