

Education/Pearls

Strokes cause a variety of clinical findings, from hemiparesis to obtundation. The severity of symptoms often relates to the size of infarction of brain tissue. Consider other causes of altered mental status in patients with vague symptoms or globally decreased mental status. Treatment is time-sensitive and includes thrombolytics or supportive care.

- Obtaining the last-known well time is extremely important and helps hospital providers administer time-sensitive thrombolytics. EMS often has the advantage of direct communication with family or other witnesses. Please attempt to obtain last-known well time and a list of important medications without causing significantly delays in transport.
- If able, obtain a phone number of a family member / friend for the stroke team to contact.
- Patients with acute stroke or altered mental status are at risk of aspiration due to their neurologic deficit. Avoid administering oral medications or other food/liquid by mouth in acute stroke patients.
- Pediatric patients with concern for stroke should be taken to the nearest pediatric capable center. While strokes in children are extremely rare, they do occur and require prompt intervention.

Interpretation: if any of these 3 signs is abnormal, the probability of a stroke is 72%

Arm Drift The patient closes eyes and extends both arms straight out, with palms up for 10 seconds	 Facial Droop The patient shows teeth or smile Normal – both sides of the face move equally Abnormal – one side of the face does not move as well as the other side Abnormal Speech The patient repeats "you can't teach an old dog new tricks"
 Normal – both arms move the same or both arms do not move at all (other findings, such as pronator drift, may be helpful) 	 Normal – patient uses correct words with no slurring
 Abnormal – one arm does not move or one arm drifts downward 	 Abnormal – patient slurs words, uses the wrong words, or is unable to speak
Provider holds 2 fingers to the right and one to the (left and right visual fields) Can patient correctly identify the number of fingers Ask the patient to look left and right one or more ti Do both eyes move at the same speed and direction	mes. (Double vision, equal eye movements)
Aphasia Show the patient 2 common objects (pen, shirt) and ask patient to verbally identify. Can patient verbally correctly identify both objects? Yes	
Neglect Ask the patient to follow your finger with only their Can patient track your finger?	eyes form left to right. (forced gaze, inability to track)
Ask the patient to close their eyes with arms by their side. Begin brushing patient's forearms simultaneously and ask "which arm am I touching?" (equal arm sensation)	
Can patient feel both arms at the same time?	Yes No
Observe if the gaze turns to one side or does not react to stimuli on one side. Can patient look, move, and react to stimuli on both sides? Yes No	
If No to any of the above: Notify receiving facility of "stroke alert" with positive VAN	