MONITORING & LABS	GENERAL INDICATIONS*	
	Tier 2	▪ Ventilator Management to increase PaO2 as high as 150mmHg. ▪ Neuromuscular Paralysis ▪ Perform MAP Challenge and if cerebral autoregulation is intact increase CPP to 70mmHg with vasopressors, fluid boluses, or inotropes.
	Tier 3	▪ Consider secondary decompressive hemicraniectomy. ▪ Consider normobaric hyperoxia to a PaO2 above 150mmHg. ▪ Consider transfusion of 1U PRBC's if Hgb < 9g/L and CPP/MAP and PaO2 are optimized.

ACUTE CLINICAL DETERIORATION

(e.g., Acute mental status change, blown pupil or other obvious signs of cerebral herniation, new focal neurological symptoms, progressive and refractory ICP elevation)*

1. Verify oxygenation and ventilation	**UNCAL HERNIATION SYNDROME** ▪ Unilaterally dilating pupil ▪ Progression to fixed and dilated. ▪ Progressive impairment of consciousness → comatose ▪ Contralateral Babinski → contralateral weakness → bilateral decerebrate rigidity
2. Ventilate for no more than 20 minutes to an EtCO2 target of 35 mmHg.	
3. Re-dose osmotic agent	
4. Call Neurosurgery	
5. Arrange for emergent CT scan	

GLASGOW COMA SCORE	EYE OPENING	BEST VERBAL EFFORT	BEST MOTOR EFFORT
1	None	None	Flaccid
2	To Pain	Nonspecific sounds	Decerebrates to pain
3	To verbal stimuli	Inappropriate words	Decorticates to pain
4	Spontaneous	Confused	Withdraws to pain
5	-	Oriented	Localizes to pain
6	-	-	Follows commands

COMMON SODIUM DISORDERS SEEN IN HEAD TRAUMA (Discuss therapy with staff prior to initiation.)

Disorder	Na+	Diagnostic clues	Treatment
SIADH	↓	Low SOsm, usually euvolemic, ↑ Uosm Low serum Uric acid level	Free water restriction, hypertonic saline if severe
Cerebral salt wasting	↓	SOsm may be nl, ↑ uop, signs of volume depletion & hemoconcentration, very high UNa Normal serum uric acid level	Volume replacement with NS or hypertonic saline. Oral sodium. Beware of rapid Na+ correction.
Mannitol use	↑	Polyuria, ↑ [Na^+] & SOsm	Hold Mannitol if SOsm > 329 mOsm / [Na+] > 159
Diabetes Insipidus	↑	Polyuria (>250cc/hr), ↑ [Na^+] & SOsm, USpGr <1.005	DDAVP 2-4 mcg SQ/IV BID as permitted by staff neurosurgeon