UCSF Benioff Children's Hospitals
Oakland | San Francisco

Pediatric Stroke

Stroke in Children compared to Adults

- While less common than in adults, ischemic or hemorrhagic stroke can occur in children of any age.
- Similar to stroke in adults, pediatric stroke is an emergency.
- Selected children within 24 hours of ischemic stroke may be eligible for hyperacute reperfusion therapy to restore blood flow to the brain, including thrombolysis and/or thrombectomy. The most important factor in successful therapy is early treatment.
- Children with hemorrhagic stroke may develop elevated intracranial pressure requiring emergent management.
- Rapid treatment can minimize the long-term effects of a stroke. In both children and adults, the most common reason for delayed treatment is a lack of recognition of stroke signs and symptoms.

Clinical Syndrome

- Stroke should be suspected in a person with acute onset focal neurologic deficit such as weakness of the face, arm or leg on one side of the body. Other signs of stroke are new difficulty with speech, vertigo, loss of vision or sensation.
- In children, the onset of stroke symptoms may be sudden, stuttering, or progessive over time.
- Children with ischemic or hemorrhagic stroke may experience a headache or seizure as a part of the stroke syndrome.
- Children with sickle cell disease, cardiac disease, cancer or recent trauma have an elevated risk of stroke, but many children who present with a new stroke have no significant past medical history.

Seeking Recommendations and Arranging for Emergent Transfer:

- **If you supsect a stroke in a child, call the UCSF Access center at 1-877-UC-CHILD (1-877-822-4453).**
- Our access center will connect you to our Pediatric Stroke Team.
- Neurologists, neurosurgeons and intensivists are available 24/7 to help with an emergent management plan or rapid transfer to treat ischemic and hemorrhagic stroke.

Please see reverse for recommendations while awaiting transfer.

To refer your patient to the UCSF Access Center:

Phone: 1-877-UC-CHILD (1-877-822-4453)

UCSF Pediatric Brain Center

Pediatric Stroke

What to do while awaiting transfer:

- Assess airway, ventilation and circulation.
- Obtain venous access (18G preferred, 22G okay for <30kg). IV fluids (normal saline) for goal normovolemia.
- Place cardiorespiratory and oxygen monitoring, record vital signs Q15 minutes.
- Oxygen supplementation to keep SaO2>95%.
- Make NPO, obtain a POC blood glucose.
- Review medications for anti-coagulant or anti-platelet.
- Send CBC, PT/PTT, electrolytes, BUN/Cr, type and screen, and beta-HCG.
- 12-lead EKG.
- Head positioning: 30 degrees if hemorrhage or elevated ICP, flat if ischemic stroke.
- Evaluate and treat for seizures.
- Prepare all imaging studies to send with the patient on transport.
- Review history to determine time from stroke ictus (last seen well).
- Obtain guardian contact information and availability for informed consent discussions.
- Consider emergent imaging for progressively worsening headache, mental status or changes in exam.

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