



## A STROKE ASSESSMENT TOOL FOR EMS

EMS RACE Stroke Scale - Rapid Arterial Occlusion Evaluation Scale, used to predict large cerebral arterial occlusions.\*

ITEM	INSTRUCTION		RACE Score
<b>FACIAL PALSY</b>	Ask the patient to show their teeth	<b>ABSENT</b> (symmetrical movement) <b>MILD</b> (slightly asymmetrical) <b>MODERATE TO SEVERE</b> (completely asymmetrical)	0 1 2
<b>ARM MOTOR FUNCTION</b>	Extending the arm of the patient 90 degrees (if sitting) of 45 degrees (if supine)	<b>NORMAL TO MILD</b> (limb upheld more than 10 seconds) <b>MODERATE</b> (limb upheld less than 10 seconds) <b>SEVERE</b> (patient unable to raise arm against gravity)	0 1 2
<b>LEG MOTOR FUNCTION</b>	Extending the leg of the patient 30 degrees (if supine)	<b>NORMAL TO MILD</b> (limb upheld more than 5 seconds) <b>MODERATE</b> (limb upheld less than 5 seconds) <b>SEVERE</b> (patient unable to raise leg against gravity)	0 1 2
<b>HEAD AND GAZE DEVIATION</b>	Observe eyes and cephalic deviation to one side	<b>ABSENT</b> (eye movements to both sides were possible and no cephalic deviation was observed) <b>PRESENT</b> (eyes and cephalic deviation to one side was observed)	0 1
<b>APHASIA</b> If right hemiparesis	Ask the patient two verbal orders: - "close your eyes" - "make a fist"	<b>NORMAL</b> (performs both tasks correctly) <b>MODERATE</b> (performs one task correctly) <b>SEVERE</b> (performs neither task)	0 1 2
<b>AGNOSIA</b> If left hemiparesis	Asking: - "Who's arm is this?" while showing him/her the paretic arm (asomatognosia) - "Can you move your arm?" (anosognosia)	<b>NORMAL</b> (no asomatognosia nor anosognosia) <b>MODERATE</b> (asomatognosia or anosognosia) <b>SEVERE</b> (both asomatognosia and anosognosia)	0 1 2
<p>* Chart adapted from Perez de la Ossa N, Carrera D, Gorchs M, et al. Design and validation of a prehospital stroke scale to predict large arterial occlusion: the rapid arterial occlusion evaluation scale. <i>Stroke; a journal of cerebral circulation.</i> Jan 2014;45(1):87-91.</p>			<p><b>RACE SCALE TOTAL:</b> Any score above a "0" is a "Stroke Alert"</p>

### ADDITIONAL INFORMATION

#### PRE-HOSPITAL MANAGEMENT OF AN ACUTE STROKE<sup>1</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>2</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

### PATIENT REPORT TO ED - KEY ITEMS<sup>3</sup>

- Patients' age, sex, weight
- Mechanism of injury or medical problem
- Chief complaint with brief history of present illness
- 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)

\*\* MECHANICAL THROMBECTOMY IS AN OPTION FOR ALL STROKE PATIENTS UNTIL PROVEN OTHERWISE\*\*  
Always follow your state, local or EMS agency/medical directors' protocols.

<sup>1</sup> Maggiore, W.A. (2012). 'Time is Brain' in Prehospital Stroke Treatment. *Journal of Emergency Medical Services*, 1-9.

<sup>2</sup> Genentech USA, Inc. Highlights of prescribing information, Activase (alteplase for injection, for intravenous use), [http://www.gene.com/download/pdf/activase\\_prescribing.pdf](http://www.gene.com/download/pdf/activase_prescribing.pdf). Accessed on February 15, 2016.

<sup>3</sup> Campbell S, Robinson MR. Paramedic Lab Manual. Upper Saddle River, N.J.: Pearson Prentice Hall; 2005.

#### LEARN MORE

To learn more and obtain free EMS resources from the American Heart Association - visit [www.heart.org/nebraskamissionlifeline](http://www.heart.org/nebraskamissionlifeline)

