KISS Acute Ischemic Stroke Orders & Transport Protocol

Stroke Workup

☒ **Date / Time patient last known well:** _____
☒ **Vital Signs:** Minimum of every 15 minutes (*with continuous O2 and cardiac monitoring*)
☒ If SpO2 < 94%, administer O2 at 2 liters per nasal cannula (*titrate for SpO2 of 94% or greater*)
☒ **Two peripheral IV's** (*18 gauge preferable, one in AC*)
☒ **Labs:** CBC, BMP, PT/INR, PTT, Blood Glucose, Troponin, and pregnancy test if applicable (*to save door to needle time, may give tPA prior to the lab results back if patient has no HX of major liver, renal or bleeding issues and is not on Warfarin or NOAC) **POC labs acceptable**
☒ **Diagnostic:** CT Head Without Contrast (*notify radiologist for STAT read*); EKG
☒ **Strict NPO**
☒ **NIH Stroke Scale Score:** _____
☒ **Complete tPA Checklist :**
☐ Patient meets IV thrombolytic criteria, proceed with orders below. _____Consult with Stroke Specialist obtained
☐ IV Thrombolytic contraindicated due to _____ (*cross through orders below*)
☒ **Notify Dispatch / Transport Team**
☒ **Obtain Best Family Member Phone Number :** Cell _____--_____--_____

Pre- IV Thrombolytic

☒ Monitor BP every 15 minutes. ***Keep BP < 185/110mmHg***
- Labetalol 10 mg IVP (may repeat x 1). (Hold for HR < 60)
- Nicardipine gtt. 5 mg/hr to max of 15 mg/hr
- Or Antihypertensive agent of your choice

☒ Obtain signed informed consent.
☒ Weight in kilograms _____ (*if unable to weigh, obtain from patient/family or average 2 estimated weights*)

IV Thrombolytic Prep / Administration

Calculations Checked by: (*2 initials*)_____ & _____

Activase (*alteplase*):

1. Mix alteplase with sterile water as provided by manufacturer to a ***concentration of 1 mg/mL***
2. Calculate **Total Dose** (*bolus + infusion*) : (weight in kg) x (0.9 mg/kg) = _____mg. ***(max of 90 mg)***
   - **Waste :** Unneeded portion of alteplase (100 mg – total dose) = _____ mg.
3. Administer Bolus Dose *(10% of total dose)* IV push over 1 minute.
   - **Bolus Dose :** (total dose) x (0.1) = _____mg. / **Time Given**: _____
4. Administer Infusion Dose *(90% of total dose)* as a secondary infusion over 1 hour.
   - **Infusion Dose**: (total dose) x (0.9) = _____mg. / **Time Started:** _____
5. Flush alteplase remaining in IV tubing with NS (use same rate as alteplase infusion).

OR

TNKase (*tenecteplase*):

1. Dilute tenecteplase with 10mL of sterile water **(*concentration = 5 mg/mL*)** and swirl to mix
2. Calculate Total Dose : (weight in kg) x (0.25 mg/kg) =_____mg. **(max of 25 mg or 5 mL)**
3. Withdraw appropriate volume of dose and discard remainder
   - **Waste :** Unneeded portion of TNKase (50 mg – total dose) = _____ mg. *(Max dose is half of a single vial. Ensure that at least 25 mg is being wasted each time)*
4. Flush IV line with saline before and after tenecteplase administration
5. Administer Total Dose over 5-10 second IV push / **Time Given**: _____

During Infusion / Post Infusion / Transport Preparation:

☒ Monitor Vital Signs every 15 minutes.
- Keep **SBP <180mmHg**, **DBP <105 mmHg**, (*stop thrombolytic if unable to maintain SBP <180 or DBP <105 constantly*)
  - Labetalol 10 mg IVP (may repeat x 1). (Hold for HR < 60)
  - Nicardipine gtt. 5 mg/hr to max of 15 mg/hr
  - Keep SBP > 100: May try NS 500ml IVF bolus as an initial option
- Monitor Neuro Checks every 15 minutes.
- If sudden change in baseline mental status, acute headache, or vomiting – STOP infusion. *See Page 2 or "Emergent Adverse Events Post-Thrombolytic Therapy Guidelines."*

☒ Monitor for Adverse Reactions (*e.g. Angioedema*) – F*ollow anaphylactic management or protocol*, or Hemorrhagic Complications (*e.g., Abdominal and/or flank pain, hemoptysis, hematemesis, shortness of breath/rales/rhonchi*)
- If noted, STOP IV Thrombolytic infusion. *See Page 2 or "Emergent Adverse Events Post-Thrombolytic Therapy Guidelines."*

CAUTIONS

- NO Anticoagulation or Antiplatelet Therapy for 24 hours
- No Foley insertion/re-insertion, central venous line placement or arterial puncture at a non-compressible site for at least 24 hours after IV Thrombolytic
- Avoid insertion of nasogastric tube for 6-8 hours after IV Thrombolytic administration

☒ Send copy of CT Head Scan (*do not delay transport-report can be faxed*)
☒ Send patient records with documentation of allergies, current medications, past medical history (can be faxed)
***all that is needed is the EMTALA paperwork with patient—DO NOT DELAY TRANSFER FOR COPY OF RECORDS*

EMERGENT ADVERSE EVENTS POST THROMBOLYTIC THERAPY GUIDELINES

SYMPTOMATIC INTRACRANIAL BLEEDING OCCURRING WITHIN 24 HOURS AFTER ADMINISTRATION OF THROMBOLYTICS

- ☒ Stop alteplase infusion
- ☒ CBC, PT (INR), aPTT, fibrinogen level, and type and cross-match
- ☒ Emergent CT Head without contrast
- ☒ Cryoprecipitate: 10 Units infused over 10-30 minutes; Administer additional dose for fibrinogen level of <150 mg/dL
- ☒ Tranexamic acid 1000 mg infused over 10 minutes OR aminocaproic acid 4-5 grams over 1 hours, followed by 1 gram IV until bleeding is controlled
- ☒ Consult Hematology & Neurosurgery or consider transfer to facility with these services
- ☒ Supportive therapy, including BP management, ICP, CPP, MAP, temperature and glucose control

MANAGEMENT OF OROLINGUAL ANGIOEDEMA ASSOCIATED WITH IV ALTEPLASE ADMINISTRATION FOR AIS

- ☒ Maintain Airway
  - Endotracheal intubation may not be necessary if edema is limited to anterior tongue and lips
  - Edema involving larynx, palate, floor of mouth or oropharynx with rapid progression (within 30 min) poses higher risk of requiring intubation
  - Awake fiberoptic intubation is optimal. Nasal-tracheal intubation may be required but poses risk of epistaxis after IV alteplase. Cricothyroidotomy is rarely needed and also problematic after IV alteplase
- ☒ Discontinue IV alteplase infusion and hold ACE inhibitors
- ☒ Administer IV methylprednisolone 125 mcg
- ☒ Administer IV diphenhydramine 50 mg
- ☒ Administer ranitidine 50 mg IV or famotidine 20 mg IV
- ☒ If there is further increase in angioedema, administer epinephrine 0.3 mL SQ or by nebulizer 0.5mL
- ☒ Icatibant 3 mL (30 mg) SQ in abdominal area; additional injection of 30 mg may be administered at intervals of 6 hours not to exceed a total of 3 injections in 24 hours; and plasma-derived C1 esterase inhibitor has been successfully used in hereditary angioedema and ACE inhibitor-related angioedema
- ☒ Supportive Care

☐ Telephone order from Dr. _____

Nursing signature: _____ Date: _____ Time: _____

Provider Signature: _____ Date: _____ Time: _____

PATIENT IDENTIFICATION

TEMPLATE