OLD DOMINION EMERGENCY MEDICAL SERVICES ALLIANCE

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Stroke Committee

July 23, 2026
09:30 am to 11:30 am
Chair: Stacie Stevens, VCU
Vice Chair:

Members and Guests Present:	N/A
Virtual Attendees:	Stacy Stevens (Chair), Jennifer Jones, Dr. William Azie, Catlin Grasso, Charles Dority, Greg Neiman, Lauren Wine, Christopher Coombes, Teyona Sanford, Donna Batholomew, Ally Griffin, Danielle Geronimo, Danny Garrison, Lisa Baber, Kirby WIllis, Allen Richardson, Scott Zielinski, Hank Krohn Guests: Gary Samuels
ODEMSA Staff:	Ryan Scarbrough, Chris Vernovai, Heather Nelson
Minutes Scribed by:	Ryan Scarbrough
Materials Provided:	Previous meeting minutes and agenda

Topic / Subject	Discussion	Recommendations, Action / Follow-up; Responsible Person
Meeting Called to Order	**Stacie Stevens** • Called the meeting to order at 9:30 am; introductions were made around the group, including several new committee members. • A quorum was confirmed. • The April meeting minutes and the agenda were approved.	Motion to approve minutes: Motion by **William Azie,** seconded by **Scott Zielinski** (AMR). Motion to approve agenda: Motion by **Lisa Baber**, seconded by **Scott Zielinski** (AMR).
Committee Membership & Focus		
Committee Membership Update	• The committee roster has been rebuilt: 6 previously vacant seats have been filled, including the volunteer EMS, air medical, and inter-facility EMS seats.	**Action Item for next meeting: Vice Chair**

	• The Vice Chair position remains vacant and still needs to be filled. • ODEMSA continues trying to secure a stroke champion representative from the VA Hospital (Richmond); the three previously listed vascular neurology contacts have all left the facility. The VA advised (about six weeks ago) that they are in the hiring process and suggested checking back in 6–12 months.	
Committee Vision, Purpose & Annual Priorities	• ODEMSA presented a draft vision/purpose/annual priorities document for the committee, similar to documents being developed for other regional committees. • At Stacie Stevens' request, the order of the vision statement was revised to list EMS agencies ahead of hospitals. • Noted Q3 (Jan–Mar) annual priority: the regional Stroke Triage Plan should be reviewed/approved by the committee each year and forwarded to MDC and the Board of Directors for final approval. The 2026 Stroke Triage Plan was confirmed already reviewed and approved earlier this year, and the ODEMSA website has been updated accordingly.	Motion to approve the vision/purpose/focus document as a living document: Motion by Donna Bartholomew, seconded by Wade Richardson. Approved (one abstention).
Old Dominion EMS Alliance Report		
ODEMSA	**Heather Nelson** • The town hall held June 25 is available on the ODEMSA website, with good Q&A between agencies and the Office of EMS. • The regional Whole Blood Program has started: approved by the Board of Directors, contract signed with INOVA Blood Services, and MOUs between agencies and Region 6 approved by ODEMSA's attorney with agencies signing on. Next step is determining the best use of ODEMSA's allotted funds. • Committee rebuilding remains ongoing across ODEMSA.	

	• Data repository workshop training remains available; see the ODEMSA website. • Measles information, including a recording of the regional webinar, remains available on the ODEMSA website.	
Hospital Reports		
HCA (Johnson-Willis/Chippenham/Swift Creek)	**Lauren Wine** • New Stroke Coordinator on board for Chippenham and Swift Creek; no other updates.	
HCA (Henrico Doctors)	**Charles Dority** • A new EMS Relations Director, James Courtney, has joined and is still onboarding.	
Bon Secours	**Jennifer Jones** (St. Francis) • St. Mary's remains under construction for an extended period; updates will be shared as they occur. • The health system has successfully used the extended thrombolytic (TNK) treatment window in several cases. • St. Francis is developing an ICH protocol to keep more small hemorrhages at the local facility rather than transferring every bleed to a comprehensive center. • The Viz AI platform has been expanded to LVO, subdural hemorrhage, and ICH over the last year and a half, with subarachnoid hemorrhage expected to be added over the next year. **Donna Bartholomew** (Community Memorial Hospital, South Hill) • A successful Joint Commission stroke survey was completed July 8, with only 2 RFIs (individualized stroke education and neuro-assessment/reassessment documentation); a plan of correction is already underway.	

	• Will present stroke information for EMS providers at the October CME weekend, with emphasis on pre-arrival stroke notification so the ED can have CT and the provider ready on patient arrival.	
Sentara Halifax	• No specific updates; program continues to operate normally.	
VCU	**Stacie Stevens** • VCU has also implemented the extended thrombolytic treatment window, including administering TNK to two pediatric patients (an article on this is in progress). • Continued focus on ICH protocols/reversal-agent turnaround and blood pressure management for anticoagulated patients. **Greg Neiman** • Continued focus on reducing wall times.	
EMS Agency Reports		
Central Rescue Squad / Gasburg VFD	**Wade Richardson** • 3 successful stroke flyouts in the last month and a half, working well with area medevac providers (MedFlight, LifeEvac, Duke LifeFlight out of Henderson). • Raised a data-sharing gap: when a crew transfers a stroke patient to another EMS agency (e.g., a medevac), receiving hospitals often cannot access the originating crew's patient care report unless an actual hospital destination (not just "transferred to EMS agency") is entered in the PCR.	
LifeEvac	**Ally Griffin** • New committee member; LifeEvac crews try to collect a referring crew's name/contact before departure so they can follow up if the	

	patient is diverted to a different receiving facility in flight, helping the originating agency select the correct final destination in their documentation.	
Richmond Ambulance Authority	**Danielle Geronimo / Danny Garrison** • Nothing to report from the clinical or communications side. • RAA has disabled the "other" stroke-scale option in its ePCR; providers must complete BE-FAST and, if positive, the VAN assessment (using ESO).	
AMR	**Scott Zielinski** • Operating normally; offered to help troubleshoot the inter-facility transfer form and regional data initiatives given AMR's inter-facility transfer volume.	
New Kent Fire Rescue	**Lisa Baber** • No report.	
Hospital to Home	**Hank Krohn** • No stroke-specific updates; offered Epic build/integration expertise to help modernize the inter-facility transfer process	
Old Business		
Inter-Facility Stroke Transfer Form	**Stacie Stevens** • Reviewed ODEMSA's longstanding paper Inter-Facility Stroke Transfer Form (originally developed at ODEMSA and later adopted statewide through the Virginia Stroke System Task Force/VDH Office of EMS), used to communicate blood pressure parameters, thrombolytic details, receiving facility contact information, and positioning guidance (e.g., flat positioning for LVO patients) during inter-facility transport, plus TNK/tPA documentation.	**Chris Vernovai** to distribute the current Inter-Facility Transfer Form to the committee.

	Hank Krohn • Adoption of the form has historically been low. Suggested building it directly into Epic (covering roughly 75% of Virginia hospitals) as an auto-populating transfer/discharge document rather than a standalone paper form; AMR and Hospital to Home offered to help pilot and distribute it. **Stacie Stevens** • Noted the form is not currently an approved medical record document, so EMR integration would need to go through each hospital's own governance process.	
Virginia Stroke System Task Force (VSSTF) Update	**Stacie Stevens** • VSSTF has resumed quarterly hybrid meetings following restructuring with VDH. • The most recent meeting (in Staunton) featured a guest speaker, an EMS medical director from Florida, presenting on "The Power of an EMS-Driven Stroke Registry in Shaping Florida Stroke Outcomes," including using EMS-driven outcomes data (rather than distance alone) to guide stroke transport destinations and lessons from building a statewide EMS stroke registry. The committee discussed whether this model would translate well to Virginia given different hospital density/geography across regions. • The next VSSTF meeting is tentatively October 17 or 18 at Sheltering Arms Institute (local/hybrid) and is open to the public — all committee members are welcome to attend.	
Regional Stroke Performance Improvement (PI) Data Review		
Q4 FY2026 Regional Stroke Measures Report	**Ryan Scarbrough** • Data for this quarter (Q4 FY2026, April 1–June 30) was pulled from ESO's raw data export due to ongoing Insights dashboard issues, which OEMS expects resolved by end of July; the data was validated and is reliable despite the different extraction process.	**Ryan Scarbrough** to pull "time at patient to transport" data for the next meeting.

	• The region reported 942 qualifying stroke incidents (941 patients met the AHA initial population criteria). • Stroke screen compliance was 85.8% (784 of 914 eligible); blood glucose evaluation compliance was 95.6% (504 of 527 eligible); last known well documentation was 89.6% (515 of 575 eligible); pre-arrival stroke alert activation was 85% (484 of 527 eligible) — an improvement from an 18.8% documentation gap last quarter. • On-scene time remains the primary improvement opportunity: only 39.2% of eligible cases met the 15-minute goal (up from 32.7% in Q1), with a median scene time of 16.6 minutes. The committee discussed also tracking "time at patient to transport" (in addition to on-scene-to-transport time) to account for factors like elevator/access delays in some facilities; Ryan will pull this additional metric for the next meeting. • 96.1% of stroke transports went to a facility with an appropriate stroke designation (925 incidents evaluated); 3 destinations could not be fully classified (Centra Gretna Medical Center, one unspecified out-of-state hospital, and Children's Hospital of Richmond at VCU). The committee's help is needed to confirm the current regional stroke center designation list is accurate for future reports. • Cerebral infarction remained the most common impression (719 primary/90 secondary), followed by TIA (102 primary/28 secondary); a small number of cases used the nonspecific I-62 code (27 primary/4 secondary) — now being captured correctly following a filter correction, and the committee opted to keep tracking it. There were no qualifying I-60, I-61, or G46 (subarachnoid hemorrhage) cases this quarter. • Stroke scale documentation remains an improvement opportunity: CPSS and FAST-ED were the most common validated scales used (474 combined), but "other/unspecified" was the single largest category (349). Discussion suggested this may partly reflect ePCR systems only allowing a single scale selection even though the protocol calls for BE-FAST followed by VAN if positive. Richmond Ambulance Authority has already disabled the "other" option and	**Ryan Scarbrough** to break down "other" stroke-scale selections by agency once the Insights dashboard is restored. Committee/liaisons to help confirm the current regional stroke center designation list.

	requires BE-FAST/VAN; other agencies may be able to do the same at the system-administrator level. • 5 incidents passed the initial ESO query but did not contain qualifying stroke codes on manual review and were excluded from the final population. • Proposed a regional education campaign focused on on-scene time, pre-arrival alert activation, and stroke scale/LVO screening documentation, distributed via station and ED flyers, subcouncil/committee communications, and social media, and reinforced with agency OMDs at the next MDC meeting.	
Future PI Initiatives	• Discussion emphasized that any additional data pulled should be tied to an actionable improvement effort (PDSA: Plan-Do-Study-Act) rather than pulled for its own sake. • As a low-cost starting point, Stacie Stevens suggested EMS liaisons and stroke coordinators informally poll a sample of providers on why they selected a given stroke scale, to help gauge whether "other" reflects confusion, workflow limitations, or ease of selection.	
New Business		
Pediatric & Adult Stroke Protocol Revisions	• The pediatric stroke protocol (created in 2023) was previously approved by MDC but never formally published, reportedly pending a plan to publish related protocol updates together. • Stacie Stevens has already taken the current pediatric stroke protocol to the Pediatric Stroke Committee (Child Neurology/Pediatric Emergency Medicine), which recommended two edits: adding stroke history under HPI (reflecting an increase in pediatric patients with a prior stroke history), and a minor grammatical wording correction with no change in content. • With those two edits, the committee agreed to move the pediatric and adult stroke field protocols forward to MDC for final approval and publication.	Chris Vernovai to finalize and submit the pediatric and adult stroke protocols to MDC with the two agreed edits.

Stroke Triage Plan Workgroup	• A workgroup was formed to review and update the regional Stroke Triage Plan ahead of the committee's annual Q1 approval cycle, particularly to incorporate the extended thrombectomy/thrombolytic treatment windows now in use. • Volunteers: Stacie Stevens, Jennifer Jones (St. Francis), and Greg Neiman (VCU).	**Chris Vernovai** to coordinate the Stroke Triage Plan workgroup and reach out for any additional volunteers.
Business from the Floor	• None additional; remaining agenda items (including stroke center designation verification) will be completed electronically given time.	
Adjourn		
		Next Meeting: Quarterly cadence (date to be confirmed by ODEMSA staff). The meeting adjourned at approximately 11:14 am.

Reporting Period: Q4 FY2026

Regional Stroke Measures Report

AHA Mission: Lifeline Aligned EMS Performance Measures

Calendar - April - June 2026 | Fiscal Year Q4 FY2026

VDH VIRGINIA DEPARTMENT OF HEALTH
Office of Emergency Medical Services
Region 6

OLD DOMINION EMS ALLIANCE
SERVING PLANNING DISTRICTS 13, 14, 15, & 19

The accuracy of the data within this report is limited by system performance and the accuracy of data submissions from EMS agencies. Data summarized in this report represent EMS responses that occurred during the specified quarter and were entered into the ESO State Repository as of the date of this report.

Executive Summary

Q4 FY2026 AHA Mission: Lifeline stroke measures at a glance

AHAEMS4.1

Stroke Screen Performed

85.8%

784 / 914

AHAEMS3.1

Blood Glucose Evaluated

95.6%

504 / 527

AHAEMS2.1

Last Known Well Documented

89.6%

515 / 575

AHAEMS1.1

Pre-Arrival Stroke Alert

85.0%

448 / 527

AHAEMS13.0

On-Scene Time <=15 min

39.2%

203 / 518

KEY FINDINGS

942 qualifying stroke incidents this quarter (5 incidents excluded on manual review - see Methodology). 941 adults met the AHA Initial Patient Population criteria.

Blood Glucose (95.6%) and Last Known Well (89.6%) both remain strong, reflecting consistent assessment practices for positive stroke screens.

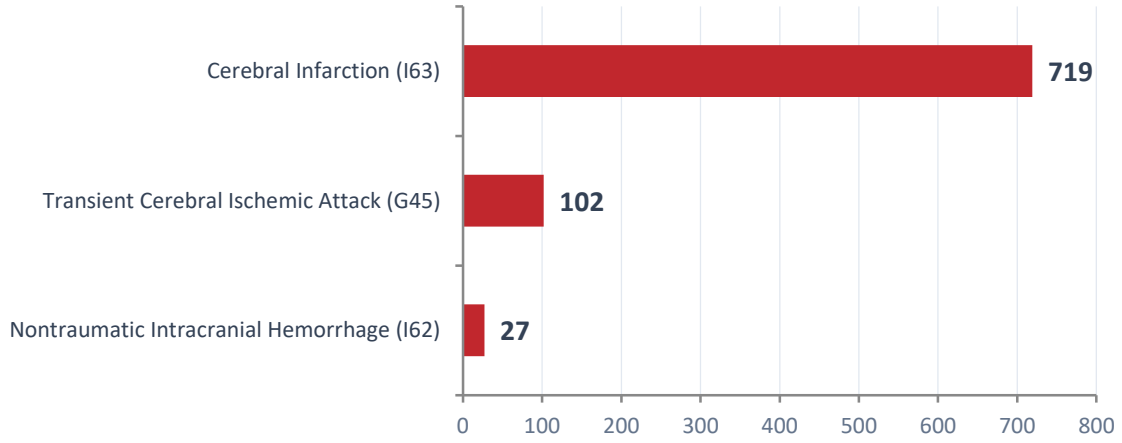
On-Scene Time <=15 min at 39.2% (median 16.6 min) remains the clearest improvement opportunity for the committee to focus on.

89.4% of stroke transports went to a Primary, Comprehensive, VHA, or Thrombectomy-Capable stroke center - see Transport Appropriateness slide for the full regional breakdown.

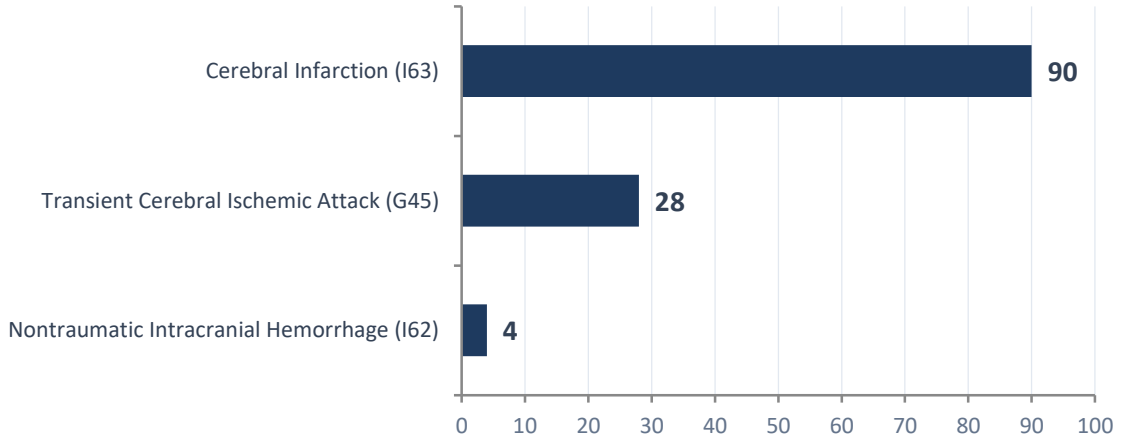
Provider Primary & Secondary Impressions

Stroke-related impressions among 942 qualifying incidents

PROVIDER PRIMARY IMPRESSION



PROVIDER SECONDARY IMPRESSION



Impression Category	ICD-10	Primary	Secondary	Total*
Cerebral Infarction	I63	719	90	**809**
Transient Cerebral Ischemic Attack (TIA)	G45	102	28	**130**
Nontraumatic Intracranial Hemorrhage	I62	27	4	**31**

** A patient may have both a primary and secondary stroke impression; totals represent separate impression documentations, not unique patients. No I60/I61/G46 cases this quarter.*

AHAEMS4.1 - Stroke Screen Performed

Percentage of suspected stroke patients with a documented stroke assessment

COMPLIANCE RATE

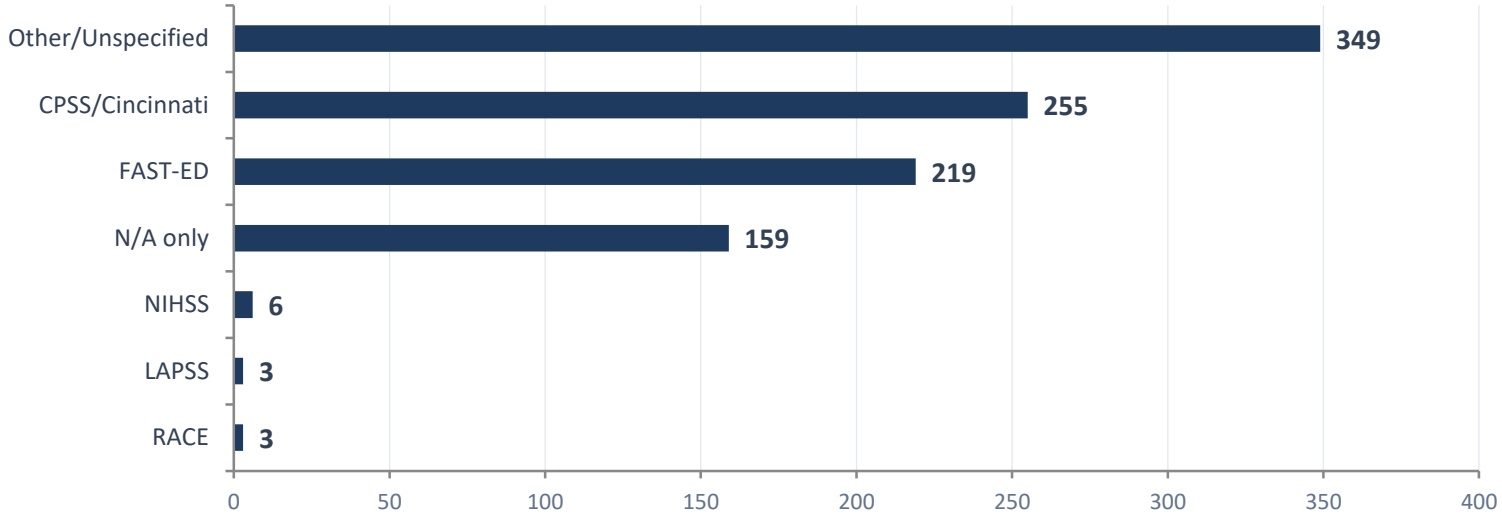
85.8%

784 of 914 eligible

Initial pop: 941 | After GCS/AVPU exclusions: 914

Data element: eVitals.30 (Scale Type) & eVitals.29 (Score)

STROKE SCALE TYPE USED (n=941 initial population)

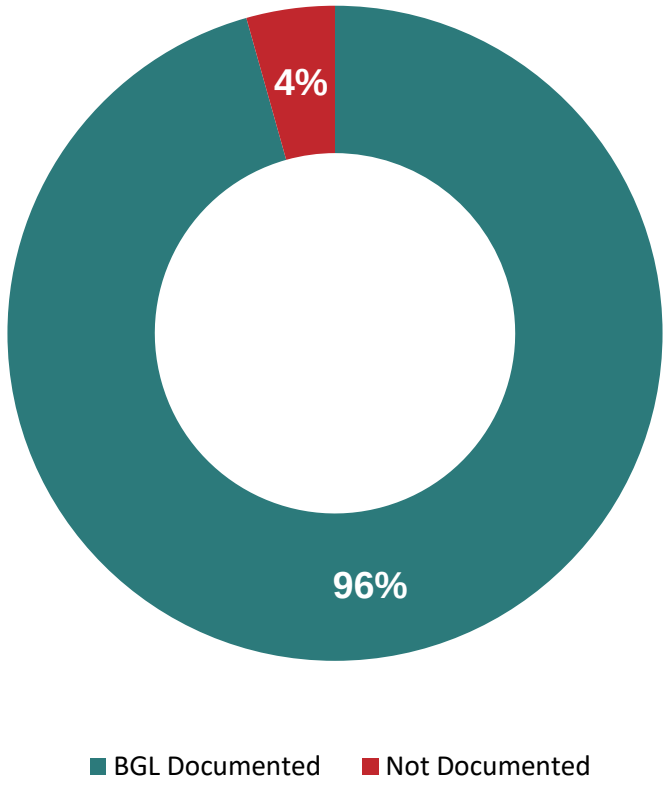


SCALE TYPE OBSERVATIONS

CPSS (Cincinnati) and FAST-ED remain the dominant validated scales in use (474 combined).
"Other/Unspecified" remains the largest single category at 349 - opportunity to standardize on a validated LVO screening scale.
159 incidents had only N/A documented for scale type. PCRs may have multiple scale entries, so bar counts overlap.

AHAEMS3.1 - Blood Glucose Evaluated

Percentage of positive stroke screens with documented blood glucose measurement



COMPLIANCE RATE

95.6%

504 of 527 eligible with positive stroke screen

Data element: eVitals.18 (Blood Glucose Level)

DENOMINATOR DERIVATION

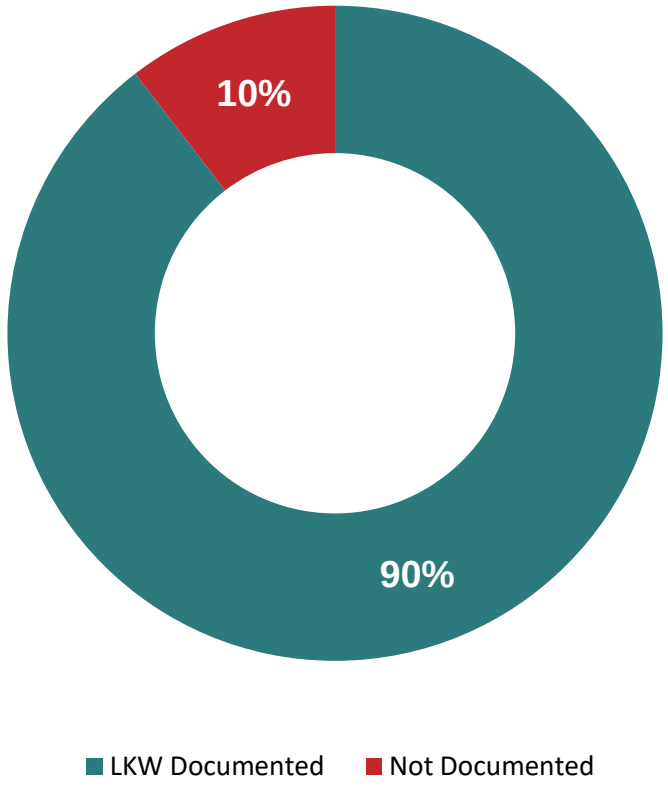
584 Positive stroke screens

-57 GCS <=9 / AVPU Unresponsive / BGL PN exclusions

527 **Denominator**

AHAEMS2.1 - Last Known Well Documented

Percentage of positive stroke screens with documented last known well time



COMPLIANCE RATE

89.6%

515 of 575 eligible with positive stroke screen

Data element: eSituation.18 (Date/Time Last Known Well)

WHY THIS MATTERS

Last Known Well (LKW) is the single most important time datapoint in stroke care.

Eligibility for tPA and mechanical thrombectomy depends on time from LKW to treatment. EMS documentation of LKW directly enables ED decisions within minutes of arrival.

89.6% reflects consistent documentation practice across the region.

AHAEMS1.1 - Pre-Arrival Stroke Alert

Percentage of positive stroke screens with a Yes-Stroke pre-arrival activation

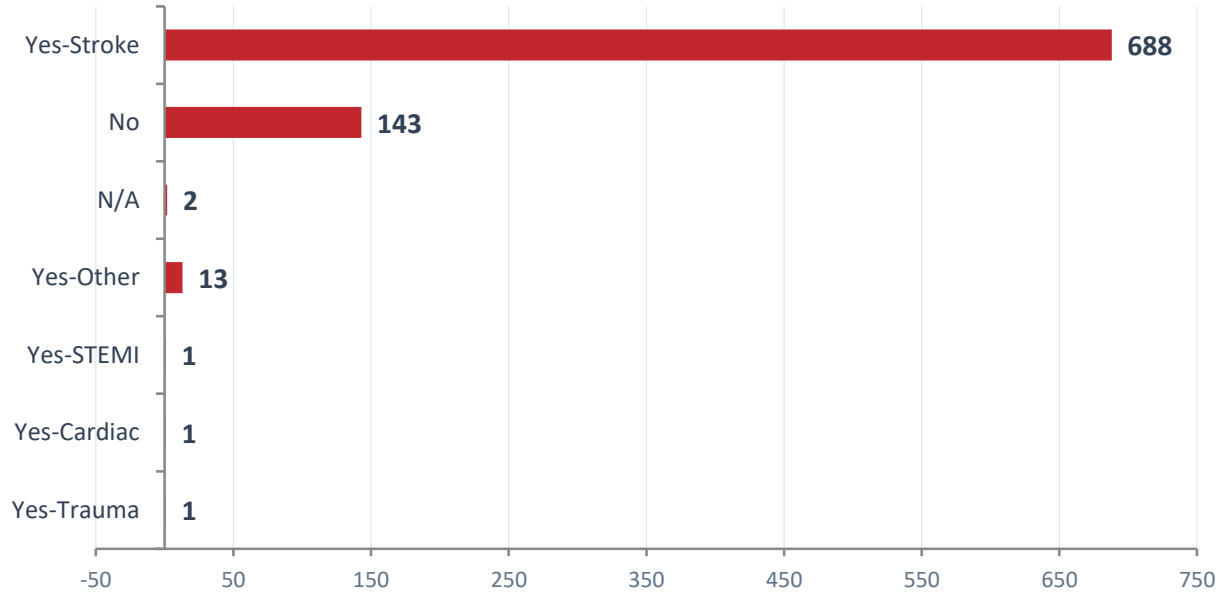
COMPLIANCE RATE

85.0%

448 of 527 eligible with positive stroke screen

Data element: eDisposition.24 (Pre-Arrival Alert)

ALERT TYPE DISTRIBUTION (n=941 initial population)



IMPROVEMENT OPPORTUNITY

15.0% of eligible positive stroke screens had no stroke pre-alert. Early ED activation supports faster door-to-imaging and door-to-needle times. *Improved from last quarter's 18.8% gap - continue reinforcing consistent activation.*

AHAEMS13.0 - On-Scene Time <=15 Minutes

Percentage of positive stroke screens with scene time under 15 minutes (AHA goal)

COMPLIANCE RATE

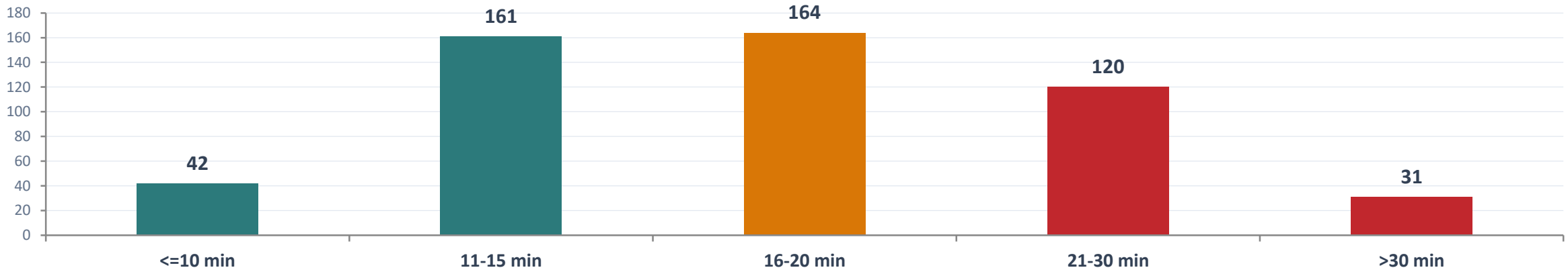
39.2%

203 of 518 eligible

Data: eTimes.06 (On Scene) / eTimes.09 (Left Scene)

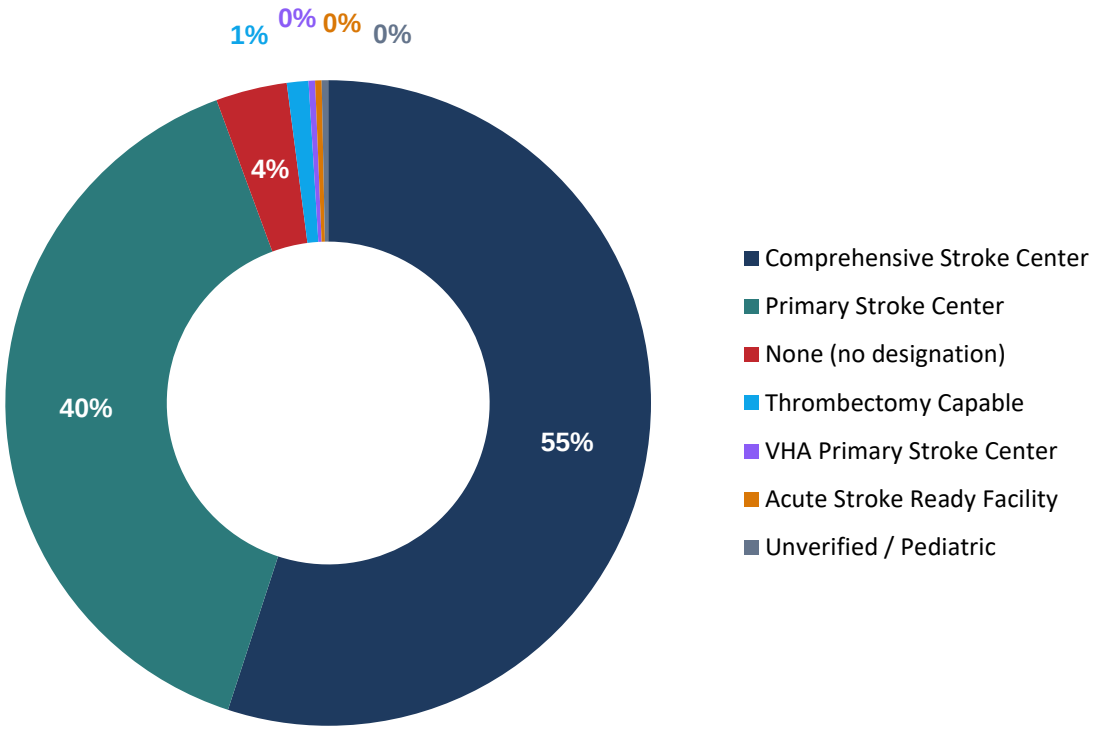
MEAN	MEDIAN	WITHIN 10 MIN	WITHIN 20 MIN
17.8 min	16.6 min	8.1%	70.8%

SCENE TIME DISTRIBUTION (n=518 eligible cases)



Transport Appropriateness

Stroke transports by receiving facility stroke-center certification level



Facility Certification	N	%
Comprehensive Stroke Center	509	55.0%
Primary Stroke Center	364	39.4%
None (no designation)	33	3.6%
Thrombectomy Capable	10	1.1%
VHA Primary Stroke Center	3	0.3%
Acute Stroke Ready Facility	3	0.3%
Unverified / Pediatric (see Methodology)	3	0.3%
TOTAL	**925**	**100%**

96.1% of stroke transports went to a Comprehensive, Primary, Thrombectomy-Capable, VHA Primary, or Acute Stroke Ready facility.

Limitations, Notes & Next Steps

Transparency on what this data can and cannot tell us

KNOWN LIMITATIONS

5 Incidents Excluded

Passed the ESO query filter but had no qualifying stroke code on manual review. Root cause undetermined.

Scale Type Variability

349 incidents were documented as “Other or Unspecified.” Regional protocols identify standardized stroke assessment tools, but agency OMDs may determine which tool is used and which secondary assessment is performed when an LVO is suspected.

Secondary Diagnosis Confirmation

EMS impression data reflects prehospital clinical judgment, not hospital-confirmed stroke diagnosis.

NEXT STEPS & RECOMMENDATIONS

1. Continue Targeting AHAEMS13.0 (Scene Time)

Compliance improved from 32.7% to 39.2%. Continue reinforcing a timely “load and go” approach for suspected stroke patients.

2. Sustain AHAEMS1.1 Improvement

The pre-alert gap narrowed from 18.8% to 15.0%. Continue reminding providers to activate and document stroke pre-arrival alerts.

3. Reinforce Regional Stroke Assessment Protocols

Remind agencies that regional protocols identify standardized stroke assessment tools while allowing agency OMDs to determine which scale and follow-up LVO assessment are used.

4. Develop Regional Stroke Education Messaging

Create concise educational materials addressing scene time, pre-arrival alerts, documentation, stroke scale selection, and LVO screening. Distribute them in EMS stations, hospital EMS rooms, committee communications, and on social media. Reinforce the messaging with OMDs during an MDC meeting.

ODEMSA Stroke Steering Committee

Vision

To strengthen and advance the regional stroke system by fostering collaboration among EMS agencies, hospitals, physicians, and regional partners to improve patient outcomes through evidence-informed protocols, performance improvement, and coordinated system planning.

Purpose

The ODEMSA Stroke Steering Committee serves as the regional multidisciplinary body responsible for evaluating, coordinating, and improving the continuum of stroke care throughout the ODEMSA region. The committee provides clinical and operational guidance through collaboration, performance improvement, evidence-informed decision making, and strategic planning to support a high-performing regional stroke system.

Committee Focus

The committee will focus on:

- Reviewing regional stroke system performance and identifying opportunities to improve patient outcomes.
- Utilizing EMS, hospital, and regional performance improvement (PI) data to identify trends, barriers, and opportunities for system improvement.
- Reviewing and providing recommendations regarding regional adult and pediatric stroke triage protocols and related clinical guidelines.
- Conducting the required annual review of the Regional Stroke Triage Plan and recommending revisions as appropriate.
- Promoting collaboration among EMS agencies, hospitals, physicians, communications centers, interfacility transport providers, air medical providers, and other regional stakeholders.
- Identifying educational needs through performance improvement findings and collaborating with the ODEMSA Training & Education Committee to support regional educational initiatives.
- Providing a forum for sharing best practices, innovative approaches, and lessons learned that improve regional stroke care.
- Monitoring emerging evidence, national guidelines, regulatory changes, and evolving best practices that may impact regional stroke care.

Annual Priorities

Each year the committee will strive to:

- Complete the annual review of the Regional Stroke Triage Plan. (due CY Q1)
- Review regional adult and pediatric stroke triage protocols and recommend revisions as appropriate.
- Review regional stroke system performance data and identify measurable quality improvement initiatives.
- Monitor the progress and outcomes of identified quality improvement initiatives.
- Identify regional educational needs based on performance improvement findings and communicate those needs to the ODEMSA Training & Education Committee.
- Promote communication, collaboration, and engagement among all regional stroke system stakeholders.
- Review committee membership annually to ensure representation from all stakeholder groups identified in the committee bylaws.

Guiding Philosophy

The Stroke Steering Committee exists to continually evaluate and improve the regional stroke system through multidisciplinary collaboration, performance improvement, evidence-informed clinical guidance, and strategic planning to ensure the highest quality stroke care for the communities served within the ODEMSA region.

Committee Approval: July 23, 2026

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Stroke Committee Meeting

July 23rd, 2026; 09:30am – 11:00am
Chair: Stacie Stevens, VCU
Vice-Chair:

Conference Call#:

Purpose:	• To establish regional stroke guidelines and provide oversight on stroke related issues, training and education.
Desired Outcomes:	• Any appropriate follow-up/action as result of reports and/or updates
Deliverables:	• Due Third Quarter (Jan-March) = Regional Stroke Triage Plan

AGENDA

Welcome

- Introductions, Guests
- Determine Quorum (7 plus Chair/Vice-Chair)
- Approve Minutes, Agenda
- Chair's Remarks

Committee Administration

- Committee membership update
- Review representation and vacancies
- Vision, Purpose, Committee Focus & Annual Priorities

Reports

- ODEMSA Report
- Hospital Stroke Program Updates
- EMS Agency Updates
- Virginia Stroke Systems Task Force (VSSTF) Update

Performance Improvement

- Regional Stroke Performance Data
  - On-Scene Times
  - Blood Glucose
  - Stand-Alone Facility Impacts on Stroke/Neuro Pts
- Future PI Initiatives

Old Business

- Education and Outreach
  - Stroke Center Level Certifications
  - Treat vs Transport
  - Data Driven Initiatives

New Business

- Clinical Review - Protocol Review & Recommendation for Approval
  - Pediatric Stroke Protocol
  - Adult Stroke Protocol
- Education and Outreach
  - Stroke Center Level Certifications
  - Treat vs Transport
  - Data Driven Initiatives
- Business from the Floor

Next Meeting

- October 22, 2026 09:30

Adjourn