

# LCFD

## OFFLINE MEDICAL CONTROL

### **PROCEDURE-TIBIAL PLACEMENT (PREFERRED SITE UNLESS BOTH LOWER EXTREMITIES ARE UNUSABLE):**

- Patient is placed in a supine position.
- Assemble all necessary equipment, attach and flush the EZ-IO tubing with a pre-filled NS syringe and a IV set with a pressure bag (set up and flush maintaining sterility).
- Identify and locate the bony landmarks, the proximal tibia is the only approved site.
- Place a rolled towel under the knee with a foot facing outward (optional).
- The proximal tibial insertion site is approximately 2 cm below the patella and approximately 2 cm medial to the tibial tuberosity (depending on patient anatomy).
- Prep site with alcohol.
- Assess the tissue depth and insert the appropriate E-Z IO needle until contact is made with the tibia-ensure a black mark is visible above the surface of the skin (this will correspond to sufficient depth of the needle to be appropriately placed with the bone cavity).
- Firmly hold the E-Z IO at a 90-degree angle to the surface of the skin.
- While continuing to hold the bottom part firmly against the tibia, engage the drill and allow the needle to enter the tibia. \*Extra force is not required.
- Once resistance is gone release the trigger and while holding the needle remove the drill and stylet.
- If the Illinois bone needle is used follow the Utah EMSC guidelines/ SOPs for insertion
- It is suggested to attach the E-Z Stabilizer.
- Attach the E-Z IO tubing to the cannula and with the 10 ml pre-filled saline syringe attempt to aspirate bone marrow (not necessary) and flush. \*Lack of bone marrow does not mean that the I/O is inappropriately placed, however, it should flush easily. If no bone marrow is aspirated and unable to easily flush with NS then remove the cannula and choose another site.
- Connect the IV infusion set using a pressure bag, this should be done quickly to prevent the possibility of air symbolization.
- Administer fluids and/or drugs as required.

### **CONTRAINDICATIONS:**

- Placement of an I/O line in a fractured bone.
- Placement of an I/O line distal to a fractured bone (tibial placement with a fracture femur).
- **Prior I/O puncture in the same bone.**
- Osteogenesis Imperfecta-an inherited condition where the bones are abnormally brittle and subject to fractures.
- A prosthetic limb
- Infection or burns are relative contraindications at the intended site-the Medical Control Physicians should be contacted prior to the insertion attempt.