Tuolumne County
Emergency Medical Services Agency

Title: **Stroke Triage and Destination**

EMS Policy No. **531.30**
Medical Director Signature: on file — Creation Date: 10/09/2023
Revision Date:
EMS Coordinator Signature: on file — Review Date: 10/2027

I) Purpose
To rapidly identify suspected acute stroke patients, provide treatment and prompt transport, to the appropriate hospital for rapid evaluation and treatment.

II) Authority
Division 2.5, California Health and Safety Code, Sections 1797.67, 1798, 1798.101, 1798.105, and 1798.170, California Code of Regulations, Title 22, Division 9

III) Definitions
A) TCEMSA - means Tuolumne County EMS Agency.
B) Quality Improvement (QI) - means a method of evaluation of services provided, which includes defined standards, evaluation methodologies and utilization of evaluation results for continued system improvement. Such methods may include, but are not limited to, a written plan describing the program objectives, organizations, scope and mechanisms for overseeing the effectiveness of the program.
C) Stroke - means a condition of impaired blood flow to a patient's brain resulting in brain dysfunction.
D) Stroke Alert - means a notification from the transporting ground or air ambulance to a PSC or CSC that a patient meeting TCEMSA Stroke criteria is being transported to their facility. A Stroke Alert must be made as soon as possible after stroke criteria is confirmed.
E) Comprehensive Stroke Center (CSC) – refers to a hospital that has received comprehensive status through American Heart Association (AHA) and Joint Commission review. CSC sites have availability of advanced imaging techniques including Computed Tomography Angiogram/Perfusion (CTA/CTP), Transcranial Doppler (TCD). These facilities have 24/7 availability of personnel, imaging, operating room and endovascular facilities allowing for the management of large ischemic strokes, intracerebral hemorrhage and subarachnoid hemorrhage.
F) VAN (vision, aphasia, neglect) Assessment - means a prehospital screening tool used to identify the presence of large vessel occlusive stroke. The patient is deemed to have a positive VAN assessment with any arm weakness and at least one of the following: vision change, aphasia or neglect on exam. A VAN negative exam is either no arm muscle weakness OR the presence of arm muscle weakness without vision, aphasia, or neglect findings.
G) Large Vessel Occlusion (LVO) – refers to a specific anatomic type of ischemic stroke. LVO strokes may benefit from the intervention capabilities of a CSC.
H) Last Known Well Time (LKWT) - The time at which the patient was last known to be without the signs and symptoms of the current stroke or at his or her baseline state of health.

IV) Policy

A) STROKE SYSTEM TRIAGE

1) Appropriate triage of the suspected acute stroke patient using stroke alert criteria relies on rapid prehospital care:
   (a) Recognition of signs and symptoms of stroke using VAN assessment for LVO.
   (b) Determination of LKWT by a reliable historian.
2) Stroke Alert notification to the receiving facility to report positive stroke assessment findings.

B) DESTINATION

1) Suspected acute stroke patients shall be transported to the nearest CSC within the following parameters:
   (a) If the patient is found to be VAN positive the patient may be transported directly to a CSC if the following criteria are met:
      (i) Transport time will not take the patient out of the 4.5-hour window for thrombolytic therapy from onset of symptoms or LKWT.
      (ii) Patient and or patient family is amenable to intervention
         (i) No "comfort measures only" POLST
      (iii) Transport method
         (i) Air ambulance: preferred if Estimated Time of Arrival (ETA) to CSC less than ground transport.
         (ii) Ground Ambulance: advise Base Hospital that you have a VAN positive patient that meets Policy #531.50 and will be transporting out of county to the nearest CSC. Advise dispatch of destination.
            1. At the writing of this policy the nearest CSC is Doctor's Medical Center in Modesto.
   (b) If the patient is found to be VAN negative, the following transport criteria shall be followed the patient shall be transported to the nearest ED facility capable of receiving stroke patients.
      (i) All emergency departments can receive stroke patients.
   (c) Unstable stroke patients, such as those undergoing CPR or with unstable airway, shall be transported to the closest emergency department.

C) STROKE ALERT/PATIENT REPORT

1) As soon as a suspected stroke patient is confirmed with VAN assessments, the appropriate destination shall be determined, and a Stroke Alert promptly communicated to the CSC and/or the receiving facility. The Stroke Alert is to contain the following information:
   (a) Identify the call as a "Stroke Alert" and verify CT availability.
      (i) Patients should be taken directly to the CT scanner upon arrival.
   (b) Provide estimated time of arrival (ETA).
   (c) Patient's age and gender.
   (d) Give time patient was last seen without stroke symptoms (Last Known Well Time).
   (e) VAN assessment result-negative or positive.
   (f) Blood Glucose and Vital Signs.
   (g) Treatment and response to treatment.
2) Electronic Patient Care Report (ePCR) documentation must include:

(a) Last known well time and VAN assessment results, transport factors that determined patient destination
(b) Blood glucose check
(c) Neurological assessments