

# Northern Virginia Emergency Medical Services Council

Regional Stroke Committee  
Tuesday, April 25, 2023  
10:00 am



Location:  
Virtual —Zoom

## AGENDA

**Type of Meeting:** Collaborative exchange of information to improve the stroke system of care in the Northern Virginia region

**Chair Persons:** Margaret Probst, NV EMS Council Stroke Smart Coordinator  
Dr. Laith Altaweel, Neurointensivist, Inova

- **Call to order**
- **Approval of January 24, 2023 meeting minutes**
- **AHA Update** – Tawny Jackson
- **Stroke Smart Update** – Margaret Probst
- **Regional Data Update** – Margaret Probst
- **Northern Virginia Regional Stroke Triage Plan Review and Discussion** –  
Michelle Ludeman
- **Roundtable**
  - What do we want to see in the next meeting?
  - Who would like to present a case study?
- **Adjournment**



## Northern Virginia Emergency Medical Services Council

**Regional Stroke Committee Meeting**  
**Tuesday, April 25, 2023**  
**10:00 am**

**Held via Zoom**

### **Those present were:**

Ali Eastridge	alison.pinch@inova.org
Andrea Helmbach	alyochem@sentara.com
Andrew Sanders	asanders@pwcgov.org
Beth Adams	beth.adams@fairfaxcounty.gov
Brian Orndoff	brian.orndoff@fairfaxva.gov
Bruce Kaczmarek	bakaczma@sentara.com
Chris Wanka	christopher.wanka@yale.edu
Craig French	craig.french@inova.org
Danielle Nielsen	danielle.nielsen@inova.org
Dawnielle Feucht	dawnielle.feucht@inova.org
Gary Hubble	gary.hubble@mwa.com
Jackie Leutbecker	jacqueline.leutbecker@inova.org
James Maneval	jmaneval@pwcgov.org
John Bowers	jbowers@manassasva.gov
Kate Kramer	kkramer@arlingtonva.us
Kate Passow	kate.passow@gmr.net
Laith Altaweel	laith.altaweel@inova.org
Margaret Probst	margaret@vaems.org
Michelle Ludeman	<a href="mailto:michelle@vaems.org">michelle@vaems.org</a>
Neha Sullivan	nsullivan@pwcgov.org
Phillippa Durham	philippadurham@gmail.com
Rebecca McFarland	rebecca.mcfarland@hcahealthcare.com
Rita Muldoon-Laccone	rita.muldoon-laccone@inova.org
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Sairah Bashir	sairah.bashir@inova.org
Seajin Yi	seajin.yi@inova.org
Shelby Magyar	vzp8kb@uvahealth.org
Steve Kling	steven.kling@inova.org
Tawny Jackson	tawny.jackson@heart.org

*The meeting was started at 10:03 am by Dr. Laith Altaweel.*

## WORKGROUP CHAIRS

- Margaret Probst, Stroke Smart Coordinator, NVEMSC
- Laith Altaweel, MD NeuroIntensivist, Inova Health System

## APPROVAL OF MINUTES

Minutes for the January 24, 2023, meeting were sent via email before the meeting for review and approval

- Motion to approve minutes as written with no changes
  - Kate Kramer made a motion to approve as written
  - Seajin Yi seconded the motion
    - ***The minutes were approved unanimously***

## AHA UPDATE

Tawny Jackson gave the following update

- May is Stroke month
  - They have put together a great Stroke Tool Kit with excellent educational materials that will be at the end of these minutes.
  - Educational webinars are coming up.
    - She will share the email resource template with the group so everyone has to use it if anyone is looking for educational materials for clinicians and patients.
- Tawny will be transitioning out of her role as QI Consultant Manager at the end of this week.
  - They have hired someone new, but transitioning them into the new position will take a few weeks.
  - She is moving to the certification team in another role for AHA outpatient certifications.

## STROKE SMART UPDATE

Margaret Probst presented an update to the group. A copy of her slides is at the end of these minutes.

- There was a discussion about the accuracy of the data pulled from ESO and how to get specific minimum data points to be completed on ePCR reports by EMS.
  - Brian Orndoff from the City of Fairfax FD indicated that it might not be that the agencies aren't entering it or aren't willing to provide it, it may be that if the agencies have specific fields that they are adding to their reports, there may not be a space for that in what the state is gathering from ESO, so while it appears it's not being reported or documented, it actually may just be the difference in interface between the agencies entries and what the state can receive and then report out, which is what the state believes is the minimum data. Most of us in northern Virginia likely want more information than the state minimum data.
  - Margaret Probst added that since not every agency uses the same software, they have different fields for reporting, and Last Known Well isn't defined for everyone. Some, such as Loudoun and Fairfax Counties, have a field that says "duration." That can be up for interpretation from the provider. Does that mean last known well? Does that mean the duration of a specific symptom? Does that mean something else to the patient and/or provider?
    - Margaret also stated that to receive and present Last Known Well data, she had to go through the narrative portion of all 190 reports to see if it was documented to be able to compile the data.
      - Dr. Altaweel asked if it was reasonable to ask all the agencies to use just one system or how to standardize the bare minimum. He feels that Last Known Well is a bare minimum.

- Kate Kramer from Arlington County FD also stated that while we have regional plans and recommendations, each provider will have its reporting guidelines. We can only make those suggestions to the agencies, but they aren't regional requirements. Everyone also has their documentation style, and she believes that 99% of the time, it's told to the ER doctors but perhaps isn't being documented for whatever reason.
  - She feels this would be a good suggestion to add to the Stroke Triage Plan since we'll review it today.
- Brian Orndoff said he just reviewed their reporting system as Last Known Well is a required field, and it's in their reports, so it's either an issue with it being imported into ESO or how the report is being run and not looking at the right field.
  - He also thinks it's reasonable to ask all providers to complete the field, but it's not practical to try to transfer reporting systems for all agencies due to the training required for all personnel; it's not realistic.
- Dr. Altaweel will talk with VSST about how we can get that standardized in reporting through ESO.
- Michelle also stated she gets a report from the state about what agencies do not meet the data requirements.

#### **QUARTERLY DATA REVIEW**

Margaret presented the following data for the fourth quarter of the calendar year 2022

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#### **Fourth Quarter 2022 Regional Stroke Data**

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Data was requested from 10 stroke coordinators overseeing 13 facilities: Alexandria, Ashburn/Cornwall/Loudoun, Fairfax, Fair Oaks, Mt. Vernon, Reston/Tysons, Sentara, Stone Springs, UVA Prince William, VHC.

##### **1) Median Door to tPA/TNK: 40 minutes (90 cases)**

- The value is comprised of data reported from 8 stroke coordinators from 9 facilities: Loudoun, Fairfax, Fair Oaks, Mount Vernon, Reston, Tysons, Sentara, StoneSprings, and UVA Prince William.

##### **2) Median Door to Puncture: 93.5 minutes (50 total cases)**

- Data from Fairfax and Reston.

##### **3) Median DIDO time for Transfers: 132 minutes (27 total cases)**

- Data were reported from 3 facilities: Loudoun, Fair Oaks, and UVA Prince William.

#### **NORTHERN VIRGINIA REGIONAL STROKE TRIAGE PLAN REVIEW AND DISCUSSION**

- Dr. Altaweel asked about the nature of the plan, what is needed, and a timeframe for reviewing and making any recommendations.
  - Michelle Ludeman advised that this is a regional guideline for EMS providers. Each agency has its protocols for stroke triage, but many are derived from this plan. We can form a workgroup to review and make recommendations back to this committee, and then once approved by this committee, it would go to the NVEMSC Board of Directors for review and approval.
    - Dr. Altaweel stated this is a great time to discuss that because there likely can be a

workgroup for this and the prehospital data screening aspect and prehospital screening tools.

- He also advised that he found a study by multiple societies, including NAEMSP and NASEMSO, about LVO stroke scales. He hopes we can include the AHA guideline into the Stroke Triage Plan or merge them to create a new one for the region.
- He also thinks an interfacility plan should differ from the prehospital plan.
  - Beth Adams added that since the pandemic, the hospital systems have had significantly more involvement. Having their input will be impactful on this document because, in the past, it's been primarily EMS making the changes and recommendations. With the hospitals' input, we can be sure we're covering essential aspects that may not have been considered.
- In the meantime, Dr. Altaweel will send ideas to a few committees to see what they think, and then those interested in participating can review it. Please review the document, see your recommendations and thoughts, and get back to the committee at the next meeting.

### **REGIONAL ROUNDTABLE**

- Michelle Ludeman advised that we seek an EMS co-chair to replace Margaret since she's leaving her employment with the Council next month. If anyone is interested, please get in touch with the Council staff at [northern@vaems.org](mailto:northern@vaems.org)
- He will send an email with a summary of the bullet points of what to think about for committees and the data issue with ESO and to review the guidance documents.
- Who else should we be engaging in the discussion?
  - Kate Kramer asked if the Regional Stroke Triage Plan would go through the local OMD group before approval, and Michelle advised it would
  - Each medical director has their preferred protocol and algorithm for strokes, so this is part of why the plan is as vague as it is and is only used as a guideline.
    - Kate thinks it may be a good idea to have representation from the group reviewing this plan to go in front of the OMDs to stress the importance of some of the points we've discussed and try to convince more collaboration.
    - Kate also stated there is discussion on the use of "last known well" versus "last known normal" and what is the more practical measure that changes the decision-making on the hospital level.
      - For example, VHC uses the last known well with their perfusion scan if it's a nebulous time of onset, no witnesses, etc.
      - Is there an opportunity to streamline that in any way?
        - Dr. Altaweel stated he could add some thoughts on that topic if we can get him into one of the OMD meetings.

### **Presentation for next meeting:**

- If anyone has an interesting case they'd like to present, please notify the committee chairs

### **UPCOMING MEETING DATES:**

- July 25, 2023 - 10:00 AM
- October 24, 2023 - 10:00 AM

***The meeting was adjourned at 10:55 am.***

CERTIFICATION OF THE REGIONAL STROKE COMMITTEE MEETING

Northern Virginia EMS Council, Inc  
7250 Heritage Village Plaza, Suite 102  
Gainesville, VA 20155

I, Laura Vandegrift, Administrative Coordinator of the Northern Virginia EMS Council, certify that the above minutes are a true and correct transcript of the meeting minutes of the Regional Stroke Committee held on April 25, 2023. The minutes were officially approved on July 25, 2023.

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Laura Vandegrift  
Administrative Coordinator

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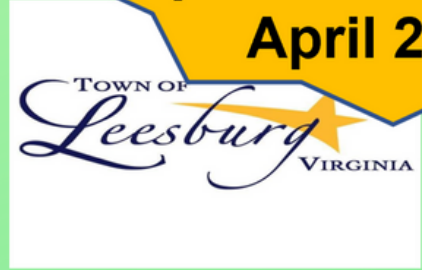
Date

DRAFT

Purcellville issued its Stroke Smart proclamation on October 25.



Leesburg issued its Stroke proclamation in April 2022



Vienna became Stroke Smart in May 2022.



Loudoun County proclaimed in June 2022



The proclamation in Fairfax will be on May 9, 2023.

Falls Church became Stroke Smart in April 2022.



The City of Fairfax became Stroke Smart in April 2022.



Manassas issued its Stroke Smart proclamation in May 2022.



Arlington County proclaimed in May 2022



Prince William became Stroke Smart in August 2022



Manassas Park became Stroke Smart in March 2022



Manassas Park

Manassas

Prince William County

Fairfax County

City of Fairfax

Arlington County

Falls Church

Alexandria

Alexandria became Stroke Smart in 2017



Dumfries issued its proclamation in May 2022



Dumfries

Planning District 8

State of Virginia





# Stroke Smart

# Training Sessions



<b>Stroke Smart Metric</b>	<b>First Quarter '22</b>	<b>Second Quarter '22</b>	<b>Third Quarter '22</b>	<b>Fourth Quarter '22</b>	<b>First Quarter '23</b>	<b>Total</b>
<b>Proclamations</b>	<b>1</b>	<b>8</b>	<b>1</b>	<b>1</b>	<b>.5!</b>	<b>11 of 13</b>
<b>Trainers Instructed</b>	<b>160</b>	<b>302</b>	<b>657</b>	<b>700</b>	<b>578</b>	<b>2397</b>
<b>School Students</b>					<b>37,000</b>	<b>37,000</b>
<b>Supplies Directly Distributed</b>	<b>1842</b>	<b>3035</b>	<b>7585</b>	<b>23340</b>	<b>57916</b>	<b>93718</b>
<b>Known Ordered Supplies</b>	<b>2625</b>	<b>12375</b>	<b>17450</b>	<b>22250</b>	<b>66700</b>	<b>121400</b>
<b>Known Training Video Views</b>	<b>N/A</b>	<b>598</b>	<b>956</b>	<b>343</b>	<b>541</b>	<b>2438</b>



**VIRGINIA WIDE  
EFFORTS**



**VIRGINIA HOSPITAL  
& HEALTHCARE  
ASSOCIATION**

*An alliance of hospitals and health delivery systems*

*Join us in  
Richmond!*

**VGCCA**

**VA GOVERNOR'S CONFERENCE ON AGING**

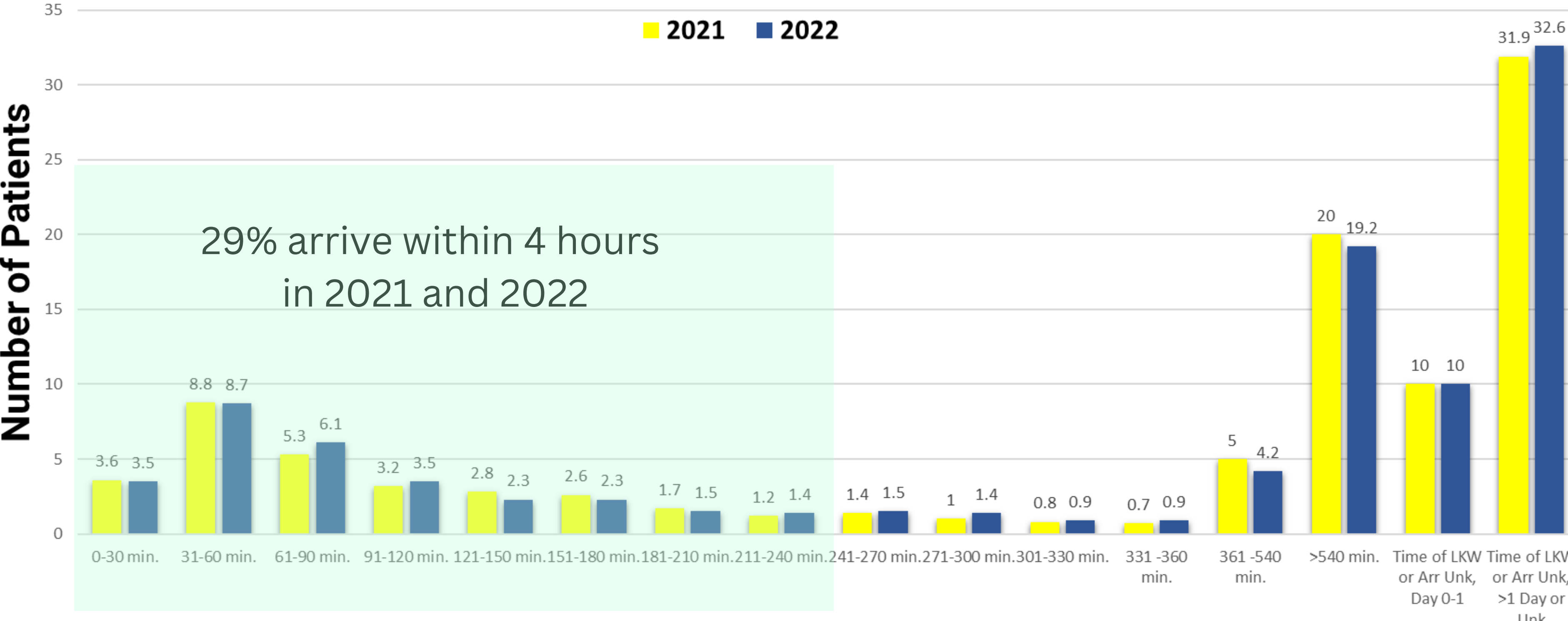
**MAY 8-9, 2023  
RICHMOND MARRIOTT DOWNTOWN | RICHMOND, VIRGINIA**

**PRESENTED BY**



**VIRGINIA  
DEMENTIA CAPABLE SUMMIT  
MAY 10, 2023**

# LKW to ER Arrival Times (Northern VA Hospitals)

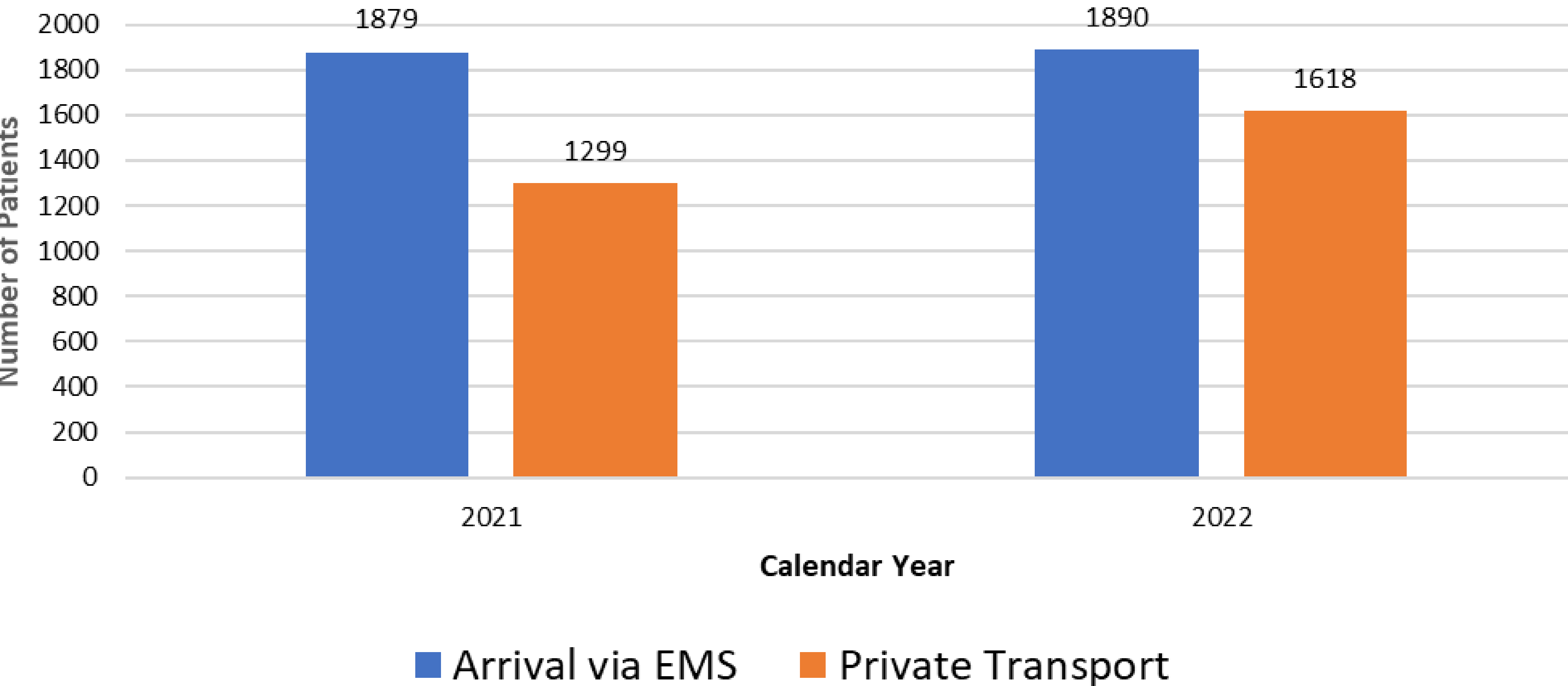


Median ER arrival time  
 2021: 9 hours 44 minutes  
 2022: 8 hours 18 minutes

## Time Interval

2021: 3205 patients  
 2022: 3553 patients

# ER Arrival Method for Stroke Patients (Northern VA Hospitals)



**To:** "Jennifer [REDACTED]" >

**Sent:** Tuesday, April 25, 2023 8:33:48 AM

**Subject:** Thank you!

Hi,

I just wanted to say thank you to you and Margaret for coordinating our Stroke Smart session. Last night, I was able to identify stroke symptoms my mom was experiencing; her vision on the lower left side was impacted. At the hospital, she opted to receive the stroke medication within the recommended time frame and is being monitored by hospital staff for the next two days.

I'm grateful for your efforts to educate the public on stroke. It truly made a difference in helping me to better take care of my loved ones.

With sincere gratitude,

Jessica [REDACTED]

***Email shared with permission***

# EMS Stroke Data



# Stroke Blood Glucose Check

**Avg.  
94%**

- Q2 '22 545/587 (92.8%)**
- Q3 '22 623/664 (93.8%)**
- Q4 '22 611/642 (95.1%)**
- Q1 '23 602/637 (94.5%)**



# TIA Blood Glucose Check

**Avg.  
89%**

**Q2 '22 84/89 (94.4%)**

**Q3 '22 89/99 (89.9%)**

**Q4 '22 95/116 (81.9%)**

**Q1 '23 101/110 (91.8%)**



# TRANSPORTED STROKE PATIENTS

<b>Time Period</b>	<b>Average Scene Time mm:ss</b>	<b>Scene Time Under 10 min</b>	<b>Scene Time Under 15 min</b>
<b>Q2 '22</b>	<b>15:53</b>	<b>16%</b>	<b>49%</b>
<b>Q3 '22</b>	<b>15:21</b>	<b>17%</b>	<b>55%</b>
<b>Q4 '22</b>	<b>15:48</b>	<b>16%</b>	<b>50%</b>
<b>Q1 '23</b>	<b>15:39</b>	<b>17%</b>	<b>52%</b>



# Last Known Well

(March '23)

**180/190 stroke calls  
addressed LKW**

**94.7%**

# STROKE ALERTS

89%

**115 of 129 Calls with a Primary or  
Secondary Impression of 'Stroke'  
resulted in a Stroke Alert**



*(Sample taken from March '23)*

## Patient Condition

### Complaint Type

Chief (Primary)

### Complaint

Facial droop

### Duration

3 Hours

**Primary Symptom:** Neuro - Facial droop

**Other Symptoms:** Neuro - Speech is aphasic

**Alcohol/Drug Use:** None Reported

**Date/Time of Symptom Onset:** 03/16/2023 10:09:49

# Recording Stroke Stats

## Stroke/CVA

**Stroke Scale** Cincinnati  
**Type :**

**Stroke Scale:** Abnormal  
**Speech Overall:**

**Stroke Scale** Left  
**Facial Droop**  
**Overall:**

**Stroke Scale** Left  
**Arm Drift** Drifts/Drop  
**Overall:** Down

**Large Vessel** Positive  
**Occlusion (LVO)**  
**Screen:**

**CVA/Stroke** Stroke  
**status:** Alert

**Time of stroke** 03/21/2023  
**notification/alert::** 21:14:32

**Possible Stroke** Positive  
**Overall:**

## Activities

# Recording Stroke Stats

Clinical Impression	
Primary Impression	Stroke
Secondary Impression	Seizures with status epilepticus
Protocols Used	
Local Protocol Provided Care Level	
Anatomic Position	
Onset Time	
Last Known Well	
Chief Complaint	Stroke
Duration	
	Units
Secondary Complaint	Seizure
Duration	
	Units
Patient's Level of Distress	
Signs & Symptoms	Neuro-Musculoskeletal - Stroke