Modified Brain Injury Guidelines (mBIG 1) – Trauma Observation Management

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PURPOSE:
To standardize the evaluation, management, and disposition of trauma patients meeting BIG 1 criteria.

DEFINITIONS:
BIG 1: Low-risk traumatic brain injury classification defined by:
- GCS 15 and normal neurologic exam
- No anticoagulation (ASA 81 mg qd acceptable)
- No skull fracture, epidural, or posterior fossa bleed
- Single SDH <4 mm, single IPH <4mm, or SAH <1 mm involving <3 sulci
- BAL <80 mg/dL

GOALS OF CARE:
- Ensure patient safety through standardized neurologic monitoring
- Reduce unnecessary admissions and neurosurgical consultations
- Maintain efficient patient throughput
- Provide clear discharge criteria and education

PROCESS

1. Comprehensive initial neuro exam done by trauma team. Must be supervised by fellow/attending
2. Initial Imaging: A non-contrast Head CT (HCT) will be obtained for all patients under evaluation for potential head injury.

3. Imaging Review :The HCT must be jointly reviewed by the Trauma Attending and Radiology Resident to confirm radiographic findings and eligibility for the BIG 1 pathway.
4. Eligibility Determination & Order Placement: Upon confirmation that the patient meets ALL BIG 1 criteria, the trauma provider will place a Trauma Observation Order.
    a. This is not an inpatient admission order
    b. The patient does not require teletracking
5. Patient Placement: The patient will be transitioned to a designated trauma observation location in the following order of availability:
    a. First: Trauma Fish Bowl
    b. Second: Trauma OBS 10
    c. Third: Trauma OBS 9
6. Observation Period: The patient will undergo 6 hours of observation, beginning at the time of the Head CT.
    a. During this period, the patient will receive a Nursing focused neuro assessment every 2 hours, and vital signs every hour, documented in Power Chart.
    b. If any change in neuro exam or vital signs, attending is notified immediately and patient is transferred back to resuscitation.
7. Reassessment and Final Evaluation: At the completion of the observation period, the patient must have a repeat comprehensive neuro exam (documented) by the Trauma Attending or Fellow to determine clinical stability and appropriateness for discharge.
    a. Any changes in exam require full admission and Neurosurgery consult
8. Disposition and Discharge: If the patient remains clinically stable and meets discharge criteria:
    a. Traumatic Brain Injury (TBI) education will be completed and provided by nursing staff
    b. The patient must have appropriate supervision at home for 24 hours. Ensure this is clearly documented in discharge instructions

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