



MIAMI TOWNSHIP FIRE & EMS CLERMONT COUNTY, OHIO *PROCEDURE PROTOCOLS*



EMERGENCY USE OF CENTRAL VENOUS ACCESS DEVICE

Indications

1. Emergent venous access when patient's life is in imminent danger or patient is in cardiorespiratory arrest, AND
2. 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
3. Patient has central venous access device (CVAD) present.

Devices

1. Indwelling Catheter(s) - Venous access devices whose ports are Luer-locked or capped. The tip of the catheter is located in a large vein or superior vena cava. Available brands include Hickman, PICC Line, and Midline.
2. Implanted Ports - Single or double (oval) reservoir located under skin on chest or forearm. Access, by inserting a needle through skin into the rubber septum. The catheter tip is located in a large vein or superior vena cava. Available brands include Port-a-Cath.
3. Aphoresis or Hemodialysis Accesses
 - A. Indwelling Catheters - Large bore, short length double catheters (may have third tail or lumen). “Arterial” and “venous” lumens are actually side-by-side in subclavian, internal jugular, or femoral vein. Available brands include Quinton and Perma Cath.
CAUTION: These devices contain high concentrations of heparin. It must be discarded prior to use.
 - B. Gortex Graft or AV Fistula - Natural or plastic connection between vein and artery usually located under skin on arm. The examiner may feel a “thrill” or auscultate a bruit. These sites have high back pressure due to arterialization of vessel.



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Procedure for accessing central venous access device

1. Identify if the CVAD is accessible by standard prehospital equipment. (Implanted ports, AV fistulas, and grafts should be accessed by special, non-coring [Huber-type] needles).
2. Identify shut-off, clamps, caps, heparin/saline lock, etc., and clamp line if disconnecting or opening.
3. Access the device after cleansing with chloraprep or alcohol prep.
4. Aspirate with a 10 to 20 cc syringe until blood returns, but site may be functional without return. Only use venous access devices that have a blood return unless the patient or family can verify that the device is functional despite the lack of blood return.
5. Discard aspirated fluid.
6. Flush lumen or port with 10 cc saline using only a 10 cc syringe or larger, avoiding excessive pressure.
7. Establish IV connection, avoiding air entry.
8. Secure connections with luer lock or tape.
9. All subsequent injections should be given with a 10 cc syringe or larger.

Notes:

1. Arterial bleeding will result if the needle is dislodged from a dialysis graft or fistula.
2. Dialysis fistulas and grafts (located under skin or arm) may have high back pressure and require positive pressure to infuse.
3. When attempting to insert a needle into a dialysis fistula, avoid the scar line or any lumpy areas in the graft or fistula. Follow the track marks that are present from previous use of the site for dialysis.