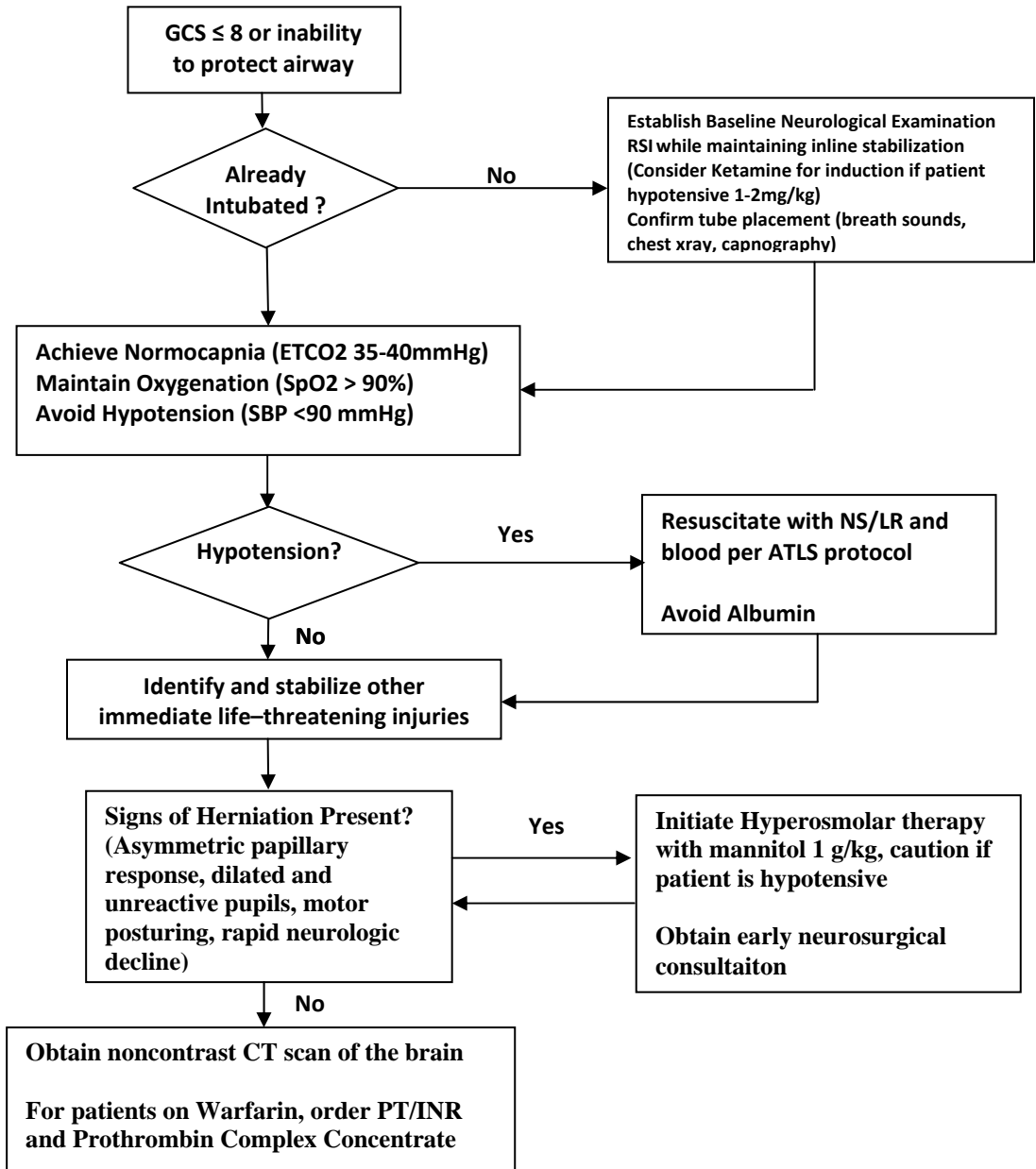


Management of Severe Traumatic Brain Injury – Guideline

General Goals
 SaO₂ > 90%
 PaCO₂= 35-40 mmHg
 MAP > 90 mmHg

Management Options for Intracranial Hypertension or Herniation Prior to Placement of ICP Monitor

1. Maintain neck in neutral position with cervical collar
2. HOB elevated to 30 degrees
3. Mannitol 1 gram/kg
4. Hyperventilation (temporary) to an EtCO₂ of 30
5. 3% HTS 250 ml bolus



1. Immediate neurosurgical consultation for decompression of lesion with mass effect.
2. Consult neurosurgery for intraventricular catheter placement for lesion without mass effect.
3. Administer Prothrombin Complex Concentrate for patient on Warfarin (see “Warfarin-associated TBI guideline”). Enter “Profilnine” under orderset.
4. For patients on Dabigatran, administer recombinant activated Factor VII (40 mcg/kg), As a last resort, consider prothrombin complex concentrate (PCC) (25 units/kg) to help with clot formation at the site of bleeding (See “Management of Bleeding on Dabigatran” guideline).
5. Ensure adequate post intubation analgesia and sedation to decrease intracranial pressure (see “Post intubation analgesia and sedation” guideline)
6. Antiseizure prophylaxis: Phenytoin or Fosphenytoin (20 mg/kg or 20 phenytoin equivalents/kg)

Management of Severe Traumatic Brain Injury – Guideline

Glasgow Coma Scale

Eye Opening (E)	Verbal Response (V) ²	Motor Response (M)
4 - Opens spontaneously ¹ 3 - Opens to Voice 2 - Opens to Pain 1 - None	5 – Alert and Oriented 4 – Disoriented or confused 3 – Incoherent words 2 – Incomprehensible sounds, moaning 1 - None	6 – Follows commands 5 – Localized to pain ³ 4 – Withdraws to pain 3 – Flexion posturing 2 – Extension posturing 1 - None

1. Patient should attend to the examiner in order to score a 4 on the eyes.
2. Score the patient as a “T” or “I” if patient is intubated or has tracheostomy.
3. Patient should cross midline to address the noxious stimulus in order to score 5 on the motor score.

This guideline was ratified by the emergency department faculty at Maine Medical Center in March 20 . It reflects our expert opinion and is not necessarily applicable to all institutions. It is intended to be a reference for clinicians caring for patients and is not intended to replace providers' clinical judgment.

