Guidelines for the Management of Raised ICP

**AIM:** To provide guidance on the management of patients with raised ICP.

**SCOPE:** All adult ICUs within Brighton and Sussex University Hospitals

### Initial neurosurgical management measures

- Evacuate significant SOL
- 30 degrees head up/tilt if no contraindications
- Avoid venous obstruction
- CPP 60-70 unless otherwise instructed by a Consultant Neurosurgeon
- ICP <20 mmHg
- Optimise haemodynamic and volume status
- PaO₂ >13 kPa
- PaCO₂ 4.5-5 kPa
- Core temperature 35-36 degrees
- Propofol and Fentanyl +/- neuromuscular blockade
- Phenytoin if indicated
- Blood glucose 4.5-8.3 mmols
- If LICOX brain oxygen 20-40 mmHg and temperature <37 degrees

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**Flowchart Diagram:**

1. **Is ICP <20 mmHg and CPP >60-70?**
   - **YES:**
     - Bolus sedation and increase
     - Consider neuromuscular blockers if not already used
     - Mannitol 20% 0.25-1 g/kg
     - Consider hypertonic saline
     - Volume, vasoactive drugs +/- PICCO
     - If >24 hours post-injury reduce PaCO₂ 4-4.5 kPa
     - Consider EVD
     - EEG- if this shows seizure activity commence/increase anti epileptics
     - Consider:
       - LICOX
       - Thiopentone coma
       - Decompressive craniectomy

2. **Recent CT Risk of SOL low?**
   - **YES:**
   - Evacuate SOL
   - **NO:**
   - CT scan

3. **Does patient have significant SOL?**
   - **YES:**
   - Evacuate SOL
   - **NO:**

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