**UCSD BRAIN CODE GUIDELINE FOR NONTRAUMA PATIENTS**

For clinical signs of herniation (decreased mental status, sluggish pupil, dilated pupil, etc. due to increased ICP) or ICP>20 x 3 min

• **WEBPAGE “BRAIN, CODE”→ pages code pharmacist, in-house NCC pager, NCC**

0 min

 **attending.** Code pharmacist brings brain code box w/ 23.4% saline, mannitol, neosticks

 (boxes are in HC SICU/Main Pharmacy, JMC NCCU/Main Pharmacy).

• **PAGE NEUROSURGERY**

 • **PAGE ANESTHESIOLOGY FOR INTUBATION IF NOT INTUBATED.**

0-5 min

• **Surgical lesion (mass, big stroke/ICH, hydro)?** **Consider stat crani/EVD/adjust EVD.**

• **ABC**: intubate, Sa02>94, cardiac monitor, send stat CBC, BMP, coags

• **Position**: HOB at 45°, neck straight, take wedges out if underneath patient.

 **DO NOT LAY HOB FLAT/PLACE IJ LINE**. If IV access needed place IO; if central

 line needed (usually not needed for brain code) ->femoral CVC in reverse Trendelenburg.

• **MILD hyperventliation** (RR 14-18), **place ETC02 monitor, target EtC02 30**/PaCO2 35

• **Osmotx**: **GIVE** **MANNITOL (**20%,1g/kg IVP, periph IV by RN) ***AND* SALT (see below)**

 • **SALT = 23.4%** **saline** (30cc IVP over 3 min, *central line only*, by MD/NP w/ direct/phone

 supervision by attending/fellow) **OR 3%** **saline** 250cc IV bolus (central line wide open or

 good PIV over 15 min)

• **CPP rx**: **start** **NS 1L bolus and 100cc/h thereafter.** Keep CPP 60-110 or MAP>80 w/

 **phenylephrine IVP** [100-200mcg (1-2 cc) of neostick at a time, by MD/NP ONLY]/drip or

 **levophed** drip. Only lower BP (nicardipine/labetalol/clevidipine) if bleed or SBP>220

• **Agitation/pain tx if indicated** (fentanyl 25-100mcg IVP, propofol 25-50mg IVP)

• If **tumor/abscess**: dexamethasone 10mg IVP stat

• If **temp >37.5**°**C**: acetaminophen 1g IV stat

 🡻

 **ICP/EXAM NOT NORMALIZED?**

5-10 min

• **Repeat 23.4% IVP or 3%** saline 250cc IV bolus

• **Stat** **Head CT** if vitals stable + herniation etiology unknown. Consider decompressive crani.

 🡻

  **ICP/EXAM NOT NORMALIZED?**

• **Propofol** 100mg IVP (may ⇓BP), repeat x 1 in 2 minutes if no effect. If effective, start

10-15 min

 propofol drip & place CERIBELL; titrate to burst suppression. Consider decompress crani.

 🡻

  **ICP/EXAM NOT NORMALIZED?**

• **Moderate hypothermia (32-34°C) w/ Arctic Sun or** **Pentobarbital** 10mg/kg IV bolus over

15-20 min

 30min. If effective, start pentobarb drip 3mg/kg/h x 3h then 1mg/kg/h & place SEDLINE;

 titrate to burst suppression. Consider decompressive crani.

• Start 3% NS at 10-30cc/h, check Na q6h, goal Na 5-10 meq/L above initial sodium

Post

rx

• Immediately change vent to target normocarbia (PaC02 35-40), turn down FiO2 immediately

 to 40% to target normooxia (Pa02<150)

• Ensure normothermia (<37.5C) if pt not made hypothermic already

• MD must document code and administration of mannitol, 23.4%, or phenylephrine in a note