Severe Traumatic Brain Injury

**GCS < 8, Motor < 5 with abnormal CT or normal CT with trauma mechanism**

Admit SICU or NCCU q 1º Neuro check CT q 12 – 24 until bleed stable

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**Critical Care Management**

**ICU Management**
- Neck stabilization
- Mid-line head
- Ensure IT drainage (no tight collar, etc)
- PaC0₂ 35-45
- Avoid hyer/hypo glycemia
- Glycemic management BG 100-180
- Target core temp ≤ 37°C avoid hyperthermia
- Laboratory: PT, PTT, Sosm, NA, every 6 hours
- GI prophylaxis
- DVT prophylaxis after 24-48 hrs for chemical if ICH
- SCD’s for all pts
- SaO₂ > 94%
- HOB at least 30°
- Seizure prophylaxis for 7 days
- Call CORE when appropriate
- If indicated:
  - use central monitoring
  - Place arterial line

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**Follow Standard Fluid Resuscitation Guidelines**
- Use crystalloid of choice: 0.9% NaCl
- Target MAP = 75
- Target Na 145-160
- If euvoletic, then consider vasopressors
- Use central monitoring
- No Dextrose / Hespan

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**ICP Monitoring: consider ICP monitor if GCS < 8, motor < 5**

**ICP Monitor**
1. Follow CPP & ICP
   - Drain if ICP > 20-25
   - If unable to ventric – consider Intraparenchymal device
2. Target ICP < 20
   - Target CPP 50-70
   - Repeat head CT 12-24 hrs
   - Maintain euvoletic

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**Elevated ICP > 20**
Please Refer Elevated ICP Protocols
1. Maintain normothermia/consider hypothermia
2. HOB at least 30°
3. Sedation
4. Consider repeat CT brain
5. Osmotic therapy hypertonic saline or mannitol
6. Decompressive craniotomy
7. Check IAP
8. Phenobarb/ neuromuscular blockade

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