



Suspected Stroke

History

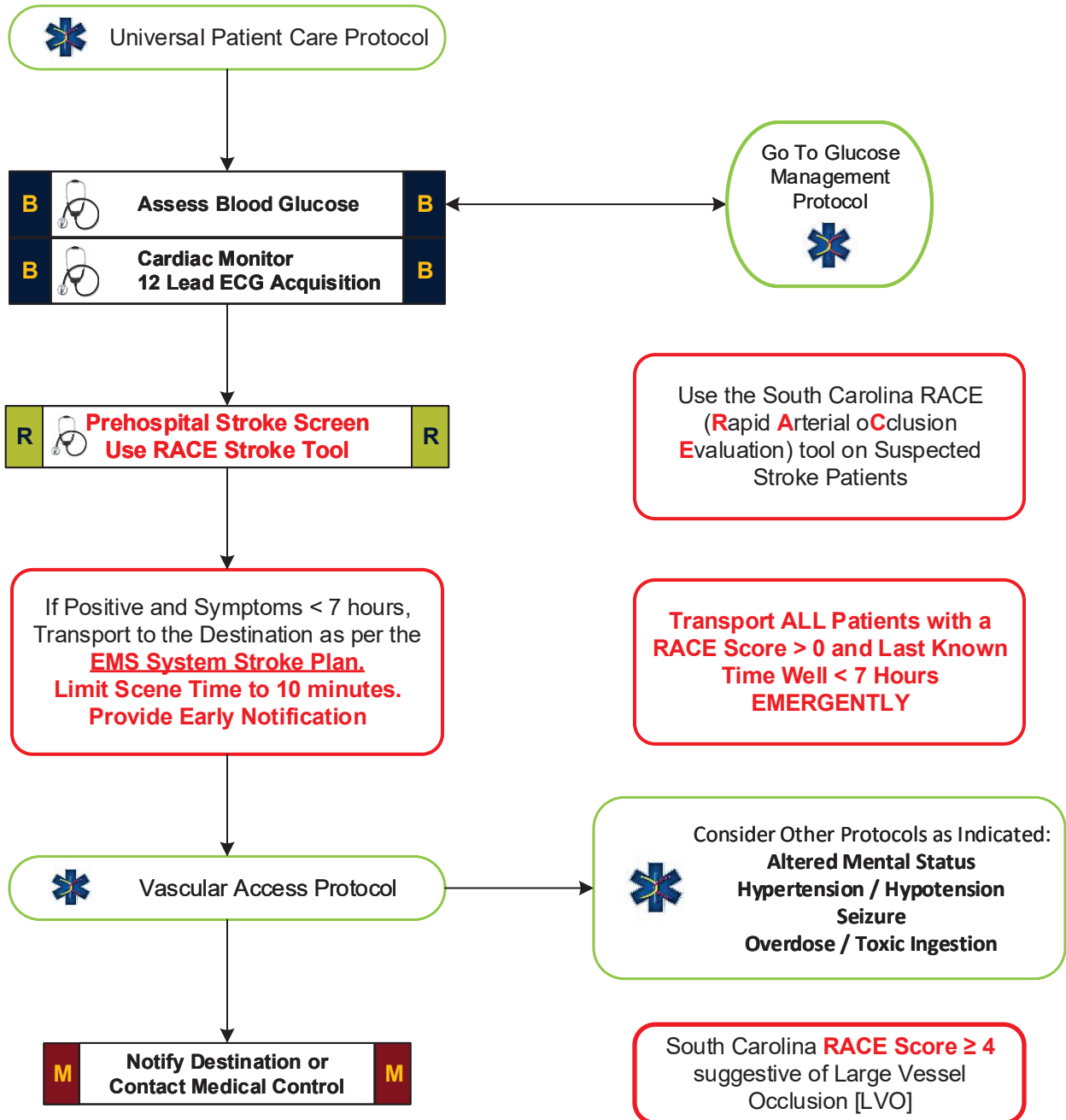
- Prior Stroke / TIA
- Previous cardiac / vascular surgery
- Associated diseases: diabetes, hypertension, CAD
- Atrial fibrillation
- Medications (blood thinners)
- History of trauma

Signs and Symptoms

- Altered mental status
- Weakness / Paralysis
- Blindness or other sensory loss
- Aphasia / Dysarthria
- Syncope
- Vertigo / Dizziness
- Vomiting
- Headache
- Seizures
- Respiratory pattern change
- Hypertension / hypotension

Differential

- **See Altered Mental Status**
- **TIA (Transient ischemic attack)**
- **Seizure**
- **Hypoglycemia**
- **Tumor**
- **Trauma**





Suspected Stroke

Pearls

- **Recommended Exam: Mental Status, HEENT, Heart, Lungs, Abdomen, Extremities, Neuro**
- **Items in Red Text are key performance measures used in the EMS Acute Stroke Care Toolkit**
- **RACE is based on Acute Non-Traumatic Symptoms ONLY.**
- **ALL RACE SCORES > 0 are indicative of Stroke.**
- **RACE SCORE \geq 4 is INDICATIVE of Large Vessel Occlusion (LVO) Stroke that may benefit from interventional procedures.**
- **The Reperfusion Checklist should be completed for any suspected stroke patient. With a duration of symptoms of less than 7 hours, scene times should be limited to 10 minutes, early destination notification/activation should be provided and transport times should be minimized based on the EMS System Stroke Plan.**
- **Onset of symptoms** is defined as the last witnessed time the patient was symptom free (i.e. awakening with stroke symptoms would be defined as an onset time of the previous night when patient was symptom free)
- The differential listed on the Altered Mental Status Protocol should also be considered.
- Elevated blood pressure is commonly present with stroke. Consider treatment per Hypertensive Protocol.
- Be alert for airway problems (swallowing difficulty, vomiting/aspiration).
- Hypoglycemia can present as a localized neurologic deficit.
- Document the Stroke Screen results in the PCR.
- Document the 12 Lead ECG as a procedure in the PCR.



Suspected Stroke



SC EMS R. A. C. E. Stroke Scale Rapid Arterial Occlusion Evaluation Scale



ITEM	Instruction	RESULT	SCORE
Facial Palsy	Ask Patient to show their teeth (Smile)	Absent (symmetrical movement)	0
		Mild (slightly asymmetrical)	1
		Moderate to Severe (completely asymmetrical)	2
Arm Motor Function	Extending the arm of the patient 90° (if sitting) or 45° (if supine) palms up	Normal to Mild (limb upheld more than 10 seconds)	0
		Moderate (limb upheld less than 10 seconds)	1
		Severe (patient unable to raise arm against gravity)	2
Leg Motor Function	Extending the leg of the patient 30° (in supine) One Leg at a time	Normal to Mild (limb upheld more than 5 seconds)	0
		Moderate (limb upheld less than 5 seconds)	1
		Severe (patient unable to raise leg against gravity)	2
*Head & Gaze Deviation	Observe range of motion of eyes and look for head turning to one side	Absent (normal eye movements to both sides and no head deviation was observed)	0
		Present (eyes and/or head deviation to one side was observed)	1
*Aphasia [IF patient has RIGHT sided weakness]	Ask patient to follow two simple commands: 1. Close your eyes. 2. Make a fist	Normal (performs both tasks requested correctly)	0
		Moderate (performs only 1 of 2 tasks requested correctly)	1
		Severe (Cannot perform either task requested)	2
Agnosia [IF patient has LEFT sided weakness]	Inability to recognize familiar objects. Ask patient: 1. "Whose arm is this?" (while showing the affected arm). 2. "Can you move your arm?"	Normal: Appropriate or correct answer	0
		Moderate (does not recognize limb or states that they can move it but cannot)	1
		Severe (does not recognize arm and is unaware of arm)	2
* Head/Eye Gaze Deviation or if patient is mute and does not follow commands = HIGH likelihood of Large Vessel Occlusion (LVO)		RACE SCALE TOTAL =	

- Emergency Contact
- Last Known Normal (Well) Time
- Medication List

Maximum RACE Score = 9

Any score > 0 is a "Stroke Alert"

Any score ≥ 4 is likely an LVO



Stroke Patient Destination Determination by Stroke Center Capability

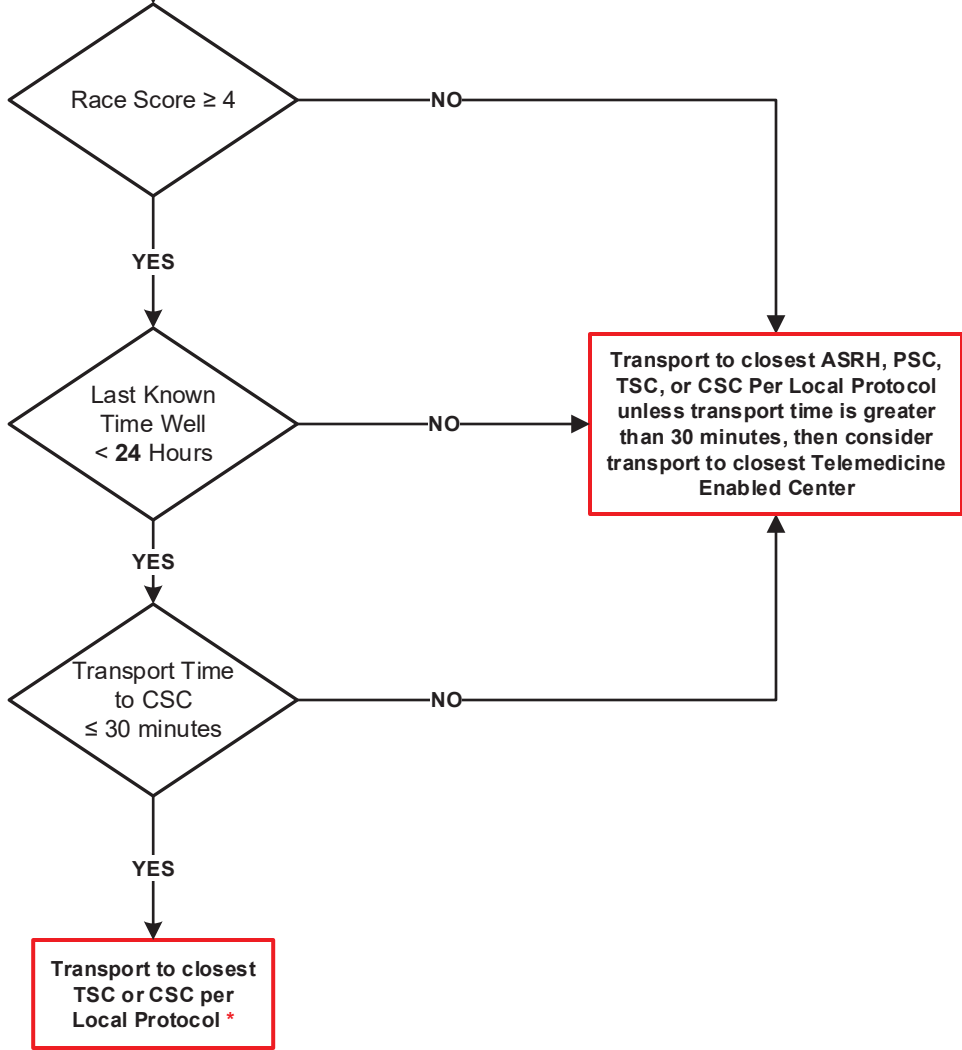


R **STROKE SCREEN POSITIVE** **R**

R **Determine and Document Time Last Known Well** **R**

R **Perform and Document RACE Score** **R**

- CSC = Comprehensive Stroke Center
- TSC = Thrombectomy-Capable Stroke Center
- PSC = Primary Stroke Center
- ASRH = Acute Stroke Ready Hospital



ADULT MEDICAL: Stroke Destination

*** Local Medical Control**

Acute Stroke Ready Hospital (ASRH), Primary Stroke Center (PSC), Thrombectomy-Capable Stroke Center (TSC) * Comprehensive Stroke Center (CSC) are universal terms used to designate a facility's capabilities in caring for an acute stroke patient.

It is dependent on local Medical Control Physicians to identify all facilities within their service area and to incorporate them within their own stroke patient destination guidelines.



Stroke Patient Destination Determination by Stroke Center Capability



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ADULT MEDICAL: Stroke Destination