



Lumbar Puncture Procedures

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Discussing a Research LP

- Sensitive presentation of lumbar puncture procedures
 - LP is a routine procedure used for neurological diagnosis and in research
 - It will be done by an experienced clinician
 - This will minimize pain and problems
- Talk subject “through it” – no surprises
 - Explain risks and precautions to minimize them.
 - Explain why the biochemical information may be valuable
- Provide adequate local anesthesia.

Adverse Events in Research LPs

Peskind et al, 2005

- 428 lumbar punctures (age range 21-88)
- Post-LP headache:
 - epidural blood patch indicated: 0.9%
 - any headache: 6.8% (19/29 rated as mild)
- Back pain or soreness:
 - mild: 2.6%
 - moderate: 0.5%
- Vasovagal response: 0.9%
- Nausea: 0.7%
- Other: 0.2%

Adverse Events in Research LP: AD Subjects

Peskind et al:

- 78 lumbar punctures
 - mild headache: 1
 - mild back soreness: 2
 - mild nausea: 1
- Any adverse event: 5%
 - all rated as mild

ADCS Anti-Oxidant study:

78 subjects, 154 successful LPs

1 blood patch reported

Lumbar Puncture

ADNI Recommended Procedure is use of Sprotte Needle (22 Ga) by Drip after an overnight fast

- Begin by drawing 2-3 mLs to discard, in case blood-tinged
- Collect 2 mL for local laboratory testing (cell counts, protein and glucose)
- Collect 20 mL CSF in polypropylene collection tube by drip
- Freeze CSF upright in polypropylene tubes on dry ice (20 minutes)
- Send day of collection, overnight on dry ice to UPenn



Lumbar Puncture

- Let patient rest for 1 hr
- Snack
- LPs should be done on a day separate from cognitive testing, when possible. Otherwise, testing only after adequate rest and food.

Telephone the participant 24 hrs after LP to check on condition and document any AEs

LP Supplies

Coordinating Center will Provide:

- LP Trays
- 22G Sprotte Needle with Introducer
- Polypropylene collection tubes
- 2 x 13 mL transfer tubes with clear caps

*5 mL syringes and extra lidocaine needles can be requested

PROCEDURAL COMPONENTS:

- 2 Sprotte Spinal Needles (24G x 90mm)
- 2 Introducer Needles (1mm x 30mm)
- 1 22G x 1 1/2 in. Needle
- 1 Plastic Syringe (3ml, Luer Slip) with 25G x 5/8 in. Needle (Attached)
- 1 Needle Stick Pad
- 2 Medication Labels
- 1 Adhesive Bandage
- 1 Fenestrated Drape with 2 Tabs

PREP COMPONENTS:

- 2 Towels
- 3 Gauze Sponges
- 3 Sponge Applicators

Have on hand:

Lumbar Punctures

- Extra lidocaine
- Dry Ice
- Sterile Gloves
- Blue pad
- Extra gauze pads, bandaids
- Clean washcloths/towels
- Sharps container
- LP Fact Sheet and post-LP instructions

Blood Collection

- Centrifuge
- Dry Ice
- Band-aids/Plasters
- Sharps container
- Sterile Gloves
- Gauze pads

Recording Methods

- Complete Worksheet during collection and processing
 - Record Method, needle and tubes used
 - Time of collection, transfer and freezing
 - Indicate whether blood patch, fluroscopy and spine film
 - Local Laboratory Results
- Record AEs and SAEs