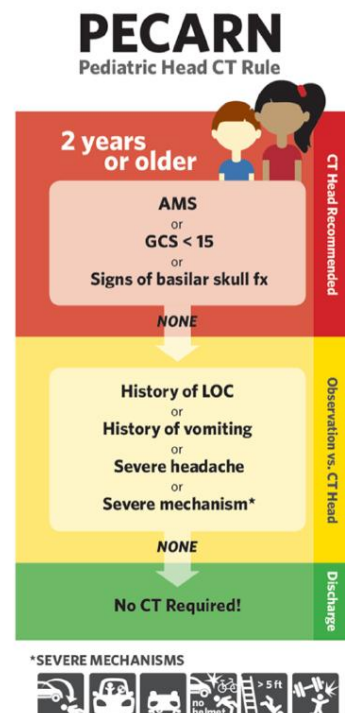
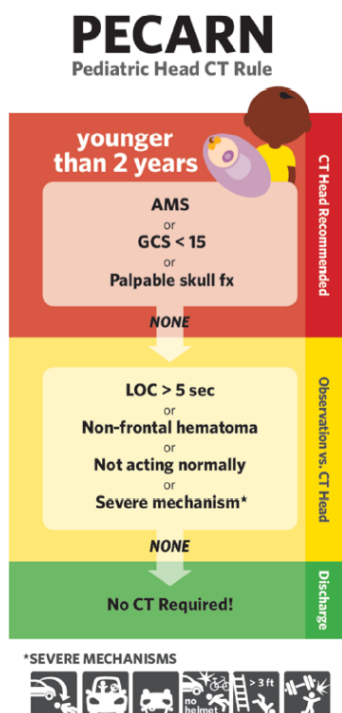
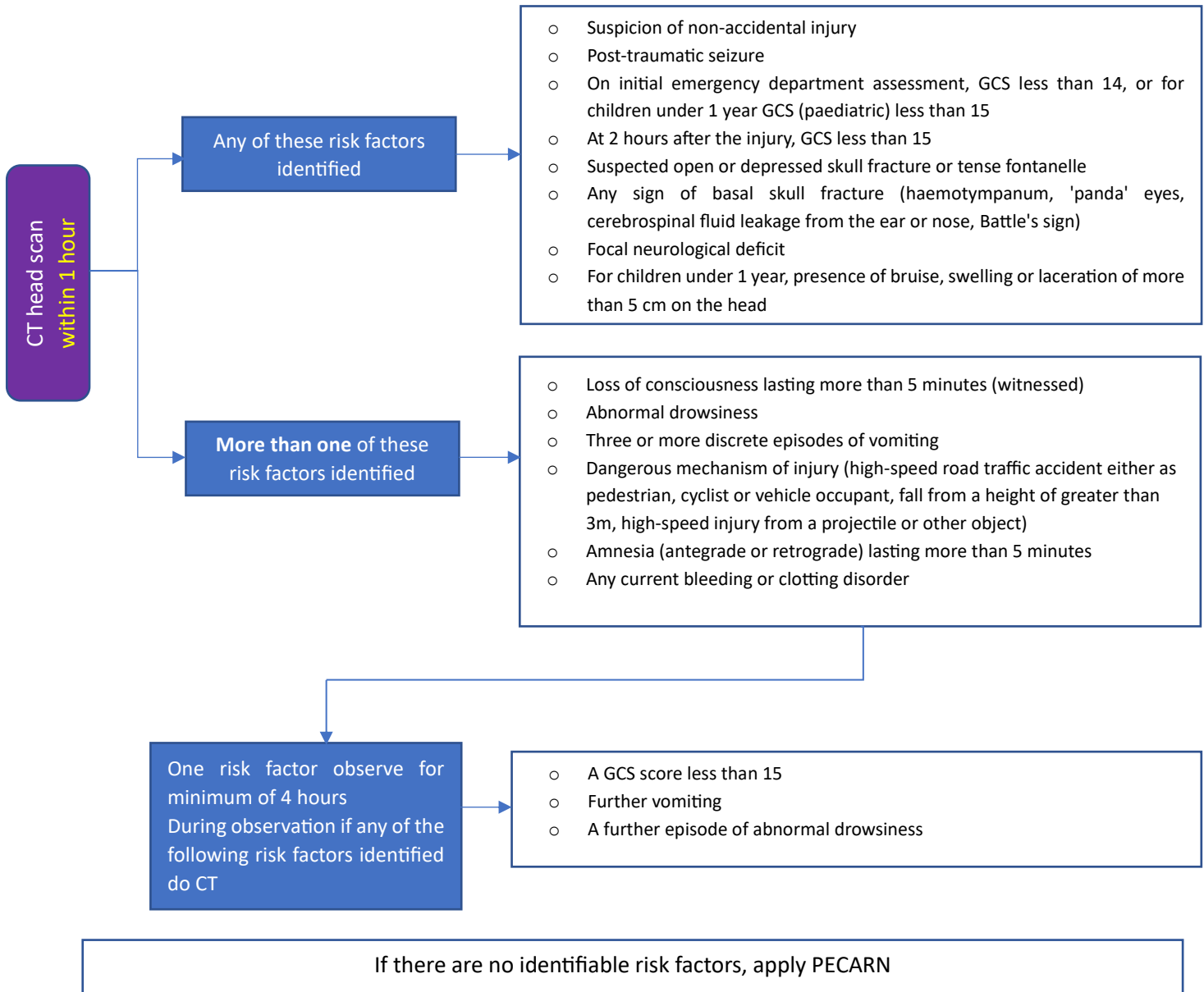


Head Injury Workup Children (< 16 years)



Criteria for performing a CT cervical spine

Within 1 hour

Any of the risk factors present

- GCS score 12 or less on initial assessment
- The patient has been intubated
- Focal peripheral neurological signs
- Paraesthesia in the upper or lower limbs
- A definitive diagnosis of cervical spine injury is needed urgently (for example, if manipulation of the cervical spine is needed during surgery or anaesthesia)
- The patient is having other body areas scanned for head injury or multi-region trauma and there is clinical suspicion of a cervical spine injury
- There is strong clinical suspicion of injury despite normal X-rays
- Plain X-rays are technically difficult or inadequate
- Plain X-rays identify a significant bony injury

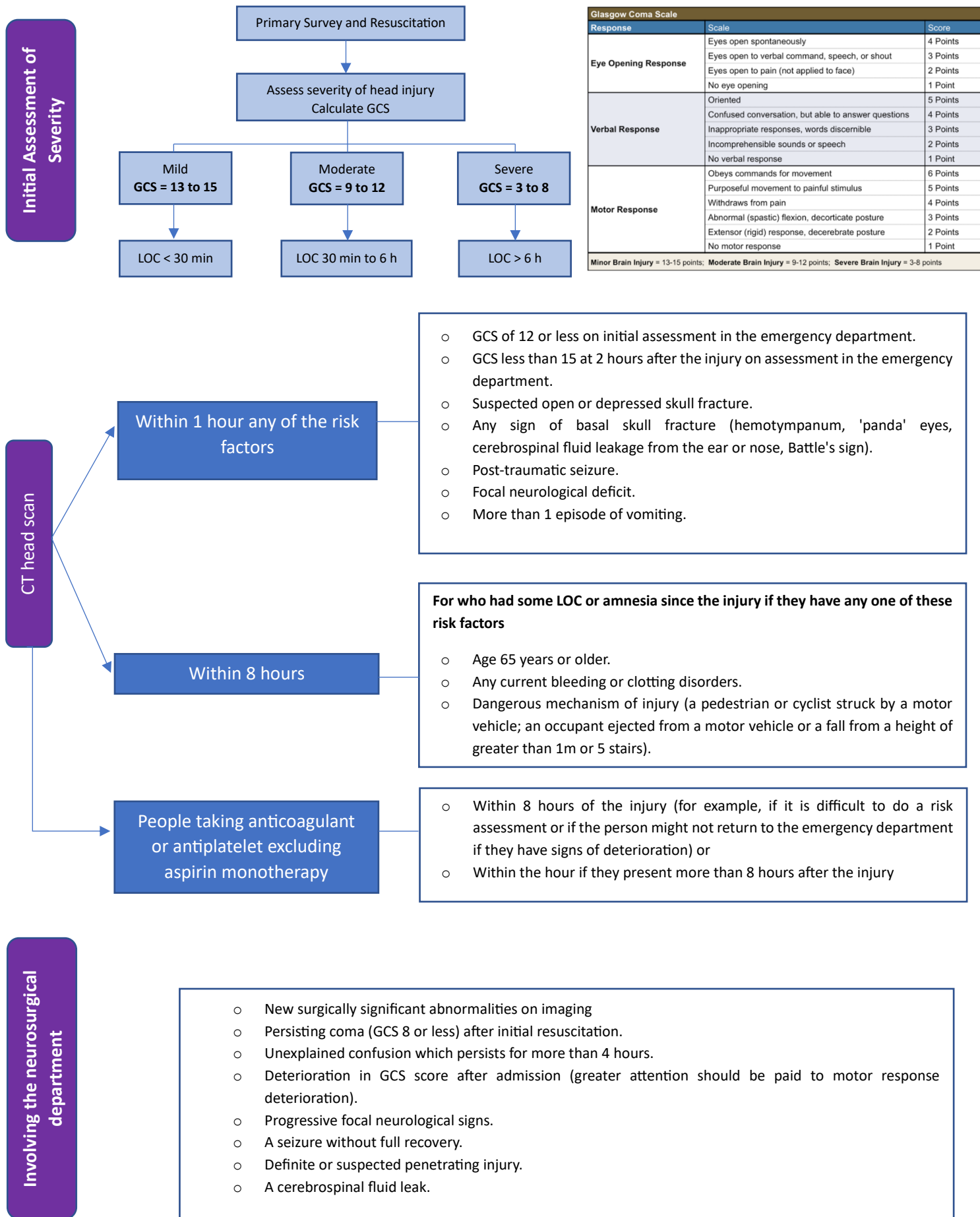
3-view cervical spine X-rays

Within 1 hour

For children with head injury + neck pain or tenderness, but no indication for CT before assessing ROM in neck if any one of risk factors present

- Dangerous mechanism of injury (that is, a fall from a height of more than 1 m or 5 stairs, an axial load to the head such as from diving, a high-speed motor vehicle collision, a rollover motor accident, ejection from a motor vehicle, an accident involving motorized recreational vehicles or a bicycle collision)
- Safe assessment of range of movement in the neck is not possible
- The person has a condition that predisposes them to a higher risk of injury to the cervical spine (for example, collagen vascular disease, osteogenesis imperfecta, axial spondyloarthritis)
- In children obeys commands obtain odontoid peg view

Head Injury Workup Adults



Indications for intubation and ventilation

- Coma - not obeying commands, not speaking, not eye opening (that is, GCS 8 or less).
- Loss of protective laryngeal reflexes.
- Ventilatory insufficiency as judged by blood gases: hypoxaemia ($\text{PaO}_2 < 13 \text{ kpa}$ on oxygen) or hypercarbia ($\text{PaCO}_2 > 6 \text{ kpa}$).
- Irregular respirations.

Use intubation and ventilation before transfer in the following circumstances:

- Significantly deteriorating conscious level (1 or more points on the motor score), even if not coma.
- Unstable fractures of the facial skeleton.
- Copious bleeding into mouth (for example, from skull base fracture).
- Seizures.