CVA Cerebral Vascular Accident (Stroke)

<table>
<thead>
<tr>
<th>30 Second Review</th>
<th>CVA (Cerebrovascular Accident)</th>
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<tr>
<td>RN, LPN</td>
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Def: Neurologic abnormalities caused by ischemia of brain tissue  
S/S: Motor and/or sensory neurologic deficit with speech, balance problems or dizziness, weakness or paralysis in face/arm or leg, headache or visual changes; convulsions or coma

RX:  
1) Monitor Airway, Breathing, Circulation, and Level of consciousness.  
2) Perform the FAST (see below) prehospital stroke assessment.  
3) O2 at 3 to 4 L by cannula to maintain SpO2 at least 94%. If labored breathing, or not fully conscious, mask or use ambu bag.  
4) HOB 30 degrees or greater while laying down, if neuro checks decline-lay patient flat.  
5) Prepare transport to hospital (time is critical for consideration of TPA once onset of symptoms occur, best efficacy is within 3 hrs).  
6) Start IV access with (NS) Normal Saline & check glucose level while waiting for transport.

**SKILL LEVEL:** RN, LPN

**DEFINITION:** Cerebral vessels are occluded by an embolus or cerebrovascular hemorrhage, resulting in ischemia of the brain, and thus neurologic abnormalities. Neurologic symptoms may be permanent or of short duration.

**DATA BASE:**

**Subjective:** Symptoms and complaints will vary dependent upon the area of brain involved and the type of stroke.

**Objective:**

1. Assess for onset, duration, activity contributing or associated factors, sensorium, neck rigidity, location of cerebral deficit convulsions.

2. Vital Signs, current meds, other illnesses (Diabetes, Hypertension, Heart Disease).

3. Assess Neurological status as much as possible (see attached nursing education)
- Facial Motor and/or Sensory Deficits
- Upper extremity Motor-Sensory Deficits
- Lower extremity Motor-Sensory Deficits
- Speech clear, garbled, slurred, or inappropriate
- Vision may be impaired
- Gait and Balance—patient may be unable to walk
- Gross and Fine motor coordination impaired
- Sensorium/mental status may be impaired or normal
- Memory, especially short term, may be impaired
- Autonomic instability (unstable vital signs) is not common but may be present.

**Isolated facial asymmetry without any other neurological findings (patient fully conscious with no other weakness or abnormality), consider contacting the medical provider for further advice. This may be a case of Bell’s Palsy.**

**Assessment:**

Impaired physical mobility, related to hemiparesis, loss of balance and coordination, spasticity, and probable brain injury.

**Plan:**

If evaluation reveals that a stroke is likely to be occurring, time is critical! TPA (clot buster) is shown to have the best efficacy if given **within 3 hours** of the initial onset of the neurologic deficit.

1. Monitor ABC.

2. Continue ongoing neurological assessment, observe for changes in patient’s condition. If neuro checks decline, lay patient flat a) 02 at 3-4 L by cannula to maintain SpO2 at least 94%. b) Start IV “To keep vein open” for meds if needed. c) Transport to ER (**time is of the essence to get to ER for evaluation of need to TPA**)  

3. While waiting for transport, may contact medical provider to advise of the situation.

4. If patient returns from ER without admittance, assure standard evaluation was completed. This standard evaluation includes either CT Scan or MRI, EKG, glucose evaluation. All results of the above tests should return with the patient. Call provider if questions about evaluation.

5. If patient returns, evaluate immediately on return and again after two hours. If there is unexpected deterioration, return patient to the ER. If patient returns and is stable, schedule with medical provider the next available time.
Nursing Education:

1. Some patients may have symptoms that seem to resolve completely spontaneously. Call medical provider if this happens. Patient transport may still be medically indicated. Always schedule a provider follow-up at the next available time.

2. Differential Diagnosis:
   a. Stroke or TIA
   b. Seizures
   c. Hypoglycemia
   d. Bell's Palsy (the only neurologic deficit is unilateral facial droop causing eyelid weakness, or abnormal smile—‘facial droop’).
   e. Drug ingestion or overdose

FAST assessment is crucial to determine appropriate and timely treatment that will include CT scan, metabolic panel and lumbar puncture.

Facial Droop
- **Normal**: Both sides of face move equally
- **Abnormal**: One side of face does not move at all
- **If this is an isolated finding with no other neurological abnormality, this is likely Bell’s Palsy**—a benign condition, not a stroke.

Arm Drift
- **Normal**: Both arms move equally or not at all
- **Abnormal**: One arm drifts compared to the other

Speech
- **Normal**: Patient uses correct words with no slurring
- **Abnormal**: Slurred or inappropriate words or mute

Time
- If a stroke is occurring time is critical! TPA (clot buster) is shown to have the best efficacy if given within 3 hours of the initial onset of the neurologic deficit.
APPROVED:

______________________________  _________________________
Medical Services Manager       Date

______________________________  _________________________
Chief Medical Officer           Date

______________________________  _________________________
Clinical Medical Director       Date

10/2017

Effective Date: ________________
Revised: June 2017v2
Supersedes: January 2015
This evaluation form may be helpful for the transport staff and for documentation purposes. Consider copying the form and entering the information while awaiting emergency transport.

**Los Angeles Prehospital Stroke Screen (LAPSS)**

**Screening Criteria**

1. Age over 45 years  
2. No prior history of seizure disorder  
3. New onset of neurologic symptoms in last 24 hours  
4. Patient was ambulatory at baseline (prior to event)  
5. Blood glucose between 60 and 400

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Exam: look for obvious asymmetry

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<th>Normal</th>
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<tr>
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<td>Droop</td>
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Facial smile / grimace:

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<tr>
<td>Weak</td>
<td>Weak</td>
</tr>
<tr>
<td>Grip</td>
<td>Grip</td>
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<tr>
<td>No Grip</td>
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Grip:

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<tr>
<td>Drifts</td>
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<tr>
<td>Down</td>
<td>Down</td>
</tr>
<tr>
<td>Falls</td>
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<tr>
<td>Rapidly</td>
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Arm weakness:

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<td>Drifts</td>
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6. Based on exam, patient has only unilateral weakness:

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If Yes (or unknown) to all items above LAPSS screening criteria met:
If LAPSS criteria for stroke met, call receiving hospital with “code stroke”, if not then return to the appropriate treatment protocol. (Note: the patient may still be experiencing a stroke if even if all LAPSS criteria are not met.)