### Heparin VTE Treatment Protocol for Patients with High Bleed Risk

**Target Heparin Assay AntiXa level 0.3 - 0.5 unit/mL**  
**Restricted to Trauma/Vascular Patients in ICU**

<table>
<thead>
<tr>
<th>Heparin Assay AntiXa (unit/mL)</th>
<th>Action</th>
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</table>
| < 0.15                         | Increase by 4 units/kg/hr (no boluses)  
Recheck heparin assay in 6 hours |
| 0.15 – 0.29                    | Increase by 2 units/kg/hr (no boluses)  
Recheck heparin assay in 6 hours |
| 0.3 - 0.5                      | **No Change**  
Recheck heparin assay in 4 hours |
| 0.51 – 0.7                     | Stop infusion  
Recheck heparin assay every 1 hour until level is ≤0.5,  
then restart after decreasing the rate by 2 units/kg/hr  
Recheck heparin assay in 4 hours |
| > 0.7                          | Stop infusion  
Recheck heparin assay every 1 hour until level is ≤0.5,  
then restart after decreasing the rate by 4 units/kg/hr  
Recheck heparin assay in 4 hours |

- High Bleed Risk is to be determined by the operating surgeon
- Bleed risk will be assessed at least once daily and when determined to be at baseline risk, the patient will be switched to the standard heparin protocol.