



## D. PIERCE COUNTY PREHOSPITAL STROKE TRIAGE (DESTINATION) PROCEDURES

### STEP 1: Assess Likelihood of Stroke

- Numbness or weakness of the face, arm, or leg, especially on one side of the body
- Confusion, trouble speaking, or understanding
- Trouble seeing in one or both eyes
- Trouble walking, dizziness, loss of balance, or coordination
- Severe headache with no known cause

If any of above, proceed to STEP 2, if none, transport per county operating procedures

### STEP 2: Perform B.E. F.A.S.T. Assessment (positive if any are abnormal)

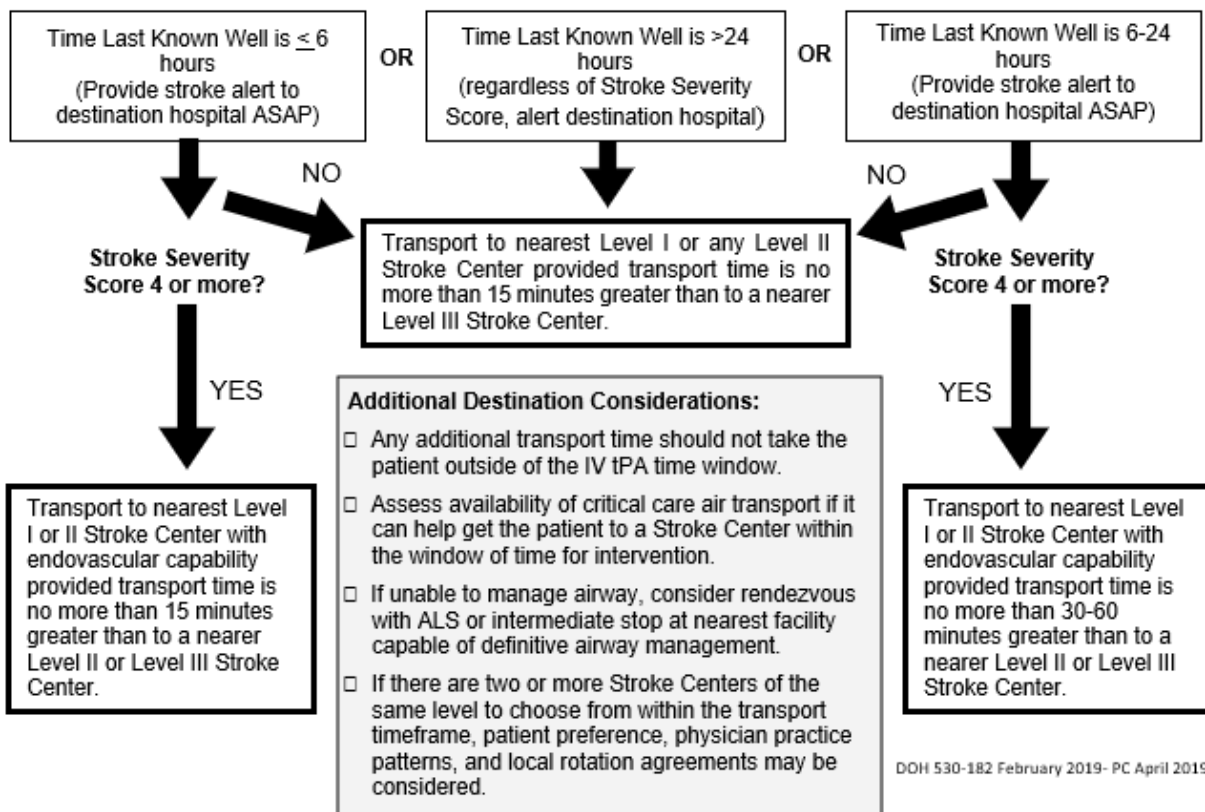
- **Balance:** Sudden trouble with balance or coordination
- **Eyes:** Sudden blurred or double vision or loss of vision in one or both eyes
- **Face:** Unilateral facial droop
- **Arms:** Unilateral arm drift or weakness
- **Speech:** Abnormal or slurred
- **Time:** Best estimate of Time Last Known Well = \_\_\_\_\_

If B.E. F.A.S.T. negative transport per county operating procedures

### STEP 3: If B.E. F.A.S.T. Positive - Calculate Stroke Severity Score (LAMS)

Facial Droop: Absent 0 Present 1  
 Arm Drift: Absent 0 Drifts 1 Falls Rapidly 2  
 Grip Strength: Normal 0 Weak 1 No Grip 2  
 Total Stroke Severity Score = \_\_\_\_ (max. 5 points)

### STEP 4: Determine Destination: Time Last Known Well + Stroke Severity Score



DOH 530-182 February 2019- PC April 2019

## PIERCE COUNTY

# PREHOSPITAL STROKE TRIAGE (DESTINATION) PROCEDURES

The purpose of the Prehospital Stroke Triage and Destination Procedure is to identify stroke patients in the field and take them to the most appropriate hospital, which might not be the nearest hospital. Stroke treatment is time-critical – the sooner patients are treated, the better their chances of survival and recovering function.

For strokes caused by a blocked blood vessel in the brain (ischemic, the majority of strokes), clot-busting medication (tPA) must be administered within 4.5 hours from the time the patient was last known well, a treatment that can be given at WA DOH Level 1, 2 or 3 stroke centers (for a list of categorized hospitals, please click [here](#)).

If a patient presents to EMS with a severe stroke, they are more likely to have blockage of a large vessel and can benefit from mechanical clot retrieval (thrombectomy). Thrombectomy must begin by 24 hours since last known well, and is a more complex intervention, only available in Level I and a small number of Level II stroke centers.

There are 3 key elements to determine the appropriate destination hospital:

- **BE FAST Stroke Screen** to identify a patient with a high probability of stroke.
- **Stroke Severity Score** to determine if a patient meets criteria for “severe” stroke.
- **Time since Last Known Well (LKW)** which helps determine eligibility for tPA and thrombectomy.

## STEPS to determine destination:

- 1) **Do a BE FAST Stroke Screen Assessment:** (Balance, Eyes, Facial droop, Arm drift, Speech changes, Time since LKW) is a simple way to tell if someone might be having a stroke. If BE FAST is negative, stroke is less likely, and standard destination procedures apply. If BE FAST is positive (balance or vision or face or arms or speech is abnormal), it’s likely the patient is having a stroke and the EMS provider moves on to assessing stroke severity.
- 2) **Assess severity:** The stroke severity assessment scores the FAST stroke screen. Patients get points for deficits:
  - Facial droop** gets 1 point if present, 0 points if absent;
  - Arm drift** (have patient hold arms up in air) gets 2 points if an arm falls rapidly, 1 point if slowly drifts down and 0 points if the arms stay steady;
  - Grip strength** gets 2 points if no real effort can be made, 1 point if grip is clearly there but weak, and 0 points if grips seem of full strength.
- 3) **Add up the points:** A score  $\geq 4$  is interpreted as “severe.”
- 4) **Determine time since LKW:** It is important to use the LKW time as opposed to when symptoms were first noticed. If a patient woke up in the morning with symptoms and was well when they went to bed, time LKW is the time they went to bed. If stroke symptoms occur when the patient is awake, LKW could be the same time the symptoms started if the patient or a bystander noticed the onset. LKW time could also be prior to symptoms starting if a patient delays reporting symptoms or, for example, someone discovers a patient with symptoms but saw them well 2 hours prior. Report by actual clock hour, not by ‘30 prior to arrival’, etc.
- 5) **Determine Destination:**
  - Time since LKW  $\leq 6$  hours and “Severe” (score  $\geq 4$ ):** Transport to nearest Level I or II Stroke Center with endovascular capability provided transport time is no more than 15 minutes greater than to a nearer Level II or Level III Stroke Center.
  - Time since LKW  $> 24$  hours (regardless of severity score):** Transport to the nearest Level I or Level II stroke center provided it is no more than 15 extra minutes travel than to a nearer Level III stroke center.
  - Time since LKW 6 – 24 hours AND “Severe”:** Transport to the nearest Level I or Level II stroke center with endovascular capability provided transport time is no more than 30-60 extra minutes travel to a nearer Level II or Level III stroke center.
  - Time since LKW 6 – 24 hours but NOT “Severe”:** Transport to the nearest Level I or Level II stroke center provided it is no more than 15 extra minutes travel compared to a nearer Level III stroke center.

- 6) **Notification: Immediately notify the destination hospital** of incoming stroke.
- 7) **Document:** key medical history, medication list and next of kin phone contacts; time on scene; BE FAST assessment completed and results (or reason why not); blood glucose level; LKW time (including unknown); and whether the hospital was notified from the field and if it was a stroke alert.

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