



Introduction

Designated stroke centers are capable of thrombolysing acute thrombotic stroke patients. EMS is integral in assuring that eligible patients arrive at stroke centers and receive thrombolytics within four and one half hours of symptom onset. To achieve these goals facilities might have to be bypassed in favor of stroke centers.

Prior to initiating the acute stroke management guideline, Regional Health Authorities must negotiate with a stroke center regarding acceptance of the patient and ensure that home facilities will accept these patients back should thrombolysis not take place.

Only personnel that are trained and certified in the use of a Glucometer are eligible to use this guideline.

- a. Refer to appropriate Emergency Treatment Guideline for a complete description and/or application.
- b. Signs and symptoms of a possible stroke include:
 - Weakness, numbness or tingling
 - Vision problems
 - Trouble speaking
 - Severe headache in presence of reduced level of consciousness
- c. The Cincinnati Pre-Hospital Stroke Scale includes the following components:

Facial Droop (have the patient show teeth or smile):

- Normal: both side of the face move equally well
- Abnormal: one side of the face does not move as well as the other side

Arm Drift (patient closes eyes and holds both arms out):

- Normal: both arms move the same or both arms do not move at all (other findings, such as pronator grip may be helpful)
- Abnormal: one arm does not move or one arm drifts down compared with the other

Speech (have the patient say a statement such as "You can't teach an old dog new tricks."):

- Normal: patient uses correct words with no slurring
- Abnormal: patient slurs words, uses inappropriate words, or is unable to speak

An abnormality in any single item of the Cincinnati Stroke Scale (facial droop, arm drift, speech) identifies the patient is potentially having a stroke if there are no other obvious causes for the neurological deficit(s).

- d. Established time of symptom onset or when patient was last seen healthy **and** estimated time of arrival to stroke center emergency room **must be** three and one half hours or less.
- e. On scene times should be kept to a minimum with transport to the nearest appropriate health care facility. Monitor, assess and treat en route. Notify and report patient status and all findings to the receiving facility staff and document all actions on the patient care report including the decision to initiate load and go (if applicable).
- f. Monitor and treat the patient en route per appropriate Emergency Treatment Guideline(s). Other life threatening complications should be treated if possible and may need to be attended to while en route.
- g. Stroke Mimics: Acute stroke can be mimicked by a number of conditions, some of which can be screened for in the prehospital setting:
 - Hypoglycemia- Hypoglycemia can mimic a stroke, treatment of underlying hypoglycemia frequently resolves symptoms rapidly.
 - Todd's Paralysis: This condition is a temporary paralysis, that can look similar to stroke that occurs following a seizure. An acute onset of neurological deficits followed by a seizure is **not** Todd's Paralysis and should be treated as an acute stroke. If the time is uncertain transport to stroke center.
 - Trauma: Trauma preceding the neurological deficit is more likely due to trauma than an acute stroke, and should be treated with a trauma protocol. Stroke patients often experience falls and sustain injury in the acute phase. If uncertain as to the timing of trauma and neurological deficits transport to stroke center provided patients is otherwise stable.
 - Other Stroke mimics that cannot be determined in the prehospital setting include migraine, with neurological signs, brain tumor, meningitis/encephalitis, hypertensive encephalopathy.