STROKE MANAGEMENT: WITH tPA ADMINISTRATION
Purpose

To outline the nursing management of patients with a new diagnosis of stroke, R/O stroke, or TIA (Transient Ischemic Attack).
FACT:

Stroke is the fourth (4th) leading cause of death in the US and the leading cause of major disability.
2 CLASSES OF STROKE

*Ischemic strokes:* caused by blood clots, such as:
- Cerebral thrombosis
- Cerebral embolism

*Hemorrhagic strokes:* caused by ruptured blood vessels, such as:
- Intracerebral hemorrhage
- Subarachnoid hemorrhage
GOAL OF ORGANIZED STROKE CARE AT UTMC

To facilitate the use of our best resources to minimize or prevent the complications of a stroke through rapid identification of symptoms, appropriate interventions, and patient education.
NOTIFICATION

♫ If Stroke symptoms are present, notify the Stroke Team at:

PAGER #419-218-3399

OR

Call the Operator to page the Stroke Team
1. Support symptoms as needed (airway, clear secretions, etc)

2. Initiate Telemetry

3. Monitor VS and pulse oximetry:

... every 2 hours for the first 8 hours, then every 4 hours

4. Obtain Computed Tomography (CT) scan

5. Draw labs as ordered

6. Notify family and educate as needed
Hypertension is not routinely treated in patients with acute Ischemic Stroke unless SBP >220 or DBP >110 according to the AHA/American Stroke Association.

Treatment for hypertension is recommended for tPA candidates and for the following limits:

SBP >185, DBP >110.

Monitor the blood pressure closely if medications are administered because lowering a blood pressure too quickly can actually facilitate or extend a stroke.
REPORTABLE CONDITIONS

- BP outside of ordered parameters
- Neurological changes
- Headache
- Oral temperatures >99°
- Pulse ox <94%
- Seizure activity
PATIENT CARE: DAY 1

- Admission orders/Acute Ischemic Stroke orders are completed and processed
- Range of motion every 4 hours
- EPC cuffs
- Initiate Fall precautions
- General skin care protocols
- Monitor for urinary retention; bladder scan at least once within the 1st 24 hours
- Monitor bowel function
- Provide on-going stroke education
PATIENT CARE: DAY 2

- Speech/Occupational/Physical Therapy evaluations as appropriate
- PM&R evaluation as appropriate
- Discharge planning initiated
- Ensure any diagnostic tests ordered have been completed
BY DISCHARGE

.patient and caregiver are given stroke education

.patient and caregiver are given smoking cessation information (if applicable)
GENERAL INFORMATION

- Maintain blood glucose in the range **100-150**
  
  ... High glucose levels may inhibit oxygen carrying abilities of hemoglobin

- Educate patient and family to notify staff immediately of neurological changes

- Instruct patient to ask for help when changing positions
  
  ... Make sure positioning doesn’t hinder blood flow to an affected extremity

- Patient will remain NPO until a Nursing swallow screening is completed
PREPARE FOR TPA ADMINISTRATION

Ensure the following are completed and documented:

... NIHSS (completed by a stroke team member or other certified personnel)

... Neurological exam

... Identify the indications, contraindications and cautions for the use of tPA including “stroke mimics”

... Verify CT scan is performed and interpreted
PREPARE FOR TPA ADMINISTRATION

- Obtain a 12 lead EKG
- FSBS
- Must have at least 2 functional IV sites
- Continuous EKG and SpO2 monitoring
- Review of labs ordered
- Confirm SBP<185mmHG & DBP<110mmHG
TPA ADMINISTRATION

- Ensure tPA orders are calculated appropriately based on patient’s weight; verify with 2\textsuperscript{nd} RN or physician
- Perform hand hygiene
- Dose: 0.9mg/kg; not to exceed 90mg TOTAL dose
- Loading dose is 10\% of calculated dose and given IV over 1 minute
- The remaining amount is given over 1 hour
  ...  DO NOT mix with any other medications
- Document the exact time of bolus and IV administration
TPA ADMINISTRATION

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 Begin monitoring vital signs:

 ... every 15 minutes x 2 hours

 ... every 30 minutes x 6 hours

 ... every hour x 16 hours

 Total = 24 hours

 Document in the medical record
STOP TPA IF:

- SBP > 185 mmHg or < 120 mmHg
- DBP > 105 mmHg or < 60 mmHg
- Temp > 99°F
- Pulse > 120 bpm or < 50 bpm
- Neurological deterioration and abnormal bleeding
- Adverse allergic reaction such as angioedema
POST TPA ADMINISTRATION

- Document the procedure in the medical record
- Avoid all invasive procedures except necessary venous blood draws and FSBS for 24 hours
- Institute/maintain orders for:
  - aspiration precautions
  - VTE prophylaxis
  - UTI prevention
  - Fall precautions
  - skin breakdown prevention
STANDARD OF CARE S19