Physician Orders: ADULT
Heparin VTE Protocol Orders

[X or R] = will be ordered unless marked out.

T = Today; N = Now (date and time ordered)

<table>
<thead>
<tr>
<th>Height: ___________ cm</th>
<th>Weight: __________kg</th>
</tr>
</thead>
</table>

**Allergies:**

- [ ] No known allergies
- [ ] Medication allergy(s):
- [ ] Latex allergy
- [ ] Other:

**[R] Heparin VTE Protocol Orders**

**Patient Care**

- **Nursing Communication**
  - T;N, Heparin protocol: Discontinue all other forms of Heparin (enoxaparin, dalteparin, fondaparinux). If patient on full dose anticoagulation-delay Heparin bolus/infusion for 12hrs after last dose. If patient on prophylactic Heparin doses, no delay necessary.

- **Nursing Communication**
  - T;N, Place order for aPTT Heparin six hours after starting infusion (order as Time Study priority).

- **Nursing Communication**
  - T;N, Titration: place order for additional aPTT Heparin q6h (Time Study) as indicated by rate change criteria.

- **Nursing Communication**
  - T;N, Change order for aPTT Heparin to qam after Heparin infusion begun and therapeutic range (PTT 70-110 seconds) achieved.

- **Nursing Communication**
  - T;N, If patient has IM injection orders, call MD for clarification (IM injections not recommended while on Heparin; may vaccinate if aPTT Heparin less than 110 seconds).

- **Nursing Communication**
  - T;N, Do not interrupt Heparin Infusion to collect labs nor collect from Heparin infusion IV line or distally. Start second IV line access (INT) for blood draws if necessary.

**Continuous Infusions**

- **heparin bolus per VTE protocol**
  - 1 dose, Injection, IV Push, once, Routine, Comment: Pharmacy will provide dose per protocol.

- **heparin bolus per VTE protocol**
  - 1 dose, Injection, IV Push, q6h, PRN Other, specify in Comment, Routine, Comment: PRN for PTT less than or equal to 54.9 secs, Pharmacy will provide dose per protocol.

- **heparin (heparin 20,000 units/D5W infusion)**
  - 20,000 units / 500 mL, IV, Routine, T;N, Titrate, Comment: Give bolus prior to start of infusion if ordered. If weight greater than 87kg, starting rate=38mL/hr, then titrate per PTT chart. If weight less than 87kg, starting rate=weight(kg)/2.3, then titrate per PTT chart:
    - PTT(sec) * Rate Change(ml/hr) * Additional Information * Draw PTT
    - <=54.9  Increase 240 units/hr (6ml/hr)  Give additional heparin IV Bolus in 6hr
    - 55-69.9  Increase 120 units/hr (3ml/hr) in 6hr
    - 70-110  Maintain rate  Daily
    - 110.1-124.9  Decrease 120 units/hr (3ml/hr) in 6hr
    - >/=125  Decrease 240 units/hr (6ml/hr)  Hold infusion 1 hr in 6hr
### Physician Orders: ADULT
**Heparin VTE Protocol Orders**

[X or R] = will be ordered unless marked out.  
T= Today; N = Now (date and time ordered)

<table>
<thead>
<tr>
<th>#</th>
<th>Test</th>
<th>Frequency</th>
<th>Type</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Partial Thromboplastin Time (PTT)</td>
<td>STAT, T;N, once</td>
<td>Blood</td>
<td>Comment: for Heparin VTE Protocol</td>
</tr>
<tr>
<td>2</td>
<td>CBC w/o Diff</td>
<td>T;N, STAT, once</td>
<td>Blood</td>
<td>Comment: To be used Baseline Heparin VTE Protocol</td>
</tr>
<tr>
<td>3</td>
<td>Hematocrit &amp; Hemoglobin</td>
<td>Routine, T+1;0400, qam</td>
<td>Blood</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Platelet Count</td>
<td>Routine, T+1;0400, qam</td>
<td>Blood</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Notify Physician-Continuing</td>
<td>T;N, if baseline platelet count is less than 100,000/mm3, if subsequent platelet counts fall below 100,000/mm3 or if there is a 50% drop from the baseline platelet count.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Physician’s Signature</th>
<th>MD Number</th>
</tr>
</thead>
</table>

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Physician Orders: ADULT  
Heparin VTE Protocol Orders  

PT Heparin VTE Protocol Orders 23018 QM0513  
Rev021417
PHYSICIAN'S ORDERS

P&T STANDARD HEPARIN PROTOCOL
(For use at Methodist Germantown, MECH, North, SNF, South, Olive Branch and University Hospitals.)

(This protocol is not intended for use in stroke patients nor pediatric patients.)

1. Verify indication: DVT / PE? [ ] No [ ] Yes (Contact physician if indication not specified).
2. Is patient on any other form of heparin (enoxaparin / dalteparin / fondaparinux)? [ ] No [ ] Yes
   If No: Go to step 3
   If Yes:
   • Discontinue all other forms of heparin
   • If on full dose anticoagulation, delay Heparin bolus / infusion for 12 hours after last dose
   • If on prophylaxis doses, no delay is necessary
3. If patient has IM injection orders, Call MD for clarification (IM injections not recommended while on Heparin; may vaccinate if aPTT less than 110 seconds).
4. Labs: (do not interrupt Heparin Infusion to collect labs nor collect from Heparin infusion IV line or distally).
   • Start second IV line access (INT) for blood draws if necessary.
   • Obtain baseline aPTT and CBC without diff. (if not done in previous 48 hours)
   • Call MD if baseline or subsequent platelet count is less than 100,000 / mm3 or if platelet count decreases by 50% from baseline
   • Hemoglobin, hematocrit, and platelets every AM
   • aPTT heparin six hours after starting infusion (order as “time priority”)
   • aPTT heparin every AM after Heparin Infusion begun and therapeutic range (aPTT heparin 70-110 seconds) achieved.

5. Give Heparin Initial Bolus prior to beginning infusion

<table>
<thead>
<tr>
<th>Indication is Cardiology</th>
<th>Indication is DVT / PE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heparin Bolus IV push</td>
<td>Heparin Bolus IV push</td>
</tr>
<tr>
<td>[ ] No bolus per physician order</td>
<td>[ ] Weight less than 90 kg, give 5,000 units</td>
</tr>
<tr>
<td>[ ] Weight less than 60 kg, give 2,500 units</td>
<td>[ ] Weight 90–110 kg, give 7,500 units</td>
</tr>
<tr>
<td>[ ] Weight greater than or equal to 60kg, give 4,000 units</td>
<td>[ ] Weight greater than 110 kg, give 10,000 units</td>
</tr>
</tbody>
</table>

6. Initial rate after bolus (use standard Heparin pre-mixed concentration of 20,000 units / 500 ml D5W).

<table>
<thead>
<tr>
<th>Indication is Cardiology</th>
<th>Indication is DVT / PE</th>
</tr>
</thead>
<tbody>
<tr>
<td>[ ] If weight equal to or greater than 80 kg, initial rate is: 25 ml/hr.</td>
<td>[ ] If weight equal to or greater than 87 kg, initial rate is: 38 ml/hr</td>
</tr>
<tr>
<td>[ ] If weight less than 80 kg, calculate initial rate. Initial rate = _______ ml/hr</td>
<td>[ ] If weight less than 87 kg, calculate initial rate. Initial rate = _______ ml/hr</td>
</tr>
</tbody>
</table>

Weight (in kg) divided by 3.3 = _______ ml/hr

7. Titration

| aPTT heparin Value (in seconds) | Additional Action | Rate Change (in ml/hr) | Additional Labs (order as “time priority”)
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>≤ 54.9 sec</td>
<td>Give bolus dose as listed in section 5 (even if initial bolus was omitted)</td>
<td>Increase rate by 240 units / hr (6 ml / hr)</td>
<td>Repeat aPTT heparin in 6 hours</td>
</tr>
<tr>
<td>55-69.9 sec</td>
<td>N/A</td>
<td>Increase rate by 120 units / hr (3 ml / hr)</td>
<td>Repeat aPTT heparin in 6 hours</td>
</tr>
<tr>
<td>70-110 sec</td>
<td>N/A</td>
<td>Maintain same rate</td>
<td>N/A</td>
</tr>
<tr>
<td>110.1-124.9 sec</td>
<td>N/A</td>
<td>Decrease rate by 120 units / hr (3 ml / hr)</td>
<td>Repeat aPTT heparin in 6 hours</td>
</tr>
<tr>
<td>≥ 125 sec</td>
<td>Hold infusion for 1 hour</td>
<td>Decrease rate by 240 units / hr (6 ml / hr)</td>
<td>Repeat aPTT heparin 6 hours after infusion resumed</td>
</tr>
</tbody>
</table>

8. Update Hemarin Protocol Flow Record (including all aPTT and platelet values, boluses, rates, and changes).
9. Discontinue daily hemoglobin, hematocrit, platelets and daily aPTT when Heparin Protocol discontinued.

Physician Signature: ___________________________    Physician Number: ___________________________    Date/Time: ___________________________

RN Signature: ___________________________    Physician Number: ___________________________    Date/Time: ___________________________

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