



# Yolo County Emergency Medical Services Agency

## Protocols

Revised Date: May 1, 2025

### ACUTE CEREBROVASCULAR ACCIDENT (STROKE)

Adult

Pediatric

#### Stroke Alert Criteria

**Stroke Alert:** Any abnormal BE-FAST exam findings **AND** a Last Known Well Time (LKWT) < 24 hours

First assess for **any potential stroke** symptoms using **BE-FAST**:

**Balance:** patient performs bilateral finger-to-nose test and bilateral heel-to-shin test (while lying down):

- Normal: performs the 2 tests above normally
- Abnormal: failure of either exam, sudden onset loss of coordination or balance, trouble walking

**Eyes:** evaluate all 4 quadrants of the visual field:

- Normal: no visual changes from patient's baseline
- Abnormal: sudden change to vision, blurry, double vision or any loss of vision

**Facial Droop:** have the patient show their teeth or smile:

- Normal: both sides move equally
- Abnormal: 1 side of the face does not move equally

**Arm Drift:** patient closes both eyes and holds both arms straight out palms up for 10 seconds:

- Normal: both arms stay still or move the same
- Abnormal: 1 arm does not move, pronates, or drifts downward compared to the other

**Speech:** have the patient say, "You can't teach an old dog new tricks":

- Normal: correct words, no slurring
- Abnormal: slurred words, wrong words, or is unable to speak

**Timing** of the symptoms: Ask the last time they DID NOT have the current signs or symptoms

- **Stroke Alert if:** LKWT < 24 hours
  - LKWT: Time last known to be at baseline state of health, without present symptoms. NOT when symptoms were discovered.

**Any abnormal BE-FAST findings AND LKWT < 24 hours:** Complete and document LAMS score assessment:

- LAMS Score of 4 or 5: Consider triage direct Comprehensive Stroke Center (CSC) See Direction.
- LAMS score assessment not indicated if BE-FAST negative OR LKWT >24



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### LAMS Score ( $\geq 4$ indicates a high likelihood of Severe Stroke)

Obvious asymmetry-unilateral weakness with any of the following motor exams:

	Scoring
Facial Droop	Absent = 0 Points Present = 1 Point
Arm Weakness	Absent = 0 Points Drifts = 1 Point Falls Rapidly = 2 Points
Grips	Equal = 0 Points Weak = 1 Point No Grip = 2 Points
<b>Adult</b>	<b>Pediatric</b>

### BLS

Assess vital signs  
 $O_2$ , titrate  $SpO_2 > 94\%$

### BLS Optional Scope

Blood Glucose Check

### ALS

Cardiac Monitor, Waveform EtCO<sub>2</sub>, Vascular Access, 12-Lead ECG (do not delay transport for 12-Lead)

### Consider

- If new onset altered state (GCS < 14) with unidentifiable etiology, consider acute stroke
- Treat hypoglycemia if present
- If not contraindicated, stroke victim with LAMS of 4 or 5 may still benefit from thrombolysis (TNK) when LKWT < 4 hours. See base direction section.
  - Contraindications to TNK:
    - Current anticoagulant therapy; not including ASA
    - History of stroke within the last 3 months
    - History of GI bleeding within the last 3 weeks
    - Any history of intracranial hemorrhage (ever)



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### Direction

- Transport patient with head of bed at approximately 30 degrees (not supine)
- Bring patient's medications to hospital
- Bring family/caregiver. If unable, collect phone number of person who can provide history of events
  - Advise them to immediately answer phone calls from unknown numbers as it may be the treatment team
- Transport to the closest designated Stroke Receiving Center when:
  - LKWT is under 24 hours
  - Patient is BE-FAST positive
  - **LAMS 3 or lower transport to closest Stroke Receiving Center (any)**
  - **LAMS 4 or higher transport to closest Comprehensive Stroke Center (CSC) if:**
    - Travel time is less than 45 minutes
    - Stable airway
    - Systolic blood pressure above 90
- Contact the Stroke Receiving Center with a "**STROKE ALERT**" (preferably from the scene)
  - Include All of the following information:
    - Nature of the symptoms
    - LKWT
    - BE-FAST Stroke Assessment findings
    - LAMS Score- If LAMS of 4 or 5 give "**LAMS ALERT**"
    - Blood glucose
    - Vital signs
    - Treatment provided
- Contact the Base Hospital if there are treatment or transport questions
  - Perform destination consult for consideration of TNK when:
    - LAMS of 4 or 5 and LKWT between 3-4 hours, and
    - Transport to CSC will bypass a closer Stroke Receiving Center

**BE-FAST and LAMS Scores MUST be documented in all PCRs**