

Procedural Competency Assessment
 Diagnostic and Interventional Radiology Residency
 Wake Forest University

Lumbar Puncture

Resident: _____ **Date:** _____

Observing faculty/fellow: _____

Checklist of Performance:

| Pre-procedure | Yes | No | N/A |
|---|------------|-----------|------------|
| States indications & contraindications to procedure ¹ (prompt ok) | | | |
| Discusses procedure with patient, including common complications ² (prompt ok) and assesses pregnancy status when applicable | | | |
| Discusses criteria for obtaining CNS imaging before LP ³ (prompt ok) | | | |
| Obtains appropriate consent and performs Time-Out | | | |
| Prepares and checks equipment ⁴ | | | |
| Procedure | | | |
| Observes universal precautions & sterile technique | | | |
| Positions patient appropriately (must verbalize optimal positioning – prompt ok) | | | |
| Identifies optimal target using fluoroscopic guidance | | | |
| Prep and drape appropriately | | | |
| Appropriate local anesthesia | | | |
| Appropriate needle insertion/control | | | |
| Correct technique for measuring opening pressure (observer provides verbal cue) ⁵ | | | |
| Recognize unsuccessful attempt and reposition needle ⁶ | | | |
| Appropriate use of fluoroscopy | | | |
| | | | |
| Cleanses skin & applies dressing | | | |

Competency demonstrated: Yes No* * If no, suggestions for remediation:

Comments:

Resident signature: _____

Faculty/Fellow signature: _____

Please place completed form in the LP tray in neuro CT reading room

Appendix

1. Indications for LP: obtain CSF sample to evaluate for CNS infection or CNS blood (subarachnoid hemorrhage), evaluate CSF pressure.

Contraindications for LP [must mention 5]: skin infection at site of LP, CNS lesion causing increased ICP, platelet count $< 30,000 \text{ mm}^3$ (absolute), platelet count $< 50,000 \text{ mm}^3$ (relative), INR > 1.5 , heparin or LMWH in past 24 hrs, hemophilia, other coagulopathy.

2. Complications: post dural puncture headache, spinal hematoma, infection.
3. Criteria for obtaining CNS imaging before LP: Altered mental status, neurologic deficit, new-onset seizure, papilledema, immunocompromise, malignancy, history of focal CNS disease (stroke, tumor), concern for mass lesion, age >60
4. Equipment and supplies: LP tray, LP needle, PPE (sterile gloves, mask, cap), extra lidocaine (optional)
5. Observer may provide verbal cue (ie., “please demonstrate appropriate technique for obtaining an opening pressure and describe optimal positioning for this portion of the procedure)
6. Learner must verbalize corrective action when attempts are unsuccessful. Corrective actions include but not limited to: change needle orientation and angle of approach, change lumbar interspace level, assess that needle length is appropriate for patient’s body habitus.