

Pediatric Hyperacute Ischemic Stroke - Oakland (C) BCH Emergency Department

Exclusion criteria

Patient at outside hospital with symptom onset < 24 hrs (direct to BCHSF)

- 1 New neurologic symptoms:** acute onset of focal deficit within 24 hours with or without seizure or headache. Symptoms may include:
- Face, arm, or leg weakness
 - Aphasia
 - Ataxia
 - Diplopia
 - Dysarthria, etc.

2 Management plan and imaging

*Use Apex Order Set "IP/ED Pediatric Hyperacute Stroke Orders" *

Imaging: Preferred modality by age, but consider availability/speed

Preference if available in timely manner– FOCUSED STROKE MRI/MRA Brain without contrast

If unable to obtain MRI as above– Pediatric CT/CTA Brain/Neck for Stroke

If prior cardiac surgery or VAD, default CT/CTA

Management:

1. NPO, determine time of last PO intake.
2. Weight in kg
3. Q15 minute vital signs, CR monitor & pulse ox.
4. Airway, ventilation, oxygen supplementation to keep SaO₂ >95%
5. Bedrest, head of bed flat. (30 degrees if vomiting)
6. IV access: 18G preferred; 22G ok for <30kg
7. Obtain stat labs: CBC with platelets, PT/PTT, electrolytes, BUN/Cr, glucose, type & screen, urine tox. Include any other labs necessary to determine the etiology of symptoms/stroke as determined by the treating physician in discussion with neurology.
8. IVF (normal saline) at 1 to 1.5 times maintenance
9. Blood pressure/perfusion: Set goal with Neurology, generally allowing for permissive hypertension. Volume/inotropes/pressors for goal MAP 50% to 95%ile for age, consider increasing by 10% if arteriopathy.

Age (years)	MAP goal
1-3	60-70
4-8	65-75
9-14	70-80
15-18	80-90

10. Normoglycemia- Goal 65-100 mg/dl; avoid hyperglycemia (consider insulin therapy if >180).

11. Temperature: Goal normothermia <37.5 C. Treat aggressively to prevent hyperthermia.

3 Treatment considerations

Age	IV tPA	Endovascular
≥ 13 y/o	< 4.5hrs	discuss if < 24h
≥1 to < 13 y/o	none	discuss if < 24h
< 1 y/o	none	none

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Disclaimer: This algorithm serves as a guideline only and should not replace clinical judgment.

