

Evidence-Based Clinical Pathway: Pediatric Traumatic Brain Injury: CT Decision Tool

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11/11/11 replaces no older version

Primary Sources: 1. Kuppermann N, Holmes JF, Dayan PS, et al. Identification of children at very low risk of clinically-important brain injuries after head trauma: a prospective cohort study. Lancet. 2009;374(9696):1160-1170.

*GCS Scoring:

Eyes:

4. Eyes opening spontaneously
3. Eyes opening to speech
2. Eyes opening to pain
1. No eye opening

Verbal:

5. Oriented and conversational
4. Articulate, conversational, but confused
3. Articulate but not conversational
2. Incomprehensible speech
1. No verbal response

Motor:

6. Obeys commands
5. Localizes pain
4. Withdraws from pain
3. Decorticate (flexion) to pain
2. Decerebrate (extension) to pain
1. No motor response

*Pediatric GCS Scoring (age less than two):

Eyes:

4. Eyes opening spontaneously
3. Eyes opening to speech
2. Eyes opening to pain
1. No eye opening

Verbal:

5. Smiles, oriented to sounds, interactive
4. Cries but consolable, inappropriate interactions
3. Inconsistently inconsolable, moaning
2. Inconsolable, agitated
1. No verbal response

Motor:

6. Moves spontaneously or purposefully
5. Withdraws from touch
4. Withdraws from pain
3. Decorticate (flexion) to pain
2. Decerebrate (extension) to pain
1. No motor response

‡Other signs of altered mental status:

- Agitation
- Somnolence
- Repetitive questioning
- Slowed response to verbal communication

‡ Severe mechanism:

- MVC with ejection, death of other passenger, rollover
- MVP/MVB (pedestrian or bicyclist) without a helmet
- Fall > 3 feet (younger than 2) or > 5 feet (older than 2)
- Head struck with high impact object

Pathway applicability:

Children less than 18 years old with head trauma and non trivial mechanism (trivial mechanism defined as ground level fall or running into stationary object without signs or symptoms of head trauma), and **GCS* 14 or 15** (less than 14, CT not controversial)

