



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
FACIAL PALSY	Ask the patient to show their teeth	ABSENT (symmetrical movement) MILD (slightly asymmetrical) MODERATE TO SEVERE (completely asymmetrical)	0 1 2
ARM MOTOR FUNCTION	Extending the arm of the patient 90 degrees (if sitting) of 45 degrees (if supine)	NORMAL TO MILD (limb upheld more than 10 seconds) MODERATE (limb upheld less than 10 seconds) SEVERE (patient unable to raise arm against gravity)	0 1 2
LEG MOTOR FUNCTION	Extending the leg of the patient 30 degrees (if supine)	NORMAL TO MILD (limb upheld more than 5 seconds) MODERATE (limb upheld less than 5 seconds) SEVERE (patient unable to raise leg against gravity)	0 1 2
HEAD AND GAZE DEVIATION	Observe eyes and cephalic deviation to one side	ABSENT (eye movements to both sides were possible and no cephalic deviation was observed) PRESENT (eyes and cephalic deviation to one side was observed)	0 1
APHASIA If right hemiparesis	Ask the patient two verbal orders: - "close your eyes" - "make a fist"	NORMAL (performs both tasks correctly) MODERATE (performs one task correctly) SEVERE (performs neither task)	0 1 2
AGNOSIA If left hemiparesis	Asking: - "Who's arm is this?" while showing him/her the paretic arm (asomatognosia) - "Can you move your arm?" (anosognosia)	NORMAL (no asomatognosia nor anosognosia) MODERATE (asomatognosia or anosognosia) SEVERE (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>RACE SCALE TOTAL: Any score above a "0" is a "Stroke Alert"</p>

ADDITIONAL INFORMATION

PRE-HOSPITAL MANAGEMENT OF AN ACUTE STROKE¹

- 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 CONTRAINDICATIONS²

- 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 ITEMS³

- 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.

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

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

³ 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

