

Acute Medicine Lumbar puncture LocSSIP

Date:

Time:

Before the procedure

Circle as appropriate

Patient identity confirmed Y N
 Consent form complete Y N
 Indication.....
 Operator (Grade).....
 Mandatory assistant (Grade).....
 Allergies.....
 INR.....Platelets.....Date of test.....
 Current anticoagulation.....
 Date..... time..... of last dose
 Imaging reviewed Y N
 Contraindications (see overleaf) Y N
 Equipment complete and sterile Y N
 Ultrasound used Y N

Local anaesthetic info

Lidocaine without adrenaline
 max dose 3mg/kg:
 Lidocaine 1% (10mg/ml)
 Lidocaine 2% (20mg/ml)

Name:.....

DOB:.....

Hospital no:.....

NHS no/address.....

Time out

Circle as appropriate

Pt position: Lateral Sitting
 Operator PPE: Mask Gloves Gown/apron
 Skin prep used (No 2% chloraprep sticks):
 0.5% chlorhex Iodine Other.....
 Area draped Y N
 Any concerns from team Y N

Procedure information

Circle as appropriate

Local anaesthetic (LA) used and dose:

 LA checked by
 LA 2nd checked by.....
 Needle Type: Sprotte Quinke Other.....
 Needle Gauge: 22 24 25 Other.....
 CSF appearance: Normal Other.....
 Opening pressure:cmCSF
 CSF Volume taken:ml/drops
 Time CSF samples taken.....
 Paired serum glucose taken Y N

Sign out

Circle as appropriate

Specimens labelled and numbered: Y N
 All sharps counted and disposed of Y N
 Pt advised to lie flat for 1 hour: Y N
 Prophylactic LMWH/anticoagulation plan for post procedure (see overleaf):.....

 Tests requested (see overleaf for which tests to request) Y N
 Named person with responsibility to inform micro/biochem:.....
 Microbiology informed: Y N
 Biochemistry informed: Y N
 Handover to nursing staff if required Y N

| Equipment list | (optional) Tick if Gathered |
|--|-----------------------------------|
| • 0.5% chlorhexidine/iodine (area to be cleaned twice) | <input type="checkbox"/> |
| • Sterile pack with fenestrated drape | <input type="checkbox"/> |
| • Sterile gloves | <input type="checkbox"/> |
| • Mask | <input type="checkbox"/> |
| • Gown/apron | <input type="checkbox"/> |
| • X4 white universal sample bottles (numbered 1-4) | <input type="checkbox"/> |
| • X2 Grey top fluoride-oxalate bottles (1 for CSF, 1 for serum) | <input type="checkbox"/> |
| • Blunt fill needle (with filter if local anaesthetic in glass vial) | <input type="checkbox"/> |
| • Orange subcutaneous needle | <input type="checkbox"/> |
| • Green needle | <input type="checkbox"/> |
| • LP needle (NRFit ONLY) | <input type="checkbox"/> |
| • 10ml Syringe | <input type="checkbox"/> |
| • Local anaesthetic (1-2 vials. Max dose overleaf) | <input type="checkbox"/> |
| • Manometer | <input type="checkbox"/> |
| • Envelope (for xanthochromia sample) | <input type="checkbox"/> |
| • Sterile Gauze | <input type="checkbox"/> |
| • Dressing | <input type="checkbox"/> |

| Consent to include | Tick if discussed |
|---|--------------------------|
| Common | |
| • Headache (1 in 3) | <input type="checkbox"/> |
| • Back pain (1 in 4) | <input type="checkbox"/> |
| • Shooting pains in legs/back during procedure | <input type="checkbox"/> |
| • Failure of procedure | <input type="checkbox"/> |
| Uncommon | |
| • Bleeding (<1 in 50) | <input type="checkbox"/> |
| • Infection (1 in 500) | <input type="checkbox"/> |
| • CSF leak | <input type="checkbox"/> |
| • Nerve injury temporary or permanent (<1 in 1000) | <input type="checkbox"/> |
| Rare | |
| • Severe injury including long term weakness/numbness | <input type="checkbox"/> |
| • Brain herniation | <input type="checkbox"/> |

Indication: Tests to request

- **Meningoencephalitis:** CSF Glucose, CSF Lactate, CSF Protein, CSF microscopy and culture, meningococcal PCR*Varicella zoster virus PCR, enterovirus PCR*, CMV PCR, HSV PCR CSF
- **SAH:** CSF Glucose, CSF Lactate, CSF Protein, CSF microscopy and culture, CSF Bilirubin (xanthochromia)
- **Cytology:** CSF for cytology (on cellular pathology tab on ICE – select CSF)
- **Multiple sclerosis:** CSF Glucose, CSF Lactate, CSF Protein, CSF microscopy and culture, CSF oligoclonal bands (white universal container) and serum oligoclonal bands (gold serum sample)
- **Additional tests*:** CSF cryptococcal antigen or PCR
*to be discussed with requesting consultant, consultant microbiologist or pathology department.

| Normal renal function anticoag/platelet plan (3) | | |
|--|---------------------------------|---------------------------|
| Drug | Withhold before LP | 1st dose post LP |
| Aspirin 75mg | Continue | No delay |
| Unfractionated heparin IV | 4-6 hours | 1 hour |
| Tirofiban + eptifibatide | 4-8 hours | 24 hours |
| LMWH prophylaxis | 12 hours | 4 hours |
| LMWH Treatment | 24 hours | 4 hours (24 if traumatic) |
| Rivaroxaban + apixaban | 24 hours | 6 hours |
| Dipyridamole | 24 hours | 6 hours |
| Dabigatran | 48 hours | 6 hours |
| Abciximab | 48 hours | 24 hours |
| Fondaparinux prophylaxis | 36 hours | 6-12 hours |
| Warfarin | 5 days (check INR ≤1.4) | 12 hours |
| Clopidogrel | 7 days (consider aspirin cover) | 6 hours |
| Prasugrel | 7 days | 6 hours |
| Ticagrelor | 7 days | 6 hours |
| Fondaparinux treatment | Avoid LP | Avoid LP |

| Contraindications | Present in Y N |
|---|--------------------------|
| • Overlying infection | <input type="checkbox"/> |
| • Prior lumbar surgery | <input type="checkbox"/> |
| • Signs of cord compression | <input type="checkbox"/> |
| • Signs of raised ICP with no imaging suggesting LP is safe | <input type="checkbox"/> |
| • Intracranial/cord mass | <input type="checkbox"/> |
| • Congenital lumbosacral mass | <input type="checkbox"/> |

| Order of draw | | | | |
|---------------|---|----------------|---|------------------|
| No | Pot (1,2) | Drops required | Test | Lab location |
| 1 |  | 25 | MC+S | Micro |
| 2 |  | 10 | Protein | Biochemistry |
| 3 |  | 25 | MC+S | Micro |
| 4 |  | 10 | Xanthochromia (hide from light) | Biochemistry |
| 5 |  | 10 | Glucose (should always be sent with paired serum (blood glucose)) | Biochemistry |
| 6 |  | 25 | Any additional | As per test need |

References

1. 25 mL universal container. (n.d.). Gloucestershire Hospitals NHS Foundation Trust. <https://www.glos-hospitals.nhs.uk/our-services/services-we-offer/pathology/sample-materials/30-ml-universal-container/>
2. Blood bottles - South Tees Hospitals NHS Foundation Trust. (2024, May 17). South Tees Hospitals NHS Foundation Trust. <https://www.southtees.nhs.uk/services/pathology/blood-bottles/>
3. Dodd, K. C., Emsley, H. C. A., Desborough, M. J. R., & Chhetri, S. K. (2018). Periprocedural antithrombotic management for lumbar puncture: Association of British Neurologists clinical guideline. *Practical Neurology*, 18(6), 436–446. <https://doi.org/10.1136/practneurol-2017-001820>
4. LOCSSIPPS | The Faculty of Intensive Care Medicine. (n.d.). <https://www.ficm.ac.uk/standardsafetyguidelinesafety/locssips>

Safe Blood results

- INR <1.5
- Platelets >100

If results outside of this limit – discuss with a senior colleague

Please consider pt's bleeding risk. Consult senior if concerned or pt has abnormal renal/liver function. Please be aware there may be circumstances where LPs are to be done outside of the above recommendations.

Northampton General Hospital
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