Clinical Guideline: Radiologic Evaluation and General Management of Pediatric Closed Head Trauma

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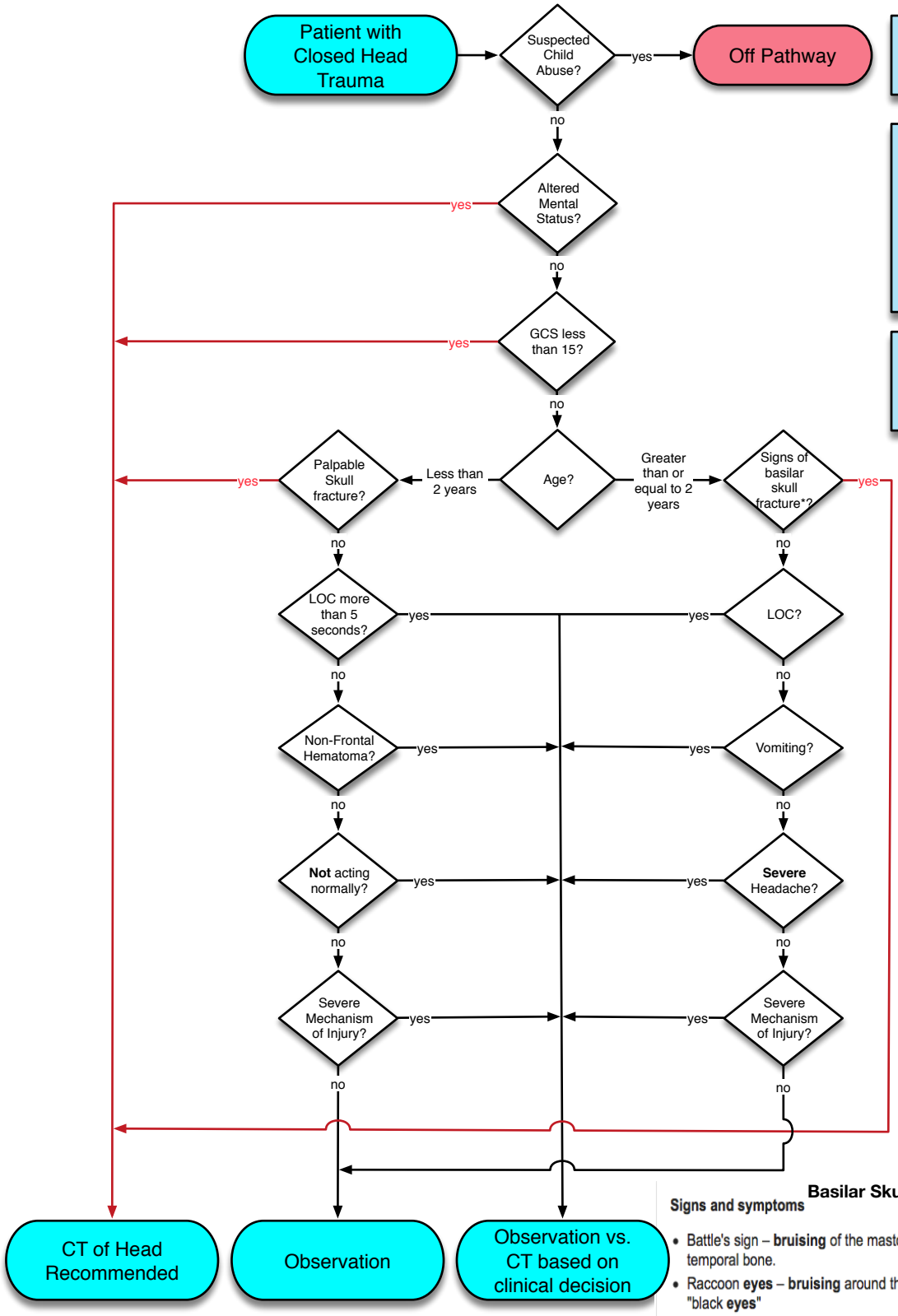
Nicklaus Children's Health System



Pathway Goals

1. Establish best practice for Tx.
2. Eliminate unnecessary CT scans

Exclusion Criteria

1. Recurrent Head Injury
2. Penetrating Head Injury
3. Adult Head Injury
4. Patients with medication/ substance induced alteration in mental status
5. Patients with disorders of coagulation
6. Patients with prior neurosurgical surgery

Pathway Metrics

1. Compliance rates with Pathway
2. CT rates pre-post implementation
3. Undetected injury rates post-pathway requiring Neurosurgical intervention

All patient care must be based on the clinical expertise and decisions of the medical and surgical staff

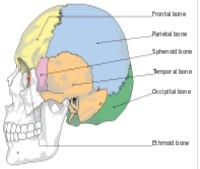
Severe Mechanisms of Injury

* Fall from more than 3 feet
* MVA with ejection
* MVA with rollover
* MVA with associated fatality
* Bike/Ped vs. vehicle without a helmet
* Struck by "high-impact" object

Basilar Skull Fx

Signs and symptoms

- Battle's sign – **bruising** of the mastoid process of the temporal bone.
- Raccoon **eyes** – **bruising** around the **eyes**, i.e. "black **eyes**"
- Cerebrospinal fluid rhinorrhea.
- Cranial nerve palsy.
- **Bleeding** (sometimes profuse) from the nose and ears.
- Hemotympanum.
- Conductive or perceptive deafness, nystagmus, vomitus.



1. Kuppermann, Nathan et al., Identification of children at very low risk of clinically-important brain injuries after head trauma a prospective cohort study. The Lancet , Volume 374 , Issue 9696 , 1160 - 1170
2. Schonfeld D, Bressan S, Da Dalt L, *et al.*, Pediatric Emergency Care Applied Research Network head injury clinical prediction rules are reliable in practice. *Archives of Disease in Childhood* 2014;**99:**427-431.

Glithero, Malvezzi, Denaro, Blumstein, Biehler, Rosa-Olivares, Gagnon, Trent, Harrington Oct. 29, 2018 (5.2)