The 4 Steps of Thromboprophylaxis

Prevention of Venous Thromboembolism (VTE) should be considered for every patient admitted to acute care.

**STEP 1: Is thromboprophylaxis INDICATED?**

Prophylaxis not indicated if:
- Patient fully mobile AND
- Brief length of stay

Actions:
- No routine prophylaxis
- Reassess daily if risk increases

**STEP 2: Is anticoagulant thromboprophylaxis CONTRAINDICATED?**

Reasons:
- Active bleeding
- High risk of bleeding

Actions:
- Sequential Compression Devices and/or TED stockings
- Reassess daily if risk increases

**STEP 3: Provide APPROPRIATE THROMBOPROPHYLAXIS**

- Prophylaxis should generally be started within 24 hours of admission or after surgery
- Evidence-based, guideline-recommended prophylaxis should be initiated and continued at least until discharge (and post-discharge where appropriate, e.g. post-major orthopedic surgery)

**STEP 4: REASSESS if significant change in patient status or at transitions of care**

- After surgery
- Transfer to or from intensive care
- Transfer to rehab
- At discharge

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**Recommended Doses of Anticoagulant Prophylaxis**

<table>
<thead>
<tr>
<th>Agent</th>
<th>Comments</th>
<th>Recommended Dose(s)*</th>
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<tbody>
<tr>
<td>Low Molecular Weight Heparin (LMWH)</td>
<td>dalteparin (Fragmin®)</td>
<td>5,000 units subcutaneously once daily</td>
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<td></td>
<td>enoxaparin (Lovenox®)</td>
<td>40 mg subcutaneously once daily OR 30 mg subcutaneously twice daily</td>
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<td></td>
<td>tinzaparin (Innohep®)</td>
<td>4,500 units subcutaneously once daily</td>
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<tr>
<td>Heparin</td>
<td></td>
<td>5,000 units subcutaneously every 12 hours OR every 8 hours</td>
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<tr>
<td>Fondaparinux (Arixtra®)</td>
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<td>2.5 mg subcutaneously once daily</td>
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<tr>
<td>Rivaroxaban (Xarelto®)</td>
<td>Hip or knee replacement only</td>
<td>10 mg by mouth once daily</td>
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<tr>
<td>Dabigatran (Pradaxa®)</td>
<td>Hip or knee replacement only</td>
<td>220 mg by mouth once daily (150 mg if age &gt;75 or CrCl 30-50 ml/min)</td>
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<tr>
<td>Apixaban (Eliquis®)</td>
<td>Hip or knee replacement only</td>
<td>2.5 mg by mouth twice daily</td>
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* recommended dose may be altered by renal dysfunction, low body weight, obesity, pregnancy

**Risk Factors for VTE**
- Major surgery
- Trauma or leg injury
- Active cancer
- Cancer treatments
- Acute medical illness
- Immobilization, bed rest
- Stroke
- Previous history of VTE
- Family history of VTE
- Increasing age
- Pregnancy
- Birth control pill, hormone replacement therapy
- Severe obesity
- Thrombophilia
- Central venous catheter

**Clinical Features that may indicate DVT**
- Recent onset of unilateral leg pain and/or swelling
- Tenderness over the course of a deep vein
- Skin that may be warm to the touch

**Clinical Features that may indicate PE**
- Shortness of breath
- Pleuritic chest pain
- Hemoptyisis
- Hypoxemia
- Unexplained tachycardia
- Presyncope or collapse

For more useful information, see the Safer Healthcare Now! VTE Getting Started Kit: www.saferhealthcarenow.ca

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