

Suspected Stroke

History

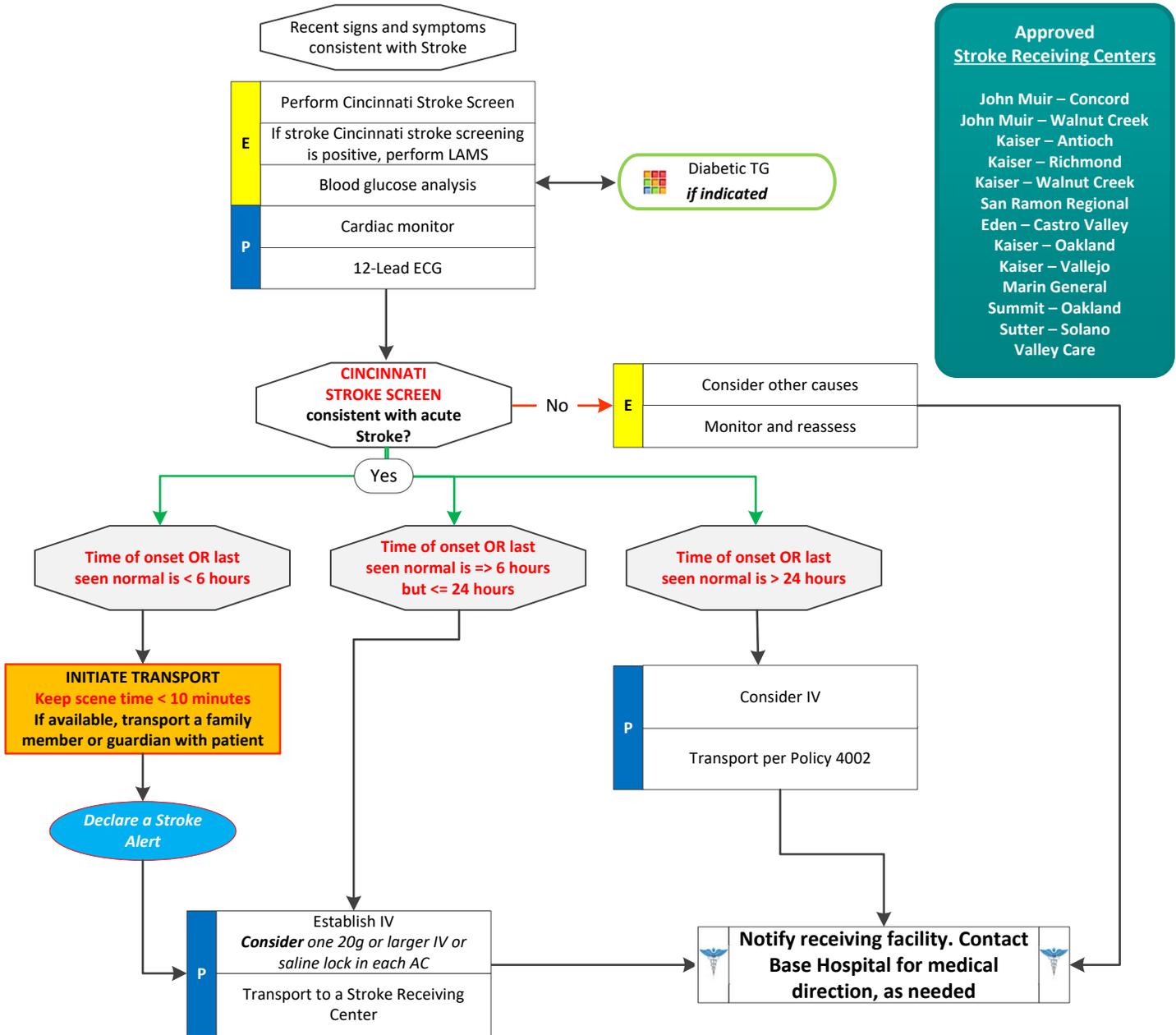
- Previous stroke or TIA
- Previous cardiac or vascular surgery
- Associated diseases (diabetes, hypertension, CAD)
- Atrial fibrillation
- Medications (blood thinners)
- History of trauma

Signs and Symptoms

- Altered mental status
- Weakness or paralysis
- Blindness or other sensory loss
- Aphasia or dysarthria
- Syncope
- Vertigo or dizziness
- Vomiting
- Headache
- Seizure
- Respiratory pattern change
- Hypertension/hypotension

Differential

- See Altered Mental Status
- TIA
- Seizure
- Todd's paralysis
- Hypoglycemia
- Stroke
 - Thrombotic or embolic (~85%)
 - Hemorrhagic (~15%)
- Tumor
- Trauma
- Dialysis or renal failure



Adult Medical Treatment Guidelines



Suspected Stroke

A Stroke Alert is indicated when the Cincinnati Stroke Screen findings are abnormal and onset (time last seen normal) is less than 6 hours from time of patient contact. Report time last seen normal (clock time), the medical record number or name and birthdate, results of the Cincinnati Stroke Screen and the LAMS score, physical exam, and ETA using an approved report format.

If a family member or guardian is available, assure their availability by either transporting them in the ambulance or obtain their name and phone number to allow the receiving physician to contact them. Encourage a family member to be available to speak with hospital staff.

- If any of portion of the Cincinnati Stroke Screen is abnormal and it is a new finding, the stroke screen is positive and may indicate an acute stroke.
- Pre-arrival information is necessary for the receiving hospital to make rapid treatment and potential transfer decisions.
- Because the patient may need to receive thrombolytic therapy, avoid multiple IV attempts.
- Avoid distal placement of IVs, if possible, as this is a preferred access site by Interventionalists.
- When turning over patient care to hospital staff, make sure to include common anticoagulants taken by the patient. Known use of these medications may affect the course of hospital treatment:
 - Warfarin (Coumadin)
 - Heparin
 - Fondaparinux (Arixtra)
 - Enoxaparin (Lovenox)
 - Dabigatran (Pradaxa)
 - Rivaroxaban (Xarelto)
 - Apixaban (Eliquis)

Cincinnati Stroke Screen	
Finding	Interpretation
Facial Droop	Normal: Symmetrical smile or face Abnormal: Asymmetry
Arm Weakness	Normal: Both arms move symmetrically Abnormal: Asymmetrical arm movement
Speech Abnormality	Normal: Correct words; no slurring Abnormal: Slurred or incorrect words

LAMS Assessment		
Finding	Scoring	Interpretation
Facial Droop	Absent - 0 points Present - 1 point	Normal: Equal grip in both hands Abnormal: Unequal grip in one hand
Arm Weakness	Absent - 0 points Drifts - 1 point Falls rapidly - 2 points	Normal: Both arms move symmetrically Abnormal: Asymmetrical arm movement Falls rapidly: some or no effort
Grip	Normal - 0 points Weak - 1 point No grip - 2 points	Normal: Equal grip in both hands Weak: Unequal grip in one hand No grip: no muscle strength or contraction

A LAMS score of ≥ 4 indicates a high likelihood of a LVO stroke

Pearls

- Acute stroke care is evolving rapidly.
- Time last seen normal: One of the most important items that prehospital providers can obtain, on which all treatment decisions are based. Be **very precise** in gathering data to establish the time of onset and report as an actual time (i.e. 13:45 NOT “about 45 minutes ago”). Without this information, patients may not be able to receive thrombolytics at the hospital. For patients with “woke up and noticed stroke symptoms,” time starts when the patient was last awake.
- The differential listed on the Altered Mental Status TG should also be considered.
- Be alert for airway problems (difficulty swallowing, vomiting and aspiration).
- Hypoglycemia can present as a LOCALIZED neurologic deficit, especially in the elderly.
- Document the Cincinnati Stroke Screen and LAMS in the EHR.

