Deep Vein Thrombosis (DVT) Prophylaxis Orders
(For use in Elective General Surgery Patients)

Thrombosis Risk Factor Assessment
(Choose all that apply)

### Each Risk Factor Represents 1 Point
- Age 41-60 years
- Swollen legs (current)
- Varicose veins
- Obesity (BMI >25)
- Minor surgery planned
- Sepsis (<1 month)
- Serious Lung disease including pneumonia (<1 month)
- Oral contraceptives or hormone replacement therapy
- Pregnancy or postpartum (<1 month)
- History of unexplained stillborn infant, recurrent spontaneous abortion (≥3), premature birth with toxemia or growth-restricted infant
- Other risk factors

<table>
<thead>
<tr>
<th>Each Risk Factor Represents 2 Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age 61-74 years</td>
</tr>
<tr>
<td>Arthroscopic surgery</td>
</tr>
<tr>
<td>Malignancy (present or previous)</td>
</tr>
<tr>
<td>Patient confined to bed (&gt;72 hours)</td>
</tr>
</tbody>
</table>

Subtotal: 

### Each Risk Factor Represents 3 Points
- Age 75 years or older
- History of DVT/PE
- Positive Factor V Leiden
- Positive Lupus anticoagulant
- Elevated serum homocysteine
- Heparin-induced thrombocytopenia (HIT) (Do not use heparin or any low molecular weight heparin)
- Elevated anticardiolipin antibodies
- Other congenital or acquired thrombophilia

If yes: Type

*most frequently missed risk factor*

### FACTORS ASSOCIATED WITH INCREASED BLEEDING
- Patient may not be a candidate for anticoagulant therapy & SCDs should be considered.
- Active Bleed, Ingestion of Oral Anticoagulants, Administration of glycoprotein IIb/IIIa inhibitors, History of heparin induced thrombocytopenia

### CLINICAL CONSIDERATIONS FOR THE USE OF SEQUENTIAL COMPRESSION DEVICES (SCD)
- Patient may not be a candidate for SCDs & alternative prophylactic measures should be considered.
- Patients with Severe Peripheral Arterial Disease, CHF, Acute Superficial DVT

<table>
<thead>
<tr>
<th>Total Risk Factor Score</th>
<th>Risk Level</th>
<th>Prophylaxis Regimen</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>VERY LOW</td>
<td>Early ambulation</td>
</tr>
<tr>
<td>0</td>
<td>LOW</td>
<td>Sequential Compression Device (SCD)</td>
</tr>
<tr>
<td>1-2</td>
<td>MODERATE</td>
<td>Choose ONE of the following medications +/- compression devices: Sequential Compression Device (SCD) - Optional Heparin 5000 units SQ TID Enoxaparin/Lovenox: 40mg SQ daily (WT &lt; 150kg, CrCl &gt; 30mL/min) 30mg SQ daily (WT &lt; 150kg, CrCl = 10-29mL/min) 30mg SQ BID (WT &gt; 150kg, CrCl &gt; 30mL/min) (Please refer to Dosing Guidelines on the back of this form)</td>
</tr>
<tr>
<td>3-4</td>
<td>HIGH</td>
<td>Choose ONE of the following medications PLUS compression devices: Sequential Compression Device (SCD) Heparin 5000 units SQ TID (Preferred with Epidurals) Enoxaparin/Lovenox (Preferred): 40mg SQ daily (WT &lt; 150kg, CrCl &gt; 30mL/min) 30mg SQ daily (WT &lt; 150kg, CrCl = 10-29mL/min) 30mg SQ BID (WT &gt; 150kg, CrCl &gt; 30mL/min) (Please refer to Dosing Guidelines on the back of this form)</td>
</tr>
<tr>
<td>5 or more</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- Ambulatory Surgery - No orders for venous thromboembolic prophylaxis required
- VTE Prophylaxis Contraindicated, Reason: ____________________________________________________________________________

Physician Signature

Dr. #

Date

Time

Processed By:

Date/Time:

White-Medical Record
Yellow-MIS Pink-Pharmacy

University of Michigan Health System
DVT Prophylaxis Regimen

Joseph A. Caprini, MD, MS, FACS, RVT
VTE Risk Factor Assessment Tool
### UMHS ENOXAPARIN DOSING GUIDELINES

- MUST wait 24 hours before starting Enoxaparin if patient has epidural catheter
- D/C Enoxaparin 10-12 hours prior to removing epidural catheter
- May restart Enoxaparin 24 hours after epidural catheter has been removed.

#### NON-PREGNANT PATIENTS

<table>
<thead>
<tr>
<th>Body weight</th>
<th>Dose Recommendation</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 150kg, CrCl &gt; 30mL/min</td>
<td>Enoxaparin 40mg SQ daily</td>
</tr>
<tr>
<td>&lt; 150kg, CrCl = 10-29mL/min</td>
<td>Enoxaparin 30mg SQ daily</td>
</tr>
<tr>
<td>&gt; 150kg, CrCl &gt; 30mL/min</td>
<td>Enoxaparin 30mg SQ BID</td>
</tr>
</tbody>
</table>

#### PREGNANT PATIENTS

**Prevention of DVT.**

Maternal body weight (start of therapy) < 75 kg:
- Recommend 30 mg SQ once daily until 20 weeks
- Recommend 30 mg SQ BID after 20 weeks

Maternal body weight (start of therapy) ≥ 75 kg:
- Recommend 40 mg SQ once daily until 20 weeks
- Recommend 40 mg SQ BID after 20 weeks

*Wait 12 hours before regional anesthesia*

### MONITORING RECOMMENDATIONS

- Patients who are obese (actual body weight > 150 kg)
- Patients who are pregnant
- Patients with renal insufficiency (creatinine clearance < 30 ml/min)

<table>
<thead>
<tr>
<th>Indication</th>
<th>Desired Level (Draw 4 hours after the 4th dose)</th>
<th>Recommendations for Dose Alteration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prevention of DVT/PE</td>
<td>0.2 to 0.5 units/ml</td>
<td>Anti-factor Xa Level (units/ml)</td>
</tr>
<tr>
<td>&lt; 0.2</td>
<td>Increase by 25%</td>
<td>4 hours after 4th dose</td>
</tr>
<tr>
<td>0.2 to 0.5</td>
<td>No change</td>
<td>Repeat in 1 week, then monthly thereafter</td>
</tr>
<tr>
<td>0.6 to 1</td>
<td>Decrease by 20%</td>
<td>4 hours after 4th dose</td>
</tr>
<tr>
<td>&gt; 1</td>
<td>Hold for 3 hours, then decrease next dose by 30%</td>
<td>4 hours after 4th dose</td>
</tr>
</tbody>
</table>

**Ideal Body Weight**

**IBW, men = 50 kg + 2.3 (inches > 5 feet)**

**IBW, women = 45.5 kg + 2.3 (inches > 5 feet)**