1. May be used if unable to establish a peripheral IV in patients with a systolic BP < 80mmHg.

2. May be used if the patient is in cardiac arrest.

3. A 10mL syringe or larger must be used when accessing any central line to prevent excess infusion pressure that could damage the internal wall of the catheter.

4. Always aspirate 5mL of blood from the central line and discard prior to administration of medications or IV fluids to remove Heparin from the line.

5. Strictly adhere to aseptic technique when handling a central line:
   - Cleanse injection port twice with an alcohol prep (using a new alcohol prep each time) prior to accessing.

6. Do not remove the injection cap.

7. Do not allow IV fluids to run dry.

8. Always expel all air from syringes and IV tubing prior to administration.

9. Should damage occur to the external catheter, immediately clamp the catheter between the skin and the damaged area.

10. Document all activities or attempts to use a central/PICC lines in patient care report and verbal report to ED staff.
1. May only be used if the patient is in cardiac arrest and peripheral IV, IO or external jugular access cannot be established. Use of the EZ-IO is strongly encouraged over accessing a fistula / shunt.

2. Access must be made using a 14g or 16g IV catheter. Do not use anything smaller.

3. Do not use an arm with a fistula, shunt or arterio-venous (AV) graft to obtain a blood pressure.

4. Do not use an arm with a fistula, shunt or AV graft to establish peripheral IV access.

5. In the event the shunt tubing is pulled out of the entrance site: apply direct pressure, elevate the arm and transport immediately to the hospital.

6. Document all activities or attempts to use a fistula in patient care report and verbal report to ED staff.

**Internal Medi-Ports**

Access requires a specialized needle and cannot be used by prehospital personnel.