



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.
- 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 • Normal – both arms move the same or both arms do not move at all (other findings, such as pronator drift, may be helpful) • Abnormal – one arm does not move or one arm drifts downward	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 – patient uses correct words with no slurring • Abnormal – patient slurs words, uses the wrong words, or is unable to speak

Vision Provider holds 2 fingers to the right and one to the left while the patient stares at the providers nose/mouth (left and right visual fields) Can patient correctly identify the number of fingers on both sides? ☐ Yes ☐ No
Ask the patient to look left and right one or more times. (Double vision, equal eye movements) Do both eyes move at the same speed and direction? ☐ Yes ☐ No
Aphasia Show the patient 2 common objects (pen, shirt) and ask patient to verbally identify. Can patient verbally correctly identify both objects? ☐ Yes ☐ No
Neglect Ask the patient to follow your finger with only their eyes from left to right. (forced gaze, inability to track) Can patient track your finger? ☐ Yes ☐ No
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. (does not seem to face someone, or does not seem to hear from 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