

Many of our stroke patients can be successfully treated if this treatment is provided within a 24-hour window. The most critical element in subsequent treatment is the accurate documentation of the onset of symptoms. Once established, begin appropriate field treatment and rapid transport to an appropriate Stroke Center per the Hospital Capability Chart [Appendix 2.1](#)

Adult Care

EMR/BLS

1. Initial Assessment/Care [Protocol 1](#).
2. As a preliminary assessment, use the mnemonic BE-FAST as a screening tool to evaluate the patient for signs and symptoms of a stroke.
 - a. (B) Balance – Sudden loss of balance
 - b. (E) Eyes- Sudden loss of vision or double vision
 - c. (F) Face – Face or smile droops on one side
 - d. (A) Arm- Sudden weakness in arm or leg
 - e. (S) Speech – Unable to repeat a simple sentence, or slurred words
 - f. (T) Time- Onset of symptoms
3. Establish as accurately as possible when symptoms first occurred. Use family members and establish time markers as to when patient was last seen without symptoms.
4. Request that the person who last saw patient without symptoms accompanies the patient and/or provide a contact number.
5. Patients with positive findings in the BE-FAST exam and/or meeting any of the below criteria requires completion of the **FAST-ED Stroke Assessment** which will be documented on the patient care report. **These patients will be transported ALS to the closest Primary Stroke Center (PSC) or Comprehensive Stroke Center (CSC) even if the symptoms resolved prior to Fire Rescue arrival and/or the FAST-ED Stroke assessment score is 0.**
 - a. Facial droop.
 - b. Slurred or abnormal speech.
 - c. Sudden onset of weakness, acute vision changes, or loss of use of an extremity.
 - d. Unilateral numbness or tingling of an extremity or face.
 - e. Headache associated with:
 1. Complaint of the “worst headache ever”
 2. Worsens with exertion
 3. History of cancer or immunosuppression/immunocompromise



4. Seizures

6. If no respiratory distress is present and SaO₂ is less than 94%, provide supplemental O₂ at 2-4 LPM via nasal cannula.
7. Perform a blood glucose test. Avoid glucose containing substances unless hypoglycemia (glucose less than **60** mg/dL) is confirmed by a glucometer reading.

A “**Stroke Alert**” along with the “**FAST-ED Score**” and **destination** will be transmitted to the Fire Alarm Office (FAO) immediately upon determining that a patient meets Stroke Alert Criteria. The FAO will notify the appropriate receiving hospital via telephone. This will not replace the need for the unit OIC to contact the receiving facility as soon as possible to relay pertinent patient information.

ALS

8. Initiate transport to closest Primary Stroke Center (PSC) or Comprehensive Stroke Center (CSC) as determined by the **FAST-ED Stroke Assessment**.
9. Perform a 12-Lead ECG en-route to ED with continuous monitoring of the ECG for any changes in the rhythm until transfer of care is completed.
10. DO NOT delay transport to secure IV access.
11. If present, treat nausea and/or vomiting with **Zofran 4 mg SL** (Do not administer to pregnant females) **Medication 33**.

MCP

12. DO NOT attempt to lower blood pressure. If BP is > 230/115 contact Medical Control for direction.



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FOAMD EMS **STROKE ALERT**

Field Assessment Stroke Triage for Emergency Destination (FAST-ED)

(Circle value that apply)

FAST-ED SCORE

Facial Palsy (Facial droop): Have patient smile or show teeth (look for asymmetry)

Normal: Both sides of face move equally or not at all **0**
Abnormal: One side of face droops (or is clearly asymmetric) **1**

Arm Weakness (Arm drift): Have patient close eyes and extend arms palms up

Normal: Both arms remain up > 10 seconds or slowly drifts down equally **0**
Mild: One arm drifts down in < 10 seconds with some effort against gravity **1**
Moderate/Severe: One arm falls rapidly against gravity or no movement at all **2**

Speech Changes (Expressive aphasia): Have patient repeat the following words
 “Mama” “Huckleberry” and “Baseball Player”

Normal: Speech content normal AND repeats 2-3 items correctly **0**
Abnormal: Speech content clearly abnormal OR repeats 0-1 items correctly **1**

Speech Changes (Receptive aphasia): Ask patient “show me two fingers” (no visual clues)

Normal: Patient shows two fingers **0**
Abnormal: Patient does not understand or does not show two fingers **1**

Eye Deviation (Gaze deviation): Ask the patient to follow your finger as you move it from right to left and back from left to right

Normal: No deviation, eyes move to both sides equally **0**
Gaze preference: Patient has clear difficulty when looking to one side (left or right) **1**
Forced deviation: Eyes are deviated to one side and do not move **2**

Denial/Neglect (Anosognosia): Ask patient “Are you weak anywhere”

Normal: Patient recognizes weak side or has no weakness **0**
Abnormal: Patient does not recognize their weak side **1**

Denial/Neglect (Asomatognosia): Show the patient his/her weak arm and ask “Whose arm is this?”

Normal: Patient recognizes his/her weak arm or no weakness at all **0**
Abnormal: Patient does not recognize his/her weak arm **1**

TOTAL SCORE _____

0 = NOT A STROKE ALERT (STOP) 1-9 = POSSIBLE “STROKE ALERT” (Continue to Section 2)



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FOAMD EMS **STROKE ALERT**

Section 2 (Exclusion Criteria)

Baseline GCS (Prior to event) _____	<p>≤ 12: Patient IS NOT a stroke alert, Transport to closest Primary or Comprehensive stroke center</p> <p>> 12 or unknown: Continue</p>
Time since last seen normal _____	<p>> 24 hours: Patient IS NOT a stroke alert, Transport to closest Comprehensive stroke center</p> <p>≤ 24 hours or unknown: Continue</p>
Blood Glucose Level _____	<p>< 60 and symptoms improve with D50: Patient IS NOT a stroke alert</p> <p>< 60 and symptoms do not improve with D50: Continue to Section 3</p> <p>≥ 60: Continue to Section 3</p>

Section 3 (Destination Determination)

(Check all that apply)

- Estimated arrival at Emergency Department is greater than 3.5 hours since time last seen normal
- Witnessed seizure at onset.
- Patient taking any blood thinner except aspirin. [Example: Coumadin (warfarin), Plavix (Clopidogrel bisulphate), Pradaxa (dabigatran), Brilinta (ticagrelor), Xarelto (rivaroxaban), Lovenox (enoxaparin), Fragmin (dalteparin)]
- Recent GI or urinary tract bleeding within the last 21 days.
- Recent surgery or invasive procedure within the last 14 days
- Head trauma, spinal surgery or previous stroke within the last 90 days.
- Woman of child bearing age who has a positive pregnancy test
- Known Intracranial pathology (Tumor, Aneurysm, ArterioVenous Malformation (AVM) or Intracranial Hemorrhage)
- Sudden onset of worst headache ever

Are any items checked in this section?

YES: “STROKE ALERT” TRANSPORT TO CLOSEST COMPREHENSIVE STROKE CENTER

NO: FAST-ED SCORE 1-3---“STROKE ALERT”-TRANSPORT TO CLOSEST PRIMARY OR COMPREHENSIVE STROKE CENTER

FAST-ED SCORE 4-9---“STROKE ALERT”-TRANSPORT TO CLOSEST COMPREHENSIVE STROKE CENTER

****All Stroke Alert notifications will include the FAST-ED Score. The Comprehensive Stroke Center will activate the Cath Lab and Stroke Team upon notification of a FAST-ED score ≥ 6 ****