Interior Health

TRU Simulation Hospital

Billie, Rubi -
DOB 01/02/1967

VENOUS THROMBOEMBOLISM (VTE) PROPHYLAXIS – ADULT

Weight (kg) 79.37 kg

Bulleted orders are initiated by default, unless crossed out and initialed by the physician/prescriber. Boxed orders (☐) require physician/prescriber check mark (☑) to be initiated.

1. **ALLERGIES:** See Allergy / ADR record

2. **VTE RISK ASSESSMENT** *(see back of page)*
   - ☑ Low Risk — Early ambulation; no pharmacological or mechanical prophylaxis.
   - ☐ Moderate / High Risk — Order pharmacological prophylaxis (**unless** contraindicated).

3. **CONTRAINDICATIONS TO PHARMACOLOGICAL PROPHYLAXIS** *(see back of page)*
   - ☑ No — Select ONE option for pharmacological VTE prophylaxis; OR
   - ☐ No — Continue current therapeutic anticoagulation (order separately), do not order VTE prophylaxis.
   - ☐ Yes — Order mechanical prophylaxis (unless contraindicated), reassess DAILY for pharmacological prophylaxis.

4. **LABORATORY**
   - ☑ CBC and SCr at baseline and day #5 (if not already ordered), DAILY INR for warfarin patients for 3 days then reassess.

5. **SPECIAL CONSIDERATIONS**
   - If a patient is receiving continuous epidural analgesia, DO NOT ADMINISTER concurrent heparin IV, heparin subcut Q8H, dalteparin, enoxaparin, dabigatran, rivaroxaban, apixaban, edoxaban, warfarin, clopidogrel, prasugrel, or ticagrelor until discussed with an Anesthesiologist. Avoid concurrent ASA doses above 81 mg PO DAILY in patients receiving heparin, dalteparin, or enoxaparin. Consult Anesthesiologist or site-specific protocol regarding timing for epidural catheter removal in patients receiving pharmacological VTE prophylaxis. Do not restart enoxaparin prophylaxis for at least 4 hours after catheter removal.
   - Do not give pharmacological VTE prophylaxis within 24 hours of thrombolysis for acute stroke.

6. **MEDICAL AND TRAUMA PATIENTS**

   heparin 5,000 units subcut every 12 hours until discharge
   enoxaparin 40 mg subcut DAILY until discharge
   enoxaparin 30 mg subcut every 12 hours until discharge *(Major orthopedic trauma: pelvic; femoral shaft; multiple lower extremity fractures)*
   Other: _____
   Intermittent pneumatic compression ***OR*** ☐ TED stockings
   (Choice when pharmacological prophylaxis contraindicated, or option to combine with medications in high-risk trauma patients)

7. **SURGICAL PATIENTS**

   ☑ **heparin 5,000 units subcut every 12 hours,** start post-op date: yesterday time: 1600 until discharge
   ☐ **enoxaparin 40 mg subcut DAILY,** start post-op date: _____ time: _____ until discharge
   ☐ Other: _____ start post-op date: _____ time: _____ until discharge
   ☑ Intermittent pneumatic compression ***OR*** ☐ TED stockings
   (Choice when pharmacological prophylaxis contraindicated, or option to combine with medications in high-risk patients)

   * Consider total treatment duration of 28 days for patients with major abdominal or pelvic surgery for cancer
   * Consider total treatment duration of 35 days for hip fracture surgery

8. **ORTHOPEDIC PATIENTS**
   - ☐ Knee replacement duration of prophylaxis = 14 days
   - ☐ Hip replacement duration of prophylaxis = 35 days
   - ☐ **enoxaparin 40 mg subcut DAILY,** start post-op date: _____ time: _____
   - ☐ **rivaroxaban 10 mg PO DAILY,** start post-op date: _____ time: _____
   - ☐ **warfarin _____ mg PO × 1 dose,** start post-op date: _____ time: _____, then
   - ☐ DAILY warfarin order (target INR = _____) ***OR*** orthopedic warfarin nomogram
   - ☐ Other: _____
   - ☐ Intermittent pneumatic compression ***OR*** ☐ TED stockings
     (Choice when pharmacological prophylaxis contraindicated, or option to combine with medications in high-risk patients)

Date (dd/mm/yyyy)	Time	Prescriber's Signature	Printed Name or College ID#
Day 01 postop	1600	[signature]	01234

1. VTE RISK ASSESSMENT

a) Risk Stratification

Patient Group	Low Risk (any one of the listed criteria)	Moderate or High Risk (any one of the listed criteria)
Critical Care	▪ N/A	▪ All patients admitted to critical care
Medical	▪ No reduction in mobility compared to usual state	▪ Significantly reduced mobility (e.g. bed rest) for at least 2 days ▪ Ongoing reduced mobility (e.g. BR privileges) compared to their usual state ***AND*** at least 1 VTE risk factor
Surgical	▪ No reduction in mobility compared to usual state ▪ Day surgery patient to be discharged within 24 hours of an elective surgical or invasive procedure ▪ Patient undergoing a procedure with a total anesthetic and surgical time of less than 60 minutes ***AND*** no VTE risk factors	▪ Significantly reduced mobility (e.g. bed rest) for at least 2 days ▪ Patient with at least 1 VTE risk factor ▪ Patient undergoing a procedure with a total anesthetic and surgical time of at least 60 minutes ▪ Acute surgical admission with an inflammatory or intra-abdominal condition

b) VTE Risk Factors

- Age 40 years or over
- Obesity (BMI greater than 30 kg/m^2)
- Surgery
- Major orthopedic trauma with lower extremity injury
- Immobility or lower extremity paresis
- Central venous catheterization
- Sepsis or severe acute infection
- Heart disease
- Respiratory pathology
- Inflammatory condition (e.g. IBD)
- Rheumatological disease
- Nephrotic syndrome
- Human immunodeficiency virus (HIV)
- Antiphospholipid syndrome
- Previous documented VTE
- First degree relative with VTE
- Known Thrombophilia
- Active cancer or cancer treatment
- Myeloproliferative disorders
- Varicose veins with phlebitis
- Pregnancy and post-partum period
- Estrogen-containing oral contraception
- Menopausal hormone therapy (MHT)
- Selective estrogen receptor modulators
- Erythropoiesis-stimulating agents (e.g. darbopoeitin, erythropoeitin)

2. CONTRAINDICATIONS TO PHARMACOLOGICAL PROPHYLAXIS

- Active bleeding of clinical significance requiring intervention; high risk of serious bleeding or bleeding into a critical site (e.g. intracranial, intraspinal, pericardial, intraocular, retroperitoneal, intra-articular); intra-abdominal solid organ injuries managed non-operatively; eGFR less than 30 mL/min for rivaroxaban; eGFR less than 10 mL/min for enoxaparin; platelet count less than 50 × 10^9/L, or known major bleeding disorder or acquired coagulopathy, or history of heparin-induced thrombocytopenia (HIT): relevant for heparin, dalteparin, or enoxaparin (consider Hematology consult). For inpatients with eGFR less than 30 mL/min receiving VTE prophylaxis longer than 10 days consider using UFH.

3. CONTRAINDICATIONS TO MECHANICAL PROPHYLAXIS

- Peripheral vascular disease with absent pedal pulses; severe peripheral neuropathy; skin breakdown, ulcers, gangrene, cellulitis, or dermatitis; skin grafting within last 3 months; allergy to stocking or compression cuff materials; unable to size or apply properly due to deformity, recent surgery or trauma.

4. MECHANICAL PROPHYLAXIS INSTRUCTIONS

- If mechanical prophylaxis is ordered, apply to lower limb(s) continuously until pharmacological prophylaxis starts or until discharge. Interrupt for skin care, assessments, toileting and ambulation only.

5. DOSING ADJUSTMENTS FOR PATIENTS WITH EXTREMES IN WEIGHT AND RENAL FUNCTION

Weight range	eGFR 30 mL/min or above (enoxaparin dose)	eGFR 10–29 mL/min (enoxaparin dose)	eGFR below 10 mL/min (heparin must be used)
40 kg or less	30 mg subcut once DAILY	30 mg subcut once DAILY	2,500 units subcut every 12 hours
41 to 100 kg	No dosage change	30 mg subcut once DAILY	No dosage change
101 to 140 kg	40 mg subcut every 12 hours	40 mg subcut once DAILY	5,000 units subcut every 8 hours
141 kg or more	60 mg subcut every 12 hours	60 mg subcut once DAILY	5,000 units subcut every 8 hours

6. OTHER CONSIDERATIONS

- Provide interim prophylaxis with heparin 5,000 units subcut Q12H in patients at moderate / high risk of VTE if surgery is delayed, or if the patient is a candidate for neuraxial blockade (consult Anesthesiologist).
- Reassess and re-write orders for appropriate VTE prophylaxis at time of transfer.
- Provide and document that patient has received educational material and a discharge prescription (if required).

**This order set does not address "other" patient populations (e.g. psychiatry, obstetrics, comfort care). Individual VTE and bleeding risk should be assessed, and pharmacological or mechanical prophylaxis ordered as appropriate.*