

INTRAOSSIOUS CANNULATION – MANUAL

Name: _____ Date: _____ License # _____

Intraosseous cannulation provides a safe and reliable method for rapidly achieving a route for administration of medications, fluids, and blood products in a non-collapsible vascular space.

A. Assessment/Treatment Indicators:

1. Resuscitation.
2. Altered mental status (GCS 8 or less).
3. Status epilepticus with prolonged seizure activity greater than 10 minutes, and refractory to IM anticonvulsants.

B. Contraindications:

1. Fractures of the involved bone.
2. Fourth Degree burn, infection or area of cellulitis overlying the site of insertion.
3. Congenital deformity or history of osteogenesis imperfecta or osteoporosis.
4. Previous IO attempt at chosen site.
5. Patient < 3kg.

C. Potential complications and interventions:

1. Tubing becomes obstructed with bone or bone marrow: replace the tubing extension set.
2. Local infiltration of fluids, medications, or local bleeding: stop infusion, remove needle, and apply pressure with sterile gauze.

D. Insertion site:

1. Proximal tibia is the only approved site for manual insertion of the IO needle. Palpate the landmarks at the proximal tibia (patella and tibial tuberosity). Insertion site should be approximately one finger width to the medial side of the tibial tuberosity.

Equipment:

- | | |
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| <ol style="list-style-type: none"> 1. Intraosseous needles: 15ga or 18ga 2. Betadine solution or swabs 3. Sterile gauze and gloves 4. Extension tubing | <ol style="list-style-type: none"> 5. Syringes (2) 10 ml 6. Broselow Pediatric Resuscitation Tape (Pediatric patients only). 7. Adhesive tape |
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Performance Criteria

Pass Fail

	Performance Criteria		Pass	Fail
1.	Uses universal precautions.			
2.	States: Indications, contraindications, and selects insertion site for IO cannulation			
3.	Assembles equipment, attaches extension tubing to IV tubing, and checks the needle to ensure bevels of the outer needle and internal stylet are properly aligned.			
4.	Cleans insertion site using aseptic technique.			
5.	After skin prep, places patient in supine position and holds leg firmly.			

Effective: January 1, 2012
Supersedes: February 15, 2010

Approved: Signature on File
Medical Director

Signature on File
EMS Administrator

Performance Criteria		Pass	Fail
6.	Directs and inserts needle perpendicular to bone using a boring or screwing motion until needle “pops” into the bone marrow space (marked by sudden lack of resistance). Needle should stand-alone.		
7.	Attempts aspiration of bone marrow to assist in placement confirmation.		
8.	Disconnects first syringe and connects second syringe, flushing with at least 3 ml of normal saline, observing for fluid extravasation.		
9.	Attaches extension tubing to needle and adjusts flow as required. If fluid does not run freely apply a pressure infuser and adjust flow as required.		
10.	Secures needle with sterile gauze and tape.		
11.	States potential complications and interventions.		
12.	Restrains patient prn to prevent inadvertent dislodging of the needle.		
13.	States: Document IO placement on PCR.		

Please provide comments for any item that is marked as failed: _____

Name & Signature of Evaluator

Date