

# VAN

# VISION APHASIA NEGLECT

## PATIENT REPORT TO ED – KEY ITEMS<sup>1</sup>

- Patients' age, sex, weight
- Mechanism of injury or medical problem
- Chief complaint with brief history of present illness
- Associated symptoms
- Past medical history
- Vital signs
- Level of consciousness
- General appearance, distress, cardiac rhythm
- Interventions by EMS (IV, medication administration)
- ETA (the more critical the patient, the earlier you need to notify the receiving facility)

Always follow your state, local or EMS agency/medical directors' protocols.

## EMS VAN Stroke Scale - Vision, Aphasia, Neglect emergent large vessel occlusion screening tool\*

<b>How weak is the patient?</b> Raise both arms up	<input type="checkbox"/> Mild (minor drift) <input type="checkbox"/> Moderate (severe drift—touches or nearly touches ground) <input type="checkbox"/> Severe (flaccid or no antigravity) <input type="checkbox"/> Patient shows no weakness. Patient is VAN negative	(exceptions are confused or comatose patients with dizziness, focal findings, or no reason for their altered mental status then basilar artery thrombus must be considered; CTA is warranted)
<b>Visual Disturbance</b>	<input type="checkbox"/> Field cut (which side) (4 quadrants) <input type="checkbox"/> Double vision (ask patient to look to right then left; evaluate for uneven eyes) <input type="checkbox"/> Blind new onset <input type="checkbox"/> None	
<b>Aphasia</b>	<input type="checkbox"/> Expressive (inability to speak or paraphasic errors); do not count slurring of words (repeat and name 2 objects) <input type="checkbox"/> Receptive (not understanding or following commands) (close eyes, make fist) <input type="checkbox"/> Mixed <input type="checkbox"/> None	
<b>Neglect</b>	<input type="checkbox"/> Forced gaze or inability to track to one side <input type="checkbox"/> Unable to feel both sides at the same time, or unable to identify own arm <input type="checkbox"/> Ignoring one side <input type="checkbox"/> None	

Patient must have weakness plus one or all of the V, A, or N to be VAN positive. VAN positive patients had 100% sensitivity, 90% specificity, positive predictive value 74%, and negative predictive value 100% for detecting large vessel occlusion. CTA, CT angiography; VAN, vision, aphasia, and neglect.

\* Teleb MS, Ver Hage A, Carter J, et al. J NeuroIntervent Surg 2017;9:122–126.

## ADDITIONAL INFORMATION

### PRE-HOSPITAL MANAGEMENT OF AN ACUTE STROKE<sup>2</sup>

- Assess the airway, breathing and circulatory status
- Check blood glucose
- Obtain full set of vital signs
- Review patient medications
- Perform 12 lead ECG
- Establish IV access

### ACUTE ISCHEMIC STROKE – IV t-PA CONTRAINDICATIONS<sup>3</sup>

- Active internal bleeding
- Recent intracranial or intraspinal surgery or serious head trauma
- Intracranial conditions that may increase the risk of bleeding
- Bleeding diathesis
- Current severe uncontrolled hypertension
- Current intracranial hemorrhage
- Subarachnoid hemorrhage
- History of recent stroke

1 Campbell S, Robinson MR. Paramedic Lab Manual. Upper Saddle River, N.J.: Pearson Prentice Hall; 2005.

2 Maggione, W. A. (2012). 'Time is Brain' in Prehospital Stroke Treatment. Journal of Emergency Medical Services, 1-9.

3 Genentech USA, Inc. Highlights of prescribing information, Actovase (alteplase for injection, for intravenous use). [https://www.gene.com/download/pdf/actovase\\_prescribing.pdf](https://www.gene.com/download/pdf/actovase_prescribing.pdf) Accessed on April 17, 2018.

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