



Suspected Stroke



History

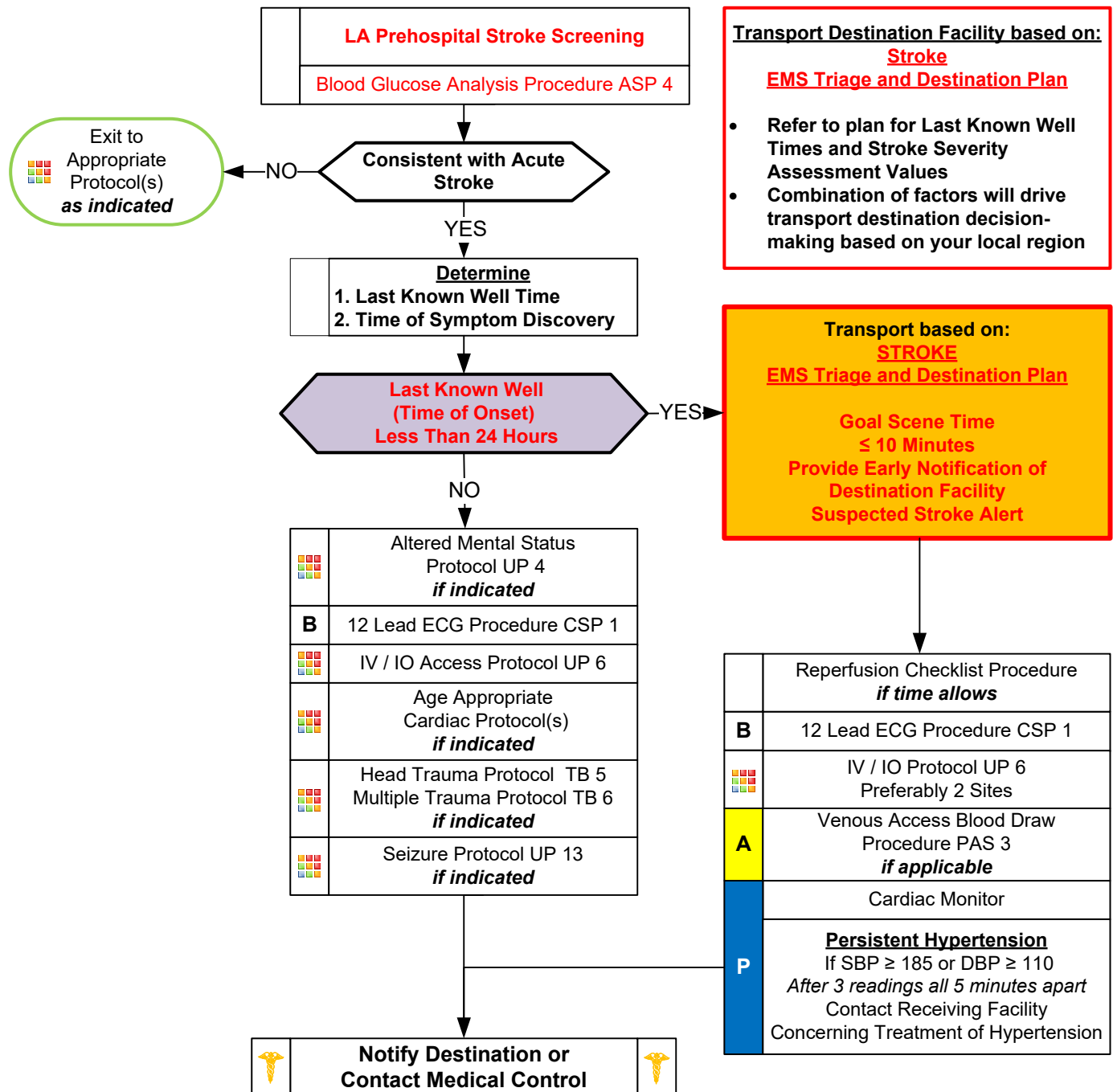
- Previous CVA, TIA's
- Previous cardiac / vascular surgery
- Associated diseases: diabetes, hypertension, CAD
- Atrial fibrillation
- Medications (blood thinners)
- History of trauma
- Sickle Cell Disease
- Immune disorders
- Congenital heart defects
- Maternal infection / hypertension

Signs and Symptoms

- Altered mental status
- Weakness / Paralysis
- Blindness or other sensory loss
- Aphasia / Dysarthria
- Syncope
- Vertigo / Dizziness
- Vomiting
- Headache
- Seizures
- Respiratory pattern change
- Hypertension / hypotension

Differential

- See Altered Mental Status
- TIA (Transient ischemic attack)
- Seizure
- Todd's Paralysis
- Hypoglycemia
- Stroke
 - Thrombotic or Embolic (~85%)
 - Hemorrhagic (~15%)
- Tumor
- Trauma
- Dialysis / Renal Failure





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Pearls

- **Recommended Exam:** EMS Stroke Screen and Severity Assessment, Mental Status, Neuro
- **Items in Red Text** are key performance measures used in the EMS Acute Stroke Care Toolkit.
- Acute Stroke care is evolving rapidly. Time of onset / last seen normal or well may be changed at any time depending on the capabilities and resources of your regional hospitals based on Stroke: EMS Triage and Destination Plan.
- Time of Onset or Last Seen Normal or Well:
 - One of the most important items the pre-hospital provider can obtain, of which all treatment decisions are based.
 - Be precise in gathering data to establish the time of onset and report as an actual time (i.e. 13:47 NOT "about 45 minutes ago.")
 - Without this information patient care may be delayed at facility.
 - Wake up stroke: Time starts when patient last awake or symptom free.
- Time of Symptom Discovery:
 - Time when symptoms of stroke are first noticed by patient or witness.
- Sources of information pertaining to Last Known Well time:
 - You are often in the best position to determine the actual Time of Onset while you have family, friends or caretakers available.
 - Often these sources of information may arrive well after you have delivered the patient to the hospital.
 - Delays in decisions due to lack of information may negatively impact care.
 - Obtain contact information (phone number and name) of witnesses and give to facility providers.
- The **Reperfusion Checklist** should be completed for any suspected stroke patient as time allows.
- If possible place 2 IV sites, preferably above the wrists, and if possible both in the left upper extremity.
- Blood Draw:
 - Many systems utilize EMS venous blood samples. Follow your local policy and procedures.
- The differential listed on the Altered Mental Status Protocol should also be considered.
- Be alert for airway problems (swallowing difficulty, vomiting/aspiration).
- Hypoglycemia can present as a localized neurologic deficit, especially in the elderly.
- Document the Stroke Screen, Stroke Severity Score, and facility notification time in the PCR.
- Agencies may use validated pre-hospital stroke screen of choice.
- Pediatrics:
 - Strokes do occur in children, they are slightly more common in ages < 2, in boys, and in African-Americans.
 - Newborn and infant symptoms consist of seizures, extreme sleepiness, and using only one side of the body.
 - Children and teenagers symptoms may consist of severe headaches, vomiting, sleepiness, dizziness, and/or loss of balance or coordination.