Queensland Government

Head Injury (Children) Clinical Pathway

Facility: .....

(Affix identification label here)

URN:

Family name:

Given name(s):

Address:

Date of birth: Sex: ☐ M ☐ F ☐ I

Clinical pathways never replace clinical judgement. Clinical pathway **must be varied** Ⓥ if not clinically appropriate for the individual patient.

This pathway is designed for use in children up to and including the age of 14 years.

Clinical judgement may require that this clinical pathway is suitable for an older patient.

Signature Log (Every person using this pathway must supply a sample of their initials and signature below)

Initial	Print Name	Designation	Signature

Legend

- Enter time completed
- Initial when completed
- Ⓥ Document variance on page 4 Progress Notes (overleaf)

Assessment **Date:** / / **Time:** :	**Time**	**Initial**
1. Date and time of symptom onset or accident: ____/____/_____ ____:____ hrs ☐ unknown		
2. Check Airway, Breathing, Circulation, Disability AVPU &/ GCS at 15-30 minute intervals Exposure and temperature. Consider need for c-spine immobilisation Assess pupil size and reaction to light If GCS < 13, cease this pathway and commence alternative emergency management protocol		
3. Perform first set of neurological observations, pupil response, airway, breathing pattern and adequacy, circulation, disability, pain assessment *If GCS less than 15 on arrival or observations cause any concern, escalate to most senior medical officer, continue pathway and regular observations.		
4. Is there a requirement for ☐ Supplemental oxygenation minimum 4 litres/min via Hudson mask ☐ Blood Glucose Level(s) ☐ Temperature maintenance ☐ Fluid Balance maintenance and monitoring		
5. Systematic examination of each region of the body from head to toe for other potential injuries		

DO NOT WRITE IN THIS BINDING MARGIN

HEAD INJURY (CHILDREN) CLINICAL PATHWAY

V1.01- 02/2025

SW316

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Risk stratification

The following clinical factors are helpful considerations when assessing risk associated with intracranial injury.

Use the table to identify the clinical picture to assess the Overall Level of Risk below. For example, if all features are in the low risk category,consider the low risk management plan unless your clinical judgement determines otherwise.

Select Clinical Features	✓ Low Risk	✓ Intermediate Risk	✓ High Risk
History			
Age	☐ > 1yr	☐ < 1yr	
Witnessed loss of consciousness	☐ No	☐ < 5 mins	☐ > 5 mins
Anterograde or retrograde amnesia (where assessable)	☐ No	☐ Possible	☐ > 5 mins
Behaviour	☐ Normal	☐ Mild agitation or altered behaviour	☐ Abnormal drowsiness
Episodes of vomiting without other cause	☐ None or fewer than 3	☐ 3 or more	
Seizure in non-epileptic patient	☐ No	☐ Impact only	☐ Yes
Non accidental injury is suspected / parental history inconsistent with injury	☐ No	☐ No	☐ Yes
History coagulopathy, bleeding disorder or previous intracranial surgery	☐ No	☐ No	☐ Yes
Co-morbidities	☐ No	☐ Present	☐ Present
Headache	☐ No	☐ Yes	☐ Persistent or increasing
Mechanism of injury Consider age, surface, damage to vehicle or other passengers and method of restraint			
Motor Vehicle Accident (pedestrian, cyclist or occupant)	☐ Low speed	☐ < 60kmph	☐ > 60kmph
Fall	☐ < 1 m	☐ 1–3 m	☐ > 3 m
Force	☐ Low impact	☐ Moderate impact or unclear mechanism	☐ High speed / heavy projectile or object
Examination			
Glascow Coma Scale	☐ 15	☐ 14-15	☐ <14
Focal neurological abnormality	☐ Nil	☐ Nil	☐ Present
Injury		☐ Haematoma, swelling or laceration > 5cm	☐ Tense fontanelle in children < 1 yr of age ☐ Penetrating injury ☐ Suspected depressed skull fracture

After considering the clinical picture, determine the overall risk and follow the management plan according to the level of risk

Overall risk

Low Risk		Intermediate Risk		High Risk	
Time:	Initial:	Time:	Initial:	Time:	Initial:

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High Risk Management Plan

CT head (and c-spine if indicated)

:

☐ **Normal** → Ongoing observation is required
Enter frequency:
:

AND

☐ **Abnormal / Not available** →
- Continue observations
- ☐ Telephone neurosurgical service for advice ***or***
- ☐ Telephone QCC (RFDS / RSQ) ☎ 1300 799 127, for transfer options. Document advice.

:

- Continuous cardio respiratory and oxygen saturation monitoring
- BP every 15–30 minutes
- GCS/AVPU every 15–30 minutes
- Full blood count - Haemaglobin
- BSL
- Pain management

→ Transfer or admit
:

Intermediate Risk Management Plan

- Half hourly observations for 4 – 6 hours until GCS 15/AVPU within acceptable range and is sustained for 2 hours.
- Then hourly observations until discharge.
- BSL; Pain management

→
- When Observation period unremarkable
- No significant persistent symptoms / signs
- GCS 15/AVPU within acceptable range and is sustained for 2 hours (child has returned to normal, pre injury state)
- No concerns of non-accidental injury
- No other clinical concerns
- Parental/carer concerns addressed (teaching provided by hospital staff. Parent/carer can verbalise factors requiring return to medical attention)
- Fact sheet provided to parent/carer

AND

If symptoms are persistent or worsening:
- escalate to senior medical officer
- order CT head if indicated
- 15 minutely observations / constant monitoring

☐ **Normal CT** →

☐ **Abnormal CT / Not available** →
- ☐ Telephone neurosurgical service for advice ***or***
- ☐ Telephone QCC (RFDS / RSQ) ☎ 1300 799 127 for transfer options. Document advice.
- Admit or transfer

:

Low Risk Management Plan

Full initial assessment plus observations hourly until discharge is clinically appropriate (respirations, oxygen saturation, pulse, BP, temperature, GCS, pupillary response and size, limb strength, pain assessment, sedation score as necessary)

→ If there are signs of deterioration, conduct half hourly observations / continuous monitoring and escalate to senior medical officer for restratification of risk. Follow identified risk pathway.

→ Restratify to intermediate or high risk
:

→ When Observation period is unremarkable

No significant persistent symptoms / signs

GCS 15 / AVPU within reasonable limits (child has returned to normal, pre injury state)

No concerns of non-accidental injury

No other clinical concerns

Parental/carer concerns addressed. (teaching provided by hospital staff. Parent/carer can verbalise factors requiring return to medical attention)

Fact sheet provided to parent/carer

→ Discharge
:

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Discharge	Time	Initial
☐ GCS 15 and stable neurological status (consider pre injury functional ability) ☐ Tolerating regular diet without nausea/vomiting ☐ Provide discharge teaching to parent/carer ☐ Family can verbalise an understanding of Queensland Health Emergency Department fact sheet *"Minor Head Injury in Children"* and indications for return to hospital for medical attention. ☐ Give parent/carer discharge letter		

Clinical Events / Variance / Progress

Date / Time	Describe variances to clinical pathway and any other patient related notes. Document as **Variance / Action / Outcome**	Initials

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