Emergency Department Guideline
Pediatric Blunt Head Trauma


Fact: Risk of CT-documented TBI in children GCS <14=20%
Study: Derivation (n=33,785) and validation (n=8,627) of clinical decision rule for deciding who NOT to get head CT’s for blunt head trauma. Enrolled age<18 yr within 23hrs of head trauma GCS 14-15 in 25 EDs
Pre-defined "clinically important traumatic brain injury" (ciTBI) as: 1) Death from TBI, 2) Neurosurgical intervention, 3) Intubation >24 hrs duration, 4) Hospital admission ≥2 nights

**Severe mechanism of mechanism:**
- MVC with patient ejection, death of another passenger, or rollover
- Pedestrian or bicyclist without helmet struck by a motorized vehicle
- Fall >3 ft (age<2 yr) or >5 ft (age ≥2 yr)
- Head struck by a high-impact object

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AGE < 2 years

Any 1 of the following?
- GCS < 14
- ALTERED MENTAL STATUS
- PALPABLE SKULL FRACTURE

**YES**
Obtain CT, Risk for ciTBI = 4.4%

1 or more of the following?
- NON-FRONTAL HEMATOMA
- LOC>5 SEC
- SEVERE MECHANISM**
- NOT ACTING NORMALLY PER PARENT

**NO**
OBS vs. CT, Risk of ciTBI=0.9%
CONSIDER CT BASED ON YOUR EXPERIENCE/GESTALT, MULTIPLE S/S (VS. SINGLE), WORSENING S/S A PERIOD OF OBS, AGE < 3 MONTHS, OR PARENTAL PREFERENCE

NO CT, Risk of ciTBI < 0.02%

AGE > 2 years

Any 1 of the following?
- GCS < 14
- ALTERED MENTAL STATUS
- SIGNS OF BASILAR SKULL FX

**YES**
Obtain CT, Risk for ciTBI = 4.3%

1 or more of the following?
- H/O VOMITING
- ANY LOC
- SEVERE MECHANISM**
- SEVERE HEADACHE

**NO**
OBS vs. CT, Risk of ciTBI=0.9%
CONSIDER CT BASED ON YOUR EXPERIENCE/GESTALT, MULTIPLE S/S (VS. SINGLE), WORSENING S/S A PERIOD OF OBS, OR PARENTAL PREFERENCE

NO CT, Risk of ciTBI < 0.05%

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This UMMCH Guideline addresses only key points of care for the specific population; it is not intended to be a comprehensive practice guideline. These recommendations result from review of literature and practices current at the time of their formulation. This document is not intended to impose standards of care preventing selective variances from the recommendations to meet the specific and unique requirements of individual patients. Adherence to this Statement is voluntary. The clinician in light of the individual circumstances presented by the patient must make the ultimate judgment regarding the priority of any specific procedure or course of action.

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