APPENDIX A

Prehospital Stroke Screening Systems from Different Communities

Cincinnati Prehospital Stroke Scale

Assess for the unilateral presence of at least one of the following:

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facial droop</td>
<td>Ask the patient to smile. Watch for weakness on one side of the face.</td>
</tr>
<tr>
<td>Arm drift</td>
<td>Ask the patient to hold both arms out with palms up and eyes closed for 10 seconds. Watch for a drift of one side. A positive result is present if there is weakness in one arm. Weakness in both arms or normal strength is a negative test result.</td>
</tr>
<tr>
<td>Slurred speech</td>
<td>Ask the patient to repeat a simple sentence such as “The sky is blue in Cincinnati.” Inability to repeat the words correctly and intelligibly is a positive result.</td>
</tr>
</tbody>
</table>

Los Angeles Prehospital Stroke Scale

Criteria

<table>
<thead>
<tr>
<th>Yes</th>
<th>Unknown</th>
<th>No</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Age &gt; 45</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>No history of seizures</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Symptoms &lt; 24 hrs</td>
<td></td>
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<tr>
<td>4</td>
<td>Not wheelchair-bound or bedridden at baseline</td>
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<tr>
<td>5</td>
<td>Glucose 60–400</td>
<td></td>
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</tbody>
</table>

Assess symmetry in facial movement, hand grip, or arm strength

<table>
<thead>
<tr>
<th>Normal</th>
<th>Right</th>
<th>Left</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facial smile/grimace</td>
<td>□</td>
<td>□ Droop</td>
</tr>
<tr>
<td>Grip</td>
<td>□</td>
<td>□ Weak</td>
</tr>
<tr>
<td></td>
<td></td>
<td>□ None</td>
</tr>
<tr>
<td>Arm strength</td>
<td>□</td>
<td>□ Drifts down</td>
</tr>
<tr>
<td></td>
<td></td>
<td>□ Falls rapidly</td>
</tr>
</tbody>
</table>

6 Based on exam, patient has only unilateral weakness

Items 1-6 all Yes or Unknown, then LAPSS criteria are met. If LAPSS criteria are met, then call the receiving hospital with a “code stroke”; if not, then return to the appropriate treatment protocol. (Note: the patient may still be experiencing a stroke even if the LAPSS criteria are not met.) From Kidwell CS, Starkman S, Eckstein M, et al. Identifying stroke in the field. Prospective validation of the Los Angeles Prehospital Stroke Screen (LAPSS). Stroke 2000; 31: pp. 71-76.
Improving the Chain of Recovery for Acute Stroke in Your Community

Dallas Area Stroke Council Stroke Evaluation Sheet

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes</th>
<th>No</th>
<th>Unknown</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Age 18 years old or older?</td>
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<tr>
<td>2. Symptom(s) onset 3.5 hours or less?</td>
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<tr>
<td>3. Are any of the following symptoms present?</td>
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</tr>
<tr>
<td>a) Facial droop</td>
<td></td>
<td></td>
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<tr>
<td>b) Sudden asymmetry in neurological exam</td>
<td></td>
<td></td>
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<tr>
<td>c) Weak grip or loss of grip</td>
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<tr>
<td>d) Arm drift</td>
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<td></td>
<td></td>
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<tr>
<td>e) Sudden abnormal speech</td>
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<tr>
<td>f) Sudden imbalance in walking</td>
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<tr>
<td>g) Acute arm and/or leg weakness</td>
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<td></td>
<td></td>
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<tr>
<td>h) Sudden loss of vision</td>
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If the answers to questions 1, 2, and 3 are all “yes,” the patient is considered to be having an acute stroke event under this protocol. If the answer to any of these 3 questions is “no” or “unknown,” then the patient should be transported to the closest appropriate facility or to the hospital of the patient’s choice.

BREMSS Stroke Observation Scale

- **Level of consciousness**
  - Alert – 0
  - Requires stimulation – 2

- **Visual function**
  - No deficit – 0
  - Any deficit – 2

- **Facial function**
  - Symmetrical movements upon smiling – 0
  - Any lateralization – 2

- **Arm/leg movements**
  - Normal symmetry – 0
  - Arm or leg weaker than contralateral – 2

- **Verbal function**
  - Normal communication skills – 0
  - Abnormal articulation or language content – 2

Entering a patient into the Stroke System

1. Call the Trauma Communication Center (TCC) as soon as practical.
2. Identity yourself and your agency by name and number. If on-line medical direction is necessary, the receiving stroke hospital becomes medical direction. TCC will help coordinate on-line medical direction with a physician immediately.
3. Give location and request any additional resources needed.
4. Give age and sex of patient (patient name is not necessary).
5. Give criteria of entry.
7. TCC will offer available stroke hospitals based on information given above.
8. Give transportation type/provider.
9. Give PCR number and time of transport.

The receiving stroke hospital should be updated by the transporting unit 5–10 minutes out. This update need only consist of any patient changes and patient’s current condition. A repeat of information used to enter the patient into the stroke system is not necessary, as this information will be relayed by the TCC to the receiving stroke hospital.

After the patient is delivered to the stroke hospital, the transporting provider should call the TCC with Patient Care Report times.
STROKE ALERT AGENCY

Date: __________/Time: __________ Rescue Unit #: __________ Age: __________ Male: □ Female: □
Pt. Name __________________________________________ Incident #: ____________________________________

CINCINNATI STROKE SCALE (FAST)
(check if abnormal)

□ F-(face) FACIAL DROOP: Have patient smile or show teeth. (Look for asymmetry.)
  Normal: Both sides of the face move equally or not at all.
  Abnormal: One side of the patient’s face droops.

□ A-(arm) MOTOR WEAKNESS: Arm drift (close eyes, extend arms, palms up).
  Normal: Remain extended equally, or drifts equally or does not move at all.
  Abnormal: One arm drifts down when compared with the other.

□ S-(speech) “You can’t teach an old dog new tricks” (repeat phrase).
  Normal: Phrase is repeated clearly and correctly.
  Abnormal: Words are slurred (dysarthria) or abnormal (aphasia) or none.

□ T-TIME of SYMPTOM ONSET: __________!

EVENT WITNESS NAME_________________ Cell Phone_____________ Home__________ Pager________
CLOSEST RELATIVE NAME (if different)____________________________________________________________
Cell Phone _______________________ Home _____________________ Pager ______________________

STROKE ALERT criteria met – Transport IMMEDIATELY.

Determine if destination facility can handle an acute stroke (see below).

PERTINENT HISTORY/SYMPTOMS

□ Cardiac Arrhythmias
□ Head trauma at onset**

□ Weakness/numbness
□ Seizure at onset**

□ Dizziness
□ On Coumadin (Warfarin)**

□ Headache, Nausea, Vomiting, Neck Pain*
□ Recent or current bleeding, trauma, surgery, or invasive procedure**

□ Visual Disturbances
□ Bleeding Disorder**

□ Other___________
□ Pregnancy**

EVALUATION:
SpO2 ____ %  Glucose ____ mg/dl

TREATMENT:
Head Elevation > 30 (unless hypotensive)
IV NaCl (2 sites preferred, draw labs)
O2 @ 2 L/min (unless hypoxic then high flow)

Drug Therapy __________
Other_________________

*HEADACHE ONSET: If present, was onset that of a classic “explosive” headache that is the “worst of the patient’s life”?
□ YES  □ NO (if yes, consider aneurysm)


Destination: Onset < 2hours, Transport to facility capable of IV thrombolytics within 3 hour window
Onset 2-4 hours, Consider transport to facility capable of Intra-cerebral thrombolytics
* For suspected aneurysms or ** When lytics are potentially contraindicated: consider transport (including aeromedical) to Neuroendovascular/Neurosurgical facility

Hospital Destination: ___________ Time Stroke Alert called: ___________
Name of hospital contact person: _____________________ Time arrived at hospital ___________