



VIRTUAL CARE SIMULATION LAB

PERFORMANCE EVALUATION PROCEDURE:

Lumbar Puncture			
PRINT Name of Examinee:			
PRINT Specialty of Examinee:			
Is the Examinee a Resident? CIRCLE Y/N: YES NO OTHER:			
PRINT Evaluator's Name:			
EVALUATOR: Please CIRCLE OR CHECK - PASS OR FAIL on the front of this document, to include your signature below.			
PASS: EVALUATOR SIGNATURE:	FAIL: DATE:	<div style="border: 1px solid black; padding: 2px;">Electronic Pass/Fail Link Below</div>	
NOTE: Automatic failure if highlighted areas, also italicized & bold - are not answered correctly.			
Lumbar Puncture - Page 1 of 2		PASS	FAIL
ASSESSES PATIENT			
Reviews lab data: PT/PTT, Hemogram			
Obtain baseline neurological assessment, including assessment for increased intracranial pressure and/or meningeal irritation			
Reviews patient's medical history and assess for spinal surgery or deformities, coagulopathies, active therapy with heparin, coumadin, plavix, ASA and allergies to lidocaine			
Assess patient's ability to cooperate with the procedure			
OBTAINS EQUIPMENT			
Face shield mask, cap, sterile gloves, sterile gown			
Lumbar Puncture kit			
Additional sterile drapes			
<i>Betadine, not Chlorhexidine and why?</i>			
Specimen labels and requisition: Tube 1 (glucose, protein), Tube 2 (culture and gram stains), Tube 3 (cell count with diff), Tube 4 (other)			
EDUCATES PATIENT/FAMILY			
<i>Summarizes indications, risks, benefits, process; ensures patient/family understanding</i>			
<i>Explains positioning requirements and the need to lie flat for several hours after procedure</i>			
<i>Obtains consent as appropriate -> Checks patient ID (Time Out)</i>			
PREPARES PATIENT			
Determines need for further assistance to ensure patient safety: additional staff, medications			
Positions patient in the lateral decubitus position near the side of the bed with head flexed to chest and knees bent up toward chest			
Checks landmarks for optimum site; able to locate L3-L4 (level with iliac crest), L4-L5, L5-S1 intravertebral spaces			
Initial preparation of site with Betadine NOT Chlorhexidine			

Lumbar Puncture - Page 2 of 2		
PREFORMS PROCEDURE		
Washes hands and applies gloves maintaining sterility		
Opens and sets up kit: draws up lidocaine, sets up manometer, sets up 4 specimen tubes in numerical order of use		
Drapes patient in sterile fashion and places sterile towel on bed near patient		
Relocates landmarks and puncture site		
Re-preps site with Betadine		
Anesthetizes the area using 25 G needle making a wheal then changes to an 18 G needle for deeper into the posterior spinous region - aspirating as it is advanced before injecting		
Talks to patient about what is happening throughout procedure		
Insert a 20 or 22 G spinal needle bevel up through the skin into the L4-L5 intravertebral space with the needle at a 15° angle cephalad, aiming toward the umbilicus, level with the sagittal midplane of the body		
If bone is encountered on insertion, pull back slightly and redirect needle, changing the angle slightly then reinsert		
Once the needle has advanced 3-4 cm withdraw the stylus and observe for CSF return. If no CSF, replace stylus and advance slowly and recheck. A "popping" sensation is often felt with penetration of the dura mater		
Stops and analyzes why there is no CSF		
Once CSF return is noted, attach the manometer to the needle hub by way of the 3-way stopcock		
Have patient straighten legs, then read opening pressure by noting the fluid level in the manometer; notes color of fluid		
Drain fluid from manometer into tube 1 and notes color of fluid		
Return stopcock to the off position and discard manometer		
Fill the tubes in sequential order from the hub of the spinal needle		
Fill each tube a minimum of 1-2 ml CSF. Tubes 2 and 4 may need more fluid if additional cultures/tests needed		
Cover the opening of the spinal needle with a sterile gloved finger and replace the stylus		
Withdraw the needle while holding pressure at site		
Cover site with bandage		
Place patient in supine position		
Make sure specimens are labeled appropriately and sent to laboratory		
Disposes of sharps and contaminated supplies appropriately. Discards gloves and washes hands.		
Documents procedure note		
TOTALS COUNT:		
(80% or above is passing score.) PERCENTAGE:		
RESULT CATEGORIES:	PASS	FAIL

PRACTICE BASED LEARNING AND IMPROVEMENT	
Areas the resident feels he/she could improve:	
How the resident plans to improve:	