For suspected ICH (focal deficit with headache or deteriorating mental status):

- **Call stroke code**, order stroke code CT and take labetalol/hydralazine/nicardipine to CT.
- If rapidly deteriorating or comatose, page brain code & neurosurgery & anesthesia.

### 1. Airway:
- intubate IF GCS deteriorating or <8. **IF ICH IS SEEN ON CT, TELL WHOMEVER IS INTUBATING THAT SBP MUST STAY<140 DURING INTUBATION OTHERWISE PT MAY REBLEED. IF UNKNOWN IF PT IS ICH/ISCHEMIC STROKE, TELL WHOMEVER IS INTUBATING TO KEEP SBP FROM SPIKING/DROPPING.** Start propofol drip @ 20mcg/kg/h for sedation.

### 2. Normoventilate (RR 14-18), place ETC02 monitor, target EtC02 30-35/PaCO2 35-40

### 3. Position: HOB@30°, neck straight; if herniating start UCSD Brain Code protocol, do not lay flat

### 4. Obtain stroke code CT. **DO NOT CANCEL CTA** (it is needed if pt is getting emergent crani)

### 5. ONCE ICH SEEN ON CT, **IMMEDIATELY LOWER BP IN CT SCANNER TO SBP <140. 1st BP lowering agent should be given WITHIN 10 min of blood seen on CT, goal BP must be reached within 1 hr.** Start nicardipine drip 5-15 mg/h, use labetalol 10mg q15 min PRN or hydralazine 10mg q15min PRN if nicardipine not available).

### 6. Emergent coagulopathy reversal: target INR <1.4 and platelets >100K within 1 HR, 1st dose WITHIN 30 MIN. See UCSD Reversal Protocol for ICH.

- For ↑INR: 1.5-1.9, give FFP 2 UNITS and Vitamin K 10mg PO (preferred)/IV, □INR p infusion
  - 2 - <4, give Kcentra 25 UNITS and Vitamin K 10mg PO (preferred)/IV □INR p 15min
  - 4 - <6, give Kcentra 35 UNITS and Vitamin K 10mg PO (preferred)/IV □INR p 15min
  - >6, give Kcentra 50 UNITS and Vitamin K 10mg PO (preferred)/IV □INR p 15min
- For platelets <100K: give 1-2 units platelets
- For ICH 2/2 tPA, give platelet transfusion 6u and cryo 4-6u.
- For ICH 2/2 heparin, give protamine dosed by pharmacy (know last heparin dose and amount)

### 7. Emergent ICP management: **IF HERNIATING CALL BRAIN CODE (see brain code guideline).** If somnolent but not herniating, give 2% 250cc IV bolus (central line wide open/good PIV over 15 min) or mannitol 20% 1g/kg IVP (periph IV by RN)

### 8. Neurosurgical management:
- Request ICP monitor/EVD for GCS deteriorating or <8, IVH with hydrocephalus
- Consider immediate craniotomy for cerebellar hemorrhage w/ 4th ventricle effacement, lobar ICH <1cm from surface with mass effect, or any ICH causing herniation or refractory ICP

### 9. CPP rx / contrast ppx: start NS 1L bolus and 100cc/h thereafter. Do not start pressors without consulting attending.

### 10. Admit to NCC using orderset “IP NCC Neuro-ICU orders for non-traumatic ICH
- If post coagulopathy reversal, continue labs q6h per UCSD Reversal Protocol for ICH
- Obtain another CT head noncon 6h after initial CT to ensure stability
- If intubated, turn down FiO2 immediately to 40% to target normoxia (Pa02<150)
- If symptomatic hydrocephalus from IVH, consider intraventricular tPA