Intravenous (IV) access shall be established anytime a patient requires fluid/medication therapy or in the event that the need for fluid/medication therapy may arise during care of the patient. In the event peripheral IV access cannot be established in the hemodynamically unstable critically ill or injured patient, intraosseous (IO) access Procedure 14 will be utilized. Patients treated under this procedure will be transported ALS via Miami-Dade Fire Rescue.

A. Procedure

ALS

1. Choice of sites:

    a) For maintenance infusions (KVO) use peripheral sites such as the hand, wrist, and forearm.

    b) For fluid administration, use the largest applicable vein

    c) For patients with reduced cardiac output (shock, cardiac arrest, etc.) every attempt should be made to establish access in a vein above the diaphragm, i.e., the antecubital or external jugular.

    d) Precautions - Avoid using veins in extremities affected by:

        - Burns
        - Rashes or skin infections
        - Fractures or dislocations
        - Mastectomy
        - Dialysis shunts and fistulas

2. Inserting an IV

    a) Assemble and prepare the necessary equipment:

        1. Constricting band(Tourniquet)
        2. IV Catheters
        3. Alcohol preps
        4. Sharps container
        5. Veniguard
        6. IV extension set (Saline Lock) with prefilled saline flush syringe.

            a. Attach the syringe to the saline lock and flush with 1-2mL to fill the tubing with saline and remove air from tubing.

    b) Use aseptic technique and clean the insertion site with an alcohol prep

    c) Apply a constricting band above the insertion site

d) Insert the IV

1. Hold IV catheter hub in dominant hand with bevel side up at 10-15 degree angle.
2. Advance catheter into vein until blood returns into lumen of needle or flashback chamber of catheter. Then advance catheter 1/4 inch farther into the vein.
3. Advance the catheter over the needle into the vein until hub is at venipuncture site.
4. Release tourniquet.
5. Apply pressure above catheter insertion site and remove needle.
6. Dispose of needle in sharps container.

e) Attach saline lock with attached saline flush syringe to the catheter hub.

f) Flush the IV with 3-5mL of saline

g) Secure the IV with the veniguard device creating a loop in the saline lock.

3. A primary IV line will be established as follows:

a) For patients **not** requiring intravenous fluid boluses or medication administration, the saline lock will be the primary IV line.

b) For patients requiring intravenous medication administration, a 10ml saline flush syringe shall be used after each administration of medication. A Normal Saline bag should not be used for these patients.

c) For patients requiring intravenous fluid administration, use a regular drip (10 drops/mL or 15 drops/mL) infusion set and a 1000ml bag of Normal Saline. For patients requiring volume replacement in excess of 1-2 liters, use the "Y-type" infusion set **(FOR ADULTS ONLY**).

d) Use a mini-drip (60 drops/mL) for all intravenous infusions of medication (i.e. Amiodarone, Dopamine, Magnesium and Diltiazem). The 50ml, 100ml, and 500 mL bags of Normal Saline are available for mixing IV medication infusions.