

# SUSPECTED STROKE

## ALL PROVIDERS/EMT

- Focused history and physical exam
  - Blood glucose, temperature and oxygen saturation assessment.
  - Keep NPO.
  - Document symptom onset time or time last seen normal.
- Continuous cardiac, blood pressure, ETCO<sub>2</sub>, and pulse oximetry monitoring when available.
- 12 Lead EKG, if available and does not delay transport.
- Treatment Plan**
  - Perform **Cincinnati Stroke Scale (CSS)** to determine if a stroke is likely present (below)
  - If **CSS** positive, perform a **Cincinnati Stroke Triage Assessment Tool (C-STAT)** to determine if a large vessel occlusion (LVO) stroke is likely present (below). An LVO stroke may be best treated with an endovascular thrombectomy (direct clot removal) at a specialized stroke center (TSC or CSC, below).
  - Determine Last Known Well (LKW) time (the time when the patient was last seen without new stroke symptoms)
  - Destination guidelines for stroke patients:
    - If **LVO score (C-STAT) is positive** AND you will arrive at the destination hospital within:
      - 0-4 hours since LKW: Transport to nearest IV tPA-capable hospital (with pre-notification and possible LVO transport protocol activated by hospital).
      - 4-24 hours since LKW: Transport to thrombectomy-capable center if no more than 30 minutes of added transport time over transport to a closer SRF / PSC.
      - > 24 hours since LKW: Transport to closest stroke center (any level of certification)
    - If **LVO scale (C-STAT) is negative**, EMS to transport to closest stroke center (any level of certification).
  - Consider air medical transport to facilitate rapid transport when needed.
  - Acquire the cell phone number of family members/next of kin to provide to clinicians so they can call them and ask questions if needed.
  - Alert the receiving emergency department that you are transporting a suspected stroke patient as soon as you have made a destination decision. Inform them if the patient is “C-STAT” positive and of their presenting symptoms.
- Pediatric Considerations**
  - Children can have strokes too. Some risk factors include; sickle cell disease, congenital and acquired heart disease, head and neck infections, systemic conditions, (e.g. inflammatory bowel disease and autoimmune disorders), head trauma or dehydration.

### ADULT

### PEDIATRIC (<15 years of Age)

NOTE: Pediatric weight-based dosing should not exceed Adult dosing.

#### EMT

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- Apply oxygen to maintain oxygen saturation 90 - 95%
- Evaluate and Document **Cincinnati Stroke Scale (CSS)** during assessment. The scale is positive (a stroke is likely) if ANY of following are abnormal:

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- Evaluate and Document **Cincinnati Stroke Scale (CSS)** during assessment. The scale is positive (a stroke is likely) if ANY of the following are abnormal:

- **Facial Droop**
  - Normal: Both sides of face move equally
  - Abnormal: One side of face does not move as well as the other (or not at all)
- **Arm Drift**
  - Normal: Both arms move equally or not at all
  - Abnormal: One arm does not move, or drifts down compared to the other
- **Speech**
  - Normal: Patient uses correct words with no slurring
  - Abnormal: Slurred or inappropriate words or mute
- ☐ Evaluate and Document **Cincinnati Stroke Triage Assessment Tool (C-STAT)** during assessment. The scale is positive (a LVO stroke is likely) if the score is **2 or greater**:
  - **2 points – Conjugate Gaze Deviation** (eyes deviated to one side and unable to track across the midline)
  - **1 Point – Mental Status: Incorrectly performs both of the following:**
    - Tell correct age or current month
    - AND, is unable to follow at least one of two commands (e.g. close eyes, open or close hand)
  - **1 Point – Weakness: Cannot hold up one arm for 10 seconds before it fall to the bed**

**AEMT**

- ☐ Advanced airway, vascular access and fluid therapy

**PARAMEDIC**

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- ☐ Evaluate and Document **Cincinnati Stroke Triage Assessment Tool (C-STAT)** during assessment. The scale is positive (a LVO stroke is likely) if the score is **2 or greater**:
  - **2 points – Conjugate Gaze Deviation** (eyes deviated to one side and unable to track across the midline)
  - **1 Point – Mental Status: Incorrectly performs both of the following:**
    - Tell correct age or current month, if able by age and ability.
    - AND, is unable to follow at least one of two commands (e.g. close eyes, open or close hand)
  - **1 Point – Weakness: Cannot hold up one arm for 10 seconds before it falls to the bed.**

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