### Nursing

<table>
<thead>
<tr>
<th>Item</th>
<th>Details</th>
</tr>
</thead>
</table>
| [X] Weigh patient                                                    | STAT, Once For 1 Occurrences  
Weigh patient if baseline measured weight not in medical record. Notify pharmacist if patient cannot be weighed.                                                                                     |
| [X] Notify pharmacist (Impella)                                      | Routine, Until discontinued, Starting S, -Notify pharmacist if a physician writes heparin orders. Heparin dose or infusion changes to be made by pharmacist only.  
-Notify pharmacist if compatibility with other IV drugs or if IV access is a concern.  
-Notify pharmacist IMMEDIATELY if the patient transfers or has an off unit procedure.  
-Notify pharmacist IMMEDIATELY if heparin infusion is stopped for any reason.  
-Notify pharmacist if patient cannot be weighed.                                                                                                      |
| [X] Notify pharmacist and physician (Impella)                        | Routine, Until discontinued, Starting S, -Notify pharmacist and physician if Platelet count less than 150,000 microliter or a 50% drop from baseline or hematoma, bleeding or suspected bleeding occurs.                                 |
| [X] Heparin instructions (Impella)                                   | Routine, Until discontinued, Starting S  
-Document: Hourly purge flow rates, purge heparin concentration, and purge dextrose concentration.  
-Do not interrupt heparin infusion unless ordered.  
-Notify pharmacist regarding compatibility with other IV drugs if access is a concern.  
-Notify pharmacist immediately if heparin infusion is stopped for any reason.                                                                         |

### Medications

**Impella Device Purge Heparin (Single Response)**
## Initiation:

Standard Purge: HEParin 25,000 units/500mL in D5W

<table>
<thead>
<tr>
<th>Repeat aPTT Result</th>
<th>Low aPTT</th>
<th>Therapeutic aPTT</th>
<th>High PTT</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADD</td>
<td>CHANGE to Alternate Purge: HEParin 12,500 units/500mL in D5W</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Supplemental Non-Purge: HEParin 25,000 unit/500mL</td>
<td>No change continue monitoring</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Repeat aPTT Result</th>
<th>Low aPTT</th>
<th>Therapeutic aPTT</th>
<th>High aPTT</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADD</td>
<td>CHANGE to Alternate Purge: HEParin 12,500 units/500mL D20W</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Supplemental Non-Purge: HEParin 25,000 unit/500mL in D5W</td>
<td>No change continue monitoring</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Consider switching to Standard Purge HEParin 25,000 units/500mL D5W if:
- Total heparin dose (Supplemental PLUS Purge) is more than double Alternate Purge: HEParin 12,500 units/500mL D5W dose
  - Example: Supplemental Non-Purge: HEParin 25,000 unit/500mL in D5W at 550 units/hr + Alternate Purge: HEParin 12,500 units/500mL in D5W at 350 units/hr = 900 units/hr
- Dosing has been stable for approximately 24 hours

### (X) Standard Purge: HEParin 25,000 unit/500 mL in D5W

- Rate is automatically adjusted by Impella Device to maintain adequate purge pressure.
- Document: Hourly purge flow rates, purge heparin concentration, and purge dextrose concentration.
- Do not interrupt heparin infusion unless ordered.
- Notify pharmacist immediately if heparin infusion is stopped for any reason.

### () ALTERNATE Purge: HEParin 12,500 unit/500 mL in D5W

- 12,500 Units. Impella, continuous
- Rate is automatically adjusted by Impella Device to maintain adequate purge pressure.
- Document: Hourly purge flow rates, purge heparin concentration, and purge dextrose concentration.
- Do not interrupt heparin infusion unless ordered.
- Notify pharmacist immediately if heparin infusion is stopped for any reason.
ALTERNATE Purge: HEParin 12,500 unit/500 mL in D20W

- 12,500 Units, Impella, continuous
- Rate is automatically adjusted by Impella Device to maintain adequate purge pressure.
- Document: Hourly purge flow rates, purge heparin concentration, and purge dextrose concentration.
- Do not interrupt heparin infusion unless ordered.
- Notify pharmacist immediately if heparin infusion is stopped for any reason.

Off-Protocol Purge Option (Single Response)

- Off-Protocol Option - ALTERNATE Purge: HEParin 25,000 unit/500 mL in D20W
  - 25,000 Units, Impella, continuous
  - Rate is automatically adjusted by Impella Device to maintain adequate purge pressure.
  - Document: Hourly purge flow rates, purge heparin concentration, and purge dextrose concentration.
  - Do not interrupt heparin infusion unless ordered.
  - Notify pharmacist immediately if heparin infusion is stopped for any reason.

- Off-Protocol Option - ALTERNATE Heparin-free purge - dextrose 5% infusion
  - 1 mL/hr, Impella, continuous
  - Rate is automatically adjusted by Impella Device to maintain adequate purge pressure.
  - Document: Hourly purge flow rates and purge dextrose concentration.
  - Do not interrupt infusion unless ordered.

Supplemental Non-Purge Heparin

- Supplemental Non-Purge: HEParin 25,000 unit/500 mL (50 unit/mL)
  - intravenous
  - Begin when PTT sub-therapeutic on Impella Device Purge Heparin alone.
  - Heparin Indication: Impella
  - Therapeutic Monitoring Target: PTT - 60 - 80 sec

Labs

Labs-Initiation

- Partial thromboplastin time
  - STAT For 1 Occurrences
  - Draw blood for PTT/ Anti Xa UFH from arm that does not have heparin infusion. If there is no other access than the heparin line, stop the heparin for 10 minutes, flush the line, aspirate 10 mL of blood to waste, obtain sample, and refill the line after drawing specimen.

- Prothrombin time with INR
  - STAT For 1 Occurrences
  - Do not draw blood from the arm that has heparin infusion. Do not draw from heparin flushed lines.

- CBC hemogram
  - STAT For 1 Occurrences
  - Do not draw blood from the arm that has heparin infusion. Do not draw from heparin flushed lines.

Labs-Continuing

- [X] CBC hemogram
  - Daily, Starting S+1 For 3 Occurrences
  - Daily while on heparin. Do not draw blood from the arm that has heparin infusion. Do not draw from heparin flushed lines.
**[X] Partial thromboplastin time**

Every 4 hours, Starting H+4 Hours For 1 Occurrences

Draw 4 hours after initiation of heparin infusion. Draw blood for PTT/ Anti Xa UFH from arm that does not have heparin infusion. If there is no other access than the heparin line, stop the heparin for 10 minutes, flush the line, aspirate 10 mL of blood to waste, obtain sample, and refush the line after drawing specimen.

**[X] Occult blood, stool**

Conditional Frequency, Starting S For 3 Occurrences, Stool guiac stools when there is a hemoglobin decrease of more than 2 gm/dL in a 24 hour period