

NWC EMSS Skill Performance Record
DEXTROSE 10% (25 g / 250 mL)

Name:	1 st attempt: <input type="checkbox"/> Pass <input type="checkbox"/> Repeat
Date:	2 nd attempt: <input type="checkbox"/> Pass <input type="checkbox"/> Repeat

Instructions: An unconscious adult is determined to be severely hypoglycemic. You are asked to assemble the equipment, and administer the appropriate dose of D10% (25 g / 250 mL) via IVPB. The patient weighs 150 pounds.

Performance standard	Performs w precision	Needs additional practice
Equipment needed: <input type="checkbox"/> IV start supplies (size-appropriate IV catheter <input type="checkbox"/> 0.9% NS IV solution <input type="checkbox"/> D10% (25g/250 mL) <input type="checkbox"/> 2 sets IV tubing (15 drops = 1 mL) <input type="checkbox"/> CHG/IPA prep		
Verbalize the 6 rights of medication administration: <input type="checkbox"/> Right person <input type="checkbox"/> Right dose <input type="checkbox"/> Right route <input type="checkbox"/> Right drug <input type="checkbox"/> Right time <input type="checkbox"/> Right documentation		
Verbalize the following: <input type="checkbox"/> Drug action: Hypertonic monosaccharide; concentrated source of carbohydrate for IV infusion <input type="checkbox"/> *Indication: Confirmed hypoglycemia <input type="checkbox"/> *Side effects: hyperglycemia. The following are not as likely with D10 as D50: hyperosmolarity, hypervolemia, phlebitis, pulmonary edema, cerebral hemorrhage, cerebral ischemia		
Confirm RIGHT PATIENT (Drug is indicated) <input type="checkbox"/> Confirm hypoglycemia (bG ≤ 70) or S&S hypoglycemia <input type="checkbox"/> Confirm absence of allergy to the drug (hypersensitivity to corn products) <input type="checkbox"/> Confirm absence of contraindications to the drug: glucose level is normal or high		
Prepare the patient Explain drug and procedure to the patient		
Start peripheral IV/IO line with age & size appropriate catheter per procedure. Hypertonic dextrose solutions (above 5% concentration) should be given slowly, preferably through a small bore needle into a large vein, to minimize venous irritation. Infuse 0.9 NS at TKO rate		
* Verify patency of primary IV line before giving Dextrose 10%. In peripheral vein, check for retrograde blood flow (should be blood return in tubing) when IV bag is lowered. IV and IO lines should run well with no swelling at the site.		
Prepare the equipment/medication Confirm RIGHT DRUG: D10% (25g/250mL) <input type="checkbox"/> Open the package and verify sterility of medication (all seals in place) <input type="checkbox"/> Check drug solution for color (discoloration), clarity (particulate matter), expiration date		
Prepare medication for administration (RIGHT ROUTE – Intravenous or IO) Concentrated dextrose solutions should not be administered via sub-q or IM routes <input type="checkbox"/> Insert piercing pin from secondary set IV tubing (15 gtt/mL) into D10% IV bag. Suspend and squeeze drip chamber to fill 1/3 full. <input type="checkbox"/> Open roller clamp & expel air (prime tubing without wasting fluid); close clamp <input type="checkbox"/> Cleanse IV injection port closest to patient on primary IV tubing with CHG/IPA <input type="checkbox"/> Using strict aseptic technique, attach the secondary set (D10% line) to the primary IV tubing at the port closest to the patient <input type="checkbox"/> Close flow clamp of the primary IV tubing and open secondary tubing to D10% line to begin infusion		
Deliver RIGHT DOSE in RIGHT TIME Calculate appropriate dose of medication based on age, size, blood glucose (bG) level. The maximum rate at which dextrose can be infused without producing glycosuria is 0.5g/kg /hr. <input type="checkbox"/> Adult dose if bG is borderline 60-70 & no evidence of pulmonary edema: Open IV WO for DEXTROSE 10% and infuse 12.5 Gm (125 mL or 1/2 of IV bag). Once dose administered, close IV clamp on D10% IV and open 0.9 NS clamp to TKO rate. <input type="checkbox"/> Adult dose if bG < 60 and no evidence of pulmonary edema: Open IV WO for DEXTROSE 10% and infuse 25 Gm (entire 250 mL). Once dose administered, close IV clamp on D10% IV and open 0.9 NS clamp to TKO rate.		

Performance standard	Performs w precision	Needs additional practice
<input type="checkbox"/> Children and Infants if bG is borderline 60-70 and symptomatic: Give half (½) of the dose listed below. <input type="checkbox"/> Children and Infants (up to 50 kg or 110 lbs) dose if bG < 60: Initial dose 0.5g/kg up to 25 g (5mL/kg) For smaller children, draw up desired volume into a syringe and administer slow IV push. Can give additional 0.5 g/kg (5mL/kg) if pt remains hypoglycemic and symptomatic 5 minutes after initial medication dose. If pt has HF or a history of HF and lungs are clear: standard dose, but slow infusion rate to 50 mL increments followed by reassessment If pt has HF and lungs have crackles or wheezes: Call OLMC for orders		
Caution: administering too forcefully can result in loss of IV line and damage to surrounding tissues. Exercise care to insure that the IV catheter is well within the lumen of the vein and that extravasation of the medication does not occur. If IV infiltration with fluid extravasation does occur, immediately stop the infusion and inform OLMC.		
Reassess patient response 5 minutes after infusion: Mental status (GCS) and blood glucose level If bG 70 or greater: Ongoing assessment If bG less than 70: Repeat D10% in 5 Gm (50 mL) increments at 5 -10 minute intervals. Reassess bG and mental status every 5 minutes after each increment.		
RIGHT DOCUMENTATION Note presenting S&S of hypoglycemia; baseline bG level; lack of contraindications to drug; drug name, concentration, dose (in Gm), route, time given; patient response (repeat bG level and mental status); any side effects and/or complications.		

Scoring: All starred (*) items must be answered/performed correctly in order to demonstrate proficiency. Any errors or omissions of these items will require practice and re-evaluation.

Recommendation: Proficiency demonstrated; no critical errors.
 Not yet proficient; one or more critical errors; recommend practice/repeat.

Evaluator

Peds dosing DEXTROSE 10% (25 g/250 mL) Dose: 0.5 g/kg (5 mL/kg) (0.1 g/1 mL in solution) Max initial dose: 25 g					
Weight	Dose g = mL	Weight	Dose g = mL	Weight	Dose g = mL
6.6 lbs = 3 kg	1.5 g = 15 mL	41.8 lbs = 19 kg	9.5 g = 95 mL	77 lbs = 35 kg	17.5 g / 175 mL
8.8 lbs = 4 kg	2 g = 20 mL	44 lbs = 20 kg	10 g = 100 mL	79.2 lbs = 36 kg	18 g = 180 mL
11 lbs = 5 kg	2.5 g = 25 mL	46.2 lbs = 21 kg	10.5 g = 105 mL	81.4 lbs = 37 kg	18.5 g = 185 mL
13.2 lbs = 6 kg	3 g = 30 mL	48.4 lbs = 22 kg	11 g = 110 mL	83.6 lbs = 38 kg	19 g = 190 mL
15.4 lbs = 7 kg	3.5 g = 35 mL	50.6 lbs = 23 kg	11.5 g = 115 mL	85.8 lbs = 39 kg	19.5 g = 195 mL
17.6 lbs = 8 kg	4 g = 40 mL	52.8 lbs = 24 kg	12 g = 120 mL	88 lbs = 40 kg	20 g = 200 mL
19.8 lbs = 9 kg	4.5 g = 45 mL	55 lbs = 25 kg	12.5 g = 125 mL	90.2 lbs = 41 kg	20.5 g = 205 mL
22 lbs = 10 kg	5 g = 50 mL	57.2 lbs = 26 kg	13 g = 130 mL	92.4 lbs = 42 kg	21 g = 210 mL
24.2 lbs = 11 kg	5.5 g = 55 mL	59.4 lbs = 27 kg	13.5 g = 135 mL	94.6 lbs = 43 kg	21.5 g = 215 mL
26.4 lbs = 12 kg	6 g = 60 mL	61.6 lbs = 28 kg	14 g = 140 mL	96.8 lbs = 44 kg	22 g = 220 mL
28.6 lbs = 13 kg	6.5 g = 65 mL	63.8 lbs = 29 kg	14.5 g = 145 mL	99 lbs = 45 kg	22.5 g = 225 mL
30.8 lbs = 14 kg	7 g = 70 mL	66 lbs = 30 kg	15 g = 150 mL	101.2 lbs = 46 kg	23 g = 230 mL
33 lbs = 15 kg	7.5 g = 75 mL	68.2 lbs = 31 kg	15.5 g = 155 mL	103.4 lbs = 47 kg	23.5 g = 235 mL
35.2 lbs = 16 kg	8 g = 80 mL	70.4 lbs = 32 kg	16 g = 160 mL	105.6 lbs = 48 kg	24 g = 240 mL
37.4 lbs = 17 kg	8.5 g = 85 mL	72.6 lbs = 33 kg	16.5 g = 165 mL	107.8 lbs = 49 kg	24.5 g = 245 mL
39.6 lbs = 18 kg	9 g = 90 mL	74.8 lbs = 34 kg	17 g = 170 mL	110 lbs = 50 kg	25 g = 250 mL