### Deep Vein Thrombosis Risk Factor Assessment:

Check all pertinent thromboembolism risk factors (RFs).

#### RFs with value of 1 point
- Age 41 to 60 years
- Family history of DVT or PE
- Leg swelling, ulcers, stasis, varicose veins
- MI/CHF
- Stroke with paralysis (chronic)
- Inflammatory bowel disease
- Central line
- Bed confinement/immobilization > 12 hr
- General anesthesia time > 2 hr
- Pregnancy, or postpartum < 1 month
- Obesity (>20% over IBW)
- Estrogen therapy

#### RFs with value of 2 points
- Age 61 to 70 years
- Major surgery
- Spinal cord injury with paralysis
- RFs with value of 3 points
- Age over 70 years
- Inherited thrombophilia
- Acquired thrombophilia

#### High Risk Factors
- Any ONE is an indication of VTE prophylaxis

- Major trauma (abdomen, pelvis, hip, or leg)
- Ischemic (non-hemorrhagic) acute stroke or paralysis
- Malignancy
- Any prior history of deep vein thrombosis or pulmonary embolism
- Any hip or knee replacement therapy
- Any hip fractures

Total Risk Factor Score:
- Low = 0
- Moderate = 1 to 2
- High = 3 to 4
- Very High = 4

### Abbreviations:
- LDUH – low dose unfractionated heparin
- LMWH – low molecular weight heparin
- SCD – sequential compression device

<table>
<thead>
<tr>
<th>Risk Level</th>
<th>Low Risk (0 RFs)</th>
<th>Moderate Risk (1-2 RFs)</th>
<th>High Risk (3-4 RFs)</th>
<th>Very High Risk (&gt;4 RFs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Early ambulation</td>
<td>LDUH (5,000 units) every 8-12 hr, or LMWH, or SCD</td>
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<tr>
<td>Moderate Risk (1-2 RFs)</td>
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<tr>
<td>Very High Risk (&gt;4 RFs)</td>
<td>LMWH, or Warfarin, INR 2-3</td>
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</tbody>
</table>

### Contraindications to Pharmacologic Prophylaxis

#### Relative
- History of cerebral hemorrhage
- Craniotomy within 2 weeks
- GI, GU hemorrhage within the last 6 months
- Thrombocytopenia
- Coagulopathy (PT > 18 sec)
- Active intracranial lesions/neoplasms/monitoring devices
- Proliferative retinopathy
- Vascular access/biopsy sites inaccessible to hemostatic control

#### Absolute
- Active hemorrhage
- Heparin or Warfarin use in patients with Heparin-induced thrombocytopenia
- Warfarin use in the first trimester of pregnancy
- Severe trauma to head, spinal cord, or extremities with hemorrhage within the last 4 weeks
- Recent intraocular or intracranial surgery
- Uncontrolled hypertension

### Order for Laboratory: (Check box to activate order)
- CBC with platelets every other day if Heparin or Low Molecular Weight Heparin is used
- Daily INR if Warfarin is used

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**ADULT VTE Prophylaxis Protocol**

**Page 1 of 2**

**GMH# 0049020**

**Stock # 99049020**

**Approved Date: MEC 4/2010, HIMC 6/2010**

**Form Revised 6/2010**
1. □ Intermittent Sequential Pneumatic Compression Device (SCD) bilateral for the leg/calf

PHARMACY: (Please check appropriate boxes for patient.)

2. □ Heparin 5,000 units subcutaneously every eight hours

3. □ Enoxaparin (Lovenox) injection 40 milligrams subcutaneously daily, or
   □ Enoxaparin (Lovenox) injection 30 milligrams subcutaneously every 12 hours

4. □ Dalterparin (Fragmin) injection 2,500 units subcutaneously daily, or
   □ Dalterparin (Fragmin) injection 5,000 units subcutaneously daily

5. □ Warfarin ____________________ milligrams daily p.o.

6. □ No VTE Prophylaxis at this time (reason) __________________________________________________________________

7. ________________________________________________________________________________________________________

Guidelines for Use of Antithrombotic Prophylaxis in Patients with Epidural Catheters

For patients receiving low-dose SQ unfractionated heparin (5,000 units every 12 hours)
- Wait 4 to 6 hours after a prophylactic dose of unfractionated Heparin before placing or removing a catheter.
- Initiate unfractionated Heparin thromboprophylaxis 1 to 2 hours after placing or removing a catheter.
- Concurrent use of epidural or spinal catheter and SQ low-dose unfractionated heparin is not contraindicated.

For patients receiving prophylactic-dose low molecular weight heparin
- Wait 24 hours after a prophylactic dose of low molecular weight Heparin before placing a catheter or performing a neuraxial block.
- Wait 12 to 24 hours after a prophylactic dose of low molecular weight heparin before removing catheter.
- Initiate low molecular weight Heparin thromboprophylaxis 24 hours after a “single shot” spinal procedure.
- Concurrent use of an epidural catheter and low molecular weight Heparin thromboprophylaxis needs to be approved by the anesthesia service.

For patients receiving fondaparinux
Extreme caution is warranted given the sustained antithrombotic effect, early postoperative dosing, and “irreversibility.”

Special Considerations

Renal Impairment: Use low molecular weight heparins with caution in patients with SCr > 2 or CrCl < 30 mL/min. Use of fondaparinux is contraindicated in patients with a CrCl < 30 mL/min.

Patients < 50 kg: Consider dose adjustments for pharmacologic prophylaxis in patients with a weight of < 50 kg. Fondaparinux should not be used in patients < 50 kg.

Obesity: Appropriate dosing for obese patients is not well established.