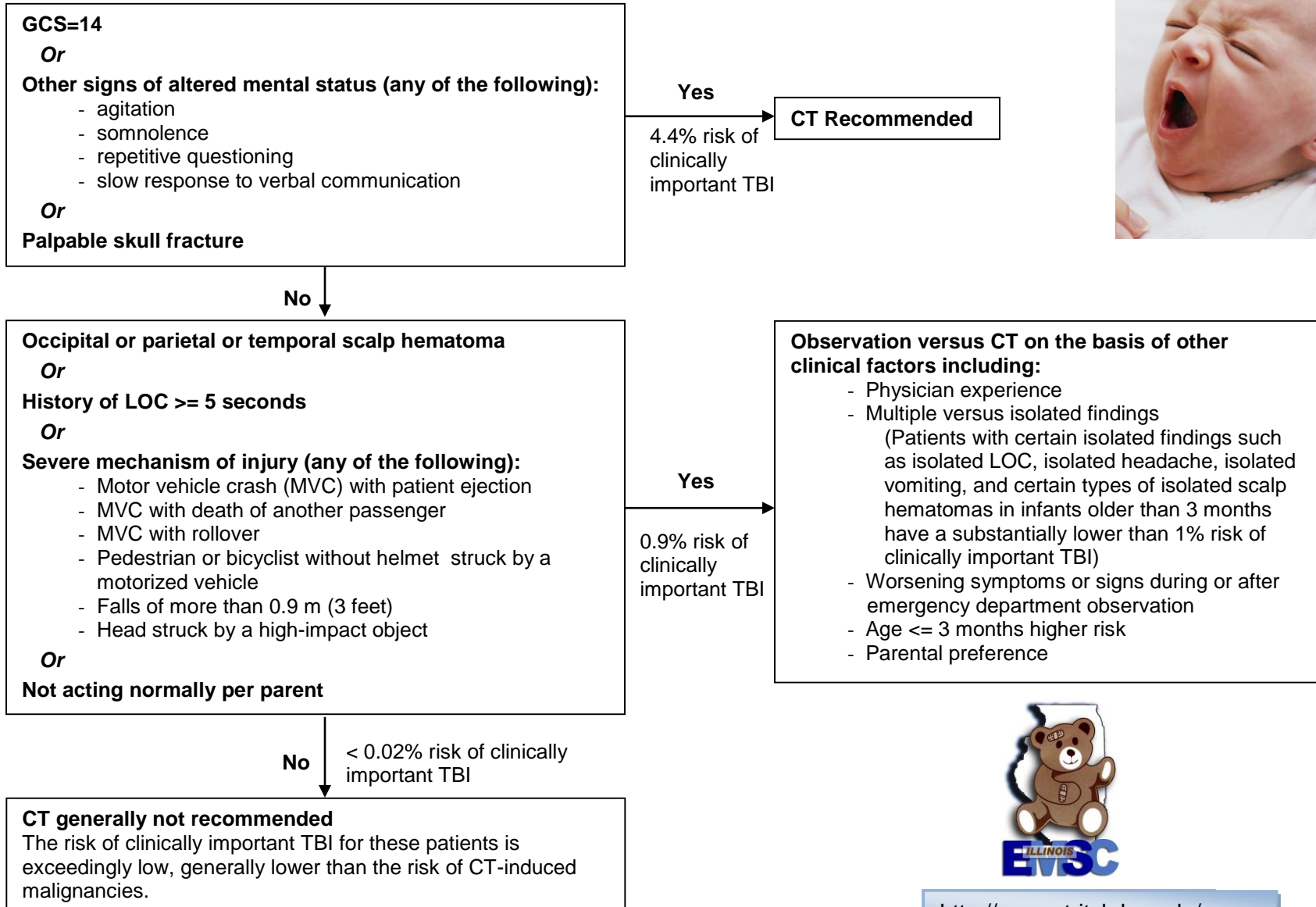


Suggested CT Algorithm for Mild Traumatic Head Injury (GCS 14 or 15) Age 0-23 Months



<http://www.stitch.luc.edu/emsc>

Based on Figure 3 of Kuppermann, et al, Identification of children at very low risk of clinically important brain injuries after head trauma: a prospective cohort study, *Lancet*, 2009 Oct 3;374(9696):1160-70

Suggested CT Algorithm for Mild Traumatic Head Injury (GCS 14 or 15) Age 2-17 Years

GCS=14
Or
Other signs of altered mental status (any of the following):

- agitation
- somnolence
- repetitive questioning
- slow response to verbal communication

Or
Signs of basilar skull fracture

Yes
 4.3% risk of clinically important TBI
CT Recommended



No

History of LOC
Or
History of vomiting
Or
Severe mechanism of injury (any of the following):

- Motor vehicle crash (MVC) with patient ejection
- MVC with death of another passenger
- MVC with rollover
- Pedestrian or bicyclist without helmet struck by a motorized vehicle
- Falls of more than 1.5 m (5 feet)
- Head struck by a high-impact object

Or
Severe headache

Yes
 0.9% risk of clinically important TBI
Observation versus CT on the basis of other clinical factors including:

- Physician experience
- Multiple versus isolated findings (Patients with certain isolated findings such as isolated LOC, isolated headache, isolated vomiting, and certain types of isolated scalp hematomas in infants older than 3 months have a substantially lower than 1% risk of clinically important TBI)
- Worsening symptoms or signs during or after emergency department observation
- Parental preference

No < 0.05% risk of clinically important TBI

CT generally not recommended
 The risk of clinically important TBI for these patients is exceedingly low, generally lower than the risk of CT-induced malignancies.



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