INDICATIONS:

- Cardiopulmonary arrest (medical or trauma)
- Acute respiratory arrest
- Anaphylaxis with blood pressure less than 90 systolic (80 systolic child)
- Shock manifested by blood pressure less than 90 systolic (80 systolic child)

CONTRAINDICATIONS:

1. Obvious signs of infection at site
2. Cracked or damaged device access point

PROCEDURE:

External Access Port Device:

1. Avoid personal exposure to blood or fluids.
2. Discontinue any infusions to device that may be in place prior to arrival.
3. Observe sterile procedure and universal precautions.
4. Prepare 10 mL syringe with 10 mL normal saline.
5. If catheter clamped, unclamp to prepare for assessment of patency.
6. Clean injection port with alcohol swab.
7. Slowly inject 5 mL normal saline into catheter. If resistance is met, reclamp and do not use device.
8. If no resistance, inject remaining 5 mL of normal saline through device.
9. For medication administration:
   A. Inject IV dose of medication through PVAD port.
   B. Flush with 10 mL normal saline injected with syringe.
10. For IV infusion of normal saline or 10% Dextrose Solution:
    A. Insert IV tubing into PVAD port (should be needleless access design).
    B. If not of needless design, insert 16-14 Gauge needle into PVAD port and connect IV tubing.
    C. Secure tubing with tape and infuse usual IV volume.
11. When injection or infusion complete, remove syringe or needle and clean port with alcohol swab, then re-clamp PVAD catheter.

Subcutaneous Hemodialysis Fistula (PVAD):

1. Avoid personal exposure to blood or fluids.
2. Discontinue any infusions to device that may be in place prior to arrival.
3. Observe sterile procedure and universal precautions.
4. Clean skin area over fistula with alcohol or chlorohexidine solution.
5. Feel over fistula for thrill (feeling of blood flow).
6. Identify side of fistula with weakest thrill.
7. Using empty 10 mL syringe, aspirate site for injection/infusion to obtain about 3 mL blood return.
8. If not blood return, do not use fistula and cover aspiration site with gauze and paper tape.

9. For medication administration:
   A. Inject IV dose of medication through identified site area (venous side).
   B. Flush with 10 mL normal saline injected with syringe.

10. For IV infusion of normal saline or 10% Dextrose Solution:
    A. Insert 16 gauge IV catheter into identified site area (venous side).
    B. Connect IV tubing and infuse IV fluid.
    C. Secure tubing with tape and infuse usual IV volume.

11. When injection or infusion complete, remove syringe or needle and clean site with alcohol swab, then place pressure dressing with gauze and paper tape.

**CAUTIONS:**

1. Do not allow air bubbles into system, may cause air embolism.
2. Excessive bleeding can occur around hemodialysis fistula during or after access, use point specific manual pressure to control bleeding and avoid use of tourniquet (may clot and ruin fistula).
3. Use 10 mL syringes to avoid excess pressures in PVAD line, which may cause damage to device.

**DOCUMENTATION:**

1. Document all access attempts, site, and time accessed or attempted for access.
2. Notify receiving hospital staff of PVAD use and site (even when not successful).