CLINICAL PATHWAY:
Venous Thromboembolism Prevention

THIS PATHWAY SERVES AS A GUIDE AND DOES NOT REPLACE CLINICAL JUDGMENT.

If patient develops a VTE while in the hospital, exit pathway and treat in consultation with hematology.

Inclusion Criteria: All patients placed under observation or admitted to inpatient unit
Exclusion Criteria: Known presence of venous thromboembolism (VTE)

Age ≥12 years old

Age <12 years old

- VTE prevention not typically required unless high risk[2]
- If patient considered high risk[2], contact hematology

- RN to perform VTE risk assessment within 24 hours of admission and then every 2 days
- RN to document risk level in Epic

Low Risk
Baseline mobility[1] with no risk factors[3]

- Encourage highest degree of mobility at least 3x per day

Moderate Risk

- Baseline mobility[1] with ≥1 risk factors[3] **or**
- Impaired mobility[1] with 0-1 risk factors[3]

- Encourage highest degree of mobility at least 3x per day
- Mechanical prophylaxis with sequential compression devices (SCD) when in bed, if no contraindications (Appendix A)

[2]High Risk

- Impaired mobility[1] with ≥2 risk factors[3]; **or**
- MIS-C diagnosis; **or**
- Symptomatic COVID-19
- IBD patients with ≥1 additional risk factor(s) [3,4]

- Encourage highest degree of mobility at least 3x per day
- Mechanical prophylaxis with sequential compression devices (SCD) when in bed, if no contraindications (Appendix A)
- Pharmacologic prophylaxis with anticoagulation, if no contraindications (Appendix A)
  - Monitor for signs/symptoms of bleeding
  - If recent surgery, discuss with surgical team
  - Consider discussion with hematology
  - **Enoxaparin (Lovenox) dosing <90kg and BMI<35kg/m²**
    - < 18 years old
      - < 40kg: enoxaparin 0.5mg/kg/dose SQ q12 hours
      - 40-89.9kg: enoxaparin 40mg SQ daily
    - ≥ 18 years old
      - < 50kg: enoxaparin 0.5 mg/kg/dose SQ daily
      - 50-89.9 kg: enoxaparin 40mg SQ daily
  - **Enoxaparin (Lovenox) dosing for ≥90kg OR BMI≥35kg/m²**
    Enoxaparin 0.5mg/kg/dose SQ q12 hours (max dose 40mg SQ q12 hours)

- VTE risk assessment continues every 2 days until patient is discharged
- At hospital discharge, exit pathway and discontinue prophylactic interventions

[1]Degree of Mobility

- **Baseline**: Non-ambulatory at baseline OR ambulatory at baseline and can ambulate distance of 50 feet, 3x day
- **Altered**: Ambulatory at baseline and unable to ambulate freely, ie, bathroom privileges, pivot to chair

[3]VTE Risk Factors

Acute conditions

- Critically ill (admitted to PICU)
- Acute systemic infection or inflammation
- Central venous catheter (CVC)
- Active cancer/malignancy
- Pregnancy
- Surgery within the past 30 days
- Burns with total body surface area >50%
- Major trauma requiring admission to PICU
- Colonic inflammatory bowel disease (IBD) within the first year of diagnosis and on steroids (in addition to chronic IBD diagnosis as risk factor)

Chronic conditions

- Obesity (<18 years: BMI >95th percentile for age, >18 years: BMI >30)
- Sickle cell disease
- Inflammatory disorder (eg, IBD, systemic lupus erythematosus (SLE))
- Protein losing disorder (eg, nephrotic syndrome, protein losing enteropathy (PLE), chylous effusion)
- Asparaginase or estrogen-containing medications (eg, hormonal therapy)
- Thrombophilia (factor V Leiden, prothrombin gene mutation, inherited deficiency of protein S, C, or antithrombin)

History

- Patient history of VTE/pulmonary embolism
- Family history of VTE in 1st degree relative

[4]Inflammatory bowel disease (IBD) considerations

- Consult GI team
- Acute and chronic conditions count as separate risk factors
- Expected bloody diarrhea is not a contraindication to pharmacologic prophylaxis

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Contraindications to sequential compression device (SCD):

- Suspected or existing VTE (use graded compression stockings)
- Acute fracture of extremity (use device on unaffected extremity)
- Skin conditions affecting extremity (e.g., dermatitis, burn)
- PIV in extremity (use device on unaffected extremity)
- Lower extremity conditions that result in significant pain with compression (e.g., solid tumor, vaso-occlusive episode in sickle cell disease)
- Unable to achieve correct fit due to patient size

Contraindications to pharmacologic prophylaxis:

ABSOLUTE

- Intracranial hemorrhage
- Congenital or acquired bleeding disorder
- Platelet count unable to be sustained >50,000m3
- Uncorrected coagulopathy
- Acute stroke or brain ischemia
- Allergy to heparin or enoxaparin [e.g., hx of heparin induced thrombocytopenia (HIT)]
- Ongoing and uncontrolled bleeding (exceptions include bloody diarrhea in inflammatory bowel disease flare; discuss with GI team)

RELATIVE

- Intracranial mass
- Lumbar puncture or epidural catheter placement within last 4 hours or removal in prior 12 hours
- Uncontrolled severe hypertension
- Anticipated invasive procedure in next 24 hours
- Spine surgery or injury
- Suspected or known paraspinal hematoma

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