



REGION 11 CHICAGO EMS SYSTEM POLICY	Title: Transport of Patients with Suspected Acute Stroke
	Section: Transportation
	Approved: EMS Medical Directors Consortium
	Effective: November 28, 2018

TRANSPORT OF PATIENTS WITH SUSPECTED ACUTE STROKE

I. Patients with stroke symptoms ≤ 24 hours in duration or of unknown time of last known normal shall be assessed using the Cincinnati Stroke Scale (CSS – Facial Droop, Arm Drift, Abnormal Speech). Screening for additional stroke syndromes shall be performed using the Finger-to-Nose (FTN) test. A severe stroke screen using the 3 Item Stroke Scale (3I-SS) shall subsequently be performed on all patients with an abnormal CSS (one or more abnormal CSS elements) or abnormal FTN test.

II. Patients with a negative or unobtainable CSS, FTN or 3I-SS may be transported to a Primary Stroke Center (PSC) or Comprehensive Stroke Center (CSC) if acute stroke is suspected by the Base Station or Paramedics.

ECRNs should seek consultation with an ECP for any situation in which there is a question as to the best receiving hospital for a patient with possible stroke symptoms.

III. Patients who have a 3I-SS score of ≥ 4 and have a known last normal time of ≤ 6 hours should be transported to the closest CSC. Only if the closest CSC is > 15 minutes travel time beyond the closest PSC, the patient should be transported to the closest PSC.

Patients who have a 3I-SS score of ≥ 4 and have a known last normal time of 6-24 hours or have an unknown last known normal time should be transported to the closest stroke center (PSC or CSC).

Patients who have a 3I-SS score of < 4 and have a known last normal time of < 24 hours or have an unknown last known normal time should be transported to the closest stroke center (PSC or CSC).

IV. In the event the closest appropriate stroke center is on ALS bypass, the "T + 5 minute" rule should be followed, i.e. if the transport time to the next closest stroke center is greater than an additional 5 minutes, the patient should be transported to the closest appropriate stroke center (PSC or CSC) on ALS bypass (see Notification and Monitoring of Hospital Resource Limitation(s)/Ambulance Bypass policy, Section VI.)

Patients with suspected acute stroke should not be transported to a stroke center which has notified Region 11 Base Stations regarding a temporary lack of CT scanners; they should instead be transported to the next closest appropriate stroke center.

Patients with suspected acute stroke can be diverted to the closest comprehensive emergency department if the patient is deemed too unstable for the longer transport to a stroke center (e.g. inability to oxygenate or ventilate the patient).



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Attachments:

1. Summary of Acute Stroke Field Triage Criteria
2. List of Primary & Comprehensive Stroke Centers



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Attachment 1

ACUTE STROKE FIELD TRIAGE CRITERIA

- I. Patients with stroke symptoms ≤ 24 hours in duration or an unknown last known normal time shall be assessed with the Cincinnati Stroke Scale (CSS) and the Finger-to-Nose (FTN) test.
- II. Patients with an abnormality in one or more items of the CSS or FTN shall be subsequently assessed with the 3 Item Stroke Scale (3I-SS).
- III. Patients who have a 3I-SS score of ≥ 4 and have a known last normal time of ≤ 6 hours shall be transported to the closest Comprehensive Stroke Center (CSC). Only if the closest CSC is >15 minutes travel time beyond the closest Primary Stroke Center (PSC), should the patient be transported to the closest PSC.
- IV. Patients who have a 3I-SS score of ≥ 4 and have a known last normal time 6-24 hours or have an unknown last known normal time should be transported to the closest stroke center (PSC or CSC).
- V. Patients who have a score of <4 on the 3I-SS and have a known last known normal time of < 24 hours or have an unknown last known normal time should be transported to the closest stroke center (PSC or CSC).
- VI. Patients with a negative or unobtainable CSS, FTN, or 3I-SS may be transported to a PSC or CSC if acute stroke or acute severe stroke is suspected by the Base Station or Paramedics.
- VII. **Cincinnati Stroke Scale (CSS):**
 - A. Positive CSS = One or more of the items are abnormal:
 1. Facial Droop - Have patient show teeth or smile
Abnormal = one side does not move as the other
 2. Arm Drift - Have patient close eyes and hold arms out for 10 seconds with palms up
Abnormal = one arm does not move or drifts down
 3. Abnormal Speech - Have patient say, "You can't teach an old dog new tricks"
Abnormal = patient slurs words, uses wrong words or is unable to speak
- V. **Finger-to-Nose (FTN):**
 - A. The (FTN) assessment is a screen for posterior circulation strokes that affect the balance center in the brain.



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- B. Have the patient touch their nose and then the provider's finger repeatedly, with each hand. A normal exam is one where the patient can smoothly touch their nose and the provider's finger.
- C. An abnormal exam is one where the patient demonstrates dysmetria (unable to touch finger following a straight path) on either side or both.

VI. 3-Item Stroke Scale (3I-SS):

A. The 3I-SS is scored 0-6. Assign a score from 0 to 2 for each of the three parts of the assessment. Add each section for the total score:

1. Level of Consciousness (AVPU)

- 0 = Alert
- 1 = Arousable to voice only
- 2 = Arousable to noxious stimuli only, or unresponsive

2. Gaze Preference

- 0 = Normal eye movements
- 1 = Prefers to look to one side, but can move eyes to both sides
- 2 = Eyes are fixed in one direction

3. Motor Function

- 0 = Normal strength in arms and legs
- 1 = Can lift arm or leg, but cannot hold arm/leg up for 10 seconds
- 2 = None or minimal movement of arm or leg



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Attachment 2

PRIMARY & COMPREHENSIVE STROKE CENTERS

As of February 8, 2021

PRIMARY STROKE CENTERS (PSC)

Community First Medical Center
Holy Cross Hospital
Humboldt Park Health (formerly Norwegian American Hospital)
John H. Stroger, Jr. Hospital of Cook County
Little Company of Mary Hospital and Health Care Centers (OSF HealthCare)
MacNeal Hospital
Mount Sinai Hospital
Saint Anthony Hospital
Saint Francis Hospital - Evanston (AMITA Health)
Saint Joseph Hospital - Chicago (AMITA Health)
Saints Mary & Elizabeth Medical Center - St. Mary Campus (AMITA Health)
Swedish Hospital (part of NorthShore)
Trinity Hospital (Advocate)
Weiss Memorial Hospital
West Suburban Medical Center

COMPREHENSIVE STROKE CENTERS (CSC)

Christ Medical Center (Advocate)
Illinois Masonic Medical Center (Advocate)
Loyola University Medical Center
Lutheran General Hospital (Advocate)
Northwestern Memorial Hospital
Resurrection Medical Center - Chicago (AMITA Health)
Rush University Medical Center
University of Chicago Medical Center
University of Illinois Hospital and Health Sciences System