MINUTES

EMERGENCY MEDICAL SERVICES & TRAUMA SYSTEM (EMSTS)

TRAUMA PROCEDURE/PROTOCOL REVIEW COMMITTEE

OCTOBER 11, 2012 - 2:00 P.M.

MEMBERS PRESENT

Gregg Fusto, RN, University Medical Center
John Fildes, MD, University Medical Center
Sean Dort, MD, St. Rose Siena Hospital
Allen Marino, MD, St. Rose Siena Hospital
Eric Dievendorf, EMT-P, AMR-LV
Kate Osti, Nevada Disability Advocacy & Law Center
Mary Ellen Britt, RN, Regional Trauma Coordinator
Chris Fisher, MD, Sunrise Hospital
Melinda Case, RN, Sunrise Hospital
Todd Sklamberg, COO, Sunrise Hospital
Chief Troy Tuke, Clark County Fire Department
David Slattery, MD, MAB Chairman
Kim Dokken, RN, St. Rose Siena Hospital

MEMBERS ABSENT

Senator Joe Hardy, MD
Chief Scott Vivier, Henderson Fire Department
Dennis Nolan, Centennial Hills Hospital
Amanda Munson, RN, Boulder City Hospital
Sandra Tewell, RN, Mesa View Regional Hospital
Chief John Higley, EMT-P, Mesquite Fire & Rescue
Connie Clemmons-Brown, RN, St. Rose San Martin

SNHD STAFF PRESENT

Rory Chetelat, EMSTS Manager
Michelle Nath, Recording Secretary
Kelly Morgan, MD, EMS Consultant

PUBLIC ATTENDANCE

Patrice Anderson, MD, UMC Hospital
Neal Tomlinson, Snell & Wilmer
Timothy Browder, UMC
Troy Repuszka, RN, Summerlin
Fred Simon, MD
Scott Plummer, GC Wallace
Michelle Marez, Cameo
Jennifer Renner, RN, Sunrise
Joni James, Valley Health System
Abby Hudema, RN, UMC
Debra Rileford, Valley Health System
Gail Yedinak, UMC
Elizabeth Snavely, UMC

CALL TO ORDER – NOTICE OF POSTING

The Trauma Procedure/Protocol Review Committee convened in the Human Resources (HR) Annex, HR Conference Room 2, at the Southern Nevada Health District (SNHD) on Thursday, October 11, 2012. Dr. Sean Dort called the meeting to order at 2:06 p.m. and the Affidavit of Posting was noted in accordance with the Nevada Open Meeting Law. Dr. Dort noted that a quorum was present.

I. PUBLIC COMMENT

Members of the public are allowed to speak on action items after the Committee's discussion and prior to their vote. Each speaker will be given five (5) minutes to address the Committee on the pending topic. No person may yield his or her time to another person. In those situations where large groups of people desire to address the Committee on the same matter, the Chair may request that those groups select only one or two speakers from the group to address the Committee on behalf of the group. Once the action item is closed, no additional public comment will be accepted.

Dr. Dort asked if anyone wished to address the Committee. Seeing no one, he closed the Public Comment portion of the meeting.

II. CONSENT AGENDA

The Consent Agenda consists of matters to be considered by the Trauma Procedure/Protocol Review Committee (TPPRC) that can be enacted by one motion. Any item may be discussed separately per Committee member request. Any exceptions to the Consent Agenda must be stated prior to approval.

Approve Minutes: Trauma Procedure/Protocol Review Committee Meeting: 9/24/2012

Dr. Dort asked for a motion to approve the minutes of the Trauma Procedure/Protocol Review Committee meeting from September 24, 2012. Member Fusto motioned for approval; the motion was seconded by Member Fildes and carried unanimously.

III. REPORT/DISCUSSION/POSSIBLE ACTION

A. Sunrise Hospital Presentation Regarding Proposed Revisions to Trauma Center Catchment Areas

Todd Sklamberg introduced Scott Plummer to the Committee. He stated that Mr. Plummer received a BS in civil engineering from the University of Nebraska and has done extended post-graduate work in traffic studies. He has been a traffic engineer in Las Vegas for 26 years. In addition, he has managed multiple transportation projects for state and local agencies, and regional transportation authorities throughout Nevada. Mr. Plummer was asked to conduct an independent traffic study of the current catchment areas and present his findings to the Committee.

Mr. Plummer referred the Committee to a map of the existing catchment areas. He stated that the existing catchment area for Sunrise Hospital goes from Sunset up to Sahara and from Paradise to the east. His study focused on the immediate areas to the west of Paradise and to the north of Sahara because those travel times appeared to be shorter to Sunrise Hospital than to University Medical Center (UMC). He clarified that although he is not often asked to do a time travel study for such a purpose as this, the same engineering judgment and rules were applied. Their intent was to get a fair and balanced assessment without a preconceived idea of which travel time was best. Mr. Plummer described the process they used and pointed out the areas where they felt it would be faster to go to Sunrise than to UMC, and vice versa. He stated that these are data collection points that lead to a conclusion, but it doesn't override the judgment of the driver involved. He acknowledged there are human factors that lead a driver to change routes, depending on the time of day and traffic involved. Mr. Plummer ended the presentation by saying that he can say with some scientific certainty that from certain points on his map, most of the time you can go faster to one hospital over the other.

Gregg Fusto asked what type of vehicle was used for the study. Was it a car or an emergency response vehicle? Mr. Plummer replied it was done in a car going the speed limit, and stopping at all red lights. The time clock was stopped for the period of time the car had to stop at an intersection.

Dr. Slattery asked for clarification on the methodology used to conduct the time travel study. Mr. Plummer explained that they originally drew a boundary and picked 3-4 sites. When they clearly saw a pattern developing they picked new sites to verify that pattern. Dr. Slattery noted that there were 27 different locations represented on the map. He asked whether each one represents a single trial, or an average of multiple trials from the same site. Mr. Plummer replied that each location represents a single trial. Dr. Slattery noted that there is a huge variability in a single

measurement from one point. He argued that, from a methodology standpoint, if you really want to say there's a difference between the groups you would need to do multiple trials from those single sites to be able to demonstrate that. Mr. Plummer replied that he understood Dr. Slattery's point of view, but that he respectfully disagreed. He added that he has done a lot of statistics during his involvement in traffic engineering. He stood by his methodology and stated with confidence that at any given time he can start at one of the points and make it to one hospital or the other faster, most of the time. Dr. Slattery remained unconvinced with the methodology used by Mr. Plummer, and he argued that they can't make a decision based on a single data point, a single trial from one site.

Dr. Slattery questioned the decision to use I-15 as a boundary when everyone knows the EMS responders would use surface streets. He asked how the routes were chosen because EMS providers would never take the I-15 over the surface streets on some of the routes depicted. Dr. Slattery noted that a surface street to surface street analysis would have been a true comparison. Mr. Plummer replied that all the routes were selected by the computer utilizing Google. He added that he recognizes Google uses an algorithm based on speed and distance to calculate the fastest travel time, and he understands that real time decision making and judgment calls would come into play by the EMS responder when taking time of day and traffic into consideration.

Mr. Neal Tomlinson asked Mr. Plummer if, from a traffic engineering perspective, there was any doubt as a professional engineer that it would be faster to go to Sunrise over UMC for the yellow, green and blue areas depicted on the map (see attachment). Mr. Plummer replied that there was no doubt.

Rory Chetelat presented different scenarios, hypothetically shifting the boundary lines, mainly from the Henderson area, and the fact that EMS responders would most likely take the freeway over the streets. Mr. Plummer stated that in some instances it would be quicker to go to UMC based on his studies.

Kate Osti asked for background on why the study was conducted. Mr. Chetelat explained that an independent trauma group was hired to do an assessment of the system prior to Sunrise becoming a trauma center. They did an analysis and the boundary lines were drawn based on an effort to get appropriate volume to the trauma centers, and also taking patient care into consideration. He related that there was considerable discussion regarding the yellow area between Las Vegas Blvd and Paradise at the time because of the volume of people on the strip. The boundary was put at Paradise rather than Las Vegas Blvd because it was argued that UMC was the tested Level I trauma center, while Sunrise was the untested Level II trauma center. Dr. Fildes added that Paradise is the only street that wraps around the eastern boundary of McCarran Airport. Because of UMC's involvement in the city and disaster responses, keeping those two pieces together was a critical consideration. UMC understood that area was going to operate as a transition, which it has done successfully since that time. Mr. Chetelat stated that although the EMS provider is in an area dedicated to one hospital over another, they are allowed the discretion to make a decision based on traffic conditions and time of day. He noted that the yellow, purple and green areas on the map are the locations where the decision to go outside of the appropriate catchment zone occurs.

Melinda Case noted that the catchment areas were implemented in 2005. Since that time, Sunrise Hospital has become a tested trauma center, and has proven that it can give an equal quality of care. She noted that in two surveys the American College of Surgeons (ACS) stated that it makes sense to revisit the catchment areas. She noted that out of area transports are discussed at every Regional Trauma Advisory Board meeting. Most of the transports end up going to Sunrise at the discretion of the paramedic. Ms. Osti asked a question regarding how often an out of area transport occurs. Mary Ellen Britt responded that the statistics range from 5-7%. It has been closer to 5% in the last year since the Fire Alarm Office began including the information about what catchment area the unit is in at the time the call takes place. Dr. Fildes pointed out that he advocated they not investigate out of area transports as long as they occur less than 5% of the system's total.

Mr. Sklamberg asked whether clinical perspectives like airway issues or other life threatening

emergencies are taken into consideration when the decision is made about where to transport. Dr. Fildes replied that airway patients, by standing medical order, will always be taken to the closest facility. He commented that the study doesn't take into account offload time, trauma team response time, time to CT, time to OR, availability of blood . . . but HHS (Human and Health Services) really requires for these processes to be considered in a model of episode of care. The episode of care has a lot of components to it, and this is just a very small part of that. Mr. Sklamberg agreed that it's a small part of the equation, but the focus was on drive times. A facility to facility comparison can be done as a separate issue. In just looking at the travel time study, there are certain areas where EMS can probably get to one hospital faster than another. Dr. Fildes noted that in looking at the out of area transports, none of the patients that originated in the Sunrise catchment area but got transported to UMC have been depicted, and they exist. He explained, that's because the paramedic made the decision about how and who they're going to get to the best place in the right amount of time.

Dr. Simon stated that he is in support of revisiting the boundaries of the catchment areas. He reported that 42.5% of the patients in the transition area were transported to Sunrise as a result of EMS discretion. The big issue is that Sunrise has become part of the trauma system, and is very capable. The ACS has twice recommended a review of the catchment areas, based on volume and the aspects of training, experience, and equity. That all needs to be considered so there's an appropriate volume to all the centers. And if St. Rose at some point in time decides to raise their trauma center from a Level III to a Level II, it should appropriately be reassessed again.

B. University Medical Center Presentation Regarding Proposed Revisions to Trauma Center Catchment Areas

Dr. Fildes related that the growth of this trauma system has been something the county and the SNHD should be very proud of. All the trauma centers have tried their best and done very well with the work that they've been given. He referred the Committee to page 59 of the ACS report under "Definitive care facilities." He stated that considerable decrease in the volume of major trauma patients within the system is documented. It's disproportionate to the slight decline in population. For the adult trauma population, the number of transports is down from 6,759 in 2006, which is the first data for the SNHD. The current number of transports is at 4,700, which is a huge decline. But the decline has not been even across the three trauma centers. UMC is suffering the greatest decline. It received 5,011 trauma transports in 2006, and fell to 3,440, which is well over a third, in just a few years. That doesn't even count the drop between 2004 and 2006 when the two additional trauma centers came in and took 25%. From the 2002 levels, UMC is down almost 50%.

Dr. Fildes stated that Sunrise's volume has fallen as well. The catchment areas were designed to provide Sunrise with 1200 patients a year, which hasn't happened. According to the handout, Sunrise is down to 793 trauma transports; and St. Rose has fallen from 689 to 539 trauma transports per the ACS report. Overall, there has been a significant decline over time, with an overall decrease of 16% across the system. He referred the Committee to page 60 of the ACS report and pointed out that there is no mention of changing catchment areas. The ACS recommends continued monitoring of the volume of trauma patients by SNHD and for SNHD to acquire mapping technology, and to use the data to refine the catchment areas for the trauma centers should it be determined that revision of the catchment areas are needed or required. He stated that the discussion at this point should be whether a revision is needed or required at this time. The volume of patients meeting TFTC declined overall; the number of patients in the trauma registry has declined overall; the volume of patients in all three trauma centers is declined overall; and the numbers are still declining. In addition, if there have been no incidents reported to the EMS office or other authority that patients or EMS crews could not access a trauma center in a timely manner, then the position of UMC is to follow the recommendations of the ACS and let the SNHD continue to monitor the system, and as we start to see some recovery or some reshaping of volume in the catchment areas, start thinking about the right thing to do. Dr. Fildes reported that the number of patients will be increased with the passing of the revised TFTC protocol. He finished by stating it is UMC's recommendation not to make changes to the trauma catchment areas at this time as there is no compelling need to do so.

Dr. Chris Fisher stated that aside from the ACS recommendations, the patient may be better served if they had a shorter transport time. He stated that Sunrise and St. Rose are especially concerned about the decline in patient volume so the centers can maintain their proficiency. UMC is far away from meeting that minimum requirement. At 3000 plus patients per year, UMC currently sees about 70% of the trauma patients in the city. He stated that even if UMC cut their volume by 50% they would still be above the minimum proficiency allowed for by ACS. Dr. Fildes corrected Dr. Fisher and stated that there is a volume requirement for Level I trauma centers, but not Level II and Level III centers. Ms. Case stated that there is still a proficiency that you need to maintain to be a Level II trauma center because there are the same clinical responsibilities. Dr. Fildes noted that UMC was built in 2001. If you add the numbers up for all three trauma centers, UMC has treated more patients alone than before anyone came into the system. In comparison to 2002, UMC is functioning at about 50% of what they were. UMC has invested in the community; people have put their entire careers into training the residents, the fellows, the nurses and the paramedics. When you have a system, you have assets in the system. And one of the assets is a high volume, high complexity training center so that you can produce the people that come out and work in the trauma system. He expressed understanding that the other trauma centers' volume is down, but he predicted back in 2004 that it would happen. That there weren't enough trauma patients for there to support three trauma centers. He believes that the out of area transports in the transition zones prove that the system is working, not that the system is broken. He applauded EMS on the great job they are doing with choosing the right route at the right time for the right patient.

Dr. Dort asked whether any of the EMS representatives wanted to comment. Troy Tuke stated that the EMS providers are doing an excellent job in the field with their decision making regarding which hospital to go to. One problem he foresees with rearranging the catchment areas is the re-education process. As far as the study goes, he stated that one single trip to the hospitals in a private vehicle discounts what would occur if the same trip were taken in an emergency response vehicle. The more experienced providers know 15 different routes to get somewhere that Google maps and traffic engineers aren't even aware of. All of those factors cannot be taken into account by looking at just one statistic. He related that it has been demonstrated that even in the transition zone the EMS providers make the right decision based on all of the factors he just mentioned. He hasn't had one complaint about a delayed transport in six years.

Todd Sklamberg made a motion that the trauma catchment be redesigned, and that Areas 1, 2 & 5 become part of the Sunrise catchment areas based upon the information shared in the meeting. There was no second to the motion. (See attached map that depicts the areas)

Dr. Fildes made a motion to leave the catchment areas as is, and to charge the Southern Nevada Health District with monitoring the volume, transport time and transition zones. Troy Tuke seconded the motion. The motion passed with one opposing vote by Sunrise Hospital.

Dr. Slattery noted that for the future, the Committee should discuss what the triggers will be to revisit the need to expand. Dr. Dort commented that one of the trigger points should be whether the EMS providers are experiencing difficulty in getting patients to one hospital or another. If it's taking too long, then the issue should be brought to Committee. Mr. Chetelat stated that the health district's role is to monitor the system and ensure it functions properly. The biggest challenge is the disparity between the sizes of the trauma centers. UMC has built such a large system over the years. It's difficult to determine the appropriate volumes for all the trauma centers and yet still support the skills necessary. Dr. Fisher suggested the Committee revisit the trigger points on an annual basis. Dr. Dort remarked that the RTAB monitors the out of area transports on a monthly basis. He suggested that if the numbers rise above 5% or there is some frustration on the side of the transport agencies, they address the issue at that point in time. He noted the importance of setting an acceptable statistical variance.

Ms. Osti asked whether patient outcomes can be taken into account when a decision needs to be made. Ms. Britt responded that the SNHD has disposition data.

C. Discussion of Recommendations Regarding Trauma Center Catchment Areas

Ms. Britt referred the Committee to the final draft of the TFTC Protocol that was previously approved by the RTAB Committee on October 17th. She stated that the TPPRC had approved Steps 1-4 and the language for the catchment area at their last meeting. She asked for confirmation that there are no further changes to the TFTC Protocol so it can be moved forward to the Medical Advisory Board for their approval. The Committee members agreed.

III. INFORMATIONAL ITEMS/DISCUSSION ONLY

None

IV. PUBLIC COMMENT

Members of the public are allowed to speak on action items after the Committee's discussion and prior to their vote. Each speaker will be given five (5) minutes to address the Committee on the pending topic. No person may yield his or her time to another person. In those situations where large groups of people desire to address the Committee on the same matter, the Chair may request that those groups select only one or two speakers from the group to address the Committee on behalf of the group. Once the action item is closed, no additional public comment will be accepted.

Dr. Dort asked if anyone wished to address the Committee. Seeing no one, he closed the Public Comment portion of the meeting.

V. ADJOURNMENT

As there was no further business on the agenda, Dr. Dort adjourned the meeting at 3:40 p.m.