

Procedure/Skill Evaluation

Student: _____ Level: EMT- I A CC P Date: _____
 Evaluator: _____ Start: _____ End: _____ Total: _____ Pass/Fail _____

Skill Sheet 45: Intraosseous Access - Adult

Conditions	The candidate should perform this skill on a simulated patient under existing indoor, ambulance, or outdoor lighting, temperature, and weather conditions.
Indications	A patient who requires intravascular access for medication administration and/or volume resuscitation, and for whom IV access is not readily available.
Red Flags	Long bone deformity distal to access site on same bone; unable to locate landmarks

Don appropriate standard precautions	
Prepare Equipment	
Prepare IV administration set	
Select proper fluid	
Check date, clarity	
Use warmed fluids if possible	
Select proper administration set (macro drip/micro drip set)	
Close the roller clamp	
Connect administration set to fluid	
Hold fluid upside down and remove tab covering administration port	
Remove cap from sharp end of administration set and insert spike firmly into bag port	
Hang bag right-side-up on IV hook or pole	
Squeeze drip chamber gently until chamber is filled to line	
Run fluid through tubing until free of air, then turn flow off	
Select appropriate size needle	
15 gauge all others	
18 gauge for newborns	
Prepare a 10 ml syringe with 5 ml saline	
Prepare an additional syringe and a 3-way stopcock	
Prepare Patient	
If possible, explain procedure to patient and/or parent	
Select appropriate site	
Proximal tibia	
Distal femur	
Proximal humerus (greater tuberosity)	
Clean site with iodine and/or alcohol	
Stabilize site	
Extremity stabilized from above	
Pad underside of extremity so site is lying flat	
Perform Procedure	
Position needle correctly in hand	
Needle shaft pointed 90 degrees perpendicular to bone	

Fingers of stabilizing hand away from insertion point	
Insert needle into bone	
Manual needles: Use a "boring" technique	
Mechanical needles: Follow manufacturer's directions	
Feel a "pop" sensation as needle enters bone hollow	
Stabilize catheter and remove needle	
Needle will stand straight up if correctly inserted	
Immediately place needle in approved sharps container	

Confirm placement	
Draw marrow sample using syringe	
Flush needle with saline using second syringe	
Swelling noted: remove catheter	
Flush difficult to administer: withdraw catheter slightly and reattempt saline flush	
Secure needle to site	
Connect 3-way stopcock to catheter hub	
Connect IV administration set to stopcock	
Open IV roller clamp and stopcock fully to check IV patency	
Ensure free flow through drip chamber	
Inspect/palpate around cannulation site for infiltration (swelling/rigidity)	
If infiltrated, immediately discontinue IV and apply pressure w/sterile dressing	
Decrease flow to desired rate	

Critical Criteria:

- ___ Use appropriate standard precautions
 - ___ Use intraosseous needle in a safe manner
 - ___ Immediately dispose of sharps in appropriate container ___
- Observe for infiltration at site.