MINUTES
EMERGENCY MEDICAL SERVICES
MEDICAL ADVISORY BOARD MEETING
NOVEMBER 7, 2001 – 6:00 P.M.

MEMBERS PRESENT

Allen Marino, M.D.
David Daitch, D.O.
David E. Slattery, M.D., Acting Chairman
David L. Watson, M.D.
Dennis Lemon, D.O.
Deputy Chief Kenneth Riddle
Donald Kwalick, M.D.
Michael Zbiegien, M.D.
Brent Hall
Jeff Greenlee, D.O.
Batt. Chief Todd Jaynes
Jon Kingma
Karen Laauwe, M.D.
Michael Walsh
Nicolas Han, M.D.
Alice Conroy, R.N.
Pete Carlo
Philis Beilfuss, R.N.
Aaron Harvey
Richard Henderson, M.D.
Steve Peterson

MEMBERS ABSENT

Deputy Chief Steve Hanson
John J. Fildes, M.D.
Deputy Chief Randy Howell
E.P. Homansky, M.D.
Donald Reisch, M.D.
Jeff Davidson, M.D.

CCHD STAFF PRESENT

Jane Shunney, R.N.
LaRue Scull
Jennifer Carter – Recording Secretary
Mary Ellen Britt, R.N.
Kelly Quinn, EMT-I
Jean Folk

PUBLIC ATTENDANCE

Brian Rogers, Southwest Ambulance
Ed Matteson, CCFD
Mackenzie Brown, STI Medical
Brook Richardson, Lake Mead Med. Ctr.
Nancy Newell, R.N., NV-DMAT
J.L. Netski, R.N., AMR
J.D. McCourt, M.D., UMC
Paul Fischer, M.D., Sunrise Hosp. & Med. Ctr.
Kathy Kopka, R.N., Sunrise Hosp. & Med. Ctr.
Wade Sears, M.D., Valley Hosp. FFL/Spec. Med. Svcs.
Bryan Lungo, M.D., UMC
Sandy Young, R.N., LVFR
Nancy Cassell, CCSN
Chris Nollette, CCSN
Tom Geraci, D.O., Mesquite F & R
Mary Levy, R.N., UMC
Rachelle Reiersgord, R.N., CCT
Henry Clinton, LVFR
Mike Griffiths, R.N., Mercy Air
Missy Greenlee, R.N., Mercy Air

I. CONSENT AGENDA

The EMS Medical Advisory Board convened in the Clemens Room at the District Health Center at 6:05 p.m. on Wednesday, November 7, 2001. Acting chairman David Slattery, M.D, called the meeting to order. He stated the Affidavit of Posting, mailing of Agenda, and public notice of the meeting agenda were executed in accordance with the Nevada Open Meeting Law. Dr. Slattery noted that a quorum was present.

Minutes Medical Advisory Board Meeting October 3, 2001
A motion was made, seconded and unanimously passed by the Board to approve the minutes as written.

II. REPORT/DISCUSSION/POSSIBLE ACTION

A. AIRWAY COMMITTEE

Discussion of Needle Cricothyrotomy Protocol
Dr. Slattery reported the Airway Committee voted to endorse needle cricothyrotomy for the pediatric patient and to make the following changes to the Needle Cricothyrotomy protocol:

1. Remove "III. Infants or children" from the "Contraindications" section;
2. Remove the "Potential Complications" section; and
3. Add "Special Notes: I. Patients less than eight (8) years of age, use self inflating manual resuscitator bag as O_2 delivery device. II. Patients greater than or equal to eight (8) years of age, use jet insufflator as O_2 delivery device."

A motion to approve the revised Needle Cricothyrotomy protocol was made, seconded and passed unanimously. Implementation of the new Needle Cricothyrotomy protocol will be withheld until a decision is made regarding the use of adult surgical cricothyrotomy, so the training for both procedures can occur at the same time.

Discussion of Pediatric Needle Cricothyrotomy Equipment
Dr. Slattery stated approving the use of needle cricothyrotomy for pediatric use would require modifying the Ambulance/Firefighting Agency Inventory. The Airway Committee recommended putting together a pre-packaged kit, which consists of a 14-gauge 2" angiocath, a 3.0 endotracheal tube adapter, 10cc syringe, and some Betadine preps. These kits would be ready to go in case a pediatric needle cricothyrotomy needed to be performed. The commercial pre-packaged kits currently being used by all agencies for adult needle cricothyrotomies can still be used and the commercial pre-packaged pediatric kit that is available would be an acceptable option to the agency prepared prepackaged kit. A motion to approve the addition of the pediatric needle cricothyrotomy equipment to the Ambulance/Firefighting Agency Inventory was made, seconded and passed unanimously.

Discussion of Adult Surgical Cricothyrotomy
Dr. Slattery reported the Airway Committee discussed and unanimously supported the use of adult surgical cricothyrotomy as the surgical airway of choice. He stated the Airway Committee would prepare a plan for education and quality assurance monitoring to present to the Board prior to a vote.

Dr. Watson commented that not everybody feels the same about surgical cricothyrotomies being performed in the field. He said that according to the literature, in the last 10-15 years there are approximately 100 articles on surgical cricothyrotomy in the field. Despite all the literature, there is no consensus that surgical cricothyrotomies should be done in the EMS setting. The best estimates are that only 10% of the agencies in the country will perform the procedure. Surgical cricothyrotomies are performed by some agencies in Arizona and they report in their literature a 14% rate of major complications. Other literature reports up to 30% major complication rates. Most articles have stated that 80% of people undergoing the procedure are either going to die in the first place or have severe neurologic outcome. We expect maybe two patients a year will undergo the procedure. In other words, one patient every five years may have any meaningful outcome clinically. These are just objective facts and numbers in terms of the amount of people that would actually be effected. The reason the discussion of surgical cricothyrotomy was brought up initially was because the Airway Committee was interested in helping with the difficult airway. The statistics show at least 24%, plus or minus, of intubations are difficult intubations or failed intubations. Those are not numbers that you would see by ER physicians. Other physicians can attest to the fact that when these patients come in they are not always difficult airways. Training is important, but to spend a huge percentage of time and training on a procedure that only 10% of EMS agencies will do and that has a complication rate of 14 – 30% may not necessarily be warranted and the literature supports that.

Dr. Slattery commented that surgical cricothyrotomy will probably be brought up again next month for further discussion and possible action. Dr. Henderson expressed concern about the Airway Committee spending time developing a plan for the use of surgical cricothyrotomy when there may not be support from the MAB for pursuing the issue. Dr. Slattery responded the decision to endorse the procedure was unanimous at the Airway Committee with the exception of the two members who were not present, Dr. Watson and Dr. Fildes. Dr. Slattery stated he would like to have input from everyone. The Airway Committee will provide the MAB with additional information regarding the proposed educational program and monitoring plan. He feels it is important for MAB members to have this information prior to voting.

Discussion of Airway Project
Tabled

B. DRUG COMMITTEE

Re-evaluation of Amiodarone
Dr. Marino stated the Amiodarone discussion was tabled. There is a question of whether to keep Amiodarone for use in the field. The committee reviewed the ALIVE study that indicates Amiodarone is more effective than Lidocaine. It was decided there needs to be more investigation within the agencies regarding current Amiodarone use.

Discussion of Etomidate
Dr. Marino stated a letter was sent out to the field from Dr. Slattery regarding the approved indications for the use of Etomidate. The letter was intended to help everyone understand that Etomidate is the drug to be used for adult intubation and Versed is not.

Following are the recommended changes from the Drug Committee for the Etomidate protocol:

- Under "Indications" - Change "(age > 10 years)" to "(age ≥ 12 years)"
- Change "Physician's Orders" to "NO" for "Sedation prior to Cardioversion"
- Change dose from "0.3 mg/kg" to "0.2 – 0.6 mg/kg (recommended dose 20 mg)"

Brent Hall asked if there was also a weight consideration or just the 12 years of age recommendation. Dr. Marino stated only age was discussed and consideration of the child's weight would be discussed in the educational program.

There was concern from the members of the Board regarding the safety in using Etomidate for children. Dr. Slattery commented the pediatric representation on the committee was in opposition to Etomidate being used at this point. Dr. Lungo stated the sentiment in the pediatric community is there is no reason to intubate in the field. There is no literature to show that intubation in the field improves outcome. He added giving medication to children, which in 5% of the cases is going to cause hypotension, may end up causing more problems in a situation where there was no indication for the procedure for which the medication was being administered.

Dr. Henderson asked for clarification if the issue was whether to intubate the pediatric patients or whether to use medication to intubate pediatric patients. Dr. Lungo replied the pediatric community would prefer that pediatric patients would not be intubated in the field, and his feeling is that the pediatric community is opposed to this medication being used in children by paramedics. In his experience, the assessment of circulation in children is not adequate in this system and giving Etomidate to a child in shock could have a negative outcome.

Dr. Slattery asked Dr. Marino to present each change to the Etomidate protocol. Dr. Marino made a motion to change "(age > 10 years)" to "(age ≥ 12 years)" under "Indications I." following the word "Adult" on the Etomidate protocol. The motion was seconded and passed unanimously.

Dr. Marino made a second motion to change the "Physician's Order" for "Sedation prior to Cardioversion" from "YES" to "NO" and to correct the spelling of "Medical Intubation" by adding a "c" to "medial". The motion was seconded and Dr. Slattery called for discussion on the motion. Dr. Henderson asked if Etomidate was the best drug for sedating prior to cardioversion. Dr. Slattery responded Etomidate is a perfect drug for cardioversion, as compared to Versed. Dr. Lauuwe remarked while she doesn't use Etomidate often, she usually gives 10 mg, which is less than the recommended dose, but the patient is very relaxed. Dr. Marino stated he usually gives 20 mg on all his patients with good results. Dr. Slattery remarked the rationale is that if the patient is in need of cardioversion the paramedics don't have time to call for an order. After brief discussion, the motion passed and carried, with one member opposed.

Dr. Watson made a motion to change the dose on Etomidate from "0.3 mg/kg" to "0.2–0.6 mg/kg (recommended dose 20 mg)". The motion was seconded and passed unanimously.

Discussion of Versed

Dr. Marino stated with the approval of Etomidate as the drug of choice for adult intubation, he would make a motion to delete the intubation indication from the Midazolam (Versed) protocol. The motion was seconded and passed unanimously.

Dr. Marino then recommended that the new I. under "Indications" would be "Sedation" with the following two categories: 1) The language "prior to cardioverion" should be deleted because Etomidate will be used for sedation prior to cardioversion. He added "Post Intubation" as an indication under "Sedation" to be done without a physician's order because Etomidate when used prior to intubation is a short-acting agent and the patient may require sedation with Versed after intubation; and 2) The second indication under "Sedation" would be "General Sedation" which would require a physician's order. Dr. Slattery stated there was a motion to remove "prior to cardioversion" from the sedation indication and to add "Post Intubation" without a physician's order and "General Sedation" with a physician's order under I. The motion was seconded and Dr. Slattery called for discussion of the motion.

Dr. Marino commented that the Drug Committee would like to ensure that vital signs are assessed after intubation to identify the clinical signs of shock or drop in a blood pressure. Dr. Slattery further commented that another point made by the committee was that it is not automatic to give Etomidate and then administer Versed. Versed should be used on an as needed basis only. Dr. Marino stated that in order to be consistent with the Etomidate protocol he recommended adding "< 12 years" after the word "Pediatric" in the "Indications" box on the Midazolam protocol. Dr. Henderson asked if the intubation indication was going to be left on the Midazolam protocol for pediatric patients. Dr. Slattery replied that is a controversial issue that was discussed at the committee level. The pediatric emergency physicians apparently feel more comfortable with Versed than Etomidate. The question still remains about pediatric intubation in the field, with or without medication, which will need to be discussed at the committee level. Dr. Slattery called for a vote on the motion. The motion passed unanimously.

Discussion of Valium

Dr. Marino reported the committee tabled the discussion of Valium as they will be soliciting input from the pediatric community regarding the use of Versed exclusively for seizures. The discussion will be brought back to committee next month.

Dr. Lungo commented some of the pediatric literature on Versed states that it works well, but it doesn't last very long and there is a high percentage of patients who end up re-seizing either in the field or in the ER. The literature supports that rectal Valium lasts longer and is more effective than IV Valium.

Dr. Zbiegien remarked he has seen two cases in the last 14-20 days where both patients were seizing in the field. The Midazolam protocol was used both times and both patients required additional dosages. He said he never experienced that using rectal Valium. Dr. Slattery asked Dr. Zbiegien if he knew the time interval after Versed was used until arrival in the ED. Dr. Zbiegien replied the time interval was approximately 10-20 minutes.

Dr. Lungo commented from his experience and from reading the literature, Valium is a better drug when administered rectally, when there isn't IV access. He said he questioned the number of patients treated for seizures with Valium and it might just be better overall to use one drug for both adults and pediatrics.

Dr. Slattery invited everyone to attend the next Drug Committee meeting where more time can be spent discussing this issue. He asked Dr. Henderson if he would like to look at the use of Etomidate in children at the next Drug Committee meeting. Dr. Henderson responded that if the question is whether to intubate children it should be uniform across protocols. He said it sounds like the message is not to intubate, not whether Versed is better than Etomidate. As a result, he feels the issue should be referred to committee. Dr. Lungo commented if the issue is to be addressed it should be at the Airway Committee.

C. EDUCATION COMMITTEE

Review of Draft Revisions to Combitube™ and Combitube SA™ Airway Protocol

Dr. Laauwe reported the Education Committee is recommending two changes to the Combitube™ and Combitube SA™ Airway protocol. The first recommendation is to change the language under "Contraindications" III. from "Patient 15 years of age or younger, and/or 5 feet tall" to "Patient under 4 feet tall" because of the addition of the Combitube SA™ (Small Adult) to the inventory. A motion was made to change III. under "Contraindications" to read: "Patient under 4 feet tall" The motion was seconded and passed unanimously.

The second recommended change was to delete II. under "Potential Complications", "Edema as a result of facial trauma or respiratory burns may obstruct the airway" because it should be included in the educational program. A motion was made to delete II. under "Potential Complications" from the Combitube™ and Combitube SA™ Airway protocol. The motion was seconded and passed unanimously.

There was also discussion about adding under "Special Notes", "I. The Combitube SA™ should be used in patients between 4 and 5 feet tall", and removing the reference to the weight of a least 24 kg. The motion was made, seconded and passed unanimously. Brent Hall raised the question of how often the Combitube SA™ would be used considering the cost of adding the item to all his rescue vehicles. Dr. Slattery responded the Combitube SA™ would provide a rescue airway to an increased number of patients requiring one and that the issue had been discussed by both the Airway and Education Committees and had been approved unanimously.

Review of Draft Revisions to Intravenous Therapy Protocol

Dr. Laauwe reviewed the recommended changes to the Intravenous Therapy protocol. She made a motion to add the language, "except in the critically unstable patient" to II. under "Contraindications" so that it would read, "Do not start an IV into a surgical anastomosis, except in the critically unstable patient"; to delete the "Potential Complications" section; and to delete V. under the "Special Notes" section which reads, "Blood samples should be drawn at the time of the venipuncture, when appropriate". The motion was seconded and passed unanimously.

D. STANDARD OPERATING PROCEDURES

Dr. Slattery stated the Standard Operating Procedures will be put on the Consent Agenda for the next MAB meeting on December 5, 2001. Kelly Quinn commented that it would be helpful if the Board would determine implementation dates for the protocol and procedure changes.

Dr. Slattery indicated the changes to the Midazolam protocol should be immediate. The Etomidate and Midazolam protocol changes are minor. The information can be communicated quickly by email, as it is clarification of what the paramedics are currently doing. Dr. Slattery stated he issued a letter, reflecting these changes, to the field 2-3 weeks ago. He asked for suggestions from the Board regarding the pediatric cricothyrotomy protocol and the equipment changes. Dr. Marino remarked for the last several months new protocols have been developed and/or changed and he would like the Board to acknowledge that training and re-training is rather cumbersome. He further indicated that he would like to see the Board come up with set periods of time for protocol implementation. He suggested every six months; protocols developed between July to December would be implemented by January 31, and protocols developed January to June would be implemented in July. This gives the agencies enough time to search out the appropriate suppliers, obtain required equipment and design appropriate training.

Dr. Slattery remarked that historically the EMS office has attempted to release protocol changes every six months. There is nothing written in policy about timelines but that has been the practice. However, there are issues that need to be dealt with immediately. Etomidate specifically was an important protocol to release, and Versed for seizures. New protocols and/or changes that are important need to be taken care of immediately. However, time for training must be considered. Dr. Marino agreed there are always exceptions to those circumstances.

Dr. Slattery asked for a historical perspective on timelines for protocol implementation. Jane Shunney commented timelines have vacillated back and forth over the years and the intention was to group everything together and implement them in six-month intervals. However, sometimes it has worked and sometimes it hasn't.

Aaron Harvey inquired whether the Education Committee would provide the standardized training regarding pediatric needle cricothyrotomy and pediatric Combitube protocols. Dr. Slattery replied that issues related to airway management will come from the Airway Committee. Aaron Harvey asked once the Airway Committee completes the education component whether a timeline will be given to the agencies to train their personnel. Dr. Slattery responded the Airway Committee dealt with the pediatric needle cricothyrotomy issue. The committee was going to hold off releasing an educational component until the Board made a decision on surgical airways for adults. The idea was to conduct the training for both procedures at the same time so the same training model could be used.

Philis Beilfuss clarified needle cricothyrotomy for children will be implemented at a later date after the educational piece has been completed. Dr. Slattery responded yes, and that it was dependent on what the Board wanted to do in terms of surgical cricothyrotomy for adults.

Dr. Slattery referred the Board to take home their copy of the draft Standard Operating Procedures. Public meetings have been held with regard to re-writing the EMS procedures to keep them up to date with the EMS Regulations. He asked the Board members to review the procedures as they will be on the consent agenda for the December MAB.

Dr. Watson commented that about nine months ago Dr. Fischer and he submitted a letter to the Board and to all of the EMS agencies represented on the Board regarding paramedics being allowed to intubate in the emergency departments at Sunrise under direct physician supervision. It was discussed with the risk management department and the legal council. To date, there hasn't been any response from the EMS agencies in terms of malpractice coverage extending to the emergency department for the EMS personnel. This opportunity would provide a huge amount of training, and hundreds of intubations under direct physician supervision. Sandy Young replied Las Vegas Fire & Rescue has an educational agreement with Sunrise. Chief Riddle signed it and it was sent to Barb Frasier. She recalled that when the letter came out she sent it back and asked if the current agreement covered the same thing because it already allowed the paramedics to practice and do skills in the hospital. Dr. Watson remarked the letter specifically addressed malpractice coverage extending into the emergency department and it also specifically stated that Dr. Fischer wanted a response. He said to his knowledge they have not heard what they need to know regarding coverage. He further stated they are more than happy to provide this opportunity, which would make a huge difference in training.

Chief Riddle asked if all that was needed was a document stating the agency assumes the liability for their people when they are in the hospitals. Alice Conroy commented there is the common ground with the hold harmless piece in the contractual arrangement. There is language of participation and language of the assumption that the ER physician takes on litigiously for that patient in their precepting mode. However, because experience is being provided to certified people, this is different than the experience provided in a first-time training program. Dr. Slattery remarked this is an excellent opportunity for the EMS system. He encouraged further concerns be brought to the attention of either Alice Conroy or Dr. Watson in terms of the specifics. He said he would resend the email with all the specifics to the agencies.

Dr. Marino asked if there was a decision made on implementation dates. Dr. Slattery responded the decision is that the medication protocols (Etomidate and Midazolam) will be implemented immediately. Pediatric needle cricothyrotomy will be tabled until an educational portion is completed. The Intravenous Therapy protocol changes will be implemented immediately, and the Combitube SA™ protocol will be implemented in 90 days.

Dr. Laauwe reported the EMS office requested that if anyone has any comments about the Standard Operating Procedures to put them in writing and submit them to the EMS office by November 19th.

II. INFORMATIONAL ITEMS/DISCUSSION ONLY

A. E.D. DIVERT STATISTICS

Dr. Slattery stated the divert statistics for October 2001 were in the packets and available for review.

B. NURSE MANAGERS REPORT

Alice Conroy reported the nurse managers met Friday, November 2nd and Mike Myers was present to discuss the EMSystem, which is installed and operational in the majority of the emergency departments. He displayed the basic format of the closure screen, reports available for each individual facility based on their log in and the types of things they could receive, what an event notification screen would look like, and how the initial notification would appear. There was some discussion regarding whether or not a policy statement needed to be developed on how frequently an event status would be updated. There was discussion of the possibility of satellite back-up for the EMSystem, which is available now. She also reported the plasma screens will be delivered within the next 7-10 days. There was further discussion about the display of ambulance arrival information, which will be focused on after the first of the year. Disks were handed out to each facility that is part of the MMRS (Metropolitan Medical Response System) grant. They will have the ability to download the bio-terrorism chemical treatment protocols. They will appear as icons on the screen for rapid access during any type of event. Mike gave an update on the implementation of the MMRS plan. He is viewing it as a three-tiered focus with Stage One being the current process, Stage Two being fine tuning as related to global emergency planning, and Stage Three as moving forward with what would be required to bring the entire plan to fruition. There was some additional discussion without any specific resolution on the gate-keeper function for the EMSystem and whether that should remain as it is now, go on to the individual honor system, or other options in between. Some facilities brought up augmentation of local security forces if there was an event, and that isn't as firm in the current roll-out of MMRS as they would like it to be. It is currently being discussed and reviewed.

The development of public information handouts was discussed as multiple people are asking for anthrax testing and for information about other weapons and chemicals. Disaster drills were discussed, and how that would be worked into the plan or be an adjunct to the plan. Some drills are required by the Department of Justice because this project is under a grant; tabletops advancing to additional tabletops and then finally culminating in a huge mass casualty real-time drill extending out over a significant period of time are being considered.

There was a brief discussion about charge nurse partnering, which came up at both the FAB and ER supervisors meeting. At times of high volume in certain regions, there is close and frequent communication between the charge nurses, particularly when facilities and sister facilities are going off and on closure status to determine what can be done to help each other.

Dr. Slattery reported the District Health Center will have its quarterly clinical case review on Tuesday, November 20 from 10 a.m.–12 noon. Dr. Watson, Dr. Bobrow and other physicians in the community will present some great cases. He encouraged all to come and participate.

III. PUBLIC APPEARANCE/CITIZEN PARTICIPATION

No response.

IV. ADJOURNMENT

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