Stroke/TIA

Signs and Symptoms

- Mental status changes from baseline
- Focal neurological deficit affecting speech, vision, movement, sensation, coordination
- Headache
- Abnormal Cincinnati Stroke scale (facial droop, arm drift, speech abnormality)

History

- Time of onset is critical.
- If exact onset unknown, determine last time known to have been at baseline/normal.
- Medications/allergies
- Drug abuse (Cocaine/amphetamines)
- Any recent head trauma (consider traumatic brain injury and refer to trauma protocol if suspected)
- Previous CVA/TIA

If patient will arrive at stroke center within the 4.5 hour window for potential administration of thrombolytic (clot-busting) drug, certain additional pieces of history are essential for receiving physician. Without delaying transport, attempt to determine the following from patient (or family members if patient unable to communicate):

- Has this patient had major surgery, heart attack or a stroke within the past 3 months?
- Did the patient have a seizure at the onset of the stroke symptoms?
- Does this patient have a history of intracranial hemorrhage, hemorrhagic stroke, brain aneurysm or brain tumor?
- Has this patient had any serious bleeding problems (e.g. gi bleeding) within the last 3 wks?
- Is this patient on strong blood thinners?
  - Coumadin® (warfarin)
  - Eliquis® (apixaban)
  - Pradaxa® (dabigatran)
  - Xarelto® (rivaroxaban)

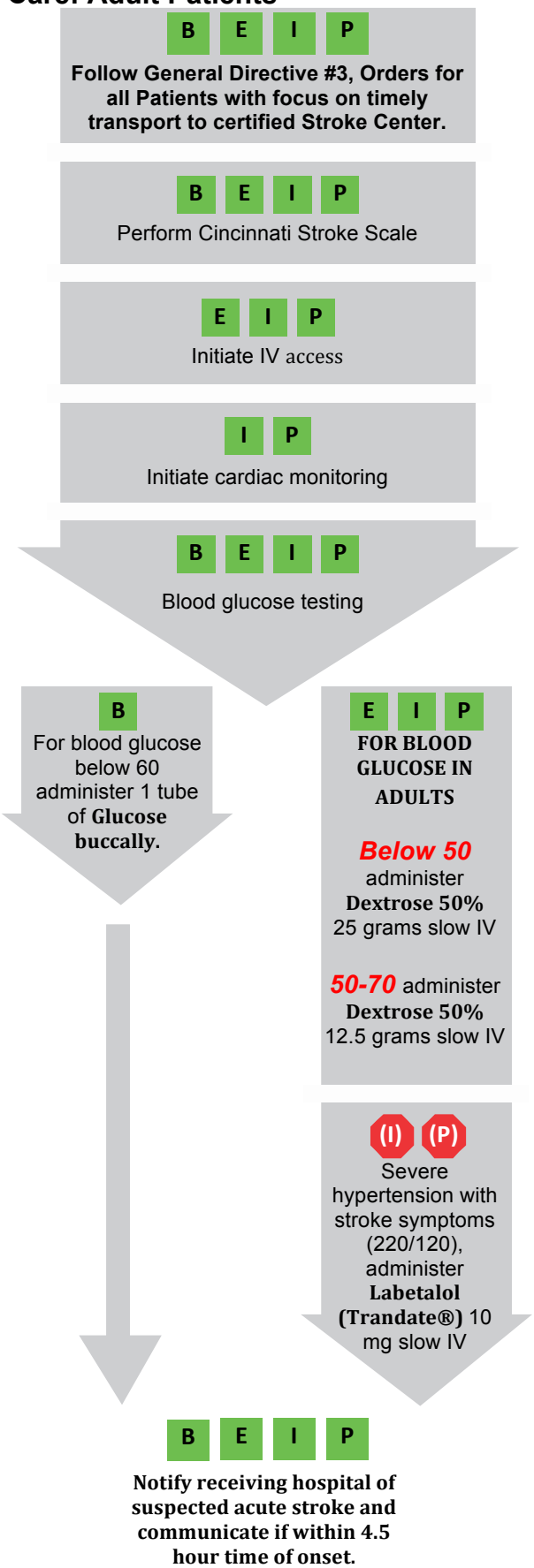
Differential

- Ischemic stroke
- Hemorrhagic stroke
- Traumatic brain injury
- Complex migraine
- Seizure/post ictal state
- Hypoglycemia
- Hypoxia
- Other toxic/metabolic/infectious causes of altered mental status

Pediatric Pearls:

- Ischemic stroke is extremely rare in children. Provide supportive care, consider other causes (blood glucose, post-ictal, toxins, head trauma, infection) and consult medical control as needed for treatment.

Care: Adult Patients



Pearls

- **Note last time patient was known to have been normal/asymptomatic.**
- If patient awoke with stroke symptoms present, last known well time is when patient went to sleep or prior.
- With suspected acute stroke, encourage family members or other caregivers to promptly come to hospital or be available by phone for further questioning by hospital staff.
- Treatment of hypertension in setting of acute stroke is controversial, consult with medical control physician.
- For severe hypertension, reasonable goal is a modest 10-15% reduction in blood pressure.
- For acute strokes, optimal transport would be within 10 min. of arriving at patient.
- BLS providers should consider transport prior to ALS arrival when appropriate.
- Oxygen therapy only as needed to maintain O_2 sats above 94%. Avoid hyperoxygenation.

Performance Indicators

- Time of onset or time last known well is documented.
- Cincinnati Stroke scale performed and documented.
- Blood Glucose documented and repeated if treated.
- Prompt transport. Goal: on scene time less than 10 minutes.