































| | | St. Luke's | | | | | |
|-----------|---|---------------------------|--|--|--|--|--|
| Patient N | lanagement | | | | | | |
| As | sessment | | | | | | |
| 1. | Use a validated prehospital stroke scale that may include, but is not limited to: a. Facial smile/grimace—ask patient to smile b. Arm—close eyes and hold out arms for count of 10 seconds c. Speech—"You can't teach an old dog new tricks" | | | | | | |
| 2. | Pertinent historical data includes: a. History—"last known well" and source of that information TLKW b. Neurologic status assessment [see Appendix VII] c. Medication—patient is taking warfarin or any anticoagulant medication | | | | | | |
| 3. | Evaluate for the presence of stroke min a. Hypoglycemia b. Seizure c. Sepsis d Mioraine | PMHx: A-Fib, Cancer | | | | | |
| | e. Intoxication f. UTI | Previous Stroke | | | | | |
| Tr 1. | Treatment and Interventions | | | | | | |
| 2. | Administer oxygen [EMR-O; EMT-R] as appropriate for dyspnea or distress with a target of achieving greater than 93% saturation for most acutely ill patients. | | | | | | |
| 3. | Treat seizures per Seizures guideline, if | seizure activity present. | | | | | |

| | St.Luke's |
|-----------------------------|---|
| Tre | eatment and Interventions |
| 1. | Determine "last known well" time. |
| 2. | Administer oxygen <i>[EMR-O; EMT-R]</i> as appropriate for dyspnea or distress with a target of achieving greater than 93% saturation for most acutely ill patients. |
| 3. | Treat seizures per Seizures guideline, if seizure activity present. |
| 4. | Check blood glucose level [EMR-O; EMT-R]. a. Treat only if glucose less than 60 mg/dL. |
| 5. 6. | Acquire 12-lead ECG <i>[Acquisition EMR-O; Interpretation INT-R]</i> , if possible. Use the local stroke plan for hospital notification |
| Pa | tient Safety Considerations |
| 1. | Prevent aspiration—elevate head of stretcher 15–30 degrees if systolic BP greater than 100 mm Hq. |
| | a Maintain head and neck in neutral alignment, without flexing the neck. |
| 2. | Protect paralyzed limbs from injury. |
| 3. | Avoid multiple IV attempts. 18 ga AC |
| | |
| 18 | |
| Pa 1. 2. 3. | Prevent aspiration—elevate head of stretcher 15–30 degrees if systolic BP greater than 100 mm Hg. a. Maintain head and neck in neutral alignment, without flexing the neck. Protect paralyzed limbs from injury. Avoid multiple IV attempts. 18 ga AC |













Accuracy of Prediction Instruments for Diagnosing Large Vessel Occlusion in Individuals With Suspected Stroke: A Systematic Review for the 2018 Guidelines for the Early Management of Patients With Acute Ischemic Stroke

Eric E. Smith, David M. Kent, Ketan R. Bulsara, Lester Y. Leung, Judith H. Lichtman, Mathew J. Reeves, Amytis Towfighi, William N. Whiteley, and Darin B. Zahuranec

and on behalf of the American Heart Association Stroke Council

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Conclusions—

No scale predicted LVO with both high sensitivity and high specificity. Systems that use LVO prediction instruments for triage will miss some patients with LVO and milder stroke. More prospective studies are needed to assess the accuracy of LVO prediction instruments in the prehospital setting in all patients with suspected stroke, including patients with hemorrhagic stroke and stroke mimics.



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Large Vessel Occlusion in Acute Stroke Cortical Symptoms Are More Sensitive Prehospital Indicators Than Motor Deficits

Lena-Alexandra Beume, MD*; Maren Hieber, MD*; Christoph P. Kaller, PhD; Kai Nitschke, PhD; Juergen Bardutzky, MD; Horst Urbach, MD; Cornelius Weiller, MD; Michel Rijntjes, MD

| | No. of Patients | Exclusion of Hemorrhage | No. of Items | Items | Cutoff | Need to Calculate Score | SEN | SPE | ACC |
|---------|--------------------|--|-----------------|---|--------|-------------------------------|------|---------------------|------|
| 3I-SS | 171 | Yes | 3 | Level of consciousness, gaze deviation, motor function | ≥4 | Yes | 0.67 | 0.92 | 0.86 |
| CPSSS | 303 | Yes | 3 | Level of consciousness, gaze deviation, arm weakness | ≥2 | Yes | 0.83 | 0 <mark>.4</mark> 0 | 0.67 |
| FAST-ED | 727 | Yes | 6 | Facial palsy, arm weakness, speech changes, eye deviation, denial/neglect | ≥4 | Yes | 0.60 | 0.89 | 0.79 |
| LEGS | 181 | Yes | 4 | Lower extremity strength, eyes/visual field, gaze deviation, speech difficulty | ≥4 | Yes | 0.69 | 0.81 | 0.77 |
| RACE | 357 | No | 6 | Facial palsy, arm motor function, leg motor function, head and gaze deviation, aphasia, agnosia | ≥5 | Yes | 0.85 | 0.68 | 0.82 |
| PASS | 3127 | 3127 Yes 3 Level of consciousness, gaze palsy/deviation, weakness | | Level of consciousness, gaze palsy/deviation, arm weakness | ≥2 | Yes | 0.66 | 0.83 | 0.74 |
| VAN | 62 | Yes | 4 | Arm weakness, visual disturbance, aphasia, neglect | No | No | 1.0 | 0.90 | 0.92 |





































Location

Left Brain

- Right hemi-paralysis
- Speech /Language
- Memory related to above
- Slow, cautious behavior

Right Brain

- Left hemi-paralysis
- Spatial / Perception
- Poor Judgement
- Unaware of deficits
- Quick, impulsive behavior

St.Luke's









St.Luke's Treatments **Thrombolytic Thrombectomy (MER)** Directly remove the clot via catheter based procedure **Clot-buster** 4.5 hrs TLKW 24+ hrs TLKW All hospitals provide Effective ~ 75% Effective ~ 30% Great on large clots Poor on large clots Large Vessel Occlusions (LVO) Anticoags matter +/- Lytics Small Vessel (lacunar) OK w/ Anticoags **DYK** – a good functional outcome is reduced by 12% for every 30 minutes the clot remains (Khatri, 2014)













| Antihypertensives St. Luke's | | | | | | | | | |
|------------------------------|---------------------------------|---|---------------------|----------|--|--------|--|--|--|
| Drug | | Dose | Dose Onset Duration | | | Pearls | | | |
| Labetalol (Trandate) | 10-20 | mg over 1-2 min | 2-5 min | 2-4 hr | Class: α and β blocker Contra: Brady, HB, cardiogenic sho Caution: Asthma + readily available, easy to administ | | | | |
| Nicardipine (Cardene) | 5mg/h q 5-15 Max 1 | r, titrate up 2.5mg/hr 5 min. 5 mg/hr | 5-15 min | 4-6 hr | Class: Ca channel blocker Contra: Severe AS + decrease B/P variability vs labetalol | | | | |
| Clevidipine (Cleviprex) | 1-2mg q 2-5 Max 2 | g/hr titrate by doubling min. 21mg/hr | 2-4 min | 5-15 min | Class: Ca channel blocker Contra: Severe AS, contains soy + volume limited | | | | |
| | | | | | | | | | |
| Drug | | Pearls – why to possibly avoid | | | | | | | |
| Nitroprusside | | Increase ICP, cyanide | | | | | | | |
| Hydralazine | | Increased ICP, reflex tachycardia | | | | | | | |
| Nitroglycerine | | Increased ICP, contra | with ED/PI | H drugs. | | | | | |

























