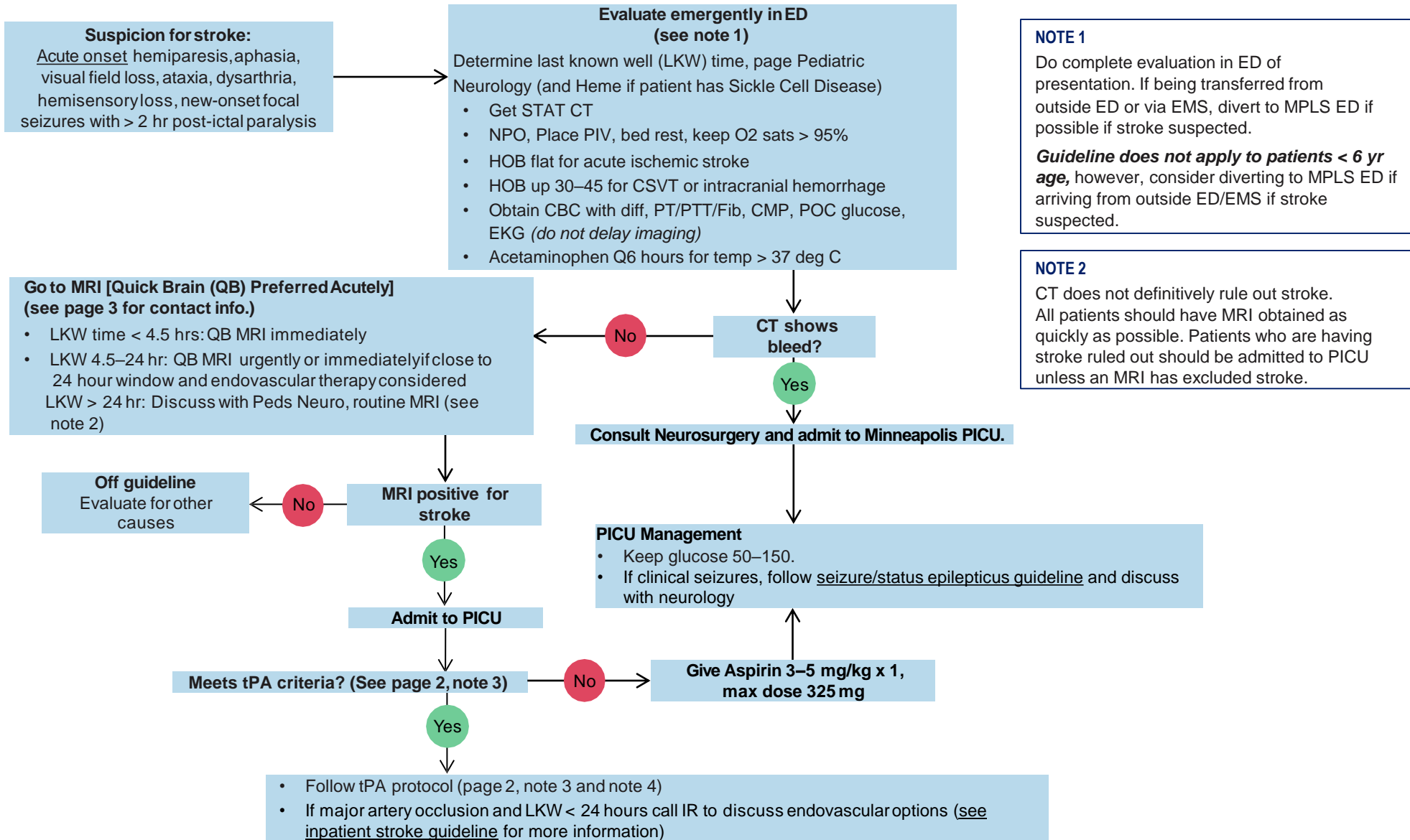


Aim: To standardize evaluation and management of suspected stroke.



NOTE 1
Do complete evaluation in ED of presentation. If being transferred from outside ED or via EMS, divert to MPLS ED if possible if stroke suspected.
Guideline does not apply to patients < 6 yr age, however, consider diverting to MPLS ED if arriving from outside ED/EMS if stroke suspected.

NOTE 2
CT does not definitively rule out stroke. All patients should have MRI obtained as quickly as possible. Patients who are having stroke ruled out should be admitted to PICU unless an MRI has excluded stroke.

Aim: To standardize evaluation and management of suspected stroke.

NOTE 3

tPA Protocol (Adapted from CHOP and TIPS trial study criteria)

Inclusion Criteria: Age 6–18 years

- Clinical diagnosis of ischemic stroke with onset within 4.5 hours of treatment initiation
- Confirmed restricted diffusion on MRI
- Symptoms indicate evolving major disabling stroke

Exclusion Criteria:

- Stroke due to: endocarditis, sickle cell, bilateral Moyamoya
- Stroke or head trauma within past 3 months
- Any prior intracranial hemorrhage which might increase risk recurrent hemorrhage
- Major surgery within 14 days
- GI or GU bleeding within previous 21 days
- Arterial puncture at non-compressible site within 7 days
- Lumbar puncture within 7 days
- Rapidly improving stroke symptoms
- CT or SWI MRI with evidence of hemorrhage
- Presentation consistent with acute myocardial infarction (MI) or post-MI pericarditis (requires cardiology evaluation)
- Persistent SBP or DBP \geq 10 mmHg above the 95%ile for norms**
- Platelets $<$ 100,000 k/uL
- Glucose $<$ 50 or $>$ 400 mg/dL
- INR $>$ 1.7 if on warfarin
- On heparin therapy within 48 hours and with elevated PTT
- Pregnant or lactating female
- CT with evidence of hypodensity and/or effacement of cerebral or cerebellar sulci in $>$ 33% of MCA territory (relative contraindication)

NOTE 4

tPA administration:

- Total dose 0.9 mg/kg (Max dose 90 mg)
- Administer 10% of the dose as an IV bolus over 1 minute. Infuse remainder over 1 hour via dedicated IV line
- Hold other anticoagulation x at least 24 hours
- Monitor in ICU at least 48 hours
- Avoid invasive procedures (e.g., blood draws, catheters, lines, NG placement) x at least 24 hours

**** BP Normative values: 95% average 24-hr values for children according to age (mmHg)**

Age	Boys	Girls
5	116/74	115/74
6	118/75	116/74
7	119/75	118/74
8	120/75	119/74
9	121/75	120/74
10	123/75	121/75
11	125/76	122/75
12	127/76	123/76
13	130/76	124/76
14	133/77	125/76
15	136/77	125/77
16	138/78	126/77

Aim: To standardize evaluation and management of suspected stroke.

Contact information: Minneapolis

Pediatric Neuro On-Call: Amion: Noran/Children's
PICU Attending: 612-813-8563 or Amion
CVCC Attending: 612-813-8411 or Amion
Neuroradiology: 612-813-8200 or Amion
Sedation Coordinator: 612-813-8285
Abbott Neuro Interventional Radiology:
612-863-4359, ext. 3; if unsuccessful,
612-863-1000 will page the on-call radiologist.

Outpatient Stroke Clinic

2530 Chicago Avenue South, Suite 267
Minneapolis, MN 55404
651-220-5230

Contact information: St. Paul

General Imaging Department: 651-220-6147
Pediatric Neuro On-Call: Amion: Noran/Children's
PICU Attending: 651-220-8563 or Amion
Neuroradiology: 651-220-7125 or Amion
Neuro Interventional Radiology: 651-241-8256

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1. Rivkin MJ, deVeber G, Ichord RN, et al. Thrombolysis in Pediatric Stroke Study. *Stroke*. 2015;46(3):L880-885.
2. Ichord R, Lavelle J, Rempell R. Emergency Department and PICU Clinical Pathway for Stroke Management. Children's Hospital of Philadelphia. Last revised April 2025. Accessed January 2025.

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