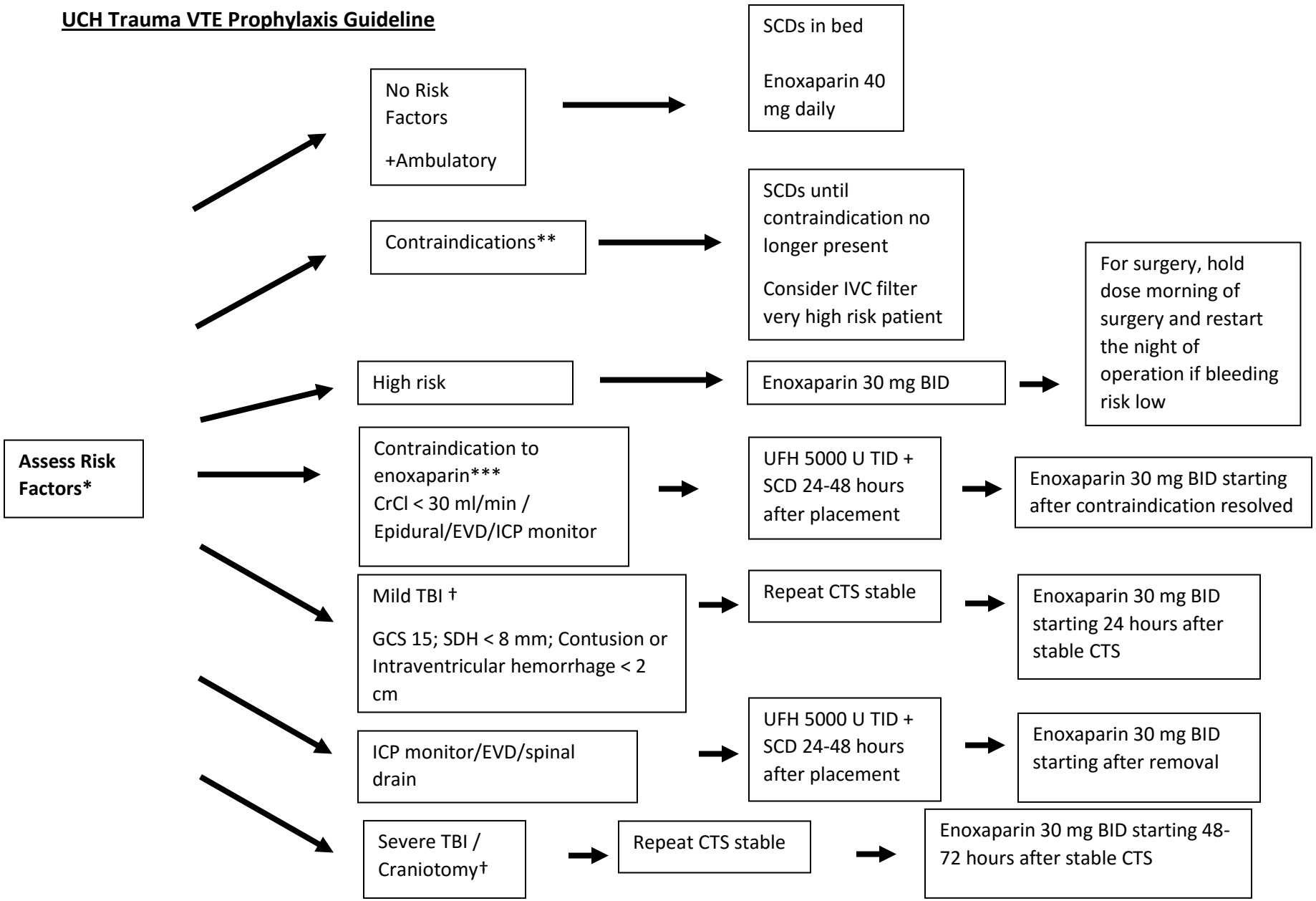
UCH Trauma VTE Prophylaxis Guideline



Transfer Patients: if patient is >48 hours from injury and has received prophylaxis, continue prophylaxis. If patient has not received prophylaxis, order four extremity duplex upon arrival and evaluate for VTE prophylaxis per risk stratification and condition. If <48 hours from injury, Evaluate for VTE prophylaxis per risk stratification and clinical condition.

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High risk VTE

- Spinal cord injury
- Lower extremity fracture
- Pelvic fracture
- Severe head injury (Head AIS > 2)
- Injury Severity Score ≥9
- Shock in ED
- Surgical procedure > 120 minutes
- Age > 60
- Vein injury
- Central line
- Prolonged immobility
- Prior history DVT/PE
- Mechanical ventilation
- Obesity
- Malignancy

IVC Filter

PE and complication of anticoagulation
PE and contraindication to anticoagulation
Recurrent PE on therapeutic anticoagulation
Consider in very high risk with planned frequent interruptions in pharmacologic prophylaxis

Solid organ injury/retroperitoneal or pelvic hematoma

Follow Hg q 6 hours. If Hg drops < 1 gm / dl over 24 hours then Hg is stable and pharmacologic prophylaxis is initiated at 24 hours

****Contraindications to pharmacologic VTE prophylaxis**

- Active bleeding
- High risk for bleeding
- Severe head injury†
- Solid organ injury
- Retroperitoneal / pelvic hematoma
- Ocular injury with hemorrhage
- Systemic anticoagulation
- INR > 2.0 or aPTT ≥ 1.5 x normal
- Platelet count < 50,000

*****Contraindications to enoxaparin**

- Epidural catheter
- Renal insufficiency Cr Cl < 30 ml/min
- ICP monitor/EVD/Spinal drain

†VTE Prophylaxis for the Patient with Head Injury and Spinal Cord Injury

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Traumatic brain and spinal cord injury

- VTE prophylaxis will be initiated 48-72 hrs after the injury/procedure for most intra- cranial hemorrhages and after craniotomy.
- Prophylaxis may be started 24 hrs after a stable repeat head CT scan for patients with mild TBI and the following:
    a. GCS of 15 within 30 minutes of injury
    b. Subdural or epidural hematoma < 8 mm
    c. Contusion or intraventricular hemorrhage < 2 cm (single lobe only)
- For patients requiring operative intervention following spinal cord injury, VTE prophylaxis should be held the morning of surgery and may be resumed 24 hrs post- operatively unless otherwise specified by the operating team.
- Enoxaparin is preferred in these patient populations, as well. However, patients with one of the above conditions and an ICP monitor, EVD or spinal drain in place should receive heparin 5000 units Q 8 hrs. After removal of the ICP monitor or drain, patients should be changed to enoxaparin 30 mg Q 12 hrs.

1. Phelan HA, Wolf SE, Norwood SH, 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. J Trauma and Acute Care Surg. 2012;73:1434-1441.

2. Koehler DM, Shipman J, Davidson MA, Guillamondegui O. Is early venous thromboembolism prophylaxis safe in trauma patients with intracranial hemorrhage. J Trauma. 2011;70:324-329.

3. Christie S, Thibault-Halman G, Casha S. Acute pharmacological DVT prophylaxis after spinal cord injury. Journal of Neurotrauma. 2011;28:1509-1514.

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