

SKILLS: INTRASOSSEOUS CANNULATION					
Name: _____		Date: _____			
		Cert # _____			
<p>Intraosseous cannulation provides a safe and reliable method for rapidly achieving a route for administration of medications, fluids, and blood products in children in a non-collapsible vascular space. Onset of action and medication levels following intraosseous infusion during CPR is comparable to that achieved following intravenous administration.</p> <p>A. Assessment/Treatment Indicators:</p> <ol style="list-style-type: none"> 1. Resuscitation 2. Urgent need to administer fluids or medications intravenously with inability to establish peripheral on two (2) attempts. <p>B. Contraindications:</p> <ol style="list-style-type: none"> 1. Fractures of involved bone. 2. Infected burn or area of cellulitis overlying the site of insertion. 3. Congenital deformity or history of osteogenesis imperfecta or osteopetrosis. <p>C. Potential complications and interventions:</p> <ol style="list-style-type: none"> 1. Needle becomes obstructed with bone or bone marrow: replace with a second needle by passing through the same cannulation site, provided no evidence of infiltration is observed, or consider IO cannulation of contralateral tibia. 2. Local infiltration of fluids or medication or local bleeding: stop infusion and apply pressure with sterile gauze. 					
<p>EQUIPMENT: *Peds sizing according to Broselow Tape recommendations:</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none; vertical-align: top;"> <ol style="list-style-type: none"> 1. 15-19 gauge intraosseous or bone marrow needle 2. Betadine solution or swabs 3. Sterile gauze and gloves 4. (2) 10 ml syringes </td> <td style="width: 50%; border: none; vertical-align: top;"> <ol style="list-style-type: none"> 5. Appropriate IV fluids with flushed tubing 6. Adhesive tape 7. Pressure pump for volume infusion or 50-60 ml syringe 8. 3-way stopcock </td> </tr> </table>				<ol style="list-style-type: none"> 1. 15-19 gauge intraosseous or bone marrow needle 2. Betadine solution or swabs 3. Sterile gauze and gloves 4. (2) 10 ml syringes 	<ol style="list-style-type: none"> 5. Appropriate IV fluids with flushed tubing 6. Adhesive tape 7. Pressure pump for volume infusion or 50-60 ml syringe 8. 3-way stopcock
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Performance Criteria	<i>Met</i>	<u><i>Not</i></u> <i>Met</i>	<i>Comments</i>		
1. Uses universal precautions.					

Effective: January 1, 2009

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Revised:

Supersedes:

Approved: Signature on File
Medical Director

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EMS Administrator

Performance Criteria		Met Initials	<u>Not Met</u> Initials	Comments
2.	States indications, age limit, and contraindications of IO cannulation.			
3.	Assembles equipment and checks the needle to ensure bevels of the outer needle and internal stylet are properly aligned.			
4.	Identifies insertion site at the proximal, anterior tibia, 1-3 cm below tuberosity on flat medial surface.			
5.	After skin prep, places child in supine position and holds leg firmly.			
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.	After satisfactory flushing, attaches IV tubing and secures needle with sterile 2X2's and tape. Fluid should run freely.			
10.	Obtains a restraint order prn to prevent inadvertent dislodging of the needle.			
11.	States complications of IO cannulation and interventions.			

VALIDATOR'S SIGNATURE	ALS PROVIDER'S SIGNATURE	DATE

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