Northern Virginia EMS Council
Performance Improvement and Trauma Committee
Fairfax County Fire Station 40
4621 Legato Road, Fairfax, VA 22030
September 6, 2017 Meeting Minutes **Draft**

Those present were:

Chris Cook, NVHA/RHCC, chris.cook@novaha.org
Craig Evans, Northern Virginia EMS Council, Craig@vaems.org
Jordan Estroff, Inova Loudoun Hospital, Jordan.Estroff@inova.org
Dr. Maggie Griffen, Inova Fairfax Hospital, Committee Co-Chair Margaret.griffen@inova.org
Brian Hricik, Alexandria Fire Department, Brian.Hricik@alexandria.gov
Tracy Lane, Loudoun County Fire & Rescue, tracy.lane@loudoun.gov
Michelle Ludeman, Northern Virginia EMS Council, Michelle@vaems.org
Anne Marsh, Arlington County Fire Department, AMarsh1@arlingtonva.us
Keith Morrison, HCA Reston Hospital Center, Keith.Morrison@hcahealthcare.com
Brian Orndoff, City of Fairfax Fire Department, Brian.Orndoff@fairfaxva.gov
Dr. Richard Pergolizzi HCA Reston Hospital Center, richardpergolizzimd@gmail.com
Erik Rhodes, Physicians Transport Service, ERhodes@ptsems.com
Babak Sarani, George Washington University, bsarani@mfa.gwu.edu
Jean Snyder, Inova Fair Oaks Hospital, regina.snyder@inova.org
Jill Tyroler, HCA Reston Hospital Center, jill.tyroler@hcahealthcare.com
Chris Wanka, Metropolitan Washington Airports Authority, Christopher.Wanka@mwaa.com

The PI and Trauma Committee meeting was called to order at 9:05 a.m. by Dr. Maggie Griffen and introductions were made around the room.

Meeting minutes from June 7, 2017, minutes were distributed and unanimously approved with a change submitted by Brian Hricik for their report.

NVHA and RHCC Guest Speaker
Chris Cook from Northern Virginia Hospital Alliance (NVHA) and Regional Healthcare Coordination Center (RHCC) was one of the guest speakers. Dr. Maggie Griffen thanked Chris for attending the meeting. RHCC acts as the middleman for the hospitals and outside partners for EMS, Public Health, and Emergency Management.

There are three things that RHCC needs to make a mass casualty Incident flow for smoothly:

- Information regarding the incident
- Patient flow/numbers from the incident
- Any specific requests from state and local resources.

RHCC notification criteria:

- 10 or more patients needing transport
- 2 or more hospitals receiving patients
- HazMat event with 3 or more patients needing decon

Hospitals have different notification guidelines that they use:

- Category A Biological event
- Mass Casualty Unit activated for NCR event

- EOC active Health and Medical Services (ESF8) Function
- Activation of Facility Emergency Operations Plan
- Expected volume of patients expected to exceed capabilities
- Mutual request (equipment, supplies, or staff)
- Facility Evacuation

It varies from jurisdiction to jurisdiction to who notifies RHCC. Sometimes it is the EMS Supervisor or the Chief that arrives on the scene that activates RHCC. Other times it is dispatch that notifies RHCC. The further south you go, such as Caroline, King George, Spotsylvania and Stafford Counties, the EMS Chiefs are calling RHCC. A little more north in Prince William County and Loudoun County, the dispatch centers call RHCC. RHCC needs to know the following:

- Caller's name
- The caller's phone # that RHCC can reach them on or if they will be using a radio for communications.
- Type of incident (for the Alexandria active shooter they were unaware that it was an active shooter for a while)
- How many patients
- Where is the incident and the general area
- Any actions that have already been taken. (This would be any major action such as just arriving on the scene, has triage been started or have any patients been transported?)

RHCC at the same time will then notify the hospitals simultaneously via MEDCOM radio to let them know the type of incident, how many patients they are getting and the type of patients. Then the hospitals will log into a website and update the bed #s. RHCC almost 99.9% of the time makes the 10-minute mark with the number of beds that are available and gets back to the point of contact. Other times it's communication breakdown on the scene. Never delay the transport of a critical patient if you are waiting for RHCC to get the bed count. Go to the closest facility/follow your protocols. If a DC hospital is the closest then transport there. DC has a process that takes about 30 to 45 minutes longer. We have had requests from Loudoun, Alexandria, and Arlington, the agencies that border DC, for numbers outside our region but understand that request currently takes longer. Chris can get numbers from Winchester pretty quickly because it's within the state. Any patient that requires trauma services send to a trauma facility. The later RHCC is activated the harder it is, to help the incident flow smoothly.

There is new process when you call RHCC. It will give you five initial choices: three community or local hospitals and two closest trauma centers (this could be Winchester and Fairfax or Reston and Fairfax; there could be numerous combinations). If there is an event coming, such as a hurricane, they have pre-emptively created an event in their system to provide information if needed. This includes events such as the Boy Scout Jamboree, Army 10-miler, and Marine Corps Marathon so they are able to provide information to the hospitals or provide hospital information to emergency management or anyone else who contacts them. If Texas had to evacuate people and had to put patients on planes, RHCC may have been involved because it participates with the national system with partners on a federal and national level.

RHCC is always willing to do exercises. They participate in a statewide exercise and have a standing exercise with Dulles every year. In 2016, Chris has on record training exercises with Alexandria Fire Department, Arlington Fire Department, Fort Belvoir, Loudoun County Fire and Rescue and Spotsylvania

VRE. Loudoun County Fire and Rescue uses them significantly more than any other county. He has recalled that in 2016 Loudoun County has called nine times for training exercises. They do training for every recruit school. They do MCI updates and require their paramedic school to do MCI training. It makes it so much smoother when they use RHCC for real.

For a larger drill size like Dulles that MWAA does, please give a lot of notice before a drill. Chris says he would like to participate in the planning part of those drills. For smaller size drills such as EMT classes, no prior notice is needed.

RHCC is open 24/7 for their communications center to activate an emergency. It is the communications center that will answer the call. It is best to call the 888-987-7422 which goes directly to the office instead of using the radio which experiences 100% activation. He knows that they have had issues with people using the radio system as people are doing other things in their dispatch room. They do understand that it is an issue and are working on ways to resolve it. The radios are not monitored as well as the phones are. Don't confuse mass casualty and disaster. RHCC has no role in the command side of fire and rescue. RHCC is to be used as an asset, and they have no authority over where EMS can send their patients. They are there to provide a service and help with assistance.

The MCI Manual spells out who should be talking to RHCC (Medical Control Officer). This way the information is relayed to the hospital through RHCC so that when there are three patients in the back of an ambulance, the officer doesn't have to call the hospital to give patient reports. Chris explains RHCC is the gatekeeper for the hospital. They will feed all the information to the hospital. Any patient scanned on the scene gets fed into his patient tracking system at RHCC. Patients that were driven to the hospital will be scanned by the hospital's handheld scanner. In turn, he can let EMS know how many patients are already at the hospital because they will also feed into RHCC's patient tracking system. He gets notification from scene to discharge of patients.

Dr. Griffen asked if anyone has had to call RHCC and if there were any issues. Battalion Chief Anne Marsh reported she had to call and activate RHCC several years ago. It involved two vehicles into the back of a waste truck. They had seven patients; There were four red, and three yellow patients with one of the patients with femur fractures. RHCC only spoke to her, and they didn't have any issues with RHCC. There was also a need for decontamination due to the incident involving a waste truck.

Dr. Griffen asked the group if it the same person within the agencies that contacts RHCC. Battalion Chief Brian Hricik stated the NOVA Mass Casualty Manual lays out exactly who should contact RHCC. Some people are still a little gun-shy with calling them and people should know it's not a taboo thing to call them to let them lend a hand but it's just everyone's comfort level.

Battalion Chief Hricik commented that he was the one that called RHCC on the recent Alexandria shooting and it was already 35 minutes into the shooting. He asked his crews if they had already called and they responded they had tried contacting RHCC using the radio but had no response. He reminded them that the best way to activate RHCC is to use the phone. Chris again noted to please use the phone line as it is monitored 24/7.

The active shooter was a good example because it didn't meet RHCC criteria of a certain number of patients. Based on the number of patients, it didn't hit the trigger but it was still an activation. They

need to look into an activation just for an active shooter because at this point there isn't one. This would be helpful information they can provide to the hospitals in advance because the number of patients could go up drastically. Chris advised that you can call if you want to notify RHCC about only a few patients and they'll take the same information and provide the same response as they would with numerous patients. The 10 minute starts when RHCC receives the call. Make sure there is a good contact number for the person for RHCC to get back the numbers to and that someone will answer the phone.

Craig asked Chris if RHCC needs to know about pediatrics and burn patients. Within 80 miles there are three burn beds and in 120 miles there are six burn beds. Normal care for a burn patient is about 24 hours or more. There are about 63 certified nurses, doctors, and ER folks to care for burn patients. Hospitals will have new burn kits soon, provided by RHCC, and pediatric assistance through telemedicine. In Northern Virginia, there are ER care mobile carts with trauma services to Fairfax Hospital and soon to be Mary Washington and Reston. Right now Fairfax Hospital has an on-call regional Triage Officer that specifically supports pediatric burn traumas that are not landing at a hospital that has pediatric or trauma.

Chris Wanka from MWAA asked Chris if there are reasonable starting numbers to assume certain hospitals can take before getting the numbers from RHCC in 10 minutes. For example, for a plane crash, Reston can take two reds, two yellows, automatically. Chris stated he hesitates to put hard numbers down for anyone but any non-trauma center hospital in the region could take two reds and two yellows any time. Dr. Griffen stated that for a Trauma Center they can take 10 red patients but they can also take green patients as well. Chris Cook stated there are other things to consider for regional constants such as during the week vs. the weekend.

Dr. Babak Sarani commented that the regional consistency is remarkable across the board. DC Health Department also had a discussion about mass casualty incidents, specifically how many patients hospitals could take. Their numbers were pretty much around three reds at any given time which would total nine patients in DC and in Northern VA is ten so both are pretty close to each other. DC also had discussions about how many trauma centers would be around in or designated in 6 months. There is some transition in DC over the next year.

Dr. Griffen asked Chris how care in potential disasters would affect the Northern Virginia region, for example, a hurricane. The hope would be that it's not the entire northern Virginia region. Chris explained that he has participated in several after actions. They would rely on their partners of RHCC such as staffing from Mary Washington. If the event didn't affect the entire state, then he would call on his northwest partners. He would have access to communications satellite data for the radio system and patch into the State Police to tap into Fairfax County Fire and Rescue's radio system. He would be able to move his headquarters to operate. Their phones are a voice over IP, and he has volunteer and staff that he can pull in to help. He plans on seeing what happens in Texas from the hurricane.

Chris can get numbers for Maryland too and also trauma information across the entire state of Virginia. He can log in and access all of their information. They have a scheduled meeting once a month for communications for DC and MD. The agreement is with CNC. They had information sharing and a unified Regional Plan.

After an event, Chris follow-ups with the Senior Chief or with an after action report to agencies and the hospitals involved to see how everything went and how it could have been done better.

Chris would love to come out to do training for recruit schools or any agency that would like it. Contact him. The more training performed, the easier it is when it is needed and will make things go more smoothly.

Interventional Stroke Therapy Guest Speaker
Dr. Richard Pergolizzi, Jr., MD is from HCA Reston Hospital Center. He moved down from Boston to the Northern Virginia area in 2001 where he set up a stroke program at Inova Fairfax Hospital. They had been doing some stroke care up until then but he helped them build it up to possibly the largest stroke program in the country. In 2014 he left Fairfax Hospital and went to Virginia Hospital Center and is now with HCA Reston Hospital where he set up stroke programs for both of these hospitals. These two hospitals currently treat stroke the same as Fairfax Hospital with full neurointerventionalist coverage. The only fallback would be when they need to transfer someone to Fairfax for arterial intervention. In April/May, 2017 they started providing full coverage of intra-arterial thrombectomy.

- Large vessel occlusion
- Less than 8 hours from witnessed event
- Even if the patient is improving after IV tPA, if the initial CTA showed large vessel occlusion, it is reasonable to bring in imaging as the improvement may be due to collateral flow and the primary vascular supply may still be occluded.

Tools:

- Penumbra aspiration system
- Stent retrievers
- Combined device therapy, cork and drag technique
- Other options: IA tPA, limited role
    - Intracranial angioplasty/stenting

Dr. Pergolizzi presented interesting case studies on a candidate who was an airline pilot that he worked on last week. It was a witnessed event. It took him 38 minutes from start to finish to get the clot out. We are doing more cases at Reston Hospital and VA Hospital Center thanks to EMS getting the patients to the hospital quickly.

They are not doing perfusion studies on everyone now. If you can get someone in early in the window, the perfusion study is just an accessory piece of data and doesn't change Dr. Pergolizzi's treatment plan.

Dr. Sarani asked Dr. Pergolizzi where a patient would go when there isn't a neurointerventionalist available at VHC. He said most likely Fairfax Hospital. Dr. Sarani commented another option could be George Washington University. They are fully staffed and capable. Dr. Pergolizzi agreed and said most likely some patients do go there also. It depends on the availability of the comprehensive stroke center.

Anne Marsh stated that it is very hard for providers to make a transport decision if one hospital is comprehensive and one is not. VHC is closer but not comprehensive. There is further confusion when one wants the Cincinnati Stroke Scale and can't use the NIH scale and then if it's a wake-up stroke it becomes a complicated algorithm to determine where to transport to. It would be helpful for them to

know whether an interventionalist is available to help with those transport decision. Dr. Pergolizzi advised that HCA's schedule for the interventionalists is put out two to three months in advance. Dr. Pergolizzi is on it most of the time and when he's not his partner that is also credentialed to do it covers to make it 24/7 coverage.

Dr. Pergolizzi is trying to get participation from the neurology side. It is putting a lot of decision-making on the ER doctors up front. Some are more skilled in stroke care than others and are more seasoned to it than others while some are younger and newer to it. Some are more comfortable and need clinical support so they will call Dr. Pergolizzi to discuss a case knowing that they can reach him because they don't have a neurologist. He is trying to get critical care support from the ICU those well-versed in stroke and neuro-intensive care that can help with some of the clinical needs. It was asked what happens when he receives calls from two places at the same time with the same presentation. He stated they are looking at growing the numbers but currently, at VHC, there are five interventionalists. Of the five, two are neurointerventionalists, and can also do stroke work, and the others are in line for the training. Of course, they would like to have more backup to be able to cover more. When he was in Boston for years, they had one doctor that would cover two hospitals, Brigham and Women's and Massachusetts General which were about the four miles apart but would take as long to get there as Reston Hospital and VHC are apart due to traffic. There was a backup guy that you may have been able to call if necessary but it isn't normally a problem; It may happen but rarely. Battalion Chief Anne Marsh asked Dr. Pergolizzi if he uses coiling for patients of hemorrhagic or traumatic aneurysm stroke. He responded yes, he does do coiling for an aneurysm and recommends taking the patient to the closest center.

Dr. Griffen asked around the room if everyone could agree that if it was a stroke patient that if possible providers were going to use an 18 gauge or larger IV and send the patient straight to CT. Everyone seemed in agreement that they were able to use an 18 gauge. Chris Wanka agreed with Reston and George Washington straight to CT. For trauma patients at the door they check creatinine, and for stroke, patients they do while the patient is in CT.

Craig met with Jessica Campillay the Neuroscience Program Lead of INOVA Neuroscience and Spine Institute. INOVA has a donor giving approximately $2.5 million that would like to pilot a telemedicine program. There would be hardware and software on each ambulance via I-Pad. The premise would be that the stroke nurse would come up on the screen and would be able to see the patient. The nurse would help with the NIH scale and would see if the patient would be a good candidate for tPA. By doing this EMS would be able to coordinate and transport to the most appropriate facility thereby decreasing their time to treatment. This would be a phase-in starting in 2018 with the 145 front line EMS units beginning in year one starting with Fairfax, Arlington, and Alexandria. Year two would include Loudoun units and year three would include the units in Prince William, City of Manassas and Manassas Park. They would have hot spots on the ambulances except for reserve units. Northern Virginia is unique with a high population, and this will be a triage approach to send patients to the closest facility to include Healthplex of Springfield that has tPA capabilities and can treat the patient the fastest. Many of our hospitals have tPA capabilities and are comprehensive or plan to become comprehensive. It's just a matter of helping the prehospital providers to coordinate this. Now it's just calling a centralized place, so you know where your stroke treatment will begin and concentrating on the quickest intervention. The Council is getting ready to redo our Regional Stroke Plan to help incorporate this.

Craig asked is everyone using AHA Mission: Lifeline Stroke to collect data. He would like to be able to gather in the future regional data for STEMI and stroke through the same software. This way everyone in the region can share the same information in the same database. This is a goal of his to have in the future.

Dr. Griffen asked if there was a stroke registry just like there is a trauma registry that has millions of patients in it. Jill Tyroler from Reston Hospital commented that there is if you are a Comprehensive Stroke Center, they collect data that goes to a national database and also to Richmond. If you are JCAHO, it goes to the national database to a separate database. Dr. Sarani says George Washington collects data; his neurologist is very meticulous about data collecting although he is not sure which one she is collecting for and if it's going into a national database. DC does not mandate that they report their data to them, unlike Virginia. Dr. Griffen stated they are still working on data even since 2004 in regards to trauma with Virginia. As Craig explained, he is hoping that the Council in the future will be able to bridge the gap with the hospitals and EMS. VA has for stroke "Get with the Guidelines", but not all hospitals can participate with this. Even non-trauma center hospitals have to turn in data to Virginia. There seems to be a black hole on the trauma perspective for data such as following up to know where patients go once they have been discharged and stroke seems to be close behind. After a stroke admission, the patient goes through rehab and reporting would be helpful to see what works and what doesn't and what their outcomes are. The different data collections are ACTION and AHA Mission: Lifeline Get with the Guidelines. The hope is to get everyone on the same page regionally, collecting the same data points and putting it into the same software to show more accurate data.

Topics for December Meeting
The next meeting will be on December 6, 2017. The two topics that need to be covered are trauma and medical. The group discussed the following points on those topics:

Trauma and Systems: Looking at the active shooter, disaster task force and individual agency protocols and then looking at what would happen with two or three jurisdictions involved together or FEMA involvement. What are the issues? Someone will contact Dr. Reed Smith and Dr. Scott Weir to attend so they can provide the OMD perspective on this. Dr. Griffen will contact her disaster person to see if they can attend. Agencies and hospitals, please bring your protocols/plans for working with Police Departments within your area on this topic and who the disaster person is at your hospital.

Medical: Pain Management – What do you carry on the ambulance? Please bring the protocols for your agency. How often is Narcan given? Nasal Narcan? What is the expense behind it? Opioid protocols have changed over the last five years due to the rise in use and the cost for the system. Has your agency seen a rise in use? With these, we can say to a Public Health Agency we are seeing an increase, so what is being done?

- Anne Marsh reports that she runs a monthly report for the Arlington police of how much her providers used Narcan.
- Craig will contact Public Health to see if someone can talk about the rise in opioid use and how it's handled.
- Chris Wanka reported that MWAA's canine units approached them about Narcan carrying it for their canine units. This is another thing to consider within this topic.

Other possible topics:
Trauma:

- Closed head injury
- Penetrating trauma
- Auto accidents requiring fly-out
- Burns
- Splinting and pain management

Medical:

- Overdose
- Non-STEMI cardiac patients
- Childbirth
- Pediatric airway
- Sepsis - Field vs Hospital
- VAD emergencies
- Telemedicine

Systems:

- Advanced airway placement success rate
- ROSC with CPR
- Mutual aid for natural disasters
- Mental health aid for patients in need
- Performance measures
- Someone from ImageTrend – pulling information and how to use it regionally

Dr. Griffen shared the trauma statistics for Q2 2017 with the group.

The next Regional Trauma Committee meeting will be on December 6, 2017, at 9:00 a.m. and will be at Fire Station 40, 4621 Legato Road, in Fairfax, VA 22030. A reminder will be sent out before the meeting.

The meeting was adjourned.

CERTIFICATION OF BOARD OF PERFORMANCE IMPROVEMENT AND TRAUMA MEETINGS

Northern Virginia EMS Council
7250 Heritage Village Plaza, Ste. 102
Gainesville, VA 20155

I, Craig Evans, Executive Director of the Northern Virginia EMS Council certify that the above minutes are a true and correct transcript of the minutes of the Performance Improvement and Trauma Meetings of the Northern Virginia EMS Council on September 6, 2017. The minutes were officially approved on December 6, 2017 at the meeting of the Committee.

Craig Evans Digitally signed by Craig Evans
DN: cn=Craig Evans, o=Northern Virginia EMS Council, ou, email=craig@vaems.org, c=US
Date: 2017.12.15 09:26:54 -05'00'

_____ December 15, 2017

Craig Evans
NV EMS Council

Date