

# Suspected Stroke Imaging Pathway:

## Emergency Department and Inpatient Management/SR and AMBH only

January 2025



### SIGNS /SYMPTOMS CONCERNING FOR STROKE

- Use **FASTER** to evaluate for Stroke
  - Facial droop • Arm and/or leg weakness or tingling • Stability-ataxia or coordination • Talking-aphasia, inability to speak and/or comprehend • Eye/Vision abnormality • React
- Consider Stroke for any **acute onset altered mental status** or **new onset focal seizure without a return to baseline**

#### GOAL:

- Time from Stroke Alert to Imaging Start: ≤30 mins

#### INITIAL PROVIDER ASSESSMENT

- Assess & document time of patient's last known normal
- History/Risk factors<sup>1</sup>
- Physical assessment (reference NIH Stroke scale)
- Assess MRI eligibility<sup>2</sup>:
  - Safety (i.e. pacemaker, VAD, metal implants, dental hardware, etc...)
- Assess need for sedation for imaging

#### INCLUSIONS

- ≥2 years of age

#### <sup>1</sup>RISK FACTORS

- Sickle Cell Disease
- Congenital Heart Disease
- Previous Stroke
- **NOTE:** Lack of risk factors does **NOT** exclude patients from following this Guideline

- Consult Neurology to discuss plan-of-care
- No need for stroke alert

≥ 72 hours  
since last seen  
normal?

Yes

No

#### LABS

- CMP
- CBC-Diff
- DIC panel
- Urine Pregnancy Test (for girls of reproductive age) & Drug Screen
- Type & Screen
- CG8
- BG Target 60 – 150 mg/dl

Neurology resident to assess patient at the bedside within 30 mins and will determine need for Stroke Neurologist involvement.

**Activate Stroke Alert  
By Calling 5-7778**

#### STROKE ALERT TIER I CALL

##### GOAL OF STROKE ALERT CALL: DETERMINE IMAGING PLAN<sup>2</sup>

- Patient's **Attending** calls Transfer Center with Stroke Alert
- Transfer Center conferences in (in this order):
 

Mon-Fri	Sat-Sun
• Neurology Attending On Call	• Neurology Attending On Call
• Neurology Resident On Call	• Neurology Resident On Call
• Neuroradiologist On Call (7a-10p)	• Neuroradiologist On Call (7a-7p)
• Radiologist On Call (10p-7a)	• Radiologist On Call (7p-7a)
• CT Technologist	• CT Technologist
• MRI Technologist (7a-7p only)	• MRI Technologist (7a-7p only)

#### STROKE ALERT TIER II VOALTE MESSAGE

- **Transfer center to send Voalte alert to the following departments/clinicians to notify them that a patient is being worked up for Stroke:**
  - CT Team lead, CT Techs, Pharmacist(s), ED Charge RN, ED ANM, PICU Charge RN, PICU Admitting, CICU Float/Call Attending, Hematology Attending On-Call, Neurology Resident on call, Stroke Neurologist, CICU Charge RN, Rapid Response Team, and the House Supervisor
- Cardiac patients to be admitted to CICU instead of PICU

#### INTERVENTIONS

- Manage ABCs
- Cardio-Respiratory Monitoring
- Neuro checks w. vital signs q30 min
- O<sub>2</sub> PRN to maintain SpO<sub>2</sub> ≥93%
- NPO
- Place 20g IV in AC
- Treat Hypoglycemia

#### <sup>2</sup>IMAGING GUIDANCE

**PREFERRED (if immediately available):**  
MRI Brain (Acute Stroke Protocol)

##### Contraindications for MRI:

- Patient requires intubation and/or sedation
- Patient does not pass MRI Safety Screening

**ALTERNATE (if MRI contraindicated or Unavailable):** Order CT Head w/o contrast + CTA Head and CTA Neck.

#### CT

- Order:
- CT Head w/o contrast
  - CTA Head & CTA Neck<sup>2</sup>

MRI  
Unavailable or  
Contraindications  
Present?<sup>2</sup>

Yes

No

#### MRI

Order MRI Brain (Acute Stroke Protocol)<sup>2</sup>

Radiologist to notify on-call  
Neurology Attending of results

Neurology Attending to call patient's  
Attending with Results

#### POSITIVE FOR STROKE

Refer to [Stroke Treatment Pathway](#)

#### NEGATIVE FOR STROKE

- Consider common Stroke mimics:
  - Migraine
  - Focal seizure with Todd's paralysis
  - Meningitis
  - Encephalitis
  - Demyelinating Disorder
  - Brain tumor