

# SAN FRANCISCO EMERGENCY MEDICAL SERVICES AGENCY

Effective: 01/07/13  
Supersedes: 01/01/11

Protocol: P-024

## STROKE

### SUBJECTIVE FINDINGS

- **Check surroundings** for syringes, insulin, medication bottles [e.g.: anti-hypertensives, ASA, blood thinners, NTG preparations].
- Check for evidence of mechanical fall or recent seizure.
- **Abrupt Change in Mental Status:** Altered speech, change in gait, changes in behavior, confusion, headache, focal neurological findings and visual disturbances.
- **ONSET TIME** for signs and symptoms. See PRECAUTIONS AND COMMENTS.
- **Medical History:** hypertension, atrial fibrillation, prior stroke, TIAs, unexplained syncope, coronary disease, vascular disease, diabetes, and / or smoking.

### OBJECTIVE FINDINGS

- LOC and neurological assessment.
- Facial asymmetry, hemiparesis, loss of sensation, visual field disturbance or visual field loss.
- Dysarthria or aphasia.
- Pupil size and reactivity, extra-ocular movements.
- Medical alert bracelet .
- Abnormal blood glucose.
- Cranial nerve palsy.
- Ataxia.
- CINCINNATI PREHOSPITAL STROKE SCALE (CPSS)\*
  - Facial droop
  - Language
  - Motor (Pronator drift)

BLS Treatment	ALS Treatment
<ul style="list-style-type: none"><li>• Routine Medical Care.</li><li>• Oxygen administration.</li><li>• Consider C-Spine immobilization consistent with C-Spine policy.</li></ul>	<ul style="list-style-type: none"><li>• IV access [see PRECAUTIONS AND COMMENTS].</li><li>• Protect airway.</li><li>• Consider advanced airway management if comatose and no gag reflex.</li><li>• Consider hypoglycemia. See ALTERED MENTAL STATUS Protocol (P-006).</li><li>• Consider 500CC fluid challenge if SBP &lt;90.</li><li>• Pre-hospital screening for thrombolytic therapy.</li></ul>
<b>Immediate Transport to Hospital with Advance Notification</b>	
If <b>potential STROKE</b> is suspected with symptoms present for <b>4.5 hours or less</b> , immediately transport patient to a designated STROKE Receiving Hospital (See EMS Policy 5000 Destination). <b>Notify hospital.</b>	

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## DOCUMENTATION

- Neurologic exam including Cincinnati Pre-Hospital Stroke Scale
- Blood glucose check
- Symptom onset time recorded
- Notification and rapid transport to a designated stroke center for symptoms present for 4.5 hours or less

## PRECAUTIONS AND COMMENTS

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- Minimize scene time.
- If at all possible, place IV in the **right antecubital fossa**. If the patient requires CT scan the dye contrast has better quality when injected in the right limb.
- Bring patient to appropriate Stroke Receiving Hospital per Policy 5000 Destination.

**\*CINCINNATI PREHOSPITAL STROKE SCALE (CPSS):** Apply CPSS if you suspect that the sudden neurological impairment is due to stroke. If patient scores “abnormal” in any of the following 3 tests, there is a 72% likelihood of stroke.

1. **Facial Droop** - Have patient show teeth or smile:  
Normal: both sides of face move equally.  
Abnormal: one side of face does not move as well as the other side.
2. **Pronator Drift** - Patient closes eyes and holds both arms straight out for 10 seconds:  
Normal: both arms move the same or both arms do not move at all.  
Abnormal: one arm does not move or one arm drifts down compared with the other.
3. **Abnormal Speech** - Have the patient repeat a statement such as, “You can’t teach an old dog new tricks”:  
Normal: patient uses correct words with no slurring.  
Abnormal: patient slurs words, uses the wrong words, or is unable to speak.