**Indications**

- Patient in extremis, cardiac arrest, profound hypovolemia, or is septic and in need of immediate delivery of medications/ fluids and immediate IV access is not possible

**SPECIAL CONSIDERATIONS**

- Pressure bags for optimal flow of IO infusions
- Administer **Lidocaine 2%** prior to saline bolus if patient responsive to painful stimuli

**Critical Information**

- All approved ALS IV medications may be administered IO
- No more than 2 attempts for IO access at scene
- Absolute contraindications:
  - Recent fracture of involved bone (less than 6 weeks)
  - Vascular disruption proximal to insertion site
  - Inability to locate landmarks
- Relative contraindications:
  - Infection or burn overlying the site
  - Congenital deformities of the bone
  - Metabolic bone disease