



**Trauma**  
**HEAD INJURIES / TBI**  
**Practice Guideline**

**Patient Care Goals:**

1. Manage immediate life-threatening injuries
2. Minimize secondary brain injury

**Patient Presentation:**

Inclusion Criteria

Mechanism of injury with potential for head injury

Exclusion Criteria

Isolated penetrating trauma

**Patient Management:**

Ventilation and oxygenation, EtCO<sub>2</sub> 35-45 mm Hg  
 Avoid hyperventilation and hypoxemia  
 AMS underlying causes  
 Normal Saline Bolus IV/IO given over 10 mins, repeat to SBP goal 120 (or age appropriate)  
 Elevate HOB 30° while maintaining alignment of neck/torso

FREQUENT REASSESSMENT

**Patient Safety Considerations:**

Assure all appropriate LSIs are completed  
 Avoid the 'H-bombs' of TBI: Hypoxia, Hypotension, Hypoglycemia, Hypoventilation, Hyperventilation  
 Altered level of consciousness includes GCS < 15, intoxication, not following commands, etc  
 Advanced airway consideration:

- GCS ≤ 8: consider AA based on pt indicators (able to open pts mouth, absent gag reflex—tolerates NPA OPA or suction, provider judgment)
- SGA or ET w/VL advanced airway consideration
- Assign sole provider for airway monitoring

Implement spinal motion restrictions  
 Focal neurological signs or symptoms  
 Numbness, motor weakness, etc

**Evidence of impending herniation:**

Dilated and unresponsive pupils  
 Asymmetric pupils  
 GCS < 9 AND rapid deterioration GCS by 3+ pts  
 Extensor posturing

**Quality Improvement:**

Key Documentation Elements

1. Mechanism of injury
2. Level of consciousness, ongoing GCS
3. Frequent reassessment of vital signs
4. SMR + Neurological exam before/after mvmt

