Procedure/Skill Evaluation

Student:_____ Level: □ EMT- I A CC P Date:_____

Time: _____

Evaluator:_____ Start:_____ End:_____ Total:_____Pass/Fail ___

Intravenous Access Using Saline Lock

Conditions	The candidate should perform this skill on a simulated patient under existing indoor, ambulance, or outdoor lighting, temperature, and weather conditions. Establish patent intravenous line within 6 minutes.
Indications	A patient who requires or may potentially require administration of fluids or intravenous medications.
Red Flags	Prep the site with as much aseptic technique as possible under field conditions. Do not to start an IV on the same arm as a dialysis shunt. IV infiltration, especially when medications are being administered, can cause serious and irreversible tissue damage. Do not use areas of burned skin or heavy vein scarring.

Don appropriate standard precautions	
Prepare Equipment – Saline Lock	
Prepare saline lock	
Draw approximately 10 ml of normal saline into syringe	
Check date, clarity	
Select saline lock/extension set	
Connect syringe to saline lock, flush out air	
Disconnect syringe and refill with saline to 10 ml	
Reconnect syringe to saline lock	
Prepare cannulation equipment	
Select proper size angiocath	
Consider intended use (e.g., fluid therapy, medication line)	
Consider size, fragility of vein	
Gather tourniquet, gauze pad, alcohol prep, tape/commercial securing device	
Prepare blood draw equipment, if needed	
Prepare Equipment – IV Fluids	
Proper fluid (1) Clarity (1) Expiration (1)	
Select appropriate administration set	
Connects IV tubing to the IV bag	
Prepares administration set (fills drip chamber and flushes tubing)	
Prepare Cannulation Site	
Apply tourniquet or blood pressure cuff (inflated to just below diastolic BP)	
Proximal to wrist for hand veins	
Proximal to elbow for forearm veins	
Select site	
Between knuckles, dorsal thumb, back of hands, ventral forearms, ventral elbow	
Palpate and look for veins that are straight and do not bifurcate nearby	
Cleanse site	

Wipe visible dirt from site with alcohol prep pad	
Repeat with fresh alcohol prep pads until they are visibly clean after wiping	
Use fresh alcohol/iodine prep pad to wipe site outward, in a spiral motion	
Do not palpate after wiping	
Control site	
Use nondominant hand to hold patient's hand/arm, pulling skin taut	
Ensure fingers are not in the potential path of needle	
Perform Procedure	
Position angiocath correctly in hand	
Bevel on needle facing upward	
Flashback chamber visible	

Index finger of alternate hand able to slide catheter over needle easily	
Along path of vein at a <45° angle to skin surface	
Attempt to advance directly into vein with one smooth motion, without stopping	
Monitor for and verbalize flashback	
After flashback, advance angiocath an additional 1-2mm into vein	
Advance catheter with index finger while simultaneously pulling needle out	
If angiocath designed for needle-stick protection, advance until device engages	
Remove tourniquet	
Disconnect needle from catheter hub	
Use finger of nondominant hand to occlude vein proximal to end of catheter	
Immediately place needle in approved sharps container	
Connect saline lock (and/or IV tubing) to catheter hub	
Slowly administer 10 ml of saline from syringe to check IV patency	
Should flow freely and evenly	
Inspect/palpate around cannulation site for infiltration (swelling/rigidity)	
If infiltrated, immediately turn off fluids and discontinue IV	
Engage clamp on saline lock while administering fluid	
Disconnect syringe and replace appropriate cap(s) to seal saline lock	
Secure Site and Tubing	
Secure venipuncture site	
Utilize transparent commercial device, if available (e.g., Veniguard®, Bio-occlusive®)	
Otherwise, wrap tape in "awareness ribbon" pattern around hub	
Secure saline lock with tape	

Critical Criteria:

__ Use appropriate standard precautions
__ Maintain aseptic technique throughout procedure
__ Avoid catheter shear by not reinserting needle into catheter
__ Observe for infiltration
__ Establish a patent IV line within 6 minutes
__ Dispose of sharps in an appropriate container