MINUTES
EMERGENCY MEDICAL SERVICES
MEDICAL ADVISORY BOARD MEETING
APRIL 3, 2002 – 6:00P.M.

MEMBERS PRESENT

Jeff Davidson, M.D., Chairman
Alice Conroy
Allen Marino, M.D.
Blain Claypool
Bryan Lungo, M.D.
David E. Slattery, M.D.
David Watson, M.D.
Donald Kwalick, M.D
E. P. Homansky, M.D.
Jeff Greenlee, D.O.
Jon Kingma
Karen Laauwe, M.D.
Nicholas Han, M.D.
Pete Carlo
Philis Beilfuss, R.N.
Randy Howell
Richard Henderson, M.D.
Steve Hanson
Timothy Vanduzer, M.D.
Todd Jaynes
Donald Reisch, M.D.
Steven Peterson

MEMBERS ABSENT

Chief David Kalani
David Daitch, D.O.
John J. Fildes, M.D.

ALTERNATES

Ed Matteson
Sandy Young

CCHD STAFF PRESENT

Jane Shunney, R.N.
Jennifer Carter – Recording Secretary
Joe Heck, D.O.
Kelly Quinn
LaRue Scull
Mary Ellen Britt, R.N.
Shannon Randolph

PUBLIC ATTENDANCE

Albert Vizcarra, Student, CCSN
Anthony Manzo, Student, CCSN
Brian Rogers, SWA
Connie Clemmons-Brown, UMC
Derek Cox, AMR
Jennifer Schomburg, Mountian View Hosp.
Joe Calise, Summerlin Hosp.
John Fernandez, Student, CCSN
John Wilson - SWA
Kristine Viti, Student, CCSN
Mary Levy, UMC
Mike Griffiths, Mercy Air
Missy Greenlee - Mercy Air
Pam Turner, VHMC
Rachelle Reiersgord, UMC-CCT
Robert Vszynoli, Student, CCSN
Steven Kramer, AMR
Tiffany Lopardo, Student, CCSN

I. CONSENT AGENDA

The EMS Medical Advisory Board (MAB) convened in the Clemens Room at the District Health Center at 6:03 P.M. on Wednesday, April 3, 2002. The meeting was called to order by Chairman Jeff Davidson, M.D. and the Affidavit of Posting was noted in accordance with the Nevada Open Meeting Law. Dr. Davidson noted a quorum was present.

Minutes Medical Advisory Board Meeting March 6, 2002

Dr. Davidson asked for acceptance of the minutes of the March 6, 2002 meeting. A motion was made, seconded and unanimously passed by the Board to approve the minutes as written.

II. REPORT/DISCUSSION/POSSIBLE ACTION

A. Open/Closed Regional System vs. Prior Divert Protocol

A PowerPoint presentation was given by Dr. Slattery comparing the current regional open/closed system to the prior traditional divert system. The regional open/closed system was devised and implemented in April 2001: 1) to allow patients to be transported to the hospital of their choice, 2) to allow EMS providers to stay in closer proximity to their response area, 3) to allow one hospital in each region to close its doors to ambulance traffic for one hour to respond to heavy patient volume.

Dr. Slattery presented a preliminary analysis of 85-90% of the data collected on 52,000 transports conducted by the transporting agencies (AMR, Boulder City Fire Department, Henderson Fire Department, Las Vegas Fire and Rescue and Southwest Ambulance) between August 2001 and January 2002. During this time period the new regional open/closed model was being used. The data was compared to a comparison data set of AMR transports conducted between August 2000 and January 2001. During this time period, AMR did the majority of transports and the traditional categories of divert were used. Dr. Slattery explained he looked at certain predetermined outcome measures that the members of the Quality Improvement Committee thought would be impacted by the change in the divert system. These outcome measures were broken down into three broad categories: 1) EMS time intervals, 2) EMS system load statistics, 3) hospital load statistics. The EMS time intervals included the travel time or response time to the scene, the scene time, and turn-around time or drop time at the hospital. The EMS system load statistics included the total number of transports per time of day, day of week, per week and per month. The hospital load statistics included the number of transports to each facility per time of day, day of week, per week and per month.

In the study period from August 2001 to January 2002 there were 52,461 transports utilizing the regional open/closed model. The comparison data set from AMR for August 2000 to January 2001 included 45,778 transports utilizing the traditional divert categories. With 85% of the data analyzed, Dr. Slattery reported when comparing the number of transports to each facility for the two study periods the pattern of patient distribution appears very similar. Although the data for the August 2000 to January 2001 does not include data for Boulder City Fire Department and Henderson Fire Department it was felt the St. Rose facilities would be most likely impacted by those transports. Between August 2001 and January 2002 AMR did 57% and SWA did 29% of the transports. The remaining 14% were done by the other transporting agencies.

In reviewing the outcome measures, Dr. Slattery found the most concerning finding to be an overall increase in response times during the August 2001 to January 2002 time period. There was not a significant increase in scene times as expected. It was expected there would be a decrease in transport times utilizing a regional open/closed system, however, there was really no difference in the two time periods. It appears there was a small increase in the turn-around or drop times, but a statistical analysis has not been performed to determine if there truly is a difference. In conclusion, Dr. Slattery stated the regional open/closed model has not resulted in any measurable improvements in the EMS system as compared to the traditional divert model used previously. He stated one of the main strengths of the regional system is patient satisfaction in having a choice of where to be transported. Although there isn't an instrument to measure patient satisfaction, he feels it is an important consideration. Some of the limitations of the study included the lack of a matched comparison data set, inherent design problems with a before and after study, and changes in our population during the study period. In addition, the study did not take into account patient disease severity or changes the hospitals have implemented to improve patient flow.

Dr. Davidson added the EMS system data has shown a 14.5% increase in the number of transports. This is not surprising given the consistent increase in the number of people moving into this community which is growing and covering more land mass. To further define the issue, he asked Dr. Heck to present his data that looked specifically at drop times.

Dr. Heck collected drop time data from AMR and Southwest Ambulance from April 1, 2001 through February 2002. He reported a relatively constant number of transports over the time period with approximately 8000 transports by these two agencies each month. The largest increase was seen between October and November 2001 where there was a difference of 600 patients. However, even that increase resulted in an average increase of only two patients per hospital per day in that 30 day period. Overall, the system transports have remained about the same, plus or minus 500 from one month to the next. The individual hospital EMS patient volumes have also remained relatively constant. Dr. Heck broke the drop time data into four categories: 1) less than 30 minutes, 2) 31- 60 minutes, 3) 61 – 119 minutes, 4) greater than 120 minutes. The data revealed 90% of the drop times were within 60 minutes. These numbers also remained fairly constant during the study period. He commented there was a noticeable change between January and February 2002 where he saw the drop times of greater than 60 minutes increase from 5% to 10% of the total call volume. This reflects 700-800 AMR and SWA calls per month with drop times greater than 60 minutes. Further stratification of the data shows the drop times have remained relatively constant at each hospital within each time quartile. Even adjusted for the total call volume at each facility, the drop times were about the same.

In conclusion, using average drop times to determine a reasonable period of time for an EMS crew to transition the care of their patient to the emergency department staff is not a sound method of creating an acceptable standard. The data shows that the 90% fractal drop time is 55- 60 minutes and from the transporting agencies perspective that is too long for a unit to be out of service.

Dr. Davidson commented that at the April 1, 2002 meeting, members of the Facilities Advisory Board (FAB) thought the hospitals might benefit from being alerted to the actual EMS system

load, especially when the number of available ambulances reaches a critical level. The hospital administrators felt they could prepare better for an influx of patients if they were aware of the overall system status. Dr. Marino stated that the EMSystem open/closed status screen provides information about how busy the system is at any point in time. However, Dr. Davidson added that the rotation of open and closed status among the hospitals may not reflect internal issues within a hospital, such as staffing shortages or the number of patients being held in the emergency department which may in turn effect drop times. Brian Rogers, from SWA, stated the system level status changes so frequently that he doesn't think the information would be of much value. They have been able to identify that the peak times are between 12:00 P.M. and 10 P.M. It was suggested that Dr. Slattery could analyze the data, and generate a report showing the relationship between the drop times per time of day and day of week at each facility. This analysis might more clearly define problem areas. Dr. Heck reiterated that the EMS transports have remained fairly constant in terms of both volume and destination. He feels the walk-in patients and the direct admissions are occupying the beds and creating the backlog in the emergency department.

Drs. Lauwwue and Vanduzer commented the flow of seriously ill patients into the ED waiting room must also be considered. Regardless of how the patient arrives at the hospital, all patients need to be triaged so the most critical patients are seen first. The question was raised if it would help to reduce the number of unnecessary ED visits through better field triage and a public information campaign addressing ED overcrowding. Dr. Davidson stated AMR reported they are already not transporting approximately 3500 patients they respond to each month. Dr. Marino added he conducted a chart review at SWA that demonstrated only 10% of the patients would have met the criteria for transport to an urgent care center; the other 90% required emergency department care. Several Board members expressed concern about placing the paramedics in the position of attempting to disposition patients to alternate care sites based on their field assessment.

B. Facilities Advisory Board

1. Report

Dr. Davidson asked Blaine Claypool to discuss the recommendations that were made at the FAB meeting held April 1, 2002. Mr. Claypool stated the first recommendation was to reconvene the Blue Ribbon Subcommittee or Blue Ribbon Committee to develop criteria to define what constitutes an internal disaster at a hospital, and what procedures will be used to respond to the internal disaster. Dr. Davidson commented it appears that hospitals are using an internal disaster declaration as a means of going on "super divert". He added it is important for everyone to understand the "super divert" concept is not found anywhere in the literature and declaring an internal disaster has very different repercussions for the hospital and the EMS system.

2. Related Issues to be Addressed by the MAB

a. Draft Operations Protocol: Patient Delivery to Emergency Medical Facilities

The second issue considered by the FAB was the draft "Patient Delivery to Emergency Medical Facilities Operations Protocol". The Board members were unable to agree upon a reasonable timeframe for the paramedics to transfer patient care to the emergency department staff after arrival in the emergency department. Therefore, the draft "Patient

Delivery to Emergency Medical Facilities Operations Protocol" was not approved by the FAB. Dr. Davidson commented that both Dr. Heck and Dr. Slattery investigated the issue

and had been unable to identify a specific standard regarding an acceptable transition time in the ED.

(1). Reasonable Transition Period – Drop Off Time Statistics

Report given under Item A. Open/Closed Regional System vs Prior Divert Protocol.

(2). Pilot Studies at Desert Springs/University Medical Center by Southwest Ambulance/American Medical Response

Report not given.

b. Hospital Internal Disaster

(1). Reporting and Review

Mr. Claypool stated the recommendation from the MAB to conduct a review of internal disasters was adopted by the FAB. The FAB members would like to expand the review beyond the original proposal of having the MAB Education Committee review each internal disaster incident and also include a review by the FAB. It was felt the reviews would be beneficial because the entire community is affected when a hospital declares an internal disaster. Dr. Vanduzer remarked that the recommendation of the FAB to not allow ambulance crews to discontinue treatment of patients because all the community hospitals unanimously agreed it was unacceptable removes the fear of adverse outcomes and will decrease the need to declare an internal disaster at his facility. Mr. Claypool responded he did not believe that inflection was placed on the decision made by the FAB at the April 1st meeting. He added the Blue Ribbon Committee and the FAB intend to meet prior to the May MAB meeting. A motion was made to have the Divert Task Force study how the current closure procedure is impacted when one or more facilities declare an internal disaster; and to determine what changes may need to be incorporated into our current model. The evaluation should take into consideration the information provided by the FAB. The motion was seconded and passed unanimously.

(2). Emergency Department Closure Protocol: Clarify process to be used by EMSS when multiple hospitals declare internal disaster.

In the time period before the Blue Ribbon Committee and FAB meet to discuss the internal disaster issue, it was recommended that if a hospital declares an internal disaster, all other hospitals should open regardless of their closure status at the time the internal disaster is declared. The appropriateness of an EMS crew bypassing a facility on internal disaster with a critically ill patient was questioned. Drs. Davidson and Slattery commented the current closure procedure states in a case where there is a threat to life or limb, the closure status is ignored. If the internal disaster is an event that has created a truly unsafe environment in the emergency department, then the paramedics should exercise good judgment in making the decision to transport to that facility with a critically ill patient. It was recommended that, in the next 30 days, if any facility elects to go on internal disaster for any

reason, every other facility in the valley will remain open. Dr. Davidson acknowledged that during the interim period the criteria for internal disaster will not yet be defined, but that the indication given by the FAB was that hospitals will not be declaring an internal disaster for patient overload. Dr. Greenlee suggested the

MAB wait until the FAB has identified the criteria before endorsing the plan to require all hospitals to open when one declares an internal disaster. Steve Peterson stated that AMR is the gatekeeper for EMSystem and they would appreciate the criteria for internal disaster being defined. Recently, they began to ask for the administrator on call when a hospital calls to advise AMR they are declaring an internal disaster. If the administrator tells them the reason is patient overload, AMR is not honoring that request. Without direction from the MAB or anyone else, he does not think it is fair to the other hospitals. He stated all other requests will be honored. A motion was made that in the next 30 days if a facility goes on internal disaster, all facilities in the city will be opened regardless of their open or closure status. The motion was seconded and passed with three opposed. Steve Kramer requested that the decision be provided in writing to AMR as the gatekeeper for EMSystem.

Dr. Henderson stated he was uncomfortable with the gatekeeper creating a policy about whether or not to honor an internal disaster request. Mr. Peterson responded that AMR has now been given direction from the MAB and they will implement it. Dr. Slattery stated he hoped the Blue Ribbon Committee and the FAB would be able to develop well-defined criteria for when it is appropriate to go on internal disaster status. He feels it is a hospital-based decision and that the EMS system does not have the authority to tell a hospital when they can declare an internal disaster.

Dr. Davidson commented he hoped that if in the next 30 days a hospital does call for an internal disaster, it will be honored. He added as a point of clarification that if a hospital goes on internal disaster status, all other hospitals will open and the rotation of closure status will start and stop exactly where it was at the time the internal disaster status was granted.

C. Review of Priority Dispatch "Obvious Death" Protocol

Dr. Heck reported in June 2001 the MAB endorsed version 11 of the medical priority dispatch cards. The card recommends that the call be dispatched as a BRAVO level call using red lights and sirens. The Fire Alarm Office would like the obvious death calls to go back to being ALPHA level calls without red lights and sirens. Sending a fire engine and an ambulance with red lights and sirens to an obviously dead body could pose a danger to the public's well being.
A motion was made to change the priority dispatch of obvious death calls from a BRAVO level response to an ALPHA level response. The motion was seconded and passed unanimously.

III. INFORMATIONAL ITEMS/DISCUSSION ONLY

A. ED Nurse Managers Report

Alice Conroy reported the ED Nurse Managers met on March 22 at the Health District. There was a recommendation made for clarification on the communication that should occur through EMSystem, regarding EMS events regardless of where they occur, if the event will effect the area hospitals or the EMS system. An update was given on the current status of the fire department hiring and funding a position to manage the EMSystem. There was recognition of hospital drop

times being a public health issue and help from the community is essential in resolving the problem. The nurse managers agreed it was necessary to develop a plan to manage the ED overcrowding issue and deliver a comprehensive message to the principle stakeholders. There was a brief discussion regarding the transport of critical care patients. If an EMS crew has a critical patient that they believe requires immediate care, they should transport the patient to the closest appropriate emergency department regardless of its closure status.

B. QA Report

Dr. Slattery reported there was a Clinical Case Review and QA Committee meeting held on Tuesday, March 19. The QA Committee will be evaluating the Amiodarone and newly revised IV protocols for protocol compliance. An Amiodarone QA tool was developed and will be implemented in May to determine if Amiodarone is being administered properly in the field.

The **A**miodarone versus **L**idocaine **I**n Prehospital Refractory **V**entricular Fibrillation **E**valuation (A.L.I.V.E.) trial has been published in the New England Journal of Medicine. Dr. Slattery asked that the Drug Committee review the article and determine whether Amiodarone should continue to be used in our system.

The Nevada American College of Emergency Physicians (ACEP) first scientific assembly will be held at Lake Las Vegas on May 31st and June 1st. There will be fliers distributed to all the ED's and EMS agencies.

Dr. Davidson reported the VA hospital may be closing for structural damage repair for 12 – 24 months. That will impact our current EMS system as VA patients will be delivered to the area facilities.

As there was no further business, Dr. Davidson called for a motion to adjourn. The motion was seconded and carried unanimously to adjourn at 7:37 p.m.