Venous Thromboembolism
National Hospital
Inpatient Quality Measures
VTE-1 Venous Thromboembolism Prophylaxis

- Assess VTE prophylaxis in all patients over the age of 18 within 24 hours of admission
- Order appropriate mechanical and/or pharmacologic prophylaxis
  - Heparin 5000 units subcut Q8H or Q12H
  - Enoxaparin 40 mg subcut daily if CrCl > 30 mL/min; Enoxaparin 30 mg subcut daily if CrCl 20 - 30 mL/min
  - Enoxaparin 30 mg subcut q12h for trauma and burn patients
  - Rivaroxaban 10 mg orally once daily (for post-operative hip and knee replacements)
  - Sequential Compression Device (SCDs)- Document if contraindications to SCDs
- If pharmacologic prophylaxis cannot be given, document reason in patient’s chart
  - “Active GI bleed, cannot give Lovenox” or “On warfarin with therapeutic INR, no VTE prophylaxis needed”
- Make sure SCDs are placed on patient if pharmacologic prophylaxis cannot be
How to Perform VTE Risk Assessment
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VTE Risk Assessment - IPOC, CareNet4

Document VTE Risk Level

Document the VTE risk level for this patient
- Low risk
- Moderate risk
- High risk

VTE Prophylaxis Contraindicated?
- See further documentation
- No

LOW RISK
- Minor surgery (same day surgery or O.R. time less than 30 minutes) in mobile patients less than 50 years old
- Fully mobile medical patient less than 50 years old with no additional risk factors AND expected LOS less than 2 days

Therapeutic recommendation: No mechanical or pharmacological prophylaxis. Early and regular ambulation recommended. Anti-embolism stockings (Ted hose) as clinically appropriate

MODERATE RISK
- All patients NOT identified as LOW or HIGH RISK
- Consider whether patients having two or more risk factors should be treated as HIGH RISK (risk factors might include: medically ill, bedrest, obesity, dehydration, malignancy, general or urologic surgery, open GYN surgery, heart failure, inflammatory bowel disease, active rheumatic disease, hormonal replacement or estrogen-based contraceptive use, central venous catheter, pulmonary disease, sickle cell disease, nephrotic syndrome, etc.)

Therapeutic recommendation: Pharmacological prophylaxis (Note: Mechanical prophylaxis should be substituted if pharmacologic prophylaxis is contraindicated)

HIGH RISK
- Elective hip or knee arthroplasty
- Hip, knee, or pelvic fracture
- Acute spinal cord injury with paresis
- Multiple major trauma
- Abdominal or pelvic surgery for cancer
- Previous history of thromboembolism or known thrombophilic condition

Therapeutic recommendation: Pharmacological Prophylaxis AND Mechanical Prophylaxis
How to Perform VTE Risk Assessment
VTE-2 Intensive Care Unit Venous Thromboembolism Prophylaxis

- Assess VTE prophylaxis on ICU admission date or day after admission
  - See VTE-1
VTE-3 Venous Thromboembolism Patients with Anticoagulation Overlap Therapy

- Start warfarin on first day after starting parenteral anticoagulant
- Bridge with parenteral anticoagulant for at least 5 days AND until INR greater than or equal to 2.0
  - Heparin drip or subcutaneous
- Enoxaparin 1mg/kg subcut q12h if CrCl>30 mL/min; Enoxaparin 1mg/kg subcut daily if CrCl 20-30 mL/min
- Fondaparinux is non-formulary and reserved for heparin-induced thrombocytopenia
- Provide prescriptions for warfarin and parenteral anticoagulant if patient will be discharged before therapeutic INR
- Rivaroxaban (Xarelto®) does not require bridge therapy
VTE-4 Venous Thromboembolism Patients Receiving Unfractionated Heparin with Dosages/Platelet Count Monitoring by Protocol or Nomogram

- Monitor platelet count while on unfractionated heparin
- If HIT is suspected, discontinue heparin or enoxaparin
  - Obtain platelet function test
  - Order alternative anticoagulant: fondaparinux or argatroban
VTE-5 Venous Thromboembolism Warfarin Therapy Discharge Instructions

- Education must be done for all patients on warfarin (existing and patients new to warfarin)
- Provide written discharge instructions regarding adherence, side effects/interactions, diet, follow-up monitoring
- Provide Warfarin (Coumadin®) education sheet and Foods High in Vitamin K pamphlet
- JMH INR clinic is located in ACC West
- At JMH, this education is provided by pharmacy
VTE-6 Hospital Acquired Potentially-Preventable Venous Thromboembolism

• Goal is 0% on this measure; Document patient refusal or contraindications
Common Missed Opportunities

- Discontinuing overlap or parenteral therapy not documented on day of discontinuation

- Not documenting the reason for discontinuation of parenteral therapy when INR > 2.0

- Not initiating VTE prophylaxis within 24 hours of admission
Pharmacy Services
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