

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, ETCO₂, 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). (MVH, UVH, TRH, AFH & Mountain Point)
 - 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. (UVH only)
 - > 24 hours since LKW: Transport to closest stroke center (any level of certification)
 - **If LVO score (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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- ☐ Evaluate and Document **Cincinnati Stroke Scale (CSS)** during assessment. The scale is

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positive (a stroke is likely) if ANY of 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 a combination 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 falls 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 a combination 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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PARAMEDIC

Proposed Utah EMS Destination Protocol for Patients Suspected to Have Stroke

