**NOTE:** This is a restricted procedure. A service and paramedic will require specific authorization from the Board prior to utilizing this procedure and skill.

## Vascular Access Via Central Catheter

## Indications

- ♦ Emergent venous access when patient's life is in imminent danger or patient is in cardiorespiratory arrest, and
- A peripheral IV cannot be established after two attempts (attempts can include actual venipunctures or looking at two different sites to find a vein), and
- Patient has central venous access device (CVAD) present (PICC Line, Port-a-Cath).
- Contraindications
  - Prophylactic IV access
  - Suspected infection at skill site
- ▶ Determine type of catheter: PICC, Mediport or Port-a-Cath
  - Procedure for peripherally inserted central catheter
    - Prepare equipment: 10 ml syringe (empty), 10 ml syringe (normal saline) and sterile gloves (if available).
    - o If more than one lumen is available (PICCs and Boviacs can have one, two, or three lumens), select the largest lumen available.
    - Remove cap on the end of the catheter.
    - Prep the end of the lumen with an alcohol swab.
    - Using a 10 ml syringe, (after unclamping the lumen) aspirate 3-5 ml of blood with the syringe and discard. If unable to aspirate blood, re-clamp the lumen and attempt to use another lumen (if present). clots are present, contact medical control before proceeding. Re-clamp the lumen.
    - Flush the lumen with 3 5 ml normal saline using a 10 ml syringe. If catheter does not flush easily (note that a PICC line will generally flush more slowly and with greater resistance than a typical intravenous catheter), re-clamp the selected lumen and attempt to use another lumen (if present).
    - Attach IV administration set and observe for free flow of fluid.
    - If shock is not present, allow fluid to run at rate of 10 ml/hour to prevent the central line from clotting.

## Vascular Access Via Central Catheter continued

**Note**: The maximum flow rates for a PICC line is 125 ml/hour for less than 2.0 Fr. sized catheter and 250 ml/hour for catheters over 2.0 Fr. sized catheters.

**Note**: Avoid taking a blood pressure reading in the same arm as the PICC.

- Procedure for implanted catheter (portacath, Pas Port, mediport)
  - Prepare all necessary equipment: 10 ml syringe (empty), 10 ml syringe (normal saline) and sterile gloves (if available). Identify the access site; usually located in the chest.
  - Clean the access site with Betadine; remove Betadine with alcohol swab.
  - Secure the access point firmly between two fingers and attach 10 ml syringe to Huber Needle.
  - Aspirate 3-5 ml of blood with the syringe. If unable to aspirate blood, re-clamp the catheter and do not attempt further use. If clots are present, contact medical control before proceeding. Re-clamp the catheter.
  - Flush the catheter with 3 5 ml normal saline using a 10 ml syringe. If catheter does not flush easily, re-clamp the catheter and do not attempt further use.
  - Attach IV administration set and observe for free flow of fluid.
  - o If shock is not present, allow fluid to run at rate of 10 ml/hour to prevent the central line from clotting.