

INTRAVENOUS (IV) ACCESS–PERIPHERAL

1. Level: AEMT, Paramedic, RN
2. Indications:
 - 2.1. Hydration/replace fluid loss
 - 2.2. Administer medications
 - 2.3. Any patient where intravenous access is indicated (significant trauma or mechanism, emergent or potentially emergent medical condition).
3. Procedure:
 - 3.1. Inspect the IV solution for expiration date, cloudiness, discoloration, leaks, or the presence of particles.
 - 3.2. Connect IV tubing to the solution in a sterile manner. Fill the drip chamber half full and then flush the tubing bleeding all air bubbles from the line.
 - 3.3. Place a tourniquet around the patient's extremity to restrict venous flow only.
 - 3.4. Select a vein and an appropriate gauge catheter for the vein and the patient's condition.
 - 3.5. Prep the skin with an antiseptic solution.
 - 3.6. Insert the needle with the bevel up into the skin in a steady, deliberate motion until the bloody flashback is visualized in the catheter.
 - 3.7. Advance the catheter into the vein. **Never** reinsert the needle through the catheter. Dispose of the needle into the proper container without recapping.
 - 3.8. Draw blood samples when appropriate.
 - 3.9. Remove the tourniquet and connect the IV tubing or saline lock.
 - 3.10. Open the IV to assure free flow of the fluid and then adjust the flow rate as per protocol or as clinically indicated.
 - 3.11. Cover the site with a sterile dressing and secure the IV and tubing.
 - 3.12. Document the procedure, catheter size, IV location, time and result (success) on the electronic Patient Care Record (ePCR).
4. IV Sites: The dorsal aspect of the hand, the antecubital fossa, and the forearm are the sites of choice for peripheral venous access. If these sites are unavailable, refer to specific procedures for Jugular Access and Intraosseous Access.
5. IV Solutions: Solutions should be addressed through specific protocols, standing orders, and/or Medical Control. Generally, Normal Saline (0.9% Sodium Chloride) is the solution of choice for prehospital use.
6. Flow Rates:
 - 6.1. To Keep Open (TKO) – slow infusion rate used prophylactically or for medication administration.
 - 6.2. Wide Open – used for rapid administration in situations where volume replacement is crucial.
7. IV Bolus
 - 7.1. In cases of hypovolemia, it may be necessary to administer a large volume of fluid rapidly to maintain the patient's blood pressure and/or desired effect. It is important to follow protocol, and/or Medical Control direction in these situations.
 - 7.2. Adult Patient - Generally, 250 cc of Normal Saline should be infused at a wide open rate, followed by reassessment of the patient. Repeated bolus infusions as indicated.
 - 7.3. Pediatric: Generally, fluid volume is calculated at 20cc/Kg
 - 7.4. Neonate: Generally, fluid volume is calculated at 10cc/Kg.