**Minutes of the REMSC Heart & Stroke Committee**
**December 7, 2016**

The Heart & Stroke Committee meeting was called to order on December 7, 2016 at 3:10 pm at the REMS Council Office and via the video and phone conference bridge. The following were in attendance:

- Linda Harris, REMS Staff
- Wayne Perry, REMS Executive Director
- Christina Skinner (MWH)
- Greg Leitz (Spotsylvania Fire & EMS)

Via the Conference Bridge:
- Emmett Price, Chair
- Lori Knowles (Stafford Fire & EMS)

The following was discussed:

1. Heart Session.

- The King George Fire & EMS Heart Safe Community application was approved by the committee and will be forwarded to the Board for approval next week.

- The new Regional STEMI Triage plan was forwarded in September to the REMS President and Executive Director by the Chair for Board approval. Hopefully it will be an agenda item at the December Board Meeting.

2. Stroke Session.

- The existing Regional Stroke Triage Plan will be forwarded to the Board for re-approval at the Board meeting next week. This plan – updated last Fall – incorporates the 4.5 hour timeline and "Last Known Well" time versus symptom onset. Due to potential future changes and recommendations from AHA/ASA and the Co-Chair of the Virginia State Stroke Task Force (VSSTF), further updates to this plan are not contemplated until the Spring/Summer of 2017.

- Tina and Greg – members of the EMS Subcommittee of the VSSTF – provided a synopsis of their first subcommittee meeting held on November 23:

  - ❖ The committee discussed removing the map and listing of Virginia Stroke centers from the State Stroke Plan as the Plan is only updated every 2-3 years, and the list/map can be quickly out of date. Instead an internet web link will be inserted, which will contain the current list and locations of the Virginia stroke centers. Note: The REMSC protocols will continue to list our area stroke centers.

  - ❖ There was some discussion on when to bypass a Primary Stroke Center for a Comprehensive Stroke Center. For ground transport units this is rarely an option; unless you have one of the Virginia Comprehensive Stroke Centers located within

your jurisdiction. It could be a factor when determining a destination if air transport is used.

- There was discussion about removing the 4.5 hour time reference from the plan. New strokes, regardless if the patient is within or outside of the 4.5 hour "Last Known Well" time window, still need to go to a Stroke Center.

- There was discussion on which stroke screening scales to use.

- There was discussion on Stroke Center designations versus Certifications.

- Some of the Regional Councils have written Stroke Protocols.

- Stroke statistics from MWH were not available for this meeting. Tina will have statistics generated in January 2017 for all of CY2016.

3. Other business.

- The Hospital Pre-Alert matrix the committee developed will be an action item for the Board meeting next week. It has already been reviewed by the REMS Medical Control Committee and the Regional OMD.

- We are still trying to locate personnel from Fauquier and Culpeper Hospitals who might be interested in participating on the committee.

- The committee roster will be modified to add in the new Director of the MWH Stroke Center as soon as their contact information is available. This updated roster will then be sent to the REMS President for approval.

The meeting adjourned at 4:00 pm.

The Heart & Stroke Committee meetings – scheduled to begin at 3:00 pm – for 2017 are scheduled as follows:

- March 1, 2017
- June 7, 2017
- September 6, 2017
- December 6, 2017

Members can attend in person at the REMSC Office, or via the video or phone conference bridge.

Respectfully Submitted:

Emmett Price, Chair
eprice@vaems.org

**Minutes of the REMSC Heart & Stroke Committee**
**September 7, 2016 (minutes updated 9/09/2016)**

The Heart & Stroke Committee meeting was called to order on September 7, 2016 at 2:40 pm at the REMS Council Office and via the video and phone conference bridge. There was some confusion on the time of the meeting (standing time versus a calendar invite). Since 4 members were present at 2 pm (versus the standing time of 3 pm) the meeting was called to order early once the Chair arrived. The meeting intentionally ran past 3 pm to ensure anyone arriving or calling in at the normal time were included in any discussions and/or decisions. The following were in attendance:

• Emmett Price, Chair
• Linda Harris, REMS Staff
• Jake Marshall, Spotsylvania Regional MC
• Eleanor Redmond (later via the bridge)
• Christina Skinner (had to depart early)

Via the Conference Bridge:
• Eleanor Redmond, MWH

Excused from the meeting were:
• Lori Knowles (Stafford Fire & EMS)
• Greg Leitz (Spotsylvania Fire & EMS)

1. Bedside Notification for Pre-Alerts. The form was developed by the committee and covered bedside pre-alert procedures for STEMI, stroke, sepsis, and trauma. This pre-alert gives the hospitals additional time to make internal decision on care; such as for call-ins after hours. It does not replace the standard patient report made en route. It was reviewed and approved by the Medical Direction Committee o/a August 30. It will next be forwarded to the Training and Guidelines Committee for their review; then the Board of Directors.

2. Heart Session.

- The Regional STEMI Triage plan was forwarded to the REMS President and Executive Director by the Chair for approval at the next Board meeting.

- A tangential topic on something we had previously discussed, concerned having MWH or SRMC have EMS bypass their hospital if the cardiac team was at the other hospital. FYI, the same cardiac practice serves both hospitals (Cath Lab, etc.). This would save the patient time with the initiation of treatment. This is mainly a topic for the hospitals to coordinate and decide, but it does affect EMS. The Chair will send a query to Dr. Fines to see if anything is being developed on this.

3. Stroke Session.

- The Regional Stroke Triage Plan is up for renewal at the next Board meeting. We had previously planned on a major rewrite of the plan to make it more readable and bring it in line with new AHA/ASA standards. However, in discussions with Dr. Alattar over the past few months she recommended against any major changes, pending new and/or additional guidance from the Virginia State Stroke Task Force (Dr. Alattar is the former Director of the MWH Stroke Center and is now at VCU; she is also the Co-Chair of the

VSSTF). Accordingly, the committee will recommend the current Regional Stroke Triage Plan be approved by the Board as written for another year. Note: We did modify the plan last fall to change "symptom onset" to "last known well time" and the hours from 3 to 4.5.

- The VSSTF asked for Virginia EMS providers to participate on the EMS sub-committee. BC Greg Leitz volunteered. Greg is an excellent choice for a number of reasons; not the least of which he is also serving as a member of this committee. Tina – also a member of this committee – will also serve on the committee, but she is there as a MWH representative (but still brings her extensive EMS background).

- Eleanor Redmond provided stroke statistics for MWH for the past six months (these are her comments; edited for context):

  - ❖ Arrival Mode. 65% of our patients are coming via EMS compared to 45% for the rest of the nation. This shows the great impact EMS in our community because a larger % of our patients come via EMS has [an impact] on our stroke care!

  - ❖ Last know well to arrival times. Only 36% of our community is coming to hospital in the 4.5 hour window (the nation is at 30%). Local [radio] stations can help by promoting "time is brain" campaigns. Genetech can help provide [education] materials, if needed (contact Gina dalferro 703-861-0678).

  - ❖ MWH's 2016 arrival to IV t-PA times. 87% [of our patients] get t-PA in 60 minutes or less; the national benchmark is 77%. Thank you to our EMS partners in the MWH's hospital swarm process! [Chair Note: this is directly related to early hospital notification by EMS that they are en route with a suspected stroke patient.]

  - ❖ MWH's risk adjusted mortality. It is in the literature that Stroke centers impact mortality, MWH's risk adjusted mortality is 2.4%; lower than national average of 3.3%.

  - ❖ MWH-EMS Pre-Hospital Notification. We are at 96.1% and the national average is 58.4%. EMS in this area Rocks! [Note: this statistic was provided after the meeting.]

- Reference the above comment on radio commercials, the Chair reported a number of radio commercials lately on WTOP about recognizing stroke (i.e., FAST).

4. Other business.

- We still need participation by Fauquier and Culpeper Hospitals. The Chair sent an email to the Nurse Educator at Culpeper hospital asking her to see if anyone was interested in participating. The Executive Director sent an email to the Board members from Fauquier to see if they could generate interested with someone from Fauquier Hospital.

- Jake Marshall reported SRMC is in Cycle 5 of its Chest Pain re-accreditation process. He also reported SRMC is on track to becoming a Primary Stroke Center around the December/January timeframe.

- The committee roster was modified to reflect personnel who have left or joined the committee since the list was last updated in September 2015. It is included as an attachment to this committee report. The list will be forwarded to the REMS President for re-approval.

The meeting adjourned at 3:10 pm.

The Heart & Stroke Committee meetings – scheduled to begin at 3:00 pm – for 2016 are scheduled as follows:
- March 3, 2016 (completed)
- June 1, 2016 (completed)
- September 7, 2016 (completed)
- December 7, 2016

Members can attend in person or via a video or phone conference bridge.

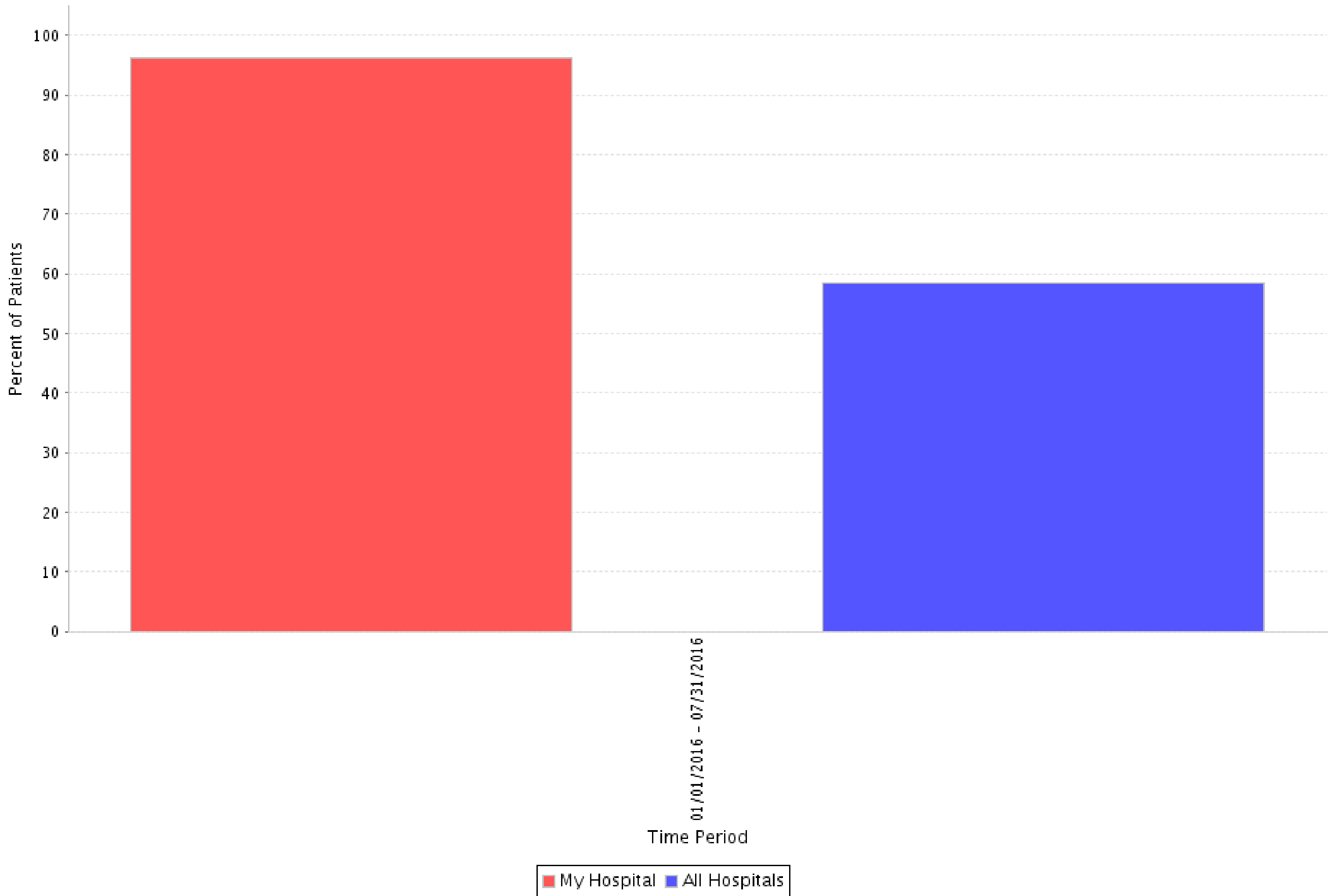
Respectfully Submitted:

Emmett Price, Chair
eprice@vaems.org

# Pre-notification

Percent of cases of advanced notification by EMS for patients transported by EMS from scene.

Time Period: 01/01/2016 - 07/31/2016; Site: Mary Washington Hospital (45374)




| Data For: Pre-notification | | | | |
|---|---|---|---|---|
| Benchmark Group | Time Period | Numerator | Denominator | % of Patients |
| My Hospital | 01/01/2016 - 07/31/2016 | 147 | 153 | 96.1% |
| All Hospitals | 01/01/2016 - 07/31/2016 | 73570 | 125975 | 58.4% |

Date of report: 09/09/2016 11:39:06 GMT-04:00 run by User: Eleanor Redmond (eredmond) at Site: Mary Washington Hospital (45374)

Please note: GWTG aggregate comparative data is intended for internal quality improvement. Permission is required from the American Heart Association and Quintiles for external presentation or publication of benchmark data.

**REMSC Heart Stroke Committee Members**
9/07/2016

| Name | Agency | Remarks | Email |
|---|---|---|---|
| Emmett Price | Stafford County Fire & EMS | Chair & REMS Board Member | eprice@vaems.org |
| Dawn Harmon | Mary Washington Hospital | | dawn.harmon@mwhc.com |
| Christina Skinner | Mary Washington Hospital | EMS Coordinator | christina.skinner@mwhc.com |
| Dr. Maha Alattar | VCU | Co-Chair of the VSSTF | alattarm14@gmail.com |
| Dr. Robert Fines | Mary Washington Hospital | Emergency Department | rfinesmd@yahoo.com |
| Eleanor Redmond | Mary Washington Hospital | Stroke Center | eleanor.redmond@mwhc.com |
| Jake Marshal | Spotsylvania Regional Medical Center | EMS Coordinator | john.marshall1@hcahealthcare.com |
| Corey Coleson | Spotsylvania Regional Medical Center | Stroke Center | Corey.Colson@hcahealthcare.com |
| Amy Cantwell | PHI / Aircare | Air Transport | akcwell@gmail.com |
| BC Greg Leitz | Spotsylvaina County Fire & EMS | EMS Division Chief | gleitz@spotsylvania.va.us |
| DC Lori Knowles | Stafford County Fire & EMS | EMS Division Chief | lknowles@staffordcountyva.gov |
| Linda Harris | REMS | Committee Staff | lindaharris@vaems.org |
| Wayne Perry | REMS | Executive Director | wperry@vaems.org |
| Kevin Dillard | REMS | President & Ex Officio Member | kdillard@lifecare94.com |

**Minutes of the REMSC Heart & Stroke Committee**
**March 1, 2017**

The Heart & Stroke Committee meeting was called to order on March 1, 2017 at 3:08 pm at the REMS Council Office and via the phone conference bridge. The following were in attendance:

- Emmett Price, Chair
- Linda Harris, REMS Staff
- Christina Skinner (MWH)
- Eleanor Redmond (MWH)
- Susan Halpin (MWH)
- Jake Marshall (SRMC)
- Amy Cantwell, (PHI/Aircare)

Via the Conference Bridge:
- Greg Leitz (Spotsylvania Fire & EMS)
- Diane Ristom (SRMC)
- Wayne Perry, REMS Executive Director

Excused:
- Lori Knowles (Stafford Fire & EMS)

The following was discussed:

1. General.

- We welcome Diane Ristom (Spotsylvania Regional Medical Center) and Susan Halpin (Mary Washington Hospital) to the committee.

- The Chair reviewed the committee's accomplishments for 2016:
  - ❖ The first Regional STEMI Triage Plan was written and approved by the Board.
  - ❖ The Regional Stroke Triage Plan was revalidated by the Board.
  - ❖ The first Regional Pre-Alert Matrix was written and approved by the Board.
  - ❖ The Heart Safe Community Program is slowly gaining traction with the Board approval of the King George County application.

2. Stroke Session.

- Eleanor reported back from the International Stroke Symposium she had just attended.

  - Identifying and treating Large Vessel Occlusion (LVO) is a major key to stroke treatment.

  - The new phrase established by AHA Mission Lifeline is "The **right** patient is brought to the **right** stroke center **right** on time."

  - Additional stroke scales may be needed in the field to assist with treatment decisions. Initially you would use the Cincinnati Stroke Scale or the NIH Stroke Scale; then if you have a positive finding for stroke, you would add on a more comprehensive stroke scale to gather additional information for the hospital. This will be an important topic of discussion for the Virginia State Stroke Task Force (VSSTF) and the region.

- Transportation to a stroke center continues to be imperative. But with the new emphasis on identifying Large Vessel Occlusion (LVO) – which are treated with Endovascular Treatment (EVT) – there is an emphasis on transporting to a Comprehensive Stroke Center (e.g., VCU in Richmond) versus a Primary Stroke Center (e.g., MWH in Fredericksburg) , where feasible.[1] For ground transport this typically means MWH. But when treatment at a CSC is recommended based on patient assessment, air transport should be considered, bypassing MWH to transport directly to VCU. The VSSTF and the REMS committee will need to provide guidance in this area.

- There are applications that can assist field providers in assessing strokes. Two of those apps are Pulsara[2] and Twiage[3]. The committee agreed to work on having a demo from one or both at the next committee meeting.

- We discussed the MWH "Wake-Up Stroke" process in the ED.[4] This procedure is for patients who wake up with stroke symptoms, where the **Last Known Well Time** is not clear. It will not change what we do in the field, but it does place emphasis on (1) trying to determine a good LKWT and (2) prompt hospital notification (which is what the new Pre-Alert Matrix the committee developed is about).

- Feedback from the VSSTF indicates they are not going to mandate a particular stroke scale be used within Virginia, but leave the selection of a scale to the Regions. After some discussion, the committee agreed the Chair would send Dr. Alatar (Co-Chair of the VSSTF, and former Director of the MWH Stroke Center) a letter urging the committee to adopt one triage scale, so that tracking statistics/metrics would be consistent across the Commonwealth. Many Fire & EMS agencies cross regional boundaries when treating and/or transporting patients. Potentially using different scales in each region would not provide an accurate picture of stroke care across Virginia. The next meeting of the VSSTF is April 21.

- We discussed updating the Regional Stroke Triage Plan. All agreed we would update our plan in 2017 concurrently with any VSSTF actions, rather than wait for the VSSTF to finalize any reports and/or guidelines.

- The following stroke statistics were provided by MWH:

  - MWH pre-notification by EMS is 97.1% for all stroke patients brought in by EMS. The national average remains low at 58.7%.

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[1] "The strong evidence for benefits of rapid thrombectomy in patients with acute ischemic stroke (AIS) is challenging prehospital systems around the world. Although high-tech endovascular treatment (EVT) works only for a minority of patients, healthcare systems cannot afford to miss suitable candidates anymore." http://stroke.ahajournals.org/content/48/2/247

[2] www.pulsara.com. This is a phone/tablet app that ties EMS and hospitals together on timelines, care, etc., beginning with First Medical Contact. Pulsara also has a STEMI App.

[3] www.twiagemed.com. This is a phone app that assists with pre-hospital communications hack to the hospital.

[4] See MWH memorandum to Fire & EMS Agencies, subject: Wake Up Stroke, dated January 13, 2016.

- Only 38% of the stroke patients arriving at MWH are within a four hour treatment window from Last Known Well Time. This statistic does not differentiate from EMS or POV transport. Public awareness education is still needed.

- There was a discussion on seeing how much information we can gather from ImageTrend reports (the Fire & EMS Database many jurisdictions are using). Mark C has access. The Chair will email him to see what information he can pull from it.

3. Heart Session.

- The King George Fire & EMS Heart Safe Community application was approved by the Board.

- The Virginia Heart Attack Coalition[5] will meet on May 19 at the Centra Lynchburg General Hospital, Lynchburg, VA. The Chair will try to attend.

The meeting adjourned at ~4:00 pm.

The Heart & Stroke Committee meetings – which convene at 3:00 pm – for 2017 are scheduled as follows:

- March 1, 2017 (completed)
- June 7, 2017
- September 6, 2017
- December 6, 2017

Members can attend in person at the REMSC Office, or via the phone conference bridge.

Note: Today was the highest attended meeting (10 of 13 members) since the current Chair took over in 2013.

Respectfully Submitted:

Emmett Price, Chair
eprice@vaems.org

[5] http://www.virginiaheartattackcoalition.org.