Oregon Time-Sensitive Medical Emergencies Advisory Committee: Stroke Subcommittee Meeting Summary
2025 Quarter 3 | August 13, 2025

Slides and recording available upon request.
Note: meeting was recorded in two parts.

Appointed Subcommittee Members		
Name	**Position**	**Attendance**
Adrienne Duke	Rehabilitation specialist	Absent with notice
Tracy Holliday	Nurse	Present
Jeff Mathia	EMS provider	Present
Desi McCue	Hospital administrator	Present
Christian Smith	Emergency medicine physician	Absent without notice
Natalie Swearingen	Nurse	Present
Anudeep Yelam	Stroke neurologist – comprehensive stroke center	Present
Mike Wilder	Stroke interventionalist	Present

1. **Call to Order (Tracy Holliday) (Video 1 recording timestamp 00:00:09)**
   a. Roll call was conducted.
   b. OHA-EMS staff introduced themselves.
   c. Subcommittee members introduced themselves.
   d. The group went over expectations and norms for participation.
   e. The meeting agenda was reviewed; no changes were requested.

2. **EMS Modernization and Legislative Updates (Dana Selover, Oregon Health Authority Health Care Regulation and Quality Improvement) (Video 1 recording timestamp 00:09:00)**
   a. All three time-sensitive emergency specialty subcommittees gathered to hear about the next steps after the 2025 legislative session.
   b. House Bill 4081 passed in 2024 and is part 1 of the EMS Modernization plan. House Bill 3572, which would have been part 2, did not pass in 2025. Without the funding of House Bill 3572, OHA-EMS will need to re-prioritize the EMS Modernization objectives using existing resources.

3. **Q2 Subcommittee Summary (Tracy Holliday) (Video 2 recording timestamp 00:00:05)**
   a. A summary of the previous meeting was sent out to members. Jeff Mathia moved to accept the summary as written. Desi McCue seconded the motion.

4. **Patient Definition (David Lehrfeld, OHA EMS Program) (Video 2 recording timestamp 00:01:19)**
   a. The basic structure of a time-sensitive emergency (TSE) system of care was reviewed. This is the infrastructure for the trauma system and will be applied as the foundation for the stroke and cardiac TSE systems of care.

b. A five-year pathway for regional system design begins with the identification of state standards from national standards, where applicable, and codifying these standards in administrative rule. Regions would then develop their respective plans from the standards. Certification, regional implementation, and system improvement would follow.
c. The subcommittee will focus on setting state standards that will define a stroke patient. This definition will incorporate national standards and data standards. An example of a trauma patient definition was provided.
    - Raw data from the Oregon EMS Information System (OREMSIS) showed that approximately 15 types of stroke screening scales have been commonly used by ambulance services in the past few years, though most data points fall in an "other" category.
    - Two national stroke data system standards were highlighted: Centers for Disease Control (CDC) and the American Heart Association Get With the Guidelines (AHA GTWG).
    - Natalie Swearingen asked how the hospitals outside of the state participate in Oregon's system of care. David identified specific hospitals and their role as receiving facilities of Oregon trauma and cardiac patients.
    - Mike Wilder noted that the C-STAT screening tool was missing in the OR-EMSIS data. David stated that vendors of electronic prehospital charting programs may not have listed C-STAT as a specific option in a drop-down menu.
d. The subcommittee reviewed stroke screening tools and discussed the different needs in rural and urban settings.
    - The members agreed that prehospital patient identification needs should be addressed first. The group wanted to use a screening scale that is sensitive enough to cover the many variations of stroke symptoms and severity. State standards generally set minimum requirements, so a tool that covers the basic criteria can be used as the minimum standard, and regions may add and expand from the minimum.
    - The subcommittee discussed using both screening and severity tools as a potential two-step process, though did not decide definitively.
    - No specific screening and/or severity scale was selected, though several were mentioned for comparison at the next meeting.

5. Roundtable Updates (Video 2 recording timestamp 01:02:04)

a. Natalie Swearingen shared that transfer volume has gone down in Portland for large vessel occlusions (LVOs) this year. A neuroscience symposium will be held in September at Providence St. Vincent Hospital. Attendance options are both in-person and virtual. Providence offers annual EMS education each February relating to cardiac and stroke care. They are willing to include any education needs identified in this subcommittee.
b. Desi McCue shared the ED-EMS committee in the Portland-metropolitan area is focusing on EMS patient off-load times. A percentage of off-loads exceeds 20 minutes and in some cases, off-load times are more than an hour. They are attempting to develop system standards and guidelines to mitigate the delays.
c. Jeff Mathia will be a guest speaker at the Oregon EMS Conference in October this year and will be incorporating some of the discussion from today in his presentation. He would like to query the participants on the type of stroke scale they are using in the prehospital environment.

d. Anudeep Yelam shared that communication challenges exist with prehospital patient transfers. Not knowing the estimated time of arrival reduces the efficiency of preparation for teams and the catheterization labs, especially if another patient arrives to the ED before the incoming ambulance. More specific estimated times of arrival make the facility prep more efficient.
e. Tracy Holliday shared concerns regarding delays in transferring patients with large vessel occlusions to other facilities due to extended wait times for acceptance. Using an auto-acceptance similar to what is used for trauma patients would be advantageous. Other stroke patients are being moved efficiently. Most of these patients go to Washington or Boise (patient preference). Air transport is generally used for transfers to Portland, but sometimes delays in securing an aircraft are significant.

6. **Key Takeaways (Tracy Holliday)** **(Video 2 recording timestamp 01:25:38)**
   a. Review the relative sensitivity and specificity of EMS stroke screening scales and obtain feedback from EMS providers on the ease of training and use of these scales.
   b. Review the scales that will inform the definition of a stroke patient.
   c. Identify the minimum severity scale that will support the state definition of a stroke patient.
   d. Identify the levels of stroke care and identify national accreditation components to serve as minimum state requirements.
   e. Identify educational gaps between EMS and receiving facilities and explore training opportunities.
   f. Tighten the time frame for the activation of a stroke team.

7. **Public Comment** **(Video 2 recording timestamp 01:41:24)**
   a. Sergio Camba, EMS physician in Multnomah County, provided verbal comment and placed article links in the chat regarding the use of BEFAST in rural emergency departments. The Portland stroke screening tool was replaced with BEFAST as a prehospital screening tool. C-STAT is an additional tool being used in the tri-county area for determining stroke severity. He will be at the Oregon EMS conference in October. He would like to join the stroke subcommittee asked how he can get involved.
   b. Heather Vogel, St. Charles Health System, submitted a written comment: We teach BEFAST and our EMS Agencies often use this. For our ED we have begun utilizing the following questions and are considering sharing them with EMS to help with clarifying dizziness for B in BEFAST. FAST misses too much when it comes to posterior strokes. The three questions focus on balance to target posterior circulation stroke: Is the room spinning, shaking, or are you lightheaded; does it come and go or is it persistent with sudden onset within the last 24 hours; does the dizziness change with position? If the description of dizziness was sudden, spinning/shaking, persistent, and non-positional, then the patient is triaged as a stroke.
   c. John Turner, EMS physician in Clackamas County, submitted written comment to David Lehrfeld in advance of the meeting. He advocates BEFAST for screening and C-STAT for LVO. All stroke screens are approximately 70% for sensitivity and specificity according to a Prehospital Emergency Care article two years ago. BEFAST is used by the hospitals in the tri-county area, and it has common language for EMS and the hospitals. The metro EMS Consortium Protocol Committee adopted the tool last year and is supported by stroke neurologists at Legacy, Kaiser, and Providence. Salem EMS

uses BEFAST as does Bend. He does not support use of the National Institutes of Health Stroke Scale (NIHSS).

8. **Subcommittee Vacancies** **(Video 2 recording timestamp 01:47:29)**
   a. The subcommittee has open positions for a stroke neurologist from a primary stroke center, EMS supervising physician, and patient advocate/educator/injury prevention coordinator.

Meeting adjourned at 1202.

Next meeting:
November 5, 2025, 0900-1200
Virtual only on Zoom