



Indications:

- Central lines may be accessed when there is a need for drug or fluid administration and traditional means of venous access are inappropriate, unnecessary, or unsuccessful; **OR** Patient or patient's caregiver requests use of the Central line.

Definitions:

- Central lines have three distinct appearances in EMS contact: PICC line, iVAD, and Central Catheter. *Accessing an iVAD has a separate clinical procedure.* A PICC line is a Peripherally Inserted Central Catheter. The line is centrally located into the Superior Vena Cava, but is accessed peripherally, usually through the Antecubital Vein. A Catheter with access that is located on the chest, is a Central Catheter, and should be accessed with sterile technique. **This does not include Dialysis shunts/Catheters.**

Procedure:

1. Leave distal catheter clamped until syringe is attached.
2. Explain the need for IV administration and describe procedure to patient.
3. Check IV solution for expiration date, cloudiness, etc.
4. Spike the bag with the appropriate IV tubing, remove air from tubing
5. **For PICC line access:** scrub the distal catheter port with Chloraprep for at least 15 seconds and let dry for at least 15 seconds.
6. **For Central Catheter access:** scrub the catheter port with Cloraprep for at least 90 seconds using sterile technique; also wear Mask. Let dry for at least 15-30 seconds.
7. Ask the patient or caregiver if the line is flushed with Heparin or Saline. If Heparin, aspirate 10ml of blood and discard. Central Catheters are likely to have Heparin, while PICC lines may have Saline.
8. Attach 10ml syringe to the port. Unclamp line if required.
9. Aspirate for blood return. Blood should draw freely, if it does not, remove syringe and DO NOT use the Central line.
10. If blood aspirates easily, gently flush line. If line does not flush, remove syringe and DO NOT use the Central line.
11. If line flushes appropriately, remove syringe, attach IV tubing to catheter and infuse NS at proper rate for patient.
12. Administer IV medications through port as needed.

Complications:

- Phlebitis
- Infection
- Catheter occlusion
- Air embolism

Considerations:

- Never allow a central line to be open to air.**
- Allow Choraprep mixture to dry completely.
- When clamps are used on the distal end of catheter, do not unclamp prior to attaching syringe or IV tubing to catheter port.
- Always use at least a 10ml syringe, smaller size syringes deliver too much pressure into catheter and can damage the Central line tubing.
- Maximum flow rates for a white colored Central line is 125ml/hr. Not to be used for rapid fluid bolus administration.

- Maximum flow rates for a 'Power PICC' is 5ml/sec
- Do not administer Adenosine or undiluted D50% through the 'single lumen white only' Central line. Adenosine is a rapid push medication and undiluted D50% may rupture the tubing based on the viscosity of the drug. Mix D50% in a bag of NS and infuse if needed.

Power PICC



White Lumen PICC

