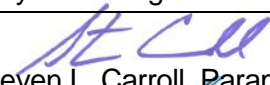
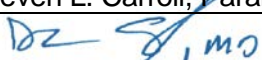


COUNTY OF VENTURA HEALTH CARE AGENCY		EMERGENCY MEDICAL SERVICES POLICIES AND PROCEDURES	
Policy Title: Stroke System Triage and Destination		Policy Number 451	
APPROVED: Administration:	 Steven L. Carroll, Paramedic	Date: October 2, 2017	
APPROVED: Medical Director:	 Daniel Shepherd, M.D.	Date: October 2, 2017	
Origination Date:	October 11, 2012		
Date Revised:	July 13, 2017	Effective Date: October 2, 2017	
Date Last Reviewed:	July 13, 2017		
Review Date:	July, 2019		

- I. PURPOSE: To outline the process of pre-hospital triage and transport of suspected acute stroke patients to facilities designated as an Acute Stroke Center (ASC).
- II. AUTHORITY: California Health and Safety Code Sections 1797.220 and 1798, California Code of Regulations, Title 22, Division 9, Sections 100147, and 100169
- III. DEFINITIONS:
 - Acute Stroke Center (ASC):** Hospital designated as an Acute Stroke Center, as defined in VCEMS Policy 450.
 - Comprehensive Stroke Center: (CSC)** Hospital certified by either The Joint Commission, Det Norske Veritas, or the Healthcare Facilities Accreditation Program as a Comprehensive Stroke Center.
 - ELVO Alert:** A pre-arrival notification by pre-hospital personnel to the base hospital that a patient is suffering a possible Emergent Large Vessel Occlusion (ELVO) ischemic stroke.
 - Emergent Large Vessel Occlusion (ELVO):** An acute ischemic stroke caused by a large vessel occlusion.
 - Stroke Alert:** A pre-arrival notification by pre-hospital personnel that a patient is suffering a possible acute stroke.
 - Thrombectomy Capable Acute Stroke Center: (TCASC)** Acute Stroke Center (ASC) that has the capability to perform neuroendovascular procedures for acute stroke including thrombectomy and intra-arterial thrombolysis.
 - Time Last Known Well (TLKW):** The date/time at which the patient was last known to be without the current signs and symptoms or at his or her baseline state of health.
 - Ventura ELVO Score (VES):** A tool designed for paramedics to screen for an ELVO in the prehospital setting.

IV. POLICY:

A. Stroke System Triage:

Stroke Alert: A patient meeting criteria in each of the following sections (1, 2, 3) shall be triaged into the VC EMS stroke system.

1. Patient's TLKW is within 6 hours.
2. Blood Glucose is greater than sixty (60) OR patient continues to exhibit signs and symptoms of an acute stroke after pre-hospital treatment of abnormal blood glucose levels.
3. Identification of ANY abnormal finding of the Cincinnati Stroke Scale (CSS).

FACIAL DROOP

Normal: Both sides of face move equally

Abnormal: One side of face does not move normally

ARM DRIFT

Normal: Both arms move equally or not at all

Abnormal: One arm does not move, or one arm drifts down compared with the other side

SPEECH

Normal: Patient uses correct words with no slurring

Abnormal: Slurred or inappropriate words or mute

B. Upon identification of a patient meeting *Stroke Alert* criteria above, perform the Ventura ELVO Score (VES) below:

1. Forced Eye Deviation: (1 point)
Force full deviation of BOTH eyes to one side or the other
Eyes will not pass midline
2. Aphasia: Patient is awake, but: (1 point). ANY of these present is a positive (1 Point) for Aphasia)
Repetition: Unable to repeat a sentence ("Near the chair in the dining room.")
Naming: Unable to name an object (show a watch and a pen, ask patient to name the objects)
Mute: Ask the patient 2 Questions (What is your name? How old are you?)
Talking gibberish and/or not following commands
3. Neglect: (1 point)
Touch the Patient's right arm and ask if they can feel it
Touch the Patient's left arm and ask if they feel it
Now touch both of the Patient's arms simultaneously and ask the patient which side you touched
(If patient can feel both sides individually but only feels one side on simultaneous stimulation, this is neglect)
If Aphasic: Neglect can be evaluated by noticing that patient is not paying attention to you if you stand on one side, but pays attention to you if you stand on the other side.
4. Obtundation: (1 point)
Not staying awake in between conversation

5. *Score 1 point for each positive component above (Total Score Possible = 4). If VES has a score of 1 or more, this patient will be upgraded from a **Stroke Alert** to an **ELVO Alert**.*
- C. For a *Stroke Alert*, Base Hospital Contact (BHC) will be established and a Stroke Alert will be activated.
- D. For an *ELVO Alert*, the nearest TCASC is considered to be the base hospital for that patient. (East of Lewis Rd is LRH and west of Lewis Rd. is SJR). Prehospital personnel will make base contact with the appropriate TCASC and an ELVO alert will be activated. The appropriate specialist on-call will be notified by the MICN.
1. The base hospital will determine the nearest ASC or TCASC using the following criteria:
 - a. Patients condition
 - b. TCASC or ASC availability on ReddiNet
 - c. Transport time
 - d. Patient request
 2. The Base Hospital will notify the appropriate ASC of the *Stroke Alert* or TCASC of an *ELVO Alert*
 3. You may be asked to take your patient directly to the CT scanner.
 - a. Give report to the nurse, transfer your patient from your gurney onto the CT scanner platform, and then return to service.
 - b. If there is any delay, such as the CT scanner not being readily available, or a nurse not immediately available, you will not be expected to wait. You will take your patient to a monitored bed in the ED and give report as usual.
- E. Destination Decision: patients meeting stroke system criteria shall be transported to the nearest ASC, except in the following cases:
1. Stroke patients in cardiac arrest shall be transported to the nearest receiving hospital. Patients who have greater than thirty seconds of return of spontaneous circulation (ROSC) shall be transported to the nearest STEMI Receiving Center (SRC).
 2. The nearest ASC is incapable of accepting a stroke alert patient due to ED, CT or Internal Disaster diversion, transport to the next closest ASC.
 3. The patient requests transport to an alternate facility, not extending transport by more than twenty (20) minutes, and approved by the Base Hospital.
 4. Patient meeting ELVO Alert criteria will be transported to the nearest TCASC if **total** transport time does not exceed 45 minutes.
- F. Documentation
1. Care and findings related to an acute stroke patient shall be documented in the Ventura County electronic patient care reporting (VCePCR) system in accordance with VCEMS policy 1000.

VENTURA ELVO SCORE (VES) FLOWSHEET

If Cincinnati Stroke Scale is (-) **DO NOT** Proceed to Ventura ELVO Score

(+)Cincinnati Stroke Scale



TLKW < 6 Hours



> 60 mg/dL Blood Glucose



(+)VENTURA ELVO SCORE	(-)VENTURA ELVO SCORE
ANY OF THE FOLLOWING <ul style="list-style-type: none">• FORCED EYE DEVIATION• APHASIA• NEGLECT• OBTUNDATION	NONE OF THE FOLLOWING <ul style="list-style-type: none">• FORCED EYE DEVIATION• APHASIA• NEGLECT• OBTUNDATION



<p>CALL APPROPRIATE TCASC</p> <ul style="list-style-type: none">• LRRMC (805) 370-4224• SJRMC (805) 988-2618 <p>*ADVISE TCASC*</p> <ul style="list-style-type: none">• (+)STROKE ALERT (with Positive Components)• (+)ELVO Alert (with Positive Components)• TIME LAST KNOWN WELL• BLOOD GLUCOSE <p>*ADDITIONAL INFORMATION*</p> <ul style="list-style-type: none">• History of seizure?• Headache?• History of brain aneurysm?• Use of Coumadin or other anticoagulants?• Family/Friend contact number	<p>CALL REGULAR CATCHMENT BASE</p> <ul style="list-style-type: none">• Initiate appropriate Stroke Alert Protocol
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