Purpose

- To aid the ECP in providing or assisting in providing mechanical circulatory support during the interfacility transport of patients with an Intra-aortic Balloon Pump.
- The transferring facility will send their staff, i.e. Nurse, Cardiovascular/Perfusion Staff, Respiratory Therapist, etc., the accompanying staff member will maintain patient care responsibility while functioning within his/her scope of practice and under the orders of the transferring physician.
- The paramedic and accompanying staff will work collaboratively in providing patient care. If the patient’s condition deteriorates during transport, and the accompanying staff is not a Specialty Transport Team Member (Neonate, Pediatric, or Adult Flight Crew), the paramedic may assume full responsibility in conjunction with their medical director for care that exceeds the accompanying staff’s scope of practice and/or is not addressed by the transferring physician’s medical orders.

Procedure

Patient Assessment (Initial and every 30 minutes)

<table>
<thead>
<tr>
<th>Assessment of patient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Circulation to lower extremities (Pulse, Temperature, Color, Sensation)</td>
</tr>
<tr>
<td>Presence/Absence of hematoma at insertion site</td>
</tr>
<tr>
<td>Monitor for bleeding secondary to anticoagulant therapy</td>
</tr>
<tr>
<td>Correct timing (Inflation at dicrotic notch and deflation before next systolic event)</td>
</tr>
<tr>
<td>Confirm trigger with specialty staff (EKG or Pressure)</td>
</tr>
<tr>
<td>Confirm urine output and monitor throughout transport</td>
</tr>
<tr>
<td>Confirm left radial or brachial pulse</td>
</tr>
<tr>
<td>Include EKG &amp; Balloon Pump tracing in your report</td>
</tr>
<tr>
<td>Blood pressure documentation – From balloon pump</td>
</tr>
<tr>
<td>Mean arterial pressure and augmented blood pressure</td>
</tr>
<tr>
<td>Treat patient according to augmented blood pressure</td>
</tr>
</tbody>
</table>
Assessment of the perfusion system at the beginning and every 30 minutes of transport

1. Fiber Optic Catheter:
   - Dressing/Catheter/Tubing intact with good connections
   - Absence of blood in IABP catheter and tubing

2. Non-Fiber Optic Catheter
   - Pigtail flushes easily, should be completed every 30 minutes
   - Solution on pressure bag
   - Pressure bag to 300 mmHg
   - Transducer at level of phlebostatic axis
   - Absence of blood in IABP catheter and tubing
   - Appropriate zeroing of arterial line on IABP machine

Troubleshooting

1. Limb ischemia – Notify physician immediately
2. Loss of augmentation waveform
   a. Timing and augmentation are correct
   b. Catheter has not become dislodged
   c. Connections on tubing is intact
   d. Helium level
3. Balloon Leak – blood or rust colored particles noted in IABP tubing
   a. Place in standby and notify physician immediately
4. Bleeding at insertion site
   a. Apply pressure, consider placing SpO2 to extremity to assure blood flow
   b. Keep patient lower extremity immobilized, movement can increase bleeding
   i. Catheter can become dislodged with movement of patient
   c. Retroperitoneal bleed – low back/flank pain accompanied by abdominal firmness
5. IABP Malfunction
   a. 60 ml syringe and 3-way stopcock can be used to manually inflate helium tubing
   b. Should occur at least once every 10 minutes

In the event of a malfunction or failure, assist balloon pump technician as patient condition allows. Contact medical control or receiving physician as soon as possible. Consider transporting to nearest appropriate hospital, appropriate hospital should be capable of handling a patient with an IABP in place.
G30. Intra-Aortic Balloon Pump

**Special Considerations**

- Do not raise the head more than 30°.
- If CPR is needed, do not do anything with the Intra-Aortic Balloon Pump.
  - It will sense pressure changes and adapt accordingly.
- Treatment should be based off Augmented Mean Arterial Pressure (MAP).
  - Utilize other guidelines in addition to IABP device.
- Record the device model in narrative.
- Record accompanying staff members names and credentials in narrative.