

**INTRAOSSEOUS INFUSION PROCEDURE – ADULT**

1. **PURPOSE:** To obtain rapid circulatory access to provide necessary intravenous fluids or medications
2. **INDICATIONS:**
  - ▶ Approved for use in the adult patient only >8 years old and >40 kg. (If less than 40 kg, "INTRAOSSEOUS INFUSION PROCEDURE - PEDIATRIC" on page 133)
  - ▶ Consider for use in any unconscious or seriously ill or injured patient in whom IV access cannot be established in a very timely fashion
  - ▶ Any medications or fluids that can be given in a peripheral vein can be given intraosseous.
3. **CONTRAINDICATIONS:**
  - ▶ Inability to locate tibial landmarks
  - ▶ Fracture or recent surgery in the tibia to be used
  - ▶ Infection over the insertion site
4. **POSSIBLE COMPLICATIONS:**
  - ▶ Compartment syndrome
  - ▶ Growth plate injury
  - ▶ Skin infection
  - ▶ Failed infusion
  - ▶ Bone infection
  - ▶ Bony fracture
5. **PREPARATION:**
  - ▶ Place the patient in the supine position
  - ▶ Put a small towel roll under the knee
  - ▶ Consider use of MS for analgesia (see "Pain Management" page 39)
6. **PROCEDURE:**
  - 6.1 Locate the anatomical site (one centimeter inferior and medial to the anterior tibial tuberosity) – STEP 1
  - 6.2 Prepare the skin with chlorhexidine. STEP 2
  - 6.3 Consider MS for analgesia (see "Pain Management" page 39)
  - 6.4 Load the needle onto the driver
  - 6.5 Firmly stabilize the leg near (not under) the insertion site
  - 6.6 Firmly press the needle against the site at a 90° angle and operate the driver. Use firm, gentle pressure. STEP 3
  - 6.7 As the needle reaches the bone, stop and be sure that the 5mm marking on the needle is visible; if it is, continue to operate the driver
  - 6.8 When a sudden decrease in resistance is felt and the flange of the needle rests against the skin, remove the driver and the stylet from the catheter. STEP 4
  - 6.9 Do not attempt to aspirate bone marrow (may clog needle & tubing)
  - 6.10 Use a syringe to rapidly infuse 10 mL NS. (Note: this is an important step)
  - 6.11 If no infiltration is seen, attach the IV line and infuse fluids and/or medications as normal STEP 5
  - 6.12 IV bag will need to be under pressure. STEP 6
  - 6.13 Secure the needle.



STEP 1



STEP 2



STEP 3



STEP 4



STEP 5



STEP 6