

Venous Thromboembolism (VTE) Risk Assessment and Prophylaxis - Inpatient



Patients to be screened: ≥ 12 years, upon change to a higher level of care, and every 7 days.

Prophylaxis Assessment

Low Risk

- Without altered mobility and no additional risk factors

Moderate Risk

- Altered mobility (Braden activity score 1 or 2)
And / Or
- Central venous catheter with no additional risk factors

High Risk

- Active clot
- Receiving an anticoagulant
- Personal history of VTE, stroke, myocardial infarction
- Thrombophilia
- Central Venous catheter with additional risk factors
- Altered mobility with additional risk factors (Braden activity score 1 or 2)

Recommended Prophylaxis

Low Risk

- Early ambulation and/or range of motion (ROM)

Moderate Risk

- Early ambulation and/or ROM
AND
- Sequential Compression Devices (SCDs)

High Risk

- Mobility as tolerated (active or passive)
AND
- Sequential Compression Devices (SCDs)
AND
- Hematology Consult

Additional VTE Risk Factors

Risk Factors

- Acute infection (e.g. bacteremia, meningitis)
- Cardiac disease: single ventricle pathology or arrhythmias
- Estrogen supplementation
- Major surgery (e.g. open abdominal, pelvis, spine)
- Major trauma (e.g. spine, lower extremities)
- Nephrotic syndrome
- Obesity ($> 90^{\text{th}}$ percentile for age)
- Systemic inflammation (e.g. lupus, inflammatory bowel disease)
- Vascular malformations
- COVID-19
- Personal history/family history

Conditions with High Risk of Thrombophilia

- Factor V Leiden
- Prothrombin mutation
- Protein C deficiency
- Protein S deficiency
- Antithrombin deficiency
- Antiphospholipid antibody positivity
- Hyperhomocysteinemia
- Elevated lipoprotein (a)
- Elevated Factor VIII

Relative Contraindications to Pharmacologic Prophylaxis

- Ongoing and uncontrolled bleeding, prior history of unexplained spontaneous hemorrhage
- Uncorrected coagulopathy included, but not limited to: platelet count $< 50,000$, fibrinogen < 100 , prolonged PT or APTT
- Neurosurgery, serious head trauma, or large-territory arterial ischemic stroke during prior 7 days
- Known arteriovenous malformation (AVM), aneurysm, central nervous system (CNS) mass, or Moyamoya
- Anticoagulated patient
- Aspirin or other irreversible platelet inhibitor use within last 7 days
- Known bleeding disorder/tendency
- Uncontrolled hypertension

Absolute Contraindications to Pharmacologic Prophylaxis

- Perioperative/trauma patient with lack of approval by surgeon for prophylactic anticoagulation
- Epidural catheter within 24 hours or 12 hours post lumbar puncture
- Invasive surgical procedure during prior 48 hours
- Upcoming surgery in next 24 hours

Contraindications to Sequential Compression Devices

- Suspected or existing deep vein thrombosis (can use graduated compression stockings)
- Extremity with peripheral intravenous (PIV) access
- Skin conditions affecting extremity (e.g. dermatitis, burns, recent skin grafts, leg wounds)
- Acute fracture
- Unable to achieve correct fit due to patient size
- Allergy to garment fabric

Venous Thromboembolism (VTE) Risk Assessment and Prophylaxis – Inpatient References

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