CEREBRAL VASCULAR ACCIDENT (CVA)

1. PURPOSE: To identify CVA patients who may be candidates for thrombolysis and specialized care at a certified stroke center. Information in this policy is based on the Cincinnati Prehospital Stroke Scale (CPSS). The CPSS evaluates using FASTT criteria (Facial palsy, Arm weakness, Speech abnormalities, Time of onset/Transport).

2. Certified Stroke Centers: The following hospitals have been designated as certified stroke centers. Patients should be transported to one of the facilities if possible.
   - Alameda Hospital, Alameda
   - Alta Bates Medical Center, Berkeley
   - Eden Medical Center, Castro Valley
   - Kaiser Hospital, Fremont
   - Kaiser Hospital, Hayward
   - Kaiser Hospital, Oakland
   - Summit Medical Center, Oakland
   - Washington Hospital, Fremont
   Consider transport to one of the following out-of-county centers, if appropriate. Contact the stroke center prior to transport.
   - Stanford University Medical Center, Palo Alto
   - Regional Medical Center, San Jose
   - John Muir Medical Center, Walnut Creek

3. Assessment and transport of suspected CVA patient:
   - Provide routine medical care including pulse oximetry
   - Obtain blood glucose
   - Assess the patient using the Cincinnati Prehospital Stroke Scale

   **Note: Early transport is essential if CPSS is positive**

<table>
<thead>
<tr>
<th>Sign/Symptom</th>
<th>How Tested</th>
<th>Normal</th>
<th>Abnormal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facial Droop</td>
<td>Have the patient show their teeth or smile</td>
<td>Both sides of the face move equally</td>
<td>One side of the face does not move as well as the other</td>
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<tr>
<td>Arm Drift</td>
<td>The patient closes their eyes and extends both arms straight out for 10 seconds</td>
<td>Both arms move the same, or both do not move at all.</td>
<td>One arm either does not move, or one arm drifts downward compared to the other.</td>
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<tr>
<td>Speech</td>
<td>The patient repeats “The sky is blue in Cincinnati”.</td>
<td>The patient says correct words with no slurring of words.</td>
<td>The patient slurs words, says the wrong words, or is unable to speak</td>
</tr>
</tbody>
</table>

**Time of Onset**
- must be within 4 hours, observed by a valid historian (for thrombolysis)

**Transport**
- The patient is considered a possible CVA patient if any of the tested signs/symptoms are abnormal and must be transported to the nearest certified stroke center.

(CPSS, Kothari, et al., Annals of Emergency Medicine, Volume 33, April 1999)
4. The patient may be a candidate for thrombolysis if all of the following are true:

- One or more of the CPSS signs/symptoms are present.
- CPSS signs/symptoms were initially observed within 4 hours of contact by a valid historian. **Please note:** ask when the patient was last seen at normal baseline and when the onset of new stroke signs and symptoms appeared.
- Normal blood glucose level is obtained

**Make sure to either:**
- transport the historian to the stroke center in the ambulance; or,
- if driving, tell him/her to leave immediately and meet you at the stroke center; or,
- obtain a contact number where the historian can be reached by the attending physician

5. Treatment and support guidelines (to be done en route)

- Transport patient in supine position. If this position is not tolerated or there is evidence of increasing intracranial pressure/intracranial hemorrhage, transport in semi fowlers with no more than 30° head elevation
- Administer low flow oxygen unless hypoxia is present
- Establish IV access using no larger than an 18 gauge and no more than 2 attempts. Maintain with a saline lock or IV infusion set TKO
- Obtain a 12-Lead EKG (Specifically watch for STEMI and/or atrial fibrillation)

6. Immediately call the designated stroke center via phone and/or radio and notify them that you are transporting a “possible CVA patient by the Cincinnati Prehospital Stroke Scale (CPSS), ETA ____ minutes”. **(Reminder: See “Diversion Criteria” or the information on page v of the field manual regarding CT Diversion)**

7. Document the results of the assessment on the PCR and specifically describe any of the CPSS signs and/or symptoms that were abnormal