MINUTES

EMERGENCY MEDICAL SERVICES & TRAUMA SYSTEM

STROKE DESTINATION TASK FORCE

December 5, 2007--09:30 A.M.

SNHD STAFF PRESENT

Joseph Heck, D.O. Operational Medical Director
Trish Beckwith, EMS Field Rep
Moana Hanawahine-Yamamoto, Recording Secretary
Lawrence K. Sands, D.O., M.P.H, Chief Health Officer
Mary Ellen Britt, Regional Trauma Coordinator
John Hammond, EMS Field Rep
Judy Tabat, Administrative Assistant

PUBLIC ATTENDANCE

David Slattery, M.D., Las Vegas Fire & Rescue
Robert Byrd, EMT-P, American Medical Response
Sandy Young, RN, Las Vegas Fire & Rescue
Brian Rogers, EMT-P, MedicWest Ambulance
Larry Johnson, EMT-P, MedicWest Ambulance
Ian Smith, EMT-P, North Las Vegas Fire Department
Joseph Melchiode, MountainView Hospital
Davette Shea, RN, Southern Hills Hospital
Mary Ann Dube, RN, St. Rose Siena Hospital
Jennifer Poyer, RN, Desert Springs Hospital
Anna Smith, RN, Valley Hospital
Janice Austin, RN, Spring Valley Hospital
Victor Montecerin, EMT-P, MedicWest Ambulance
Walt West, EMT-P, Boulder City Fire Department
Matthew Shanley, EMT-I, NCTI
Julie Siemers, RN, Mercy Air Service, Inc.
Jill Jensen, EMT-P, Las Vegas Motor Speedway
Virginia DeLeon, RN, St Rose Rose de Lima Hospital
Richard Henderson, M.D., Henderson Fire Dept.
Wendi Ashby, St. Rose San Martin Hospital
Chris Jones, Valley Hospital
Susan Prey, Genentech
J.D. McCourt, University Medical Center
Sheila Mussotter, RN, Mesa View Regional Hospital
Rajender Narla, University Medical Center
Rusty McAllister, Firefighters Health Trust
Bruce Evans, EMT-P, North Las Vegas Fire Department
Brent Hall, EMT-P, Clark County Fire Department
Jeff Davidson, M.D., Valley Hospital
Scott Selco, M.D., Sunrise Hospital
Jo Ellen Hannom, RN, Clark County Fire Dept
John Higley, EMT-P, Mesquite Fire & Rescue
Ron Tucker, EMT-P, MedicWest Ambulance
Bobbette Bond, Culinary Health Fund
Greg Boyer, Valley Hospital
Rob Phoenix, Sunrise Hospital
Jackie Levy, University Medical Center
Daniel Harkson, College of S. Nevada
Debra Balido, RN, Boulder City Hospital
John McNeil, AHA/ASA
Amanda Curran, EMT-P, MedicWest Ambulance
Brian Proffit, EMT-I, NCTI
Patty Holden, Sunrise Hospital
George Barker, RN, St. Rose Siena Hospital
Charles Hertig, EMT-B, Las Vegas Motor Speedway
Derek Cox, EMT-P, Las Vegas Fire & Rescue
E. P. Homansky, M.D., American Medical Response
Kathy Beckett, Valley Hospital
Fran Hammonds, Sanofi-Avent
David Ghilarducci, MD, Santa Clara County EMS
Serena Denmark, Mercy Air Service, Inc.
Mary Jo Mattocks, RN, Mesa View RH
Christopher Roller, American Heart Association
K. Alexander Malone, MD, North LV Fire Dept.
Cherina Kleven, Las Vegas Fire & Rescue
Tim Crowley, EMT-P, Las Vegas Fire & Rescue

I. ITEMS FOR DISCUSSION

Dr. Joseph Heck called the meeting to order at 9:39 a.m.

A. Discussion of the Criteria to Determine an Approved Stroke Specialty Care Hospital or Alternate Location

Discussion of Item A. was included as part of discussion of Item B.

B. Discussion of Stroke Patient Transport to General/Specialty Care/Approved Alternate Destinations

Dr. Heck stated that after the last Stroke Destination Task Force meeting, four questions needed to be addressed prior to making a decision to consider a stroke center destination protocol for Clark County:

1. What criteria would be used to determine which hospital(s) would be designated as stroke center(s)?
2. What criteria would be used to determine which patients would be transported to a designated stroke center?
3. Do you transport all stroke patients to stroke centers or will geographic distance and/or transport time decide if the stroke patient is transported to a stroke center or to the nearest receiving facility?
4. Do you allow stroke patients to choose a particular stroke center or decline transport to a stroke center?

The Health District was tasked with finding individuals who have had experience with stroke centers. Dr. Heck spoke to Dr. Ben Bobrow, EMS Medical Director for the State of Arizona. Dr. Bobrow didn't feel that their experience would be of any benefit to Clark County because they had nine stroke centers when they implemented their stroke system and they created their own criterion to determine which hospitals would be designated stroke centers. Dr. Bobrow related that the Cincinnati Prehospital Stroke Scale was the easiest tool to teach and the most sensitive in identifying patients who needed to be transported to a stroke center.

Dr. Heck introduced Dr. David Ghilarducci, EMS Medical Director for Santa Clara County in California, who summarized their process with stroke centers. Dr. Ghilarducci reported that stroke is the third leading cause of death in the United States and is a very time sensitive disease. Treatments for stroke must occur within a very specific timeframe to help improve the patient's outcome. Outcomes are improved by providing definitive treatment by experienced physicians, by minimizing delays to definitive care, by measuring quality and by developing strong partnerships between EMS and the hospitals. The California Health and Safety Code allows EMS to designate areas of specialty care or hospitals with special services which gives them the authority to designate stroke centers.

Santa Clara EMS has used the "Recommendations for the Establishment of Primary Stroke Centers" by the Brain Attack Coalition as a tool for the establishment and operation of primary stroke centers. Major elements of a primary stroke center include acute stroke teams, written care protocols, EMS relationships, Emergency Department relationships, stroke units, neurosurgical services, neuroimaging, laboratory services, outcomes and quality assurance, educational programs and commitment, and support of medical organizations.

Santa Clara EMS created a task force to determine the need for a stroke destination protocol when two of their hospitals became certified with the Joint Commission on Accreditation of Healthcare Organizations (JCAHO) as primary stroke centers. JCAHO provides a formal process for certification of primary stroke centers. Primary stroke centers offer services that are recognized as providing stroke patients with high-quality stroke care designed to improve patient outcomes. This task force met for 6-9 months.

Santa Clara County has approximately 1200 stroke patients a year that are transported by EMS; therefore, there was concern that the two hospitals would be overwhelmed if all stroke patients were transported to them and that it would increase transport and turn around times for EMS. During these discussions in the task force meetings, two additional hospitals became certified with JCAHO as primary stroke centers. Because there were four JCAHO certified primary stroke centers in Santa Clara County, Dr. Ghilarducci decided to institute a stroke destination protocol. The task force recommended designating primary stroke centers as specialty destinations, developing field triage criteria, paramedic education, maintaining a stroke audit committee that would review cases under QI protection, and creating a contract with each hospital due to cost recovery and the need to have free flow of data between EMS and the hospitals. After this recommendation was made, four more hospitals decided that they wanted to become certified with JCAHO to become primary stroke centers.

Santa Clara EMS created two ways in which hospitals could become designated as primary stroke centers. If the hospital was JCAHO certified, they only needed to finalize their contract with EMS and then, they would begin receiving stroke patients. If the hospital was in the process of becoming JCAHO certified, they were given one year to complete the certification process. They also needed to finalize their contact with EMS and then, they would begin receiving stroke patients. A team visited these non-JCAHO certified stroke centers to perform chart reviews and conduct interviews to make sure that they met the same standard of care as JCAHO certified stroke centers.

Dr. Ghilarducci stated that two concerns for prehospital care for stroke patients are identifying the stroke patient in the field and transporting that patient to the most appropriate hospital. Santa Clara EMS Suspected Stroke/Transient Ischemic Attack protocol includes the Cincinnati Prehospital Stroke Scale (CPSS) but it also adds a scoring component (score 1 point for each “Yes” answer) as well as duration of symptoms (last time seen normal). If the Stroke Scale Score is > 0 and duration of symptoms is < 3 hours, then a stroke alert is initiated and the patient is immediately transported to a designated primary stroke center. The protocol also requires a blood glucose check because hypoglycemia is a classic mimicker of stroke. Dr. Ghilarducci chose 3 hours for duration of symptoms because of concerns regarding ambulance availability and turn around times for EMS; however, with 8 primary stroke centers and proportional stroke patient distribution, they will probably increase that time to 6 or 7 hours in the future. They are also trying to modify their stroke protocol to capture acute bleeds like subarachnoid hemorrhages.

The determination for stroke destination also needs to consider geography and whether transportation to a stroke center is possible within the appropriate time for acute therapeutic interventions. Santa Clara County is half rural and the other half is very densely populated with 2.2 million people. In 2006, there were 73,459 ground ambulance transports. There is one hospital located on the southern end of the county and the other 11 are in the Bay area. Since the 8 stroke centers are fairly close together, geography was not a consideration for Santa Clara County.

Another factor in stroke destination is patient choice. In Santa Clara County, if the patient is awake, alert and oriented, then he/she can choose to go or not to go to a stroke center. Paramedics are asked to make it an informed choice and to explain risks and benefits to the patient. They try to honor patient preference but if the paramedic believes that the delay in honoring a patient preference for destination would affect their ability to get rapid treatment, then the paramedics are told to take the patient directly to the closest primary stroke center.

Dr. Ghilarducci shared Santa Clara County’s stroke data for the first quarter of 2007. There were 724 stroke patients taken to hospitals and discharged with that diagnosis. 320 of these patients were transported by EMS. The most frequent reason for destination decision was patient/family request. The patients were transported to stroke centers of their choice. Dr. Ghilarducci mentioned that they review the electronic patient care reports on a regular basis to see the stroke scores and how destination decisions were made. The cases that fall outside of the stroke criteria are reviewed individually.

Dr. Ghilarducci noted that there is a $5,000 annual fee that the primary stroke centers must pay to be recognized by Santa Clara County EMS as a stroke destination. The stroke centers must also agree to receive all patients regardless of payor source.

Bobette Bond noted that payor source is an issue that needs to be considered in Clark County. The liability for the patient would be huge if he/she is transported to a non-contracted hospital. Bruce Evans asked if Dr. Ghilarducci could provide the Health District with how leveling patient charges were handled in their contract negotiations. Dr. Ghilarducci asked if the payor issue could be handled the same way that trauma patients are treated when they are transported to trauma centers.

Ms. Bond also questioned the validity of stroke centers. Anna Smith stated that there is evidence which shows that patient outcomes are improved if taken to a stroke center. Collaboration between EMS and hospitals can help minimize the time required for stroke patients to receive evaluation, care and urgent therapy. By reducing these complications and improving patient status at discharge, the savings to the health care system could be substantial as well as improving the quality of life for the patient.

Dr. David Slattery stated that one of his concerns is regarding redirecting patients and the percentage of over triaging since Clark County only has two prospective stroke centers. Dr. Ghilarducci mentioned the importance of monitoring the over triage rate to make sure that those hospitals are not overburdened. Dr. Scott Selco added that if EMS can effectively identify stroke patients in the field, the amount of patients taken to stroke centers would be lower thus not overburdening the system.

Dr. Heck noted that Clark County is similar to Santa Clara County in population and number of hospitals but handles twice the amount of call volume. He advised that if Clark County does move forward on stroke destination, it would be important that the hospitals agree to participate in the system and provide the required data. A stroke audit committee would also need to be created.

C. Public Appearance/Citizen Participation.

None.

II. ADJOURNMENT

There being no further business, Dr. Heck adjourned the meeting at 11:00 a.m.