

## Queensland Paediatric Emergency Care

## Skill Sheets

# Lumbar Puncture: Infant Holding

During a lumbar puncture (LP), a needle is inserted into the spinal canal to collect cerebrospinal fluid (CSF). CSF is analysed in a laboratory and the results may assist in diagnosing diseases that affect the central nervous system (CNS).

1

## PREPARE

Explain the procedure and gain verbal consent.



2

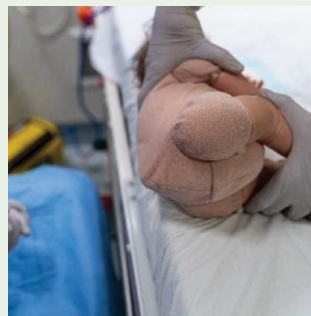
Attend to hand hygiene and don PPE. Attach infant to cardiorespiratory monitoring.



3

## PROCEDURE

Place the infant on the edge of the cot or bed, held in a lateral position, facing the holding nurse. For seated position, see below.



4

Position by holding the infant's shoulders and legs, curling the infant into the fetal position.



5

Whilst angling baby slightly head-up, keep airway in a neutral position. Prevent airway obstruction by avoiding direct flexion or extension.



6

Ensure the hips and shoulders remain in line and at 90 degrees to the cot or bed.



7

Monitor the infant throughout the procedure for signs of airway obstruction.



8

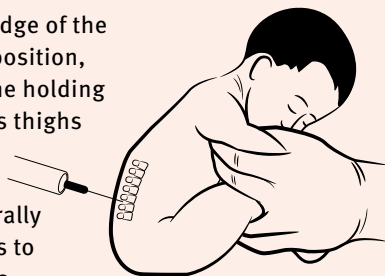
Once the procedure is complete, promptly re-dress the infant to ensure that exposure does not cause hypothermia.



## SITTING POSITION

Hold the infant on the edge of the cot or bed, in a sitting position, with the infant facing the holding nurse. Place the infant's thighs against abdomen.

Their head should naturally fall forwards. Use hands to hold their arms and legs.



## ALERT

Excessive flexion of the head and neck can cause airway obstruction.

Do not leave the infant unattended.

Notify the senior clinician in any adverse event (eg. hypoxia).



## Tips in children

- Consider the use of oral sucrose 24% to minimise procedural discomfort. A medical order and parental consent is required prior to use. Please note at selected sites sucrose may be approved as a nurse initiated medication. Check your local policies and procedures for further guidance.
- If the LP is not a time critical procedure, consider the use of a topical anaesthetic cream. This is applied to the procedure site in preparation for the procedure. Follow the procedure of your local health facility.
- Use overhead heating if available during the procedure to keep the infant warm and reduce exposure induced hypothermia.

## For further information:

[CHQ Guideline: Paediatric Lumbar Puncture](#)

### Video:

[Holding a Neonate or Infant for a Lumbar Puncture](#)

## References:

Children's Health Queensland Hospital and Health Service. (2017, May 3). Paediatric Lumbar Puncture. Queensland Health Intranet. Retrieved November 9, 2022 [https://qheps.health.qld.gov.au/\\_data/assets/pdf\\_file/0028/1521595/gdl-15008.pdf](https://qheps.health.qld.gov.au/_data/assets/pdf_file/0028/1521595/gdl-15008.pdf)

Metro North Health Service. (2022, April). 001779: Lumbar Puncture, Neonate. Retrieved November 9, 2022 [https://qheps.health.qld.gov.au/\\_data/assets/pdf\\_file/0047/2779967/001779.pdf](https://qheps.health.qld.gov.au/_data/assets/pdf_file/0047/2779967/001779.pdf)

The Royal Children's Hospital Melbourne . (2020). Lumbar Puncture. Royal Children's Hospital Clinical Practice Guidelines. Retrieved November 9, 2022, from [https://www.rch.org.au/clinicalguide/guideline\\_index/Lumbar\\_puncture/](https://www.rch.org.au/clinicalguide/guideline_index/Lumbar_puncture/)

**This Queensland Paediatric Emergency Skill Sheet was developed and revised by the Emergency Care of Children working group Initial work was funded by the Queensland Emergency Department Strategic Advisory Panel.**

## Skill Sheet Legal Disclaimer

The information contained in these Queensland Paediatric Emergency Care skill sheets is for information purposes only. It was developed to inform emergency nursing care, but can also be applied by other clinicians acting within their scope of practice. The information has been prepared using a multidisciplinary approach with reference to the best information and evidence available at the time of preparation. No representation, warranty or assurance is given that the information is entirely complete, current, or accurate in every respect. The skill sheets are not a substitute for clinical judgement, knowledge and expertise, or medical advice. Variation from the skill sheets, taking into account individual circumstances may be appropriate. This does not address all elements of standard practice and accepts that individual clinicians are responsible for the following:

- Providing care within the context of locally available resources, expertise, and scope of practice.
- Supporting consumer rights and informed decision making in partnership with healthcare practitioners including the right to decline intervention or ongoing management.

- Advising consumers of their choices in an environment that is culturally appropriate and which enables comfortable and confidential discussion. This includes the use of interpreter services where necessary.
- Ensuring informed consent is obtained prior to delivering care.
- Meeting all legislative requirements and professional standards.
- Applying standard precautions, and additional precautions as necessary, when delivering care.
- Documenting all care in accordance with mandatory and local requirements.

Children's Health Queensland disclaims, to the maximum extent permitted by law, all responsibility and all liability (including without limitation, liability in negligence) for all expenses, losses, damages and costs incurred for any reason associated with the use of this skill sheet, including the materials within or referred to throughout this document being in any way inaccurate, out of context, incomplete or unavailable.

