

# Pediatric Patient with Traumatic Brain Injury (TBI)



Patients with >1 intracranial injury should be automatically classified as kBIG3

## Are ANY of the following present?

### Radiographic Findings

- IVH
- EDH ≥8mm
- SDH ≥8mm
- IPH ≥ 8mm or multiple
- SAH >3 sulci AND bi-hemispheric
- Displaced skull fracture > 1 cranium width

### Clinical Findings

- GCS ≤12
- Anticoagulation or antiplatelet
- Non-accidental trauma (NAT) mechanism

YES

## kBIG 3 High Risk

Transfer / Admit to pediatric trauma center with neurosurgery consultation available

## Are ANY of the following present?

### Radiographic Findings

- EDH <8mm
- SDH 4.1 – 7.9mm
- IPH 4.1 – 7.9mm
- SAH >3 sulci, single hemisphere
- Non-displaced skull fracture or mildly displaced < 1 cranium width

### Clinical Findings

- GCS 13-14
- Persistent nausea, vomiting
- Intoxication

YES

## kBIG 2 Medium Risk

Transfer / Admit to pediatric trauma center with neurosurgery consultation available

- NO neurosurgical consultation
- NO repeat head CT
- GCS 15 at discharge

If worsening: neuro exam

## Confirm Intracranial Hemorrhage Size

### Radiographic Findings

- SDH ≤4mm
- IPH ≤4mm
- SAH ≤3 sulci (total)
- Non-displaced skull fracture or mildly displaced < 1 cranium width

### Clinical Findings

- GCS 15

YES

## kBIG 1 Low Risk

- Discharge from Emergency Department
- NO repeat head CT
- NO neurosurgical consultation

If worsening: neuro exam

## Isolated Skull Fracture

### Radiographic Findings

- No ICH
- Non-displaced skull fracture or mildly displaced < 1 cranium width

### Clinical Findings

- GCS 15

YES

## kBIG 0 Low risk isolated skull fracture

- Discharge from Emergency Department
- NO repeat head CT
- NO neurosurgical consultation

If worsening: neuro exam

Low risk isolated skull fracture and concern for child physical abuse: please call safe and healthy families. Otherwise treat as kBIG 0.

### Abbreviations

IVH: Intraventricular Hemorrhage    IPH: Intraparenchymal Hemorrhage  
EDH: Epidural Hematoma    SAH: Subarachnoid Hemorrhage  
SDH: Subdural Hematoma    ICH: Intracranial Hemorrhage



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