

Suspected Stroke Imaging Pathway:

Emergency Department and Inpatient Management/SR and AMBH only

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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: ≤45 mins

INITIAL PROVIDER ASSESSMENT

- Assess & document time of patient's last known normal
- History/Risk factors¹
- Physical assessment (reference NIH Stroke scale)
- Assess MRI eligibility²:
 - Safety (i.e. pacemaker, VAD, metal implants, dental hardware, etc...)
- Assess need for sedation for imaging

INCLUSIONS

- ≥2 years of age

¹RISK 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 PLAN²

- 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
- O₂ PRN to maintain SpO₂ ≥93%
- NPO
- Place 20g IV in AC
- Treat Hypoglycemia

²IMAGING 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 Neck²

MRI

MRI
Unavailable or
Contraindications
Present?

Yes

No

MRI

Order MRI Brain (Acute Stroke Protocol)²

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