MINUTES
EMERGENCY MEDICAL SERVICES
MEDICAL ADVISORY BOARD MEETING
SEPTEMBER 5, 2001 – 6:00P.M.

MEMBERS PRESENT

Aaron Harvey
Allen Marino, M.D.
Bryan Lungo, M.D.
David Daitch, D.O.
David E. Slattery, M.D.
David Watson
Dennis Lemon, D.O.
Deputy Chief Kenneth Riddle
Donald Kwalick, M.D.
Donald Reisch, M.D.
E. P. Homansky, M.D.
Jeff Davidson, M.D., Chairman
Jeff Greenlee, D.O.
John J. Fildes, M.D.
Jon Kingma
Karen Laauwe, M.D.
Nicolas Han, M.D.
Pete Carlo
Philis Beilfuss, R.N.
Richard Henderson, M.D.
Scott Rolfe, R.N.
Steve Hanson
Steve Kramer
Todd Jaynes

MEMBERS ABSENT

Michael Walsh
Michael Zbiegien, M.D.
Paul Fischer, M.D.
Randy Howell
Virginia DeLeon, R.N.

CCHD STAFF PRESENT

Jane Shunney
LaRue Scull
Jennifer Carter – Recording Secretary
Mary Ellen Britt
Kelly Quinn
Jean Folk

PUBLIC ATTENDANCE

Brian Rogers, Southwest Ambulance
Debra Dailey, Southwest Ambulance
Derek Cox, AMR
Don Hale, AMR
Ed Matteson, CCFD
Henry Clinton, LVFR
J.L. Netski, AMR
Jack Kim
Jackie Taylor, UMC
Jerry Westbrook, Motorsports Medical
John Wilson, Southwest Ambulance
Karla Perez, Desert Springs Hospital
Kathy Kopka, Sunrise
Kevin Johansen, Motorsports Medical
Lynda Courtney, CC
Mike Griffiths, Mercy Air
Missy Greenlee, Mercy Air
Nancy Harland, Sunrise
Neva Forman, Sierra Health Services
Pam Turner, Valley Hospital
Richard Hardman, CCFD
Rod Gamble, Motorsports Medical
Sandy Young, R.N., LVFR
Scott Rolfe, UMC
Steven Peterson, AMR
Wade Sears, FFL/SMS
Wendy Gamble, Motorsports Medical
Wendy Martino, Valley HMC

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PUBLIC ATTENDANCE

Dr. Davidson – It's September 5. We have an action packed night, so let's get started.

I want to introduce two new people seated on the board. The Mesquite Fire Department representative Todd Jaynes. From Boulder City Fire Department, Jon Kingma. Dr. Kwalick and I would like to thank everyone on the board representing your appropriate facilities and transport agencies.

On the Consent agenda note, A. minutes from the medical advisory board, B. Aspen Medical Collars to be reviewed by the Equipment Committee and the Update/Review and Consideration of Needleless System. Those three items are on the Consent Agenda.

I. CONSENT AGENDA

A. Minutes Medical Advisory Board Meeting August 1, 2001

B. Aspen Medical Collars to be reviewed by the Equipment Committee

C. Update/Review and Consideration of Needleless System

Dr. Kwalick – I have a correction on the minutes. Page 17 under III. B. ED Nurse Managers Report the third item first paragraph talks about amour and I'm sure it's supposed to be armor.

Dr. Davidson – Do I have a Motion to pass those three items on the consent agenda with addendum to page 17 roman numeral III item B second to the last sentence the word amour should be changed to armor. Second. Any discussion. All in favor? The consent agenda passes. The only thing I ask and I've just been reminded please keep all side comments and side conversations to a minimum. Everything that we say is recorded and voice activated. It makes it difficult for the transcriptionist when everyone is speaking. People in the audience please state your name and your facility at the podium and use the microphone.

II. REPORT/DISCUSSION/POSSIBLE ACTION

A. Discussion of Continuing Medical Education Software Program Update – Richard Hardman

Let's start with discussion of continuing medical education software program update from Richard Hardman.

Richard Hardman – This is a demonstration follow-up from last month regarding the continuing education online program. The module that we're going to go through very quickly is the chronic public inebriate program. The whole goal was to try to use a mechanism to remove instructor variability. There are different chapters that come up and you have to go through in order to eventually take the test at the end. There's a slide here that will demonstrate the CPI form itself and how to complete it and Dr. Slattery narrates, what's to be completed in each of the sections. The end user would not be able to jump forward. They would be locked into watching each of the sections and could not go

forward until ultimately they took the written test at the end. This validates that they have watched the whole thing. After the EMS provider takes the test the scores are written into a database and each of the scores are recorded in the database accessible by the quality assurance individuals at each of the agencies. I know probably a week or more ago each of the agencies should have received a letter of invitation to participate in the program without any cost to the agency to use the delivery mechanism that you see demonstrated. Again more of this was just to demonstrate to you the functionality of the device and if that's a direction that agencies want to pursue, you can contact me in order to get your passwords to start utilizing it for your EMS agency.

Dr. Davidson – What happens if you don't pass the test?

Richard Hardman – When you miss a question it actually remediates you and you have to go back through and watch that module. There is the ability for example, to set the passing score at 80 or 90% or whatever the discretion of the board is and the student would have to repeat the class until they obtain that score.

Dr. Davidson – Is our plan to take continuing education in this direction in the future?

Richard Hardman – One of the desires is to take the case reviews which have extremely valuable content and make it available to all individuals in the EMS system and have it delivered in a consistent format without instructor variability.

Dr. Davidson – Is there a cost to this system? Is it initially under a grant?

Richard Hardman – It operates as a result of donations. But to the EMS system it's free of charge.

Dr. Davidson – Are there any maintenance fees?

Richard Hardman – No.

Dr. Slattery – I just want to point out that Richard and Tim and a lot of other people have worked very hard on getting this put together. I'd like to applaud you, I think you guys did an awesome job.

B. Divert Task Force Committee – Jeff Davidson, M.D.

Definition of Open/Closed Status

Discussion of A, B, and C Regions

Discussion of Designating a Central Dispatch Center

Pediatric Divert

Dr. Davidson –The Divert Task Force Committee met a couple of weeks ago. I understand in the interim some of the transporting agencies and fire departments and nurse managers have met. Discussions followed of open, closed and forced open that we hadn't put in the definition. Also is there such a thing as being forced open? So that's one discussion. There were discussions of the regions A, B and C either being redesigned or discarded all together and just returning to one large city. There

were discussions on that and I can tell you the Divert Committee at that time felt that the A, B and C regions were worthwhile maintaining the way they were designed. There was lots of discussion on designation of a central dispatch. Another discussion on the EMS procedure for Emergency Department Closure (the salmon colored sheet) is a most important item shown in procedure number 4 which states *If more than one hospital in a zone is requesting closure the remaining two zones should immediately be explored for their ability to provide emergency services for the affected zone.*

This led into heavy discussion for example if region C was burdened in that the two facilities, one was forced open and one was closed, should the movement of EMS traffic be towards region B and even up towards region A? That had always been the intent of the Blue Ribbon's inception. But, not everyone has the same understanding. It certainly led to quite a discussion. The agencies said, if you're open, you're open, and if the patient requests your facility that's where we're going to take them. Other individuals were stating, but if we're forced open and we really want to be closed, couldn't you go somewhere else? That's what led us to this discussion of procedure #4. I've asked the EMS providers to make a small presentation tonight to let us know how this system is working or not working; what are its weaknesses; and what are its strengths so that we can move forward with it and strengthen it or revise it again.

Chief Riddle – The providers did have a meeting and it's been almost one year since the Emergency Department Divert Crisis And Recovery Summit hired a consultant who did an eight-hour workshop. There were several recommendations that came out of that workshop. There were twelve recommended steps. I think we've actually done three of those steps. The steps that have been accomplished that helped a little bit, from the provider perspective, is a simple version protocol for open/close. The regional system provides two things for the providers. One, it again gives a patient choice of hospital. Helps keep the providers, at least from the fire department perspective, in their respective jurisdiction. There are several other issues that I do not know if they have been dealt with. I was told that the Blue Ribbon Committee was getting ready to have a report. We felt it would be premature really to do a lot of criticism until we find out what that report says and whether or not there's going to be some action that would alleviate the problems from our standpoint. From our standpoint, what we're seeing is crews at hospitals longer. Our average, I know, has increased at least eight minutes. There are certain creative mechanisms by fire department crews that have resulted from crews being told you're going to be here two hours. And our crews on some occasions will ask the patient if they want to go to another facility. I understand there may be some EMTALA violations from the hospitals part but there are none on our part. I also know after talking to a couple hospitals in regards to credentialing, that if we provide services in their hospitals there is some risk of liability to us for providing services in your facility without being credentialed. And I understand there are some JACHO issues with that also. Again, not wanting to be too critical until the Blue Ribbon Committee Report comes out, I know the providers are looking at some specific solutions that may not be what the hospitals like. But when we're getting to the point where we cannot send crews to calls because they're tied up at the hospitals, plus the interaction from staff to the paramedics, which isn't always pleasant. We need solutions.

Dr. Davidson – Dennis Lemon brought the US News in to me. It says, Crisis In The ER Turn Aways And Huge Delays Are A Sure Fire Recipe For Disaster. What Can You Do? And it's revisiting the adage we've been revisiting for several years.

Chief Riddle – I just want to say again it's not our problem. It's been made our problem. I said that 15 years ago at this board and it's to the point now where if the hospitals will not resolve the issue on their own then we need to take steps to resolve the issue for us.

Dr. Davidson – Let's take these issues and the definition of open/closed status. We'll take these issues one at a time. Are there any comments on what the definitions are? The definition of closed is when an emergency department closes it cannot accept any type of EMS traffic. That's based on the resolutions by FAB. The true definition of closure is that when you close for that one hour you are to get no EMS traffic at all. With the exceptions noted that have always been exceptions and they are listed. Particularly, trauma center, burn, etc. The new EM system monitor may say – open or closed and when someone is been forced open, so to speak, the nurse managers could enter this information; this facility is open but the wait time is 30 to 60 minutes; or greater than 60 minutes, our current screen cannot do this. That would be an advantage to the EMS crews if they could see that information; if the crews don't know that and they keep bringing patients in. It Doesn't help the ER's to know that their times for transfer of the patient to them are 60 minutes.

Steve Kramer – Overall today is a perfect scenario. We had three hospitals in one zone that were being forced opened, flip-flopping all day long. So whether you know that they are being forced open or not, you still have a wait. The crews were waiting for beds while the hospitals were on closed status. By the time the crews did receive beds in the ER's they were already forced open and this is all going on in one zone.

Dr. Davidson – Which zone was it?

Steve Kramer – Zone A. No matter what you do it doesn't really matter how it gets put out to the field or put out to any dispatch center. These three hospitals on this particular day, and some days it's more than that, have the same problem. So I don't understand how changing the zones or changing the way that we relate to the crews that hospitals have been forced open, is really going to change the problem once they get there, if they are on closed status after they get there and are already waiting, they're going to wait during the whole closed status. Once they open up maybe one or two crews will get out then more units are coming in behind it.

Dr. Davidson – A comment in the Divert meeting was if region A was so busy then why not let some of the traffic move into to zone B.

Steve Kramer – They have been. They have been moving into zone B and zone C it's just that the way the traffic patterns were going today, those hospitals were also going on closed status today. It's just that these three particular ones in zone A were being forced open. So, the patient load was being distributed throughout all the zones.

David Watson – The introduction of roman numeral IV in our procedures essentially addresses that exact issue. That's a problem and we all know it happens daily in and out. When there's more than one hospital in one zone requesting closure, looking at the other zones rather than initially saying should we readdress where the zones are defined, is one thing that I think is critical. This number IV I think is a great idea. There are a lot of people who have looked at it and we've talked about it but I think it exactly addresses that specific issue.

Sandy Young – When you talk about the designated regions the reason for the regions originally was for hospitals to rotate closure within the geographical distances. It's intent was not to define where pre-hospital providers took patients. It was only there so that we had more of a rotation instead of one or two or three out of seven, that you had one out of three, one out of four, and one out of two, whatever the mix was. I think as a pre-hospital provider, and I can speak for our agency, we always give other open facilities in any region. Just because we picked them up in something that's called zone A we don't automatically take them into zone A, we take them where they want to go. It could be zone C. If zone C is overloaded we're going to tell them, they're reporting two hour waits in hospital X, Y, or Z, these hospitals are open, would you like to go to one of them? But again the reason for the regions was not to divert us to other facilities it was to rotate closure through the hospitals. Patient request is always supposed to take precedence.

Dr. Homansky – Which is the basic point, that this was never a destination policy.

John Wilson – If we have just a couple of messages that we're working on collectively with the pre-hospital group it is that we're really focusing on getting the patient to definitive care as soon as possible. We all support the concept of keeping the regions because that was for the patient anyway. To keep them closer to they're homes whenever possible and still give the patient a choice as opposed to telling them where they are going. I can tell you that one of the things we've recently instituted, is now that you guys have had a choice in ambulance service, each one of your facilities call over and ask us our ETA's to do a transport for you. If our ETA's not good enough, you're calling AMR. One of the things that we've recently started doing is calling to facilities and when we see a facility getting backed up in a given area we're calling different facilities. I called Joe Calise the other day; I know we called Valley today to see what their availability is. And we start notifying our crews, not only of the open and closed status but also of the availability status. Because if we can get the patient in quicker it's better for me to transport somebody from the other side of town to Summerlin if we can turn the unit around than it is to keep them stuck in an ED facility. So we are trying to make sure that the patient gets to the facility if that's what they choose. We're giving them knowledge and they're making choices.

The other thing that would be very helpful and something I know that has been expressed of concern from the different ER managers, is trying to come up with a single collection point of the open and closed status. We're on the EM system I believe Henderson Fire is on the EM system and what happens is that AMR's CAD seems to be still the driving force on open and closed but there are delays that happen and so unfortunately, we end up transporting into facilities that have been closed for upwards of ten minutes before it's refreshing on the EM system and that's causing a great deal of confusion. I think that if we can move towards a single system, whether it's the AMR system the EM system whatever that is, that would be helpful.

We haven't focused a lot on this over the summer but it's time for the providers to get together with the FAB, which is really where we made a lot of progress last year. Coming together and finding common grounds. We recognized in meeting with the pre-hospital group and echoing what Ken said is that we don't really have another month to wait. It's hitting us now pretty dramatically. We've added a third more resources in our service area. I know in speaking with Steve Peterson he's added quite a few resources in his area and we're still having a hard time making response times. We're not able to get

ambulances out of the hospital. So we're going to have to come up with some creative solutions in order to just make response time and make sure the people are getting ambulances. We don't know what all those answers are, but at least we're pulling back together and we look forward to working with Karla Perez again in the FAB to make those changes.

Steve Kramer – As an update to that, when hospitals do get forced open, that is paged out to our crews through our paging system. I know when the EM system first came online there were some glitches in it as far as everybody getting on to it and updating it in a timely manner. I know Don who is our director of communications, has worked diligently for the past couple of months to make sure that everything does get updated in real time. I'm pretty confident that it does get updated at least in the past couple of months in a very timely manner within a few minutes. So it should be out there right away.

Dr. Davidson – We put this into effect and said we were going to look for a timeline, six months, nine months, a year and collect data to determine collectively how we felt as a group and what the community felt. If it was more successful, than the old system that we had; if it was satisfying to (most importantly) the patients, the EMS crews, and ultimately the emergency departments, and the hospitals, we would keep it.

The sense I get from hearing everyone is, yes drop off times are a little longer, but number one the patients are more satisfied, because they seem to be going where they want to go; the crews are more satisfied because they seem to be able to transport where their patient wants to go; and the ED's are more satisfied because they are getting the patients that typically come to their area. By that I mean the attendings of the local area around that facility tend to send patients to certain hospitals. So I keep hearing this sense of, well it's all working great, but then I hear this undertow also of, well the drop off times are a little longer. So we just have to continue to balance that and decide what do we want to do.

Ken Riddle – It's not working great, it working okay. It's premature without the Blue Ribbon Panel Committee report. If you read the consultant's document, there were a lot of internal processes in the hospitals regarding patient flow that would free beds up. I think some facilities that I know of have implemented some of those procedures. It is not acceptable to have crews waiting in hospitals for almost twenty minutes. That affects our operations. Until it changes I think there needs to be tension and pressure put on those folks in leadership that can make those changes.

Dr. Davidson – The Blue Ribbon was split into three different groups. I know from an EMS standpoint the goal was to see if we could design a system that would benefit the EMS system. It seems that we may have accomplished that. But there were two other sections in the Blue Ribbon.

Karla Perez – We have an FAB meeting scheduled for September 28. The Blue Ribbon Hospital Sub-Committee will be presenting their report at that meeting.

Dr. Reisch – Obviously as the director of emergency services at Desert Springs Hospital along with Karla as Chair of the FAB, she's had a strong interest in making sure that turn around times are good. We've looked at that and Desert Springs had actually one of the worst turn-around times in the grouping. The other point is that we've increased our patient load and transports by a significant

number over the past year. So what happens is the better you get at moving these people out, the more they come to use your services the longer it takes to take these people off your gurney. We're working as hard as we can. We're becoming as efficient as we can and because we've become efficient we're getting more patients and therefore our efficiency drops off. At least if you only look at how long it takes to get the rig out of the emergency department. It's more than just how many rigs, but it's also how efficient you are, how many patients you've accepted, how many patients you accepted last year and how many patients you accepted this year from EMS. How many patients you're seeing in your emergency room all together. That's true efficiency.

Ken Riddle – We actually run numbers on the percentage of transports to each hospital and maybe we need to compare our numbers. We're not seeing that big of a difference.

Dr. Reisch – Percentage does not make a difference. It has to be real numbers. How many people were transported, not the percentage of people transported.

Ken Riddle – I guess what I'm having a hard time understanding is how can we park four gurneys in one hospital with eight medics babysitting those patients? Why is that our responsibility? Why can't you bring a nurse from the floor, hire a registered nurse, or baby-sit them yourself?

Dr. Reisch – Because we don't have them.

Dr. Davidson – Well those are good comments but again, those comments are going to have to be tabled over to FAB, because those would be ED and hospital solutions.

John Wilson – One of the things that we were asked for was a little bit of data on drop times. Being the new kids on the block, one of the things that we've been looking at is the 23-minute drop time standard. This handout gives some feed back on our limited experience from April 15 through the month of August on each of the facilities. What this represents is basically our success rate in meeting that 23-minute drop time standard. For the most part main facilities less than 30% of the time are we successful in being able to drop a patient off within that 23-minute window. It's just a point of reference. As we move forward it's getting tougher and tougher. I think Chief Riddle was talking about how do we set things up so we watch patients on gurneys? I think every thing is on the table. I don't think we want to go down an adversarial path. I'm not sure that that's a successful approach. But I think that we're gathering information trying to come up with ways collectively so we can try to bring the attention to it again, work on hospital issues, work on pre-hospital issues and collectively make it better. But clearly there's an issue on the drop times and that translates to the availability of the ambulances on 911 calls.

Dr. Henderson – I think it would be wrong though to not face up to the fact that some of this turn around time is not just hospital performance based.

John Wilson – Absolutely, we're not even getting lunch. That's certainly part of it and we're actively addressing that. We go after our crews after that 23-minutes standard, we're paging them, trying to locate them and see where they are. Again this is not strictly a hospital issue it is also a pre-hospital issue and we own up to our responsibilities.

Sandy Young – Just a quick comment to Dr. Reisch. Part of the reason why we did percentage of patient destination is when we went to where you have the regions of closure, we got hospital administrators who were saying we're not getting any patients like we used to, or we're getting more patients than we used to. So what we did was look at percentage of destination pre and post. We looked at one quarter before and after. Looking at it monthly our distribution percentages have not changed. Over years our percentages have basically stayed the same. And with those call volumes there is an increase in patients, but with that increase of patients there's an increase in calls to us also. So we're having to respond to more calls out in the community again bringing them in to you.

Dr. Reisch – Well I'm just looking at my numbers where we've had 600 more transports a month by ambulance than we had the same time a year ago. So we're taking those many more transports and our call times are doing about the same, our lag times are doing about the same. So I'm not sure where the percentages are off but the percentage really don't help you that much, it's more how much more flow are we taking.

Sandy Young – Our percentage of increase just from our own agency between the first quarter pre-implementation and the quarter after was 25% in calls.

Dr. Reisch – So even if everybody is doing the exact same percentage, they're still doing 25% more work. The point is that administration is not standing still wondering what we should do to get patients out of here. Everybody, if they kept percentage the same, did 25% more work than they did the year before.

Dr. Davidson – It's certainly safe to say that transport volumes have gone up, because Sandy has shown the data to us. There are two things we need to talk about. It was brought up by Dr. Fischer – is there a patient destination protocol? The answer is yes but it's so antiquated. I do think we need what's called a patient destination protocol or PDP. Unfortunately, the one that's in front of us is completely antiquated and inadequate. So it can be cleaned up tremendously as far as it's language. I'm going to recommend that we send this to Divert Committee. A patient destination protocol could give some type of objectivity, i.e. when do you honor a patient's request, an attending physicians request, a family members request, all three. I do think some type of patient destination protocol is needed to give some objective format for the EMS providers to follow.

Dr. Slattery – I guess the only question is why? I'm not sure why we need this.

Dr. Laauwe – Because when you look at this basically your pediatric patient's, you want to go to the pediatric facilities. UMC burns and trauma go to the trauma and the burn center. Like Dave's saying I think they don't even need it because it's actually on our open/closed protocol.

Dr. Davidson – It was brought up by Dr. Fischer from Sunrise. He recalled a patient destination protocol. We found the old protocol and presented it tonight on the pink sheet. The problem is it's archaic.

Dr. Reisch – Would this be for the physicians or the paramedics? Because the paramedics know the patient destination….

Dr. Slattery – Exactly, when we went to the open/closed status there was an algorithm that was part of their education and we can look at that and distribute it which simply says the decision points to make and where to take patients. It goes through trauma it goes through burns and patient choice and incorporates the open and closed. It's a very simple algorithm that we used before. If that's sufficient, maybe we don't have to rehash it in committee.

Dr. Davidson – I want to know if there's interest or not if yes we'll send it to Divert Committee to review. If there's not then let's end this idea of a PDP.

Dr. Homansky – I move that we develop a new patient destination protocol.

Dr. Davidson – Motion seconded, no discussion, none opposed.

Dr. Davidson – All in favor of approving this to be sent to the Divert committee?

The board responded aye.

Dr. Davidson – If there are any opposed to this PDP being sent?

Dr. Davidson – So the motion is that this Patient Destination Protocol be sent to Divert Committee for evaluation.

EMS PERSPECTIVE OF DIVERT – AMR/SWA STAFF

Dr. Davidson then asked the EMS providers to give their perspective of the present open/closed situation.

Steve Kramer – Yes, actually the majority wanted to wait until we had all the facts from Blue Ribbon reportto be given at the FAB.

Discussion was then directed to the issue of when a pediatric patient has been seen by one of the two facilities, Sunrise or UMC within twelve hours, twenty-four hours time frame and that facility happens to go on closure or into rotation, the question was can't that patient go right back to that facility where they had a significant workup? In other words UMC sees a patient they discharge the patient ten hours later the patient needs to return but UMC is now closed. The concern is why should that patient go to Sunrise where the whole work up is going to start all over, incurring added costs etc. That would probably be something that can be worked out case by case.

Dr. Lungo – I don't know if there's a right answer to that. I think Dr. Zbiegien brought that up and felt strongly that that's what should happen. I haven't really talked to Larry about that. I don't have a strong opinion about it. I guess one thing is that we're assuming the patient wants to go back to UMC or Sunrise. Sometimes they've been there and they want a second opinion at the other facility. Suppose you have an asthmatic and the kid is now in significant distress and we're closed maybe they should go to the other facility. If it's a patient that's not as ill, then we can put them in the walk-in queue.

Dr. Lungo – I think probably it could be discussed between the two directors then they can make a decision.

Jackie Taylor – I need to get an explanation. Each meeting I'm at we are constantly discussing the communication between providers and the delay that is being submitted. And somehow I heard today it's the hospital that tends to be the problem with that communication system. Is that true?

Steve Kramer – I don't understand what you mean by hospital being the problem with the communication.

Jackie Taylor – Explain to me when the central communication system that has been discussed at these meetings is going to be available or fixed or installed so all ambulance companies will know when a hospital is closed and what the status is specifically on waiting times. I'm being told that's going to be the ultimate goal of this new communication system.

Ken Riddle – I can address the communication system. We're funding the EM system, which Henderson and Southwest Ambulance are using. It's an internet based tracking system that has bed and service availability in the hospitals. We're buying that with federal funds and the Medical Response System is to have the information available to every provider, all the ambulance services, fire departments, alarm office and the hospitals. I understand the system is set up on a computer, somewhere in the ER.

Steve Kramer – Yes in the ER at the nurses station. The new communication system is getting ready to be placed in the ER's as soon as the hardware comes in. But all the services have the EM system functional right now and get notified in real time of the hospital divert.

Jackie Taylor – We keep talking about the equipment that needs to be installed in the emergency departments and yet I'm not cognizant of what's coming when or how we're going to prepare for this.

Ken Riddle – I can tell you it was thirty or forty five days ago, we got an agreement from the hospital administrators that they would support the system. It's in the purchasing process right now, actually some of the equipment has come in. Some of the hospitals want to purchase their own computers instead of having us purchase it through the federal fund. Our goal is to have it online by the end of the year, in December.

Jackie Taylor – At the last Divert meeting the nurses in the emergency departments were saying they continued to receive patients from Southwest because they were not cognizant of the fact that the hospitals were closed. So your rigs kept bringing patients. I was told AMR did eventually notify the ambulance company, but it wasn't at the same time that you were being notified.

Steve Kramer – The EM system gets updated when the call comes in from the hospital to request closed status, yes. So it may take a minute or so to open the screen and put them on as closed status and re-close the screen.

Dr. Davidson – Well, the question did come up in the Divert committee. Let's say the call comes in. AMR gets it right away from their dispatch and the CAD shows closed but then it may take a few

minutes to get it relayed to AMR. Then you get the information relayed to all the rigs. Say ten, fifteen minutes, and John alluded to this earlier when he said we're finding that the facilities are closed and twenty minutes into their closure we're showing up with two or three rigs. And that was just a focus of one of the comments in that committee. Which is why we wanted a central dispatch that would signal everyone out there in real time.

Steve Kramer – And right now that's what happens. When a hospital goes on closed status it gets toned out via the radio, gets paged out via the paging system. I can't comment on how Southwest is actually getting it out to the crews.

Bryan Rogers – Our system is identical. The only thing that we have had a problem with, but it seems to be getting better, is both the systems being updated at one time. I think that problem is solved. One of the things that exists, and you mentioned earlier, EM systems may take five or ten minutes to update the screen it's the way it's designed. We may have updated it but it may take five minutes to reach their screen. It only sends out a refresh every so often, it's not immediate.

Don Hales – In our meetings we have noted there are several pieces of this pie concerning communications. It's not one piece. Whether it's transporting CPI's to one particular place or doing something different with mental health patients or allowing urgent care clinics to take non-emergency patients under certain conditions. It's going to be all of them together. The communication component itself will not resolve the issue. If we call in every patient that we transport, it makes no difference. We still wait the same amount of time as everybody else and sometimes longer. The theory was if you call us and tell us you're coming we'd have a bed ready for you. That's not true. The second thing is when we do call in for physician direction we can't get anybody to answer the radio. So communications is not going to correct this problem. It's going to make everybody more aware that there is a problem.

Dr. Davidson – We are expecting the EM system in place by the end of this year. The current divert system is going to remain in place so that we can give it a full test trial. It's been up and running since April 25. Yes, it's going to get worse in the winter. So we should expect similar problems this year. Hopefully we can work through them, and improve our knowledge.

C. AIRWAY MANAGEMENT COMMITTEE – DAVID SLATTERY, M.D.

REVIEW OF NEEDLE CRICOTHYROTOMY EQUIPMENT

CONTINUATION OF DEVELOPMENT OF AIRWAY MANAGEMENT EDUCATION TOOL

Dr. Slattery – We discussed at our Airway Management meeting and at our Combined meeting revising the needle cricothyroidotomy procedure or protocol. The discussion came up whether this would be an appropriate procedure to be doing on pediatric patients. Our current protocol has a contraindication of performing a needle cric on pediatric patients. So discussion came up and Dr. Lungo has been present for the Airway Committee meetings and I'd like him to discuss the pros and cons of use on pediatric patients. Airway Committee needs some guidance and discussion from this committee in terms of which way the MAB would like us to go in terms of pursuing whether or not we do pediatric needle cricothyroidotomies. The issue that's come up is, whether the needle cric for adults is the most appropriate rescue airway for those patients that we cannot intubate and cannot ventilate by any other means. Dr. Lungo would you talk about the pediatric needle cric.

Dr. Lungo – I think Dr. Slattery outlined the question; really there are several levels to the answer. First the one is literature. There really isn't any pediatric literature that says that there are any pros or cons to doing needle cric in the pre-hospital setting. I looked for that and have contacted some of the people around the country. They are acknowledged experts in the area and they say the same thing, there's not really any data. In the last five years there has been a pediatric expert task force on paramedic education that recommended needle cricothyroidotomy not be taught in the pre-hospital setting. That committee was chaired by Marion Gausche, (who I've communicated with by email), and she still seems to hold that opinion. In talking to the people around the community that are doing pediatric emergency medicine, our group feels mildly against it. I don't think Dr. Zbiegien has a real strong opinion one-way or the other. So that's the first issue I guess is, is it indicated? The question is then, we have a child who has an obstructed airway; should we give the paramedic a shot at trying to relieve that? Even though there's really no data that says it will work. Then the other question is if we're going to do it, what product should we use? We've gone full circle on that. Initially I was in favor of just using something that might be very simple, but we had to put together a 14 gauge needle, a 3.0ET tube adapter, and a bag, which is what PALS recommends. Paramedic training personnel think that is cumbersome in terms of teaching the paramedics. I think the big issue is money. Having everybody buy a certain pre-packaged kit for $50 or $75 bucks a shot and then use it once every five years is one idea or put together a 14 gauge needle etc. is another idea. So those are sort of the issues.

Dr. Slattery – My personal take on whether we do the procedure or not is that if you're in that situation where there's no other option and you have a child or adult where you can neither ventilate or intubate, the patient is dead. The only option may be a needle cric. I find it unusual to this system that this is a contraindication for performing a needle cric when in fact that's the procedure that is indicated in the pediatric patient who is unable to be ventilated unable to be intubated. That's why this discussion has come up. We just wanted some input from the MAB members and some guidance in terms of which way to go.

Dr. Fildes – Well let me just make comments about the pediatric situation to begin with. I think that what Dr. Slattery is saying is true that the procedure is not likely to change the mortality or morbidity of the situation, but has the potential to be beneficial and perhaps if it changes in any direction, in the positive. For that reason while there's not strong evidence to show that it improves things, it probably doesn't make things worse either. It is part of the mainstream as a rescue airway in children and for that reason I would think that it would be looked upon favorably for retention in the medical orders.

My comment on the adult medical order for needle cricothyroidotomy and needle cricothyroidotomy is not in the main stream as a consensus rescue airway. The surgical cricothyroidotomy is. It would require the performance of an incision on the neck approximately the length of the tip of an index finger and an incision through the cricothyroid membrane and placement of a small tube, usually the smallest cuffed end of a tracheal tube into the airway and have it secured usually by a piece of tracheostomy or umbilical tape. The performance of this procedure by surgical means I think provides the greatest opportunity for success because there are many visual cues, there is tactile feedback, auditory feedback that alerts the person performing the procedure that they have correctly placed the tube in the trachea. The performance of other airway techniques really require a greater degree of familiarity with the anatomy and is more technically challenging. So I would advocate that as the final rescue airway that surgical cricothyroidotomy would be the most appropriate choice.

Dr. Davidson – Okay are there any other comments that we wanted to get through?

Dr. Slattery – Not really just bring up those ideas. I'm not sure if they need to go back to Airway Committee or if we can just plan on putting those on the agenda next time to vote on.

Dr. Homansky – I appreciate what you are saying especially as an emergency room physician. But what you're saying is that as a temporizing measure, if necessary in the adult, we should be teaching the surgical airway, not a needle airway. The question really is whether that's possible in this location and to keep their skills up with a true surgical airway?

Dr. Fildes – Those were discussed in committee. There are not large numbers of these performed even by physicians. They are on theoretical and anatomic bases, very straightforward. The retention for performance purposes may actually be better than trying to remember how to use a proprietary device. I point out that the surgical airway actually predates a trachea intubation by about 4000 years. It has been fairly durable through the ages.

Dr. Homansky – That it's still not the object of first choice.

Dr. Fildes – That point was brought up as well. We surveyed some of the provider agencies that asked how many of these needle cricothyroidotomy kits had been used and how many have actually been performed over the years and I don't think there was any hard evidence that perhaps over the last five or maybe even ten years that more than a few have been done. Even in practice I pointed out that in the last five years I've only had to do three surgical cricothyroidotomies in my practice. So the occasion to use them is quite rare. My expectation would be that if it were introduced the incidents would not go up, because it is now available, but rather that it would find it's home at the very bottom of an airway management algorithm where all devices have failed to provide ventilation and oxygenation.

Dr. Davidson – I would hope not to envision a great increase of crics occurring in the next five years if this went forth. My only concern would be if the temporary devices that can be used in the field, whether it's the LMA, the combitube, etc. would become obsolete because everyone would think not to use them. We all know that an airway that was very difficult in the field can turn around in the controlled environment of the ED.

Dr. Lungo – I think that's an issue both with the needle and the child and with this airway. There has to be a huge teaching piece there that sets out a very definitive algorithm and repositioning, etc. And then at the very bottom of that as Dr. Fildes said, you have your last shot.

Dr. Slattery – We talked about this in both committees and it really hones in on the difference, and we're talking not about the difficult airways, we're talking about the failed airways. There's no way to get any air, any ventilation, any oxygenation to those patients. So we're talking difficult airways, we're talking about failed airways. Even for failed airways combitube, LMA's, nothing is going to work. There are those patients, which is half of a percentage of all your intubations, it's a very, very small number, but they still exist and if we could give those patients a chance that's what we're talking about.

Dr. Fildes – And really in mainstream practice needle cricothyroidotomy in adults is not an acceptable way to do that.

Dr. Henderson – My concern is that you are talking about a procedure that would hardly ever be used, but I think would encourage the medics to stay on scene struggling rather than treating with "gasoline".

Dr. Slattery – If you're in that situation, "gasoline" is not going to help. Unless you're right outside the emergency department. We're talking about a failed airway. You can't ventilate; you can't do anything. The patient is dead.

Dr. Davidson – I suggest we send this to Airway Committee, develop the proper equipment, then off to Education Committee. That would come back to MAB. The MAB by that time will either be very comfortable with the idea of a final intervention or not.

The next item for discussion is the pediatric ambu bag.

DISCUSSION OF PEDIATRIC AMBU BAG

Dr. Slattery – Brian and Mary Ellen did a really nice thing. We noticed a problem in our system. We have a lot of different types of ambu bags and, Bryan you want to talk about what you guys did with those different ambu bags?

Dr. Lungo – This handout has a list of the ambu bags on the left side, products that are currently being used in the system and then the maximum bag volume, the manufacturers printed stroke volume, what we actually measured, and the weight range for those various bags. What we did was we took all these bags and hooked them up to a spirometer and basically measured stroke volume by bagging the bag ten times and measuring the volume that came out divided by ten. The top numbers actually measured stroke volume without any kind of a circuit in place. So we just hooked the bag up to a spirometer and just bagged. Then we hooked up a plastic lung, and reattempted. The bold face numbers on the bottom are actually the numbers that we had with the lung circuit that had some resistance and some compliance. The low number is somebody with a relatively small hand and the high number is somebody with a relatively large hand. As you look here you can see that the two that really seem to give the best volumes were the Ambu Spur Infant Child which is being used quite a bit and then the vital signs PD blue which is the third one. The Life Support Products Neonatal Bag probably should not be used at all, because it's just not adequate. The other life support product doesn't have an overriding pop-off valve, that's self-overriding. So that bag should also not be in service. It gave fair volumes but the PALS recommendations are that the bag has a self-overriding pop-off valve. The Puritan Bennett Bag isn't available any more. The Mercury bag was questionable. Those numbers looked a little low and we thought that bag probably would not be the best for use in the pre-hospital setting. Our final recommendations with regard to this are the Ambu Spur Infant Child and the Vital Signs PD Blue Bags.

Dr. Slattery – I think they did a very good job of looking at this as scientifically as we can with these bags. There are a lot of different types of bags in the agencies and we want to standardize it. The motion would be to standardize types similar to the Ambu Spur and/or the Vital Sign Pediatric Blue and have products in the system to eliminate discrepancies between the different agencies.

Dr. Davidson – My only reason for delaying the vote until next month would to be to give all the facilities time to look at products and make sure they could stock them in a reasonable time. That they were financially reasonable for them and give them time to give an input.

Dr. Lungo – And also to add that if somebody has another bag that they think they want to use we can always test that. This is not chiseled in granite, it's just we found these were two of the best ones reviewed. If there are others that you would like to have us test, if you can get a model, give it to Mary Ellen and we can test it.

D. COMBINED DRUG/EDUCATION/EQUIPMENT COMMITTEE – DAVID SLATTERY, M.D.

CPI ALGORITHM – DAVID SLATTERY, M.D.

The CPI algorithm was voted on at the last MAB meeting. We need to revote because it wasn't on the agenda as an action item.

Motion was made and second, passed unanimously.

REVIEW OF BLS/ILS/ALS PROTOCOLS

Dr. Slattery – The review of these protocols is in progress.

Dr. Davidson – Discussion of CPI Education Program, Rich Hardman.

DISCUSSION OF CPI EDUCATION PROGRAM via MEDICAL EDUCATION SOFTWARE

Dr. Slattery – I'd just like to at this point make a motion that we support this educational program. That's what the agreement was from the Education Committee and the Combined Committee is that the MAB would support this to be used in our system, not exclusively but when appropriate.

Second

Dr. Davidson – Let's make a motion to endorse the CPI Education Program.

Second

Dr. Davidson – Any discussion on that? Okay there's a motion to endorse the CPI Education Program. All in favor say aye. Any opposed? That motion passes.

The second motion on the floor Dr. Slattery?

Dr. Slattery – To endorse the Continuing Medical Education Software Program that we've shown today.

Second
Dr. Davidson – Any discussion?

Chief Hanson – Just one question, would that be this program in particular or would that be any computerized internet, intranet training programs. Because there are other ones out there. I think I heard you say that this one or others similar to it and that would be….

Dr. Slattery – That we would support and endorse distance-learning programs.

Second

Dr. Davidson – All in favor say aye. Any opposed? Motion passed.

E. MAB BOARD RESTRUCTURE – DAVID SLATTERY, M.D. & JANE SHUNNEY

Dr. Kwalick – I can short-circuit this. The MAB restructure you're sitting in is the restructure of the board at this point.

Dr. Davidson – Informational Items the ED Nurse Managers report.

III. INFORMATIONAL ITEMS/DISCUSSION ONLY

A. ED NURSE MANAGERS REPORT – VIRGINIA DeLEON

Scott Rolfe – We met at Sunrise on August 24. 75% of the meeting was discussing the EM system and the MMRS. Mike Meyers from Las Vegas Fire presented that. Each hospital gave him contacts for our information services to move ahead with implementation. The other part of the meeting was discussing the increased volume that we've all seen with psychiatric patients. Mike Keeler from Las Vegas Mental Health was there, confirming that they had seen unusual volumes. They've been closed. He said that probably 50% of the patients that are sent from the ER's to the Crisis Intake Center are released very quickly after they arrive. He said that the medical director at LVMH did a program for the Valley Health System Physicians recently and suggested it was very successful and asked to have it considered by every hospital. The nurse managers are to take that back to their respective medical directors and bring it back to the next meeting.

B. ED DIVERT STATISTICS

Dr. Davidson – ED Divert statistics are out. They're on the green sheets. Basically it shows for the month of July the non-average for the 9 facilities. We remained opened 91% of the time. There were 744 hours in reporting time frame. There's some split up data but for as much difficulties as we seem to have we seem to remain open. Good job.

C. TRAUMA DESTINATION CRITERIA – JOHN J. FILDES, M.D.

Dr. Fildes – I asked to speak tonight on trauma destination criteria as an informational item. Nevada is fortunate to have a statewide trauma system that is defined in statute. We are one of less than 30% of the states in the United States who has such a system. What it provides us are operational guidelines, but also definitions of the trauma patient. These are taken directly from the American College of

Surgeons Optimal Resource document. This is not a new issue as you recall when plans were being made for Y2K in order to assist with the precision of selecting patients for trauma center transport we had a powerpoint presentation that was distributed city wide re-reviewing these criteria.

UMC has always and will always accept trauma destination criteria patients. We have never been on divert nor do we ever plan to be on divert. We have taken many other patients with injury related issues who did not meet or satisfy the trauma destination criteria. And it's our intention to continue doing that. There are times when the needs of those patients who do satisfy the trauma destination criteria make it unwise or unsafe to continue accepting patients who do not. And under those conditions UMC has gone on trauma destination criteria only status. To give you an idea, last year we saw more than 10,000 patients with serious injury complaints, and about 4800 of them met the trauma destination criteria. Even with that we continue to receive patients who are seen at area hospitals who have significant injuries requiring trauma center care, and we accept them and transfer.

I bring this up because from time to time there is confusion about what this means in the system and I didn't want anyone to think that we're diverting patients. We're actually above and beyond what we're required to do by law and happy to do so and will continue to do so. There have been from time to time misunderstandings where hospitals have threatened us for not holding up our responsibilities and this is just simply not true. So I'd be happy to answer any questions that any of the providers or any of the area hospitals might have on this issue.

Dr. Reisch – So on the trauma designation you had 4800 that were truly intermediate or full trauma designation, is that correct? And then another 5200 that were not trauma designation criteria but still were transferred to your facility?

Dr. Fildes – That's significant injury issues.

Dr. Reisch – How do you make the trauma designation? Is that done proactively, at the time the paramedics send them in, or is that done after the patient arrives and they're given a fuller intermediate trauma designation?

Dr. Fildes – The criteria are posted on the wall in front of the radio and there is a worksheet. There are questions and answers in the dialog on telemetry that are checked off on the worksheet. We know who does and does not meet criteria.

Dr. Reisch – So these 4800 criteria were set prior to patient ever arriving?

Dr. Fildes – Correct

Dr. Reisch – How many of the 5200 that did not meet the criteria did actually end up having a significant trauma that would have a necessity of going to the hospital or had you gotten better information been designated as an intermediate or full trauma?

Dr. Fildes – Of the balance none of them made destination criteria but many of them were consulted to the trauma service for care. An example might be an individual fell and sustained a fracture and went to surgery for orthopedics. There are occasions of individuals who may have struck their head and did

not have a neuro exam that met activation criteria but after examination required neurosurgical intervention.

Dr. Reisch – What about the spleenic injuries? I remember when I worked at UMC we would get the none trauma designated person about 1 out of every 20 of them had some sort of significant surgical complaint that ended up going to surgery, like a ruptured spleen or something like that.

Dr. Fildes – We call those trauma consults. They come in not having met the trauma destination criteria set for field practice. But they're not found to have significant enough injury issues that they require trauma team management.

Dr. Reisch – And what percentage of the 5200 would you describe as being trauma consults?

Dr. Fildes – At least more than a third of those.

Dr. Davidson – …incidents that have occurred in the last six months and there has been questions; is the trauma center taking "what it's suppose to take". It sounds like the answer is yes. So everyone knows, if the patient doesn't meet intermediate or full activation criteria it's not that they're being diverted they're just being appropriately taken to other facilities.

Dr. Fildes – And I should point out that this was an expected outcome of any system plan. The state dealt with that by requiring all licensed health care facilities in the state to report those patients, who they treated to the state's trauma registry. They used that data to determine how well the system is functioning and whether or not the criteria require adjustment.

D. HELICOPTER MEDICAL ADVISORY COMMITTEE – DONALD S. KWALICK, M.D.

Dr. Kwalick then addressed the agenda item on Tuesday's Board of County Commissioners meeting passing a resolution requesting the Clark County District Board of Health to support efforts to improve aero medical services, including the development of criteria for dispatching of aero medical service providers. A consultant recently did a report on aero medical services recommending certain committees be formed. The fire chiefs will be developing a helicopter oversight advisory committee (HOAC). Another recommendation was for a helicopter medical advisory committee (HMAC) and I will appoint accordingly. Six or seven members would be sufficient. It will be part of the MAB rather than under the fire chiefs.

Chief Hanson – On the committee that we were talking about, as Dr. Kwalick mentioned the consultant had a nineteen-member task force. I think what the chiefs did was try and whittle it down to make it so that there was representation from both companies who would be able to sit down and come to a table and address some of the issues that needed to be addressed on the medical side of it. And in addition there would be somebody there, representing the field folks and hopefully come to some resolution. The total was around nine and I think there is room there, because there were at least two or three representatives from the Health District. Part of the recommendation from the fire chiefs was that committee be chaired by someone from the Health District in order to referee if you will.

Dr. Davidson – I think these two committees will probably work together well to provide the best and safest and quickest patient care.

Dr. Homansky – Dr. Elias Ghanem passed away last week,. He was on the first medical advisory board. I believe he was the first chairman of the medical advisory board in the mid 70's. There was a lot to note about Dr. Ghanem. He was a fascinating individual and there was a time in his career when he spent a great deal of his effort on pre-hospital care and developing the EMS system. He also spent that time making sure those patients went to him. I give him a lot of credit as one of the innovators and developers of this system. He did pass away last week and I just wanted to mention that.

Kathy Kopka – I have the fortunate responsibility to be the Head of the Neonatal Divert Task Force. In June we realized that we have some significant issues with neonates. i.e. Three upper level nurseries being on divert at the same time. So we started meeting together as a group and actually we've been able to overcome a lot of issues. We have not had to send any neonates out-of-state but that was our fear of who was going to be the first one to have to ship them out-of-state. So it's more for information to let you know that we are meeting together, the hospitals are working out the criteria that we want to use. We've talked with Randy Howell about using the EM system as our means of communication with each other. Therefore, each hospital will be able to be responsible for their own issues of what's going on. In the comment section they could put, I took the last infant on such-and-such date and such-and-such time. That way they're responsible for their own inquiries. It will be housed separate from the emergency departments because I think the screen will get pretty busy if you have Sunrise or UMC trauma, peds, neonatal, labor and delivery, and emergency departments, that would be too overwhelming to read. So those will be set up in a separate section. Next month we should have something in writing for you so you can actually look at what we are doing.

Dr. Davison – That would be UMC, Valley, and Sunrise correct?

Kathy Kopka – Yes, although we've been meeting with all of the hospitals. We wanted to do an educational piece of it also to let you know which hospitals can't take care of the premature babies, such as Lake Mead, which is a level 1 nursery. If you bring a baby that's pre-term to them, it has to be moved out. Therefore, we'd like to do an educational piece to go along with it.

Chief Riddle – On September 26, I'll be participating with a consultant in a large law firm on hospital diversions on a national basis on teleconference for about an hour and a half. Starts at 11:00a.m. If someone wants information on how to subscribe to that teleconference and participate, please contact me and I'll give you the information.

There being no further business, the meeting adjourned at 7:30p.m.