MINUTES
EMERGENCY MEDICAL SERVICES
MEDICAL ADVISORY BOARD MEETING
OCTOBER 3, 2001 – 6:00P.M.

MEMBERS PRESENT

Allen Marino, M.D.
David Daitch, D.O.
David E. Slattery, M.D.
David L. Watson, M.D.
Dennis Lemon, D.O.
Deputy Chief Kenneth Riddle
Donald Kwalick, M.D.
Donald Reisch, M.D.
E. P. Homansky, M.D.
Ed Matteson
Jeff Davidson, M.D., Chairman
Jeff Greenlee, D.O.
John J. Fildes, M.D.
Jon Kingma
Karen Laauwe, M.D.
Michael Walsh
Nicolas Han, M.D.
Pam Turner, R.N.
Pete Carlo
Philis Beilfuss, R.N.
Division Chief Randy Howell
Richard Henderson, M.D.
Steve Kramer
Batt. Chief Todd Jaynes

MEMBERS ABSENT

Bryan Lungo, M.D.
Michael Zbiegien, M.D.
Paul Fischer, M.D.
Deputy Chief Steve Hanson

CCHD STAFF PRESENT

Joe Heck, D.O.
Jane Shunney, R.N.
Jennifer Carter – Recording Secretary
Mary Ellen Britt, R.N.
Kelly Quinn, EMT-I
Jean Folk

PUBLIC ATTENDANCE

Brian Rogers, Southwest Ambulance
Aaron Harvey, HFD
Derek Cox, AMR
Geoff Archer, LVFR
Jackie Taylor, UMC
Jeff Greenlee, UMC
Jon Kingma, BCFD
Joseph Calise, R.N., Summerlin Hospital
Margaret Williams, R.N., Mountain View Hospital
Mike Griffiths, R.N., Mercy Air
Missy Greenlee, R.N., Mercy Air
Patti Glavan, R.N., Boulder City Hospital
Sandy Young, R.N., LVFR
Sue Hoppler, R.N., Desert Springs Hospital
Todd Jaynes, Mesquite Fire & Rescue
Tom Geraci, D.O., Mesquite F & R
Virginia DeLeon, R.N., St. Rose Hospital

Meeting called to order at 6:05p.m.

I. CONSENT AGENDA

- **A. Minutes Medical Advisory Board Meeting September 5, 2001**
- **B. Re-evaluation of Amiodarone to be referred to Drug Committee**
- **C. Review of District Procedures to be referred to Education Committee**

A motion for Board approval of the Consent Agenda was made, seconded, and unanimously carried.

II. REPORT/DISCUSSION/POSSIBLE ACTION:

A. Introduction of Dr. Joseph Heck, D.O.

Dr. Kwalick introduced Dr. Joe Heck who recently returned to Las Vegas from the East Coast. Over the pass three years, Dr. Heck has served as Medical Director for several federal programs in the Washington, D.C. area in various agencies including the State Department, the Marshall Service and the Casualty Care Research Center of the Uniform Services University of Health Sciences. Prior to 1998 he served for several years as an Assistant Medical Director here at the District and he was very active as an MAB participant. Dr. Heck's EMS involvement began as an EMT in 1978 before he started his college education and his medical career. He has lectured and published widely on medical support to law enforcement agencies, including responses to chemical and bio-terrorist acts. He is a flight surgeon with US Army reserve with extensive training in medical management of exposure to chemical and biological agents. He is certified in emergency medicine and is a fellow of the American College of Emergency Physicians. Dr. Kwalick recently appointed him as the EMS Operations Medical Director for the District's EMS program. In this capacity he will be reviewing EMS policies, protocols, and regulations; analyzing EMS provider performance to maintain quality control in adherence to policies, protocols, and regulations; assisting with disaster and bio-terrorism planning and training; assisting with the development of an EMS patient database.

B. Equipment Committee Report

1. Needleless IV System

Dr. Jeff Greenlee reported the committee recommended that the use of a needleless IV system was an agency issue for OSHA standards compliance. The Equipment Committee would approve the implementation of a needleless IV system by agencies however; it will not be a system requirement. Dr. Davidson requested that the agencies inform the MAB if they are being utilized in the EMS system.

2. Aspen Medical Collar

Will come back to committee at a later date. A presentation on the Aspen Pediatric Medical Collar was done during the Equipment Committee meeting, but the information provided was incomplete. The petitioner was asked to submit a completed application for the addition of the Aspen Collar to the EMS office for future consideration by the Equipment Committee.

3. **Combitube SA**

The Combitube SA was approved by the Equipment Committee as an item to be added to the ambulance inventory for a sub-group of the general population, those patients between 4-5 feet tall. The current combitube protocol should be sent to the Education Committee for necessary revisions. Dr. Greenlee referred to the handout entitled "Petition for Addition of the Combitube SA to the EMS Inventory." Mercy Air Service, Inc. compiled the document. It gives more detail about the device and how it's utilized and the parameters for its use. Dr. Greenlee motioned per recommendation from the Equipment Committee to approve the Combitube SA as a mandatory part of the EMS inventory and to now be referred to the Education Committee. The motion was seconded. Dr. Davidson called for discussion on the motion. Pete Carlo stated there needs to be a protocol done before it is placed on the trucks. Dr. Davidson replied if the item passed, it would go to the Education Committee where the appropriate protocols and education materials can be developed. Field personnel would be trained in the use of the Combitube SA before it is used in the field.

After a brief discussion on the motion, Dr. Davidson called for a vote. The motion carried unanimously.

4. **Extension Tubing**

Dr. Greenlee advised the Board the discussion about adding extension IV tubing to the ambulance inventory was a housekeeping item, which primarily came from the trauma center. The committee's recommendation was to add IV extension tubing to the ambulance inventory as a required item.

Dr. Greenlee motioned to change extension tubing from optional to required for all transport agencies. The motion was seconded. Dr. Davidson called for discussion on the motion. There was some discussion that the extension tubing interfaces well with the needless system, which is currently being utilized by the ED's. A question was raised as to whether extension tubing would be a mandatory piece of equipment for every rig and would it be mandatory to use it on every patient? Dr. Greenlee's response to the question was while the Equipment Committee would like to have extension tubing used on every patient, the committee cannot make that a requirement, however, it is the recommendation of the committee to make it a required piece of equipment.

After a brief discussion on the motion, Dr. Davidson called for a vote. The motion carried unanimously.

C. Airway Management Committee

1. **Review of Needle Cricothyrotomy vs Surgical Cricothyrotomy**

Dr. Slattery requested a vote from the MAB on the pediatric needle cricothyrotomy. He stated that currently the needle cricothyrotomy protocol is restricted exclusively to the adult population. He commented the procedure should be considered because it is indicated in the pediatric patient who has a complete airway obstruction. At the bottom of the airway algorithm, when there is no other place to go, there is an option for those patients. The Airway Committee voted unanimously to support adopting pediatric needle cricothyrotomy as an indicated procedure for our system. Dr.

Slattery motioned that the MAB adopt the pediatric population to be included in the indication for a needle cricothyrotomy. The motion was seconded by Dr. Fildes and unanimously carried.

Dr. Slattery stated that the Airway Committee discussed the appropriateness of what we're currently doing for rescue airway with surgical airway for adults, which is the needle cricothyroidotomy. He alluded to what Dr. Fildes stated in the last MAB, that needle cricothyrotomy probably isn't the most appropriate, and/or optimal airway in an obstructed airway situation. The Airway Committee has discussed whether or not to proceed with proposing surgical cricothyroidotomy, however the committee has not been able reach a consensus. Dr. Slattery asked the MAB to address any concerns and to further discuss this issue.

Dr. Fildes stated the topic was introduced when the Airway Committee began to examine the needle cricothyrotomy protocol and current equipment. The current piece of equipment requires a high-pressure regulator and other parts that make it an expensive inventory item and it needed modernization. It was determined that pediatric indication wasn't included and that actually was the cleanest indication. Needle cricothyroidotomy is not optimal for adults because the minute ventilation that can be delivered is sub-optimal. There was discussion as to whether the surgical rescue airway should be surgical cricothyroidotomy. The surgical cricothyroidotomy is the first of all emergency airways and pre-dated endo-tracheal intubation by thousands of years. It has been performed in communities in this country for decades. Dr. Fildes stated he felt that surgical cricothyroidotomy may offer some advantages over using a needle system in terms of visual cues, tactile or palpatory cues, even auditory cues about properly locating and cannulating the airspace which would be different from the experience of placing a needle device through an injured neck or distorted upper airway.

Dr. Davidson stated that he was in favor of the surgical approach as a last intervention, when all other airway ventilation maneuvers have failed. He voiced a concern of moving through the algorithm too quickly, bypassing interventions that are currently being used, i.e., the combitube or LMA. He said he would envision the surgical approach being used more in trauma when there has been some type of distortion to the anatomy of the neck and all the upper airway interventions utilized above the cricothyroid membrane have been prohibited.

Dr. Marino suggested that reinforcement of basic airway management by the paramedics be carefully considered. He feels strongly that if the system is going to invest in this type of advanced education, going back to the basics is essential. He expressed a need to reinforce what will benefit the entire population versus one patient. Having the opportunity of seeing the restrictions we have on education, the cost of educational materials and the time involved in preparations, the agencies don't have the capacity to do it all. If time is going to be invested in airway management, he suggested, investing time in ensuring that good airway management is being done for the vast majority of the patient population.

Dr. Slattery remarked that this is one component of airway management and success of the system from a global standpoint has a lot of aspects that have to come together. The first consideration for any system is to teach and reinforce the fundamentals of basic and advanced life support and airway management, across the board. He stated the specific issue to be decided is regarding the

patient that meets the field criteria for doing a surgical airway and currently what's going to be performed is a needle cricothyrotomy. It is probably not the most appropriate airway. A full surgical cricothyrotomy is probably the best intervention for that patient. He agreed that the system should raise the bar across the board, not only in this EMS system but all EMS systems across the country. The biggest impact we can have on airway management is by addressing the fundamentals. Even with the best basic and advanced airway management, however, there will still be that half percent of patients in which the provider just can't obtain an airway. The issue to be decided is the appropriateness of a surgical airway — failed airways are going to be out there regardless of the provider's ability to intubate the patient.

Dr. Marino questioned the number of patients that would meet the criterion, with total oral pharyngeal damage and would not be managed by bag valve mask ventilation.

Dr. Fildes remarked that the number of rescue airways is very minimal, however the needle cricothyrotomy device (14 gauge) that is currently recommended for the airway is probably not appropriate in the adult population. Providers did some homework and identified over a five year period a handful were used.

Dr. Henderson reiterated that resources and training times are limited. He questioned if it was wise to invest the time and effort for the saving of four versus the same time and effort improving the routine airway management for hundreds.

Dr. Slattery responded, he didn't think it was necessary to choose between the two issues. He stated the airway committee is currently working on an educational program to elevate the bar across the board and he understands the training costs can be high. Dr. Slattery added that Dr. Heck has done a lot of training in his capacity with the government, and asked him to comment on rough estimates in terms of cost and time, specifically for the surgical cricothyrotomy procedure.

Dr. Heck replied for the surgical cricothyrotomy procedure alone we developed a four-hour training program that trained EMT Basics on how to perform this procedure using an animal lab model. At the conclusion of the four-hour training program everyone of the people that we trained, which today would be about 120, were able to perform the procedure without complication. The requirement is that if they don't perform one within the course of a year they have to be signed off by their physician supervisor and complete the animal lab again.

Dr. Fildes remarked that he didn't know what the training and re-training requirements were in Phoenix or Chicago or New York or any of the other big systems that might do the procedure and it might be worthwhile to investigate that.

Steve Kramer commented as far as the training for basic airway maneuvers is concerned that a few years ago Dr. Heck made a CD-ROM in preparation for the addition of versed into the system. The educational program had everything from the beginning to the end back to the basics, before utilizing the medication. He suggested the program could be re-instituted during CME training.

Dr. Heck remarked Rich Hardman was the primary developer of the program.

2. **Discussion of Pediatric Bags**

Dr. Slattery reported that Dr. Lungo and Mary Ellen Britt looked at the various pediatric ambu bags used in our system and found that there are several different manufacturers. In an effort to standardize the type of equipment being used and to evaluate their performance they did a study. The Airway Committee unanimously approved the adoption of two of the pediatric manual resuscitator bags as mandatory pieces of equipment for airway management in children. Based on these recommendations, any ambu bag in the future that comes into the system would need to go through the Airway Committee to get approval before use because of the wide degree of variance in terms of the amount of actual stroke volume that is delivered to the patient. Dr. Slattery made a Motion, based on the recommendations from the Airway Committee, to adopt the Ambu Spur or Vital Sign type pediatric bags as acceptable pediatric manual resuscitators on the ambulance inventory. He added, new language will be adopted in terms of any additional bag that comes into the system for pediatric use and the need for it to deliver a minimum stroke volume of 450cc's. It should also have an over-ride-able pop-off valve. There are only two bags currently in our system that fit those two criteria. The majority of the agencies use the Ambu Spur, which cost approximately $18; the Vital Sign pediatric bag is $15, but may be negotiated down to $13 depending on the number ordered. The Airway Committee and the Health District do not endorse any specific products, but these are the specific products that we found in our system that fit our criteria for an adequate bag performance based on the American Academy of Pediatrics recommendations.

Motion seconded and carried unanimously.

D. Facilities Advisory Board Committee

Mike Walsh reported the FAB met on Friday, September 28. There was a review of the Abaris Group recommendations from last year. All the recommendations seemed to have been put in place to one degree or another. He stated the Hospital Task Force from the original Blue Ribbon Panel is still operating and they offered a packet of findings and recommendations, which would be available to the MAB if desired. Almost 60% of the reasons for discharge delays pertain to patients not having a ride home. Patients who were being discharged home and needed transport by a medi-coach type service, was about 25%. Late discharge by physicians accounted for 31% of the delays.

Dr. Davidson commented the Hospital sub-committee of the Blue Ribbon Panel continues to meet and their recommendations were brought forth at the FAB meeting. It was clear that many of the hospitals have made great strides in trying to cut down delays in getting admitted patients up from the emergency departments onto the hospital floors, which seems to have a ripple effect out into the EMS system. The report from the Hospital sub-committee provided a pie chart showing 31% of the problem of delay in getting patients out of the hospital was because of late rounds by physicians and discharges late at night after 7 & 8p.m. 21-25% was secondary to delays in med-coach and those types of services getting the patients out of the hospital enroute to their next facility or destination. Approximately 20-25% was secondary to family delays; meaning families just aren't picking patients up until 8,9,10:00 at night.

Mike Walsh said it turns out that a very small percentage was controllable by the hospitals in terms of lab results not being on the charts, consults not being completed before the patient could be released. That probably didn't amount to more than 15% of their findings as far as the delays are concerned.

Dr. Davidson stated he felt in the MAB members may have anticipated some radical findings that were going to help guide us through this next session of divert. The patient destination protocol was tabled last month and now that the transport agencies have had a chance to hear the results of the Blue Ribbon Hospital Committee, a decision needs to be made if the Divert Committee should develop a patient destination protocol. He commented that a few members of the MAB will be in Dallas next month where he was asked to present as part of a national panel discussing divert issues. He reported that in looking through the area data there was a huge trend in '98 and '99 where no one was open ever. Locally we dropped to levels where only 40% of our emergency departments remained open on any given days of the month, which meant we were closed a lot more than open. Whereas, now it's the exact opposite. He offered to show the powerpoint presentation that he will be presenting in Dallas on divert.

Dr. Kwalick commented that it would probably be good to have that presentation on the December MAB agenda. He also considered placing it on the Board of Health agenda, because the Board of Health meeting is video taped and it could be carried to the community for a full month period. It's on channel 4 and it's shown 2 or 3 times a week. Dr. Kwalick felt that it may allay some anxieties and get the word out to the community in general.

Dr. Homansky asked is there a set of recommendations from the Hospital Blue Ribbon Panel as to what changes or modifications would occur in the hospital that will be done differently this year from last year?

Mike Walsh responded, the Blue Ribbon Panel meets regularly and they are just working through ideas on how to improve the flow of patients. All the hospitals were doing that, in fact, Summerlin Hospital for example, has a standing committee that does nothing more now than work on ways to streamline the process to get the patient through the ER, and up to the floors.

Dr. Homansky said maybe it would be beneficial at the December meeting to have someone from that Hospital Blue Ribbon sub-committee attend the MAB.

Dr. Davidson stated the report was a presentation of data and not a set of recommendations from that data.

Mike Walsh said there was also a review of SB191 at the FAB meeting, which is the safe haven law that was presented by a member of the Junior League. There was also some discussion about the mental health and the psychiatric evaluations in the ER's. Dr. Rosen from the Southern Nevada Adult Mental Health Services commented on what they are trying to do to help ease the problem. Las Vegas Mental Health is expanding their ability to take patients in. They have 10 beds now in the observation unit and they have a plan to expand to 20. FAB members also discussed using paramedics in the ER's. There was some hesitation on the part of some of the hospitals to adopt the

concept. At Summerlin Hospital, it appears to be working well in terms of helping move the patients from the gurneys quicker.

Dr. Kwalick clarified these individuals were functioning as Emergency Room Technicians and not as paramedics in that setting.

III. Informational Items/Discussion Only

1. ED Nurse Managers Report

Pam Turner reported they had a meeting on September 28th at Valley Hospital. Jim Becvar, who is the assistant investigator for the coroner's office was present and discussed when to perform autopsies. He is going to forward some more information to the nurse managers to help educate ED staff and physicians. There were discussions on the difficulty EMS systems are having with receiving face sheets. Each facility is going to address that. Representatives from Montevista and Las Vegas Mental Health were present and discussed some mental health issues that are being addressed. Mike Meyers gave an update on the MMRS. The EMS system is up and running in just about every facility, and the FAO went up last week. At the next ED Nurse Managers meeting Mike is going to present a review of the system's capabilities and we will discuss who is going to be the gate keeper, before we go in to full implementation in January. Richard Brenner discussed hazardous materials preparations and provided websites that can be accessed for additional information. Monte Vista will be piloting a telemedicine program with UMC as one of the ways to move psychiatric patients through the facilities. Las Vegas Mental Health will be piloting a program with UMC and Valley that will evaluate the use of a team comprised of a psychiatrist and a social worker that will come into the ER and do assessments of patients to determine who should go to their facility and who may be able to be treated in another manner. The next ED Nurse Managers meeting will be November 2 at the Health District.

Dr. Davidson said the mental health issue has changed dramatically as of October 1. There is no longer an agency that can come to the ED and provide a mental health evaluation for free. He commented, the community needs to investigate other options to treat our mental health population more effectively, more efficiently and safely. As we know from previous years, the problem has been compounding and getting worse. Each year the delays for getting the mental health patients effectively medically cleared in the ED's and then dispositioned out of the ED's into the correct facilities has been getting longer and worse to the point where most of the patients are spending their entire 72 hours of legal hold in the ED's and then the ED physicians didn't know what to do because you can't do back-to-back holds.

2. ED Divert Statistics

Dr. Davidson referred to the ED Divert Statistics handout, which was on the pink sheet in the packets. The average for the nine facilities was 94% that remained open of the 720 hours for the reporting period. This shows a great change from the 40% open we reported in 1998, for almost the entire 12 months, and then on into '99.

Dr. Davidson remarked, he wanted to congratulate Dr. Kwalick for his appearance on NBC news on September 30th and for giving Las Vegas national exposure on the subject of hazardous

materials and DMAT. He also commented on Dr. Slattery and Dr. Bobrow's participation in the Southern Nevada FEMA Urban Search and Rescue Team's effort in New York. He felt it was tremendous for them to take time from their families, their jobs and everything they have here to go back and help in the unfortunate events that occurred. He asked for comments from Dr. Slattery and thanked them for their efforts.

Dr. Slattery responded that he and Dr. Bobrow are part of the FEMA Urban Search and Rescue Team. He explained they are one of 28 teams across the nation that are designed to go into collapsed structures specifically and find victims. They were deployed September 26th, very late in the event, to relieve other teams that had been working at the site. It was the team's first deployment since the inception of the FEMA team here in Clark County, nine or ten years ago. What struck him was the amount of destruction that they saw and that what is seen on TV, you just cannot appreciate until you are actually there. It was enormous both in terms of size and the amount of what's not there. Specifically there was no concrete, there was no glass, and there was nothing but twisted metal. It was a very different recovery process compared to what they have been trained to do. The team was very well utilized, the K-9 units from Metro Police Department were excellent and worked very hard, the structural engineers, the search cams and search teams played an integral part of recovery and that brought some closure to some of the firefighters' families and some of the families from New York City. He stated they were happy to be back and thanked those who participated in the two-day boot drive for firefighters and it was impressive. There was over $300,000 dollars in money raised that we brought to New York from everyone in Southern Nevada. He applauded anyone that contributed to that boot drive and all the firefighters from all the agencies that worked very, very hard in collecting that money.

Dr. Kwalick provided an update regarding some information about disaster preparedness. He shared a few things that the Health District has been involved in and he invited everyone to get into a program very early. November 1st Sunrise Hospital will be putting on a bio-terrorism preparedness program. Invitations should be going out in the next few days. It will be on a first-come-first-served basis. There will be a donation requested and the accumulated donations will go to local agencies that have been affected by the terrorist attack. It's going to be open to the community but is limited to 150 people. Activities that the District is involved in include continued surveillance of reportable diseases; there are currently over 50. He added one of the most important things that we can do in any kind of a bio-terrorist type attack is get our finger on the pulse of the community to know if something unusual is happening. The only way that's going to happen is with training in the signs and symptoms of bio-terrorists agents. The Health Alert Network that the District has gives health alerts on bio-terrorism if it does occur, communicable disease out-breaks, emerging infections, information on all kinds of disease surveillance and dissemination of prevention guidelines. CCHD is in a system with CDC and the State. He reported he had just received something that he wanted to update the members on. A lot of questions are being asked about anthrax, smallpox, gas masks, etc. Basically, what CDC and what New York City is saying is at this point in time small pox vaccinations are not available, but it's not recommended even if it were available. If a case of small pox occurs, they're geared up to be able to get to that area in a number of hours and be able to administer vaccine. CDC has about 15 million doses. The secretary of HS has said that they'll start manufacturing additional small pox vaccine. Part of the furor that's going on right now is that, everybody wants small pox vaccine.

There hasn't been a reported case since 1977. With anthrax, the vaccine has been available for military personnel only. It's a six dose series over 18 months. If there were cases, then antibiotics would take care of it. CDC does not recommend stocking any kind of antibiotics and does not recommend if you think you have anthrax, to start treating. They'll be able to, through the push package, get the necessary pharmaceuticals and antibiotics to the area in a minimal period of time. As far as gas masks, the gas masks are good for gases. They won't do anything in a bio-terrorist attack. They may be serious to heart patients or lung patients with serious lung diseases. Also if you did get a gas mask it has to be specially fitted or it's going to be useless. So you may be getting questions from your patients out there and these are the kinds of things you can tell them. We'll be getting it out on our website also.

IV. Public Appearance/Citizen Participation

No response.

V. Adjournment

As there was no further business, Dr. Davidson called for a motion to adjourn. A motion was made, seconded, and unanimously carried to adjourn the meeting at 6:57 p.m.