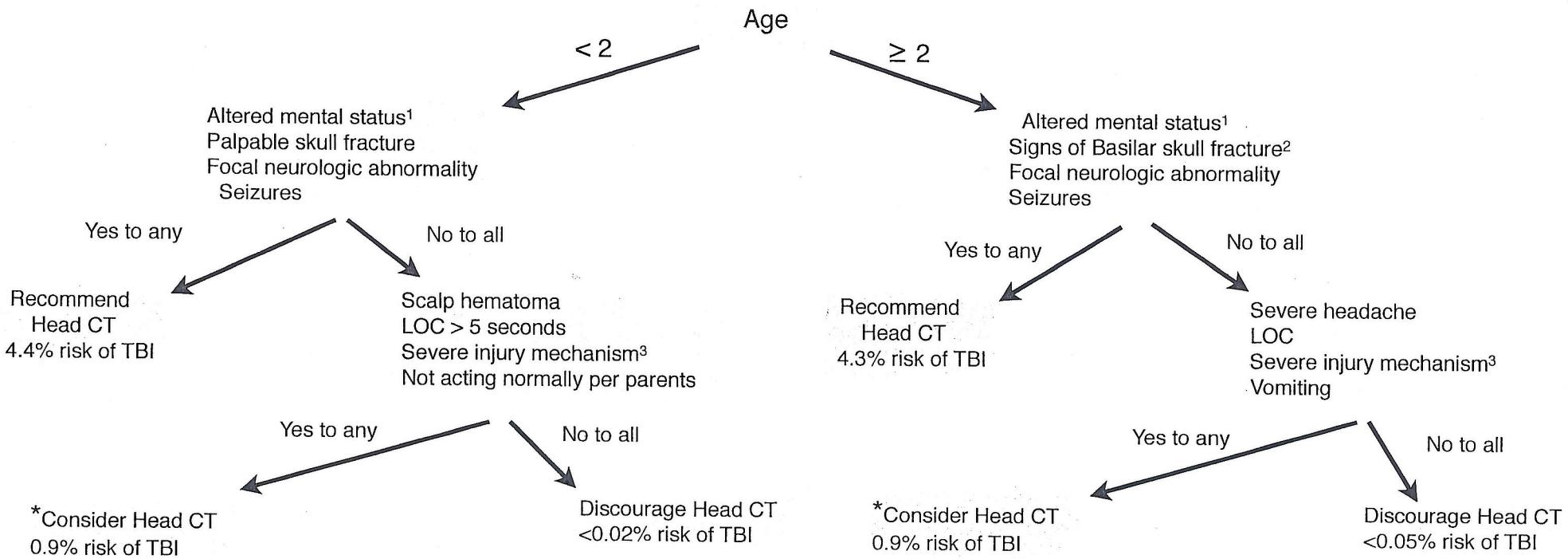


Head Injury Care Path

Exclusion Criteria:

GCS < 14, PMH of Brain tumor, PMH of Bleeding disorder, PMH of VP shunt, Pre-existing neurological disorder



¹ - Altered Mental Status = GCS 14, agitation, somnolence, repetitive questioning, or slow response to verbal communication

² - Signs of Basilar skull fracture = Battle's sign, raccoon eyes, hemotympanum, CSF otorrhea, CSF rhinorrhea

³ - Severe Injury mechanism = MVC with patient ejection, death of another passenger, rollover; Ped or Bicyclist vs. Auto w/o helmet;
Falls > 3ft(<2yrs), Falls > 5ft(>2yrs); Head struck by high-impact object

* - Pt with isolated findings; only LOC, headache, or vomiting have a risk of traumatic brain injury substantially lower than 1%

Head Injury Care Path

HEAD INJURY PEARLS

- Traumatic brain injury is the leading cause of death and disability in children worldwide.
- In the USA, >600,000 visits to ED annually for head injury.
- If GCS<14, risk of TBI is > 20%.
- Children with traumatic brain injury(TBI) need to be identified rapidly. Head CT is the reference standard in diagnosing TBI requiring acute intervention, leading to overuse in the ED.
- Radiation induced malignancy is a concern with regards to the liberal use of CT scan. Estimated that 1.5-2% of all cancers are attributable to the radiation from CT studies, **risk increases with decreased age**.

Disposition

If no Head CT, discharge with appropriate head injury instructions.

Concussion - A brain injury that temporarily alters brain functions. Most young people are not knocked out, and many kids have no memory loss. Even a child with a normal CT scan of the brain can have a concussion, because it's a functional injury, not damage to the brain's structure.

After any hit to the head, it's important to monitor for any symptoms or signs of a concussion. Symptoms fall into four categories:

- Cognitive. (Confusion, disorientation, memory loss, slow to answer questions and follow commands, easily distracted.)
- Physical. (Headaches, nausea or vomiting, dizziness, clumsiness or balance problems, blurry vision, poor coordination, sensitivity to light or noise, or loss of consciousness.)
- Emotional. (Nervousness or anxiousness, sadness, irritability or mood swings, inappropriate behavior.)
- Sleep problems. (Difficulty falling asleep, frequent waking at night, fatigue or tiredness during the day.)

Children with a concussion should be excused from all sports and PE until further evaluation by PMD.

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