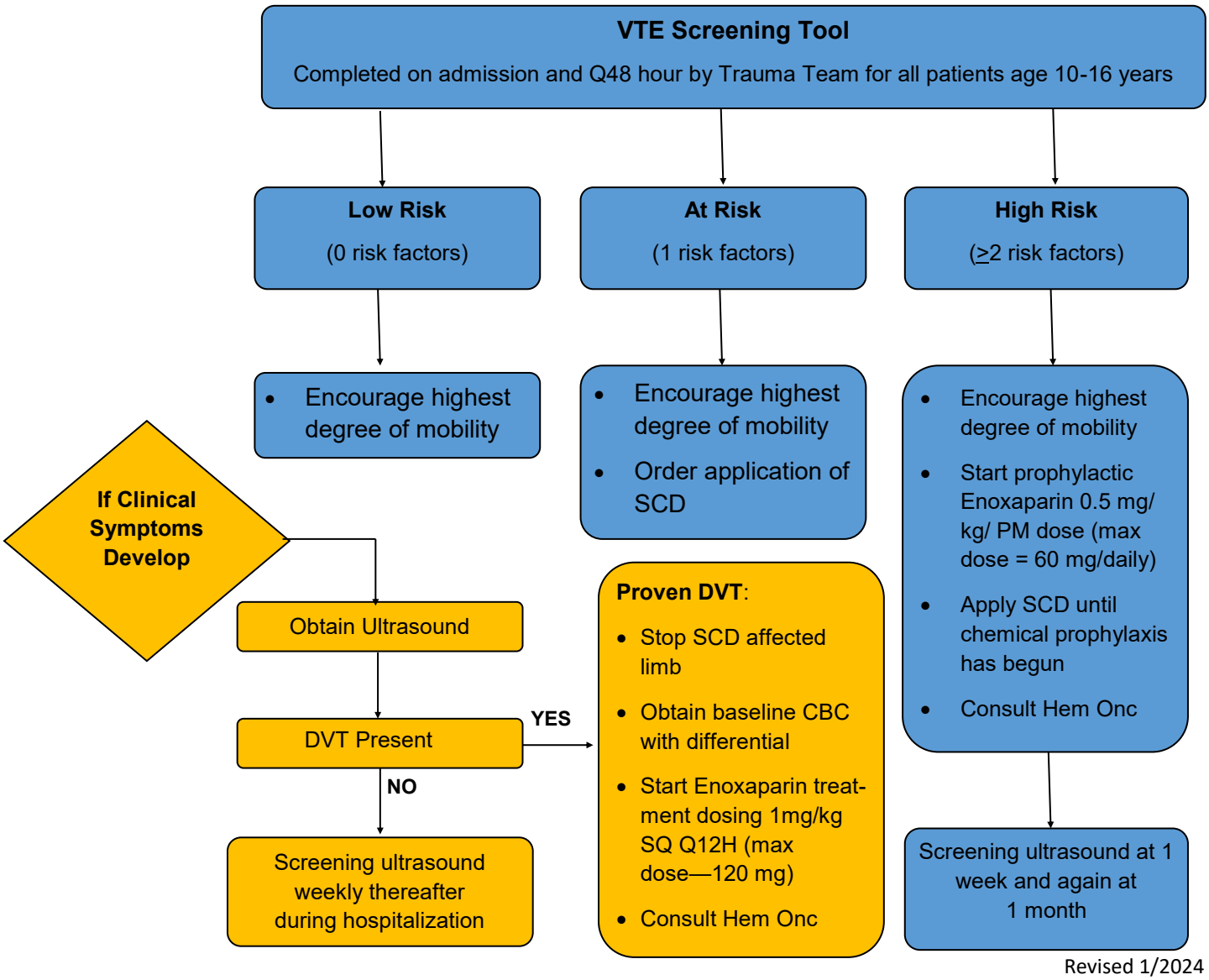
WVU Medicine Children's
CRITICAL CARE & TRAUMA CENTER

Practice Management Guideline
Pediatric Trauma VTE

Practice Management Guideline Declaration: This practice management guideline is provided as a general guideline for use by physicians and families in planning care and treatment of patients/families. It is not intended to be and does not establish a standard of care. Each patient's care is individualized according to specific needs.

Purpose: establish a standard for initiating VTE prophylaxis in pediatric patients
Patient Population: traumatically injured pediatric patients age 10-16 years
Exclusion Criteria: none

Practice Management Guideline Stages with associated Event Details: The Children's Hospitals' Solutions for Patient Safety VTE detection bundle should be used for screening for VTE by the trauma team. The following pathway is specific to the trauma patient and does not conflict but rather describes the Trauma Program's treatment pathway based on the CHSPS screen of practitioner opinion.



VTE Screening Tool Risk Factors

Key Indicators
• Mobility Status: Altered from baseline • Personal history of VTE • BMI >95th percentile in patients 10-16 years old

Patient/Family History
• Patient using contraceptives containing estrogen • Use of Aspariginase in last 14 days • Family history of VTE in 1st degree relative

Patient Disease Condition
• Current diagnosed malignancy • Cardiac shunt or cyanotic heart disease • Nephrotic Syndrome • Autoimmune Disease/Inflammatory (acute flare) • Known hypercoagulable state • Sepsis Red or confirmed systemic infection • Received fluid bolus of 40ml/kg in last 24 hours

Injury/Trauma/Procedures
• Acute Spinal Cord Injury or major trauma • Surgery in last 30 days • Operative fracture of pelvis, hip, or lower extremities

Notes:

1. Post 48 hour of ICP bolt insertion, DVT can be started with Neurosurgical Attending approval.
2. Patients with intracranial bleeding or spinal column (not process) fractures require Spine Attending approval prior to starting prophylactic Enoxaparin.
    - *Orthopedic obese spine patients-discuss starting Aspirin 325mg with Spine Attending*
3. Pharmacologic prophylaxis should be started on the patients from #1 where the head CT is stable for 24 hours or by 72 hours unless there is a written note from the Neurosurgery or Spine Attending expressing why is should noy yet be started.
4. Patients with an epidural catheter, must notify Pain Team prior to starting Enoxaparin.
5. Patients with eye trauma or retro-orbital fracture require approval from Ophthalmology Attending.
6. Hold Enoxaparin 24 hours prior to any operative procedure and then restart at the direction of the surgeon performing the procedure.
7. If a patient has renal failure, discuss with the Trauma Attending prior to starting Enoxaparin, as dose may have to be decreased and consider Heparin. Consult Pharmacy.
8. Long-term therapy (up to 3 months) with Enoxaparin may be required in patients who are non-ambulatory when transferred to the Rehabilitation Service.
9. Patients undergoing anesthesia >1 hour should have prophylaxis per hospital policy.
10. Hold DVT prophylaxis for 48 hours postoperatively in patients having spine surgery.
11. Patients can restart enoxaparin at weight appropriate dose 12 hours post-op for 24 hours.
12. Anti-Xa levels should be subtherapeutic (<0.3). Consult Pharmacy.
13. If Anti-Xa level is >0.3, reduce dose by 10mg and recheck after 3 doses.

Proven DVT:

1. Stop compression devices on affected limb.
2. Consult IR for potential thrombolysis and/or venacaval filter placement if Enoxaparin is contraindicated.
3. Consult Pharmacy to assist with treatment dose of anti-coagulant.
4. Consult Hematologist on-call while patient is in house for outpatient follow up.

DVT Prophylaxis on Discharge:

- Consider DTV prophylaxis in patients with fractures in other lower extremities that result in weight bearing restrictions.
    - Discuss ASA vs enoxaparin with Ortho
- 21 day therapy to be initiated at time of discharge.
    - Assessment for continued use will be completed at outpatient Orthopedic follow-up appointment by Orthopedic treatment team.

Practice Management Guideline Approved by:
Practice Management Guideline Date Approved:

References:

- Children's Hospitals' Solutions for Patient Safety. Recommended Bundle for Hospital Acquired Conditions: VTE
- A Clinical Tool for the Prediction of Venous Thromboembolism in Pediatric Trauma Patients JAMASurg. 2016:151(1):50-57
- Prophylaxis Against Venous Thromboembolism in Pediatric Trauma: A Practice Management Guideline from the Eastern Association for the Surgery of trauma and the Trauma Society. J Trauma Acute Care Surg. 2017 Mar.82(3):627-636