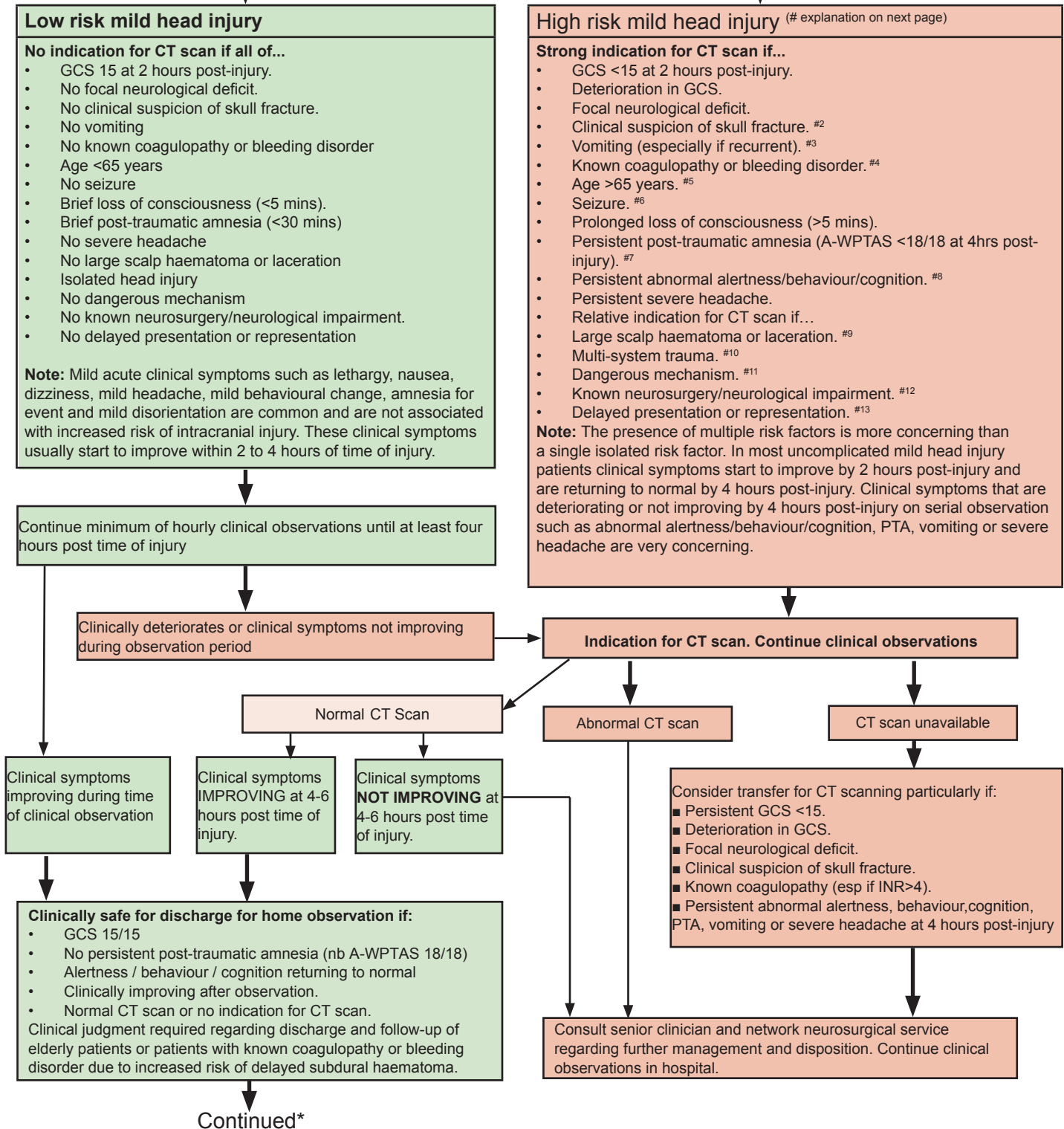


Algorithm 1.1

Initial Diagnosis/Assessment of Adult mTBI*

Initial GCS 13-15 on arrival following blunt head trauma
Stabilise ABCDEs and assess clinical risk factors.

Commence minimum of hourly clinical observations of vital signs, GCS, pupils, PTA and clinical symptoms



* Adapted from the NSW Ministry of Health. Closed Head Injury in Adults - Initial Management (PD2012_013)

Algorithm 1.1

Initial Diagnosis/Assessment of Adult mTBI* Continued

Continued*



Clinically safe for discharge for home observation if:

- Responsible person available to take home and observe.
- Able to return if deteriorates.
- Discharge advice is understood.



Discharge for home observation if above criteria met:

- Provide written patient advice sheet
- Provide discharge summary for GP
- All patients should be advised to see their GP for follow-up if they are not feeling back to normal within 2 days
- Any patients who have minor CT abnormalities, who suffered significant clinical symptoms or who had prolonged post-traumatic amnesia should be routinely referred to their GP for follow-up due to an increased risk of post concussion symptoms.

Explanatory notes for risk factors:

1. Using GCS<15 at 2 hours post-injury allows clinical judgement for patients who present soon after injury or who have drug or alcohol intoxication. Drug or alcohol intoxication has not been shown to be an independent risk factor for intracranial injury but persistent GCS<15 is a major risk factor and mandates CT.
2. Clinical suspicion of skull fracture includes history of focal blunt assault or injury; palpable skull fracture; large scalp haematoma or laceration; signs of base of skull fracture – haemotympanum / CSF leak / raccoon eyes / Battles sign.
3. Recurrent vomiting more concerning than isolated vomiting but both are indications.
4. Known coagulopathy is both a strong indication for early CT scan and to check the INR. Early reversal of anticoagulation if abnormal CT scan and consider reversal if initially normal CT scan with high INR (>4) depending on clinical situation.
5. Elderly patients have increasing risk of intracranial injury with increasing age; routine CT scanning indicated unless totally asymptomatic patient with no other risk factors.
6. Brief generalised seizures immediately following head injury are not significant risk factors. Prolonged, focal or delayed seizures are risk factors for intracranial injury.
7. Post-traumatic amnesia may manifest as repetitive questioning or short term memory deficits and can be objectively tested using the A-WPTAS. PTA > 30 mins is a minor risk factor and PTA > 4 hours a major risk factor for intracranial injury.
8. Abnormal alertness/behaviour/cognition detects subtle brain injury better than GCS and should be part of the bedside assessment. Family may help establish what is normal.
9. Multi-system trauma – beware patient with unstable vital signs or distracting injuries or who receive analgesia or anaesthesia, as significant head injury is easily missed.
10. Clinical judgement required as to what is a large scalp haematoma or laceration.
11. Dangerous - MVA ejection / rollover; pedestrians / cyclists hit by vehicle; falls >own height or five stairs; falls from horses / cycles etc; focal blunt trauma, eg bat / ball / club.
12. Known neurosurgery/neurological impairment – conditions such as hydrocephalus with shunt or AVM or tumour or cognitive impairment such as dementia make clinical assessment less reliable and may increase risk of intracranial injury.
13. Delayed presentation should be considered as failure to clinically improve during observation. For representation consider both intracranial injury and post concussion symptoms and have a low threshold for CT scanning if not

For a narrative description and recommendations related to this algorithm, please refer to [Section 1](#).

* Adapted from the NSW Ministry of Health. *Closed Head Injury in Adults - Initial Management (PD2012_013)*