



EMERGENCY MEDICAL SERVICES **MEDICAL ADVISORY BOARD**

Minutes of July 20, 2005 meeting

A meeting of the Emergency Medical Services Medical Advisory Board was held on July 20, 2005, at the Daytona Beach International Airport – Volusia Board Room, Daytona Beach, Florida. Dr. John Shedd called the meeting to order at 6:03pm.

Members present:

- John Shedd, M.D., Chair, Volusia County EMS Division
- Jerry Brand, M.D., Volusia County Health Department
- Paul Marton, M.D., Florida Hospital – Fish Memorial
- Peter Springer, M.D., Halifax Medical Center
- Arlen Stauffer, M.D., Bert Fish Medical Center
- Tracey Weiner, M.D., Florida Hospital – DeLand
- Chip Woodard, M.D., Volusia County Medical Society

Guests Present:

- Jane Burdick, E/D Manager, Bert Fish Medical Center
- Mike Fabian, M.D., Chair, Department of Trauma, Halifax Medical Center
- Edwin Forsberg, M.D., E/D Medical Director, Florida Hospital - Flagler
- Wanda Gerson, Director of Quality and Resource Management, Halifax Medical Center
- Uril Green, M.D., Medical Director, Florida Hospital – Oceanside
- Alex Heggblod, Clinical Leader, Florida Hospital Fish Memorial
- Arvin Lewis, V.P., Financial Services, Halifax Medical Center
- Jeanie Lomax, Nurse Manager, Bert Fish Medical Center
- Mike Mellon, EVAC Ambulance
- Rebecca Nave, E/D Manager, Florida Hospital – Ormond Memorial
- Maureen Saballa, E/D Director, Florida Hospital - Flagler
- Julie Woisard, E/D Manager, Halifax Medical Center Emergency Department
- Matt Zavadsky, Volusia County EMS Director

Welcome and Introductions:

The Chair opened the meeting with introductions.

Educational Program Regarding Inter-Hospital Trauma Transport Policy:

At the April 20, 2005 MAB meeting, Wanda Gerson, Director of Quality and Resource Management at Halifax Medical Center addressed the MAB indicating that Halifax had developed a revised policy for inter-facility transfers of Trauma Alert patients similar to the recommendations of the MAB (Attachment #1).

Ms. Gerson expanded on the trauma patient transfer policy explanation for the benefit of all emergency departments and other stakeholders represented at the meeting.

1. Patients meeting ***Trauma Alert*** criteria can be transferred directly from one hospital E/D to Halifax with simply a phone call notification from the sending facility to Halifax Medical Center (HMC). In these cases, coordination with the HMC Transfer Center is not necessary.
2. Transfers to HMC for trauma patients ***NOT*** meeting Trauma Alert criteria must be coordinated through the Transfer Center as follows:
 - a. If the patient has a Primary Care Physician (PCP) with privileges as HMC, the PCP needs to contact the HMC Transfer Center to arrange the transfer.
 - b. If the patient does NOT have a PCP, or has a PCP without privileges at Halifax, the E/D physician needs to contact the HMC Transfer Center to arrange for appropriate physician assignment, specialty physicians if necessary and bed availability.
3. Pediatric patients requiring trauma or other critical care sub-specialty care cannot be handled at HMC at this time and those patients should be referred to Arnold Palmer Hospital or other hospitals that can care for these patients.
4. The HMC Transfer Center has implemented a new policy requiring either an immediate yes/no answer for patient transfer on the initial notification, or if a call-back to the requesting physician is necessary, the call back is required to be within 15 minutes.

Mr. Lewis also explained that HMC has also implemented a “Bed Board”, a status screen located in the HMC Transfer Center that provides real-time bed status to the Transfer Center.

There was significant discussion from the MAB members and guests present regarding specific ‘what-if’ scenarios, each of which were addressed by Dr. Fabian, Ms. Gerson, and Mr. Lewis.

Based on the number of questions, Mr. Zavadsky suggested he and Ms. Gerson develop a specific patient transfer flow-chart with decision points, contact numbers and Trauma Alert criteria that can be posted in the area emergency departments for ease of reference. All agreed this tool would be valuable.

MAB members present commented that in general, the transfer process has been smoother over the past month than it has been before and complimented the HMC representatives on their efforts.

Dr. Stauffer asked if there was a way for the EVAC process to be expedited in cases of emergency inter-hospital transfers. Mr. Mellon indicated his willingness to work with the hospitals and physicians on a process to streamline the requests, while still maintaining compliance with federal Medicare standards and requirements.

HMC – Port Orange Facility:

As part of the overall patient transfer and EVAC discussion, Mr. Lewis indicated that HMC will be opening a hospital with emergency department capabilities in Port Orange in the near future and asked about transfer protocols for patients needing transfer from the Port Orange facility to the main campus. Mr. Lewis further explained that the Port Orange facility would not have the full services normally available at the main campus. Dr. Shedd stated that a review of the services able to be provided would be conducted at Halifax’s request to determine the appropriate ambulance destination protocol. Mr. Zavadsky stated that there is some precedent already in Volusia County as Florida Hospital – Oceanside is currently not authorized as a receiving facility for ambulance patients.

Draft STEMI Study:

Dr. Stauffer highlighted the main provisions of the study and referenced the recent publications/research suggesting minimizing the time from ST Elevated Myocardial Infarction onset and interventional cardiac catheterization. Dr. Stauffer further highlighted that the study simply evaluates the time lapse from onset to catheterization on a prospective and retrospective basis. The eventual goal of the study will be to identify areas where an EMS system can improve patient outcomes by expediting the time lapse from onset of symptoms to catheterization.

Discussion ensued regarding the ability to bring cardiologists into the process as a key stakeholder group. Mr. Heggblod stated that there was initially significant concern on the part of area cardiologists in the Sanford area when Seminole County introduced the "Code STEMI" project. He stated that some physician groups were reluctant to meet the on-call requirements.

Dr. Stauffer indicated that if the data from the STEMI study showed there could be a statistically significant improvement in patient outcomes by bringing the right patient to the right facility at the right time, the cardiologist should be a key proponent of the program.

All MAB members felt this study also had merit and agreed with the design. Dr. Stauffer stated that the next step was to seek Institutional Review Board (IRB) review for this study as well and to assure the methods, statistical methods and HIPAA compliance. Matt indicated he is working with the Liberty IRB, an independent board to obtain such approval.

DRAFT Airway Management Study:

Dr. Shedd presented the current working draft of the AAMP Study and sought input from the MAB members. All MAB members felt the study had merit and agreed with the design. Dr. Shedd stated that the next step was to seek Institutional Review Board (IRB) review and approval to assure the methods, statistical methods and HIPAA compliance. Matt indicated he is working with the Liberty IRB, an independent board to obtain such approval.

Adjournment:

Being no further business, the EMS Medical Advisory Board meeting was adjourned at 7:35pm.

Attachment 1: DRAFT AAMP Study



Volusia County Emergency Medical Services EMS Clinical Study 05-166



I. ADMINISTRATIVE INFORMATION	
TITLE:	<i>An analysis of advanced airway management procedure use and proficiency in Volusia County, Florida.</i>
SUBMITTING INDIVIDUALS:	<p><i>John G. Shedd, M.D., FACEP Medical Director Volusia County Emergency Medial Services 123 W. Indiana Avenue, Room 401 Deland, FL 32720</i></p> <p><i>Mark Swanson, AS, EMT-P EVAC Ambulance 112 Carswell Avenue Holly Hill, FL 32127</i></p> <p><i>Matt Zavadsky, MHA, Director Volusia County Emergency Medial Services 123 W. Indiana Avenue, Room 401 Deland, FL 32720</i></p>
CONCEPT:	<i>Evaluation of effect on advanced airway management techniques and proficiencies of paramedics within the EMS system before and after implementation of an advanced airway management educational program.</i>
STATISTICAL/DATA MANAGEMENT	<ol style="list-style-type: none"> <i>1. Pre-hospital records will be coded with a unique patient identification number (UPI) in order to minimize the exposure of protected personal health information (PHI).</i> <i>2. All participants in the study will agree to, and acknowledge adherence, with patient privacy terms in accordance with HIPAA guidelines.</i> <i>3. Non-electronic data collected for the study will be house in areas protected by double mechanical locks with access limited to those personnel who meet criteria in section 2 above.</i> <i>4. Electronic data collected for the study shall be warehoused in systems that are dual password protected and accessible only to those personnel who meet criteria in section 2 above.</i>

ii. SCIENCE BACKGROUND	
WHY IS THIS STUDY IMPORTANT:	<ol style="list-style-type: none"> 1. <i>Airway management is the most crucial skill employed by EMTs and paramedics treating pre-hospital medical emergencies. Oral Tracheal Intubation (OTI) has been the gold standard for definitive airway management. Comprehensive evaluation and benchmarking of skill utilization and proficiency rates for this critical medical procedure will reveal areas for continuous quality improvement and allow the EMS system leadership the opportunity to focus training resources to those areas of most need.</i> 2. <i>Recent advances in training and medical technology has made available several alternatives to traditional OTI for airway management. Volusia County's EMS system implemented a Continuous Positive Airway Pressure (CPAP) program, as well as an Advanced Airway Management Program (AAMP) within the past 12 months. This study will evaluate the effect of these two programs on airway management techniques utilized by the EMTs and Paramedics.</i>
SPECIFIC HYPOTHESIS:	<i>The implementation of a comprehensive advanced airway management program, including the use of CPAP, has reduced the necessity of utilizing OTI as an airway management technique and improved OTI proficiency rates.</i>
STUDY DESIGN & METHODS:	<p><i>Inclusionary Data – Retrospective</i> <i>All Patient Care Reports (PCRs) for patients in which endotracheal intubation was attempted between January 2002 and December 2004 (pre CPAP and AAMP implementation) will be evaluated for procedure and success rates. This should yield a sample population of approximately 300 patients.</i></p> <p><i>Inclusionary Data – Prospective</i> <i>All Patient Care Reports (PCRs) for patients in which endotracheal intubation was attempted between January 2004 and December 2006 (post CPAP and AAMP implementation) will be evaluated for procedure and success rates. This should yield a sample population of approximately 300 patients.</i></p> <p><i>This should yield a sample population of approximately 350 patients for a total sample size of n=650.</i></p>

RATIONALE:	<i>It is incumbent for EMS system administrators to develop effective skill based training to help assure the most proficient EMS personnel possible. Results from this study will allow the EMS Medical Director to identify specific training needs for field EMTs and Paramedics to continually enhance critical airway management skills.</i>
STUDY OBJECTIVE:	<i>To identify advanced airway skill utilization and proficiency for EMTs and Paramedics pre-and post-Advanced Airway Management Program.</i>
COMMENTS:	

Matthew S. Zavadsky, MHA, EMS Director
 Printed Name of Person Completing Form

386-740-5201
 Phone Number

Mzavadsky@co.volusia.fl.us
 Email Address of Person Completing Form

Date

Attachment 1: DRAFT STEMI Study



Volusia County Emergency Medical Services EMS Clinical Study 05-165



I. ADMINISTRATIVE INFORMATION	
TITLE:	<i>An analysis of EMS-Access-Time to STEMI-Intervention-Time for STEMI Patients in Volusia County, Florida. PHASE I</i>
SUBMITTING INDIVIDUALS:	<p><i>Arlen Stauffer, M.D. Associate Medical Director Volusia County Emergency Medical Services 123 W. Indiana Avenue, Room 401 Deland, FL 32720</i></p> <p><i>Matt Zavadsky, MHA, Director Volusia County Emergency Medical Services 123 W. Indiana Avenue, Room 401 Deland, FL 32720</i></p>
CONCEPT:	<i>Retrospective and Prospective analysis of time interval starting with initial access to pre-hospital emergency medical services (EMS) and ending at the initiation of diagnostic cardiac catheterization and interventional cardiac catheterization.</i>
STATISTICAL/DATA MANAGEMENT	<ol style="list-style-type: none"> <i>1. Pre-hospital and hospital records will be coded with a unique patient identification number (UPI) in order to minimize the exposure of protected personal health information (PHI).</i> <i>2. All participants in the Phase I study will agree to and acknowledge adherence with patient privacy terms in accordance with HIPAA guidelines.</i> <i>3. Non-electronic data collected for the study will be house in areas protected by double mechanical locks with access limited to those personnel who meet criteria in section 2 above.</i> <i>4. Electronic data collected for the study shall be warehoused in systems that are dual password protected and accessible only to those personnel who meet criteria in section 2 above.</i>

ii. SCIENCE BACKGROUND	
WHY IS THIS STUDY IMPORTANT:	<p><i>Although the relationship between mortality and time delay to treatment has been demonstrated in patients with acute ST-segment elevation myocardial infarction (STEMI) treated by thrombolysis,¹⁻³ the impact of time delay on prognosis in patients undergoing primary angioplasty has yet to be clarified.⁴⁻⁷</i></p> <p><i>This Phase I study will evaluate the time of EMS access-to-definitive treatment of STEMI patients in order to determine the efficacy of developing an EMS System protocol to transport STEMI patients directly to receiving facilities capable of providing interventional cardiac catheterization in an effort to minimize the time interval from EMS access to definitive intervention.</i></p>
SPECIFIC HYPOTHESIS:	<p><i>EMS transport of STEMI patients directly to receiving facilities capable of providing interventional cardiac catheterization, bypassing closer facilities without this capability, shortens the time duration between EMS access and interventional cardiac catheterization.</i></p>
STUDY DESIGN:	<p><i>Inclusionary Data – Retrospective</i> <i>All Patient Care Reports (PCRs) for patients classified as “Cardiac Alerts” between January 2004 and June 2005 will be reviewed for determination of study eligibility based on clinical presentation (persistent or recurrent chest pain and/or persistent elevation or re-elevation of ST segment). This should yield a sample population of approximately 300 patients.</i></p> <p><i>Initial Access to Pre-hospital EMS:</i> <i>Computer Aided Dispatch (CAD) time records will be analyzed to determination of initial for EMS access times.</i></p> <p><i>Correlation will be made between the origination of the EMS request and the relative distance to non-interventional medical facilities vs. current interventional facilities.</i></p> <p><i>Initiation of Diagnostic Cardiac Catheterization:</i> <i>Hospital chart review will be conducted to record documentation of initiation of diagnostic cardiac catheterization at the primary receiving facility.</i></p> <p><i>Initiation of Interventional Cardiac Catheterization:</i> <i>Hospital chart review will be conducted to record documentation of initiation of interventional cardiac catheterization at either the primary receiving facility, or tertiary receiving facility.</i></p>

	<p>Inclusionary Data – Prospective <i>All Patient Care Reports (PCRs) for patients classified as “Cardiac Alerts” from July 2005 through December 2006 will be reviewed for determination of study eligibility based on clinical presentation (persistent or recurrent chest pain and/or persistent elevation or re-elevation of ST segment). This should yield a sample population of approximately 350 patients for a total sample size of n=650.</i></p> <p>Initial Access to Pre-hospital EMS: <i>Computer Aided Dispatch (CAD) time records will be analyzed to determination of initial for EMS access times.</i></p> <p><i>Correlation will be made between the origination of the EMS request and the relative distance to non-interventional medical facilities vs. current interventional facilities.</i></p> <p>Initiation of Diagnostic Cardiac Catheterization: <i>Hospital personnel shall complete an “EMS STEMI Study Reporting Form” to include data regarding the initiation time of diagnostic cardiac catheterization. These forms will be submitted to the Volusia County EMS Division for aggregation with pre-hospital study data reporting.</i></p> <p>Initiation of Interventional Cardiac Catheterization: <i>Hospital personnel shall complete an “EMS STEMI Study Reporting Form” to include data regarding the initiation time of interventional cardiac catheterization at either the primary receiving facility, or tertiary receiving facility.</i></p>
RATIONALE:	<p><i>It is incumbent for EMS system administrators to develop effective clinical protocols based on systematic and specific information developed at the local level. Results from this Phase I study will allow the EMS system administration to affect policy and protocol changes to improve patient outcomes based on such information.</i></p>
STUDY OBJECTIVE:	<p><i>To determine the Access-to-Intervention time savings and improvement in patient outcomes, which may result from the implementation of an EMS protocol for the Volusia County EMS System to only transport STEMI patients to receiving facilities capable of interventional cardiac catheterizations.</i></p>

COMMENTS:	
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Printed Name of Person Completing Form

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Email Address of Person Completing Form

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Works Cited:

1. De Luca G, Suryapranata H, Ottervanger JP, Time Delay to Treatment and Mortality in Primary Angioplasty for Acute Myocardial Infarction: Every Minute of Delay Counts. *Circulation*. 2004;109:1223-1225.)
2. Fibrinolytic Therapy Trialists' (FTT) Collaborative Group. Indications for fibrinolytic therapy and suspected acute myocardial infarction: collaborative overview of early mortality and major morbidity results from all randomised trials of more than 1000 patients. *Lancet*. 1994; 343: 311–322.
2. Newby LK, Rutsch WR, Califf RM, et al. Time from symptom onset to treatment and outcomes after thrombolytic therapy. *J Am Coll Cardiol*. 1996; 27: 1646–1655.
3. Zijlstra F, Patel A, Jones M, et al. Clinical characteristics and outcome of patients with early (<2h), intermediate (2–4h) and late (>4h) presentation treated by primary coronary angioplasty or thrombolytic therapy for acute myocardial infarction. *Eur Heart J*. 2002; 23: 550–557.
4. Cannon GP, Gibson GM, Lambrew CT, et al. Relationship of symptom-onset-to-balloon time and door-to-balloon time with mortality in patients undergoing angioplasty for acute myocardial infarction. *JAMA*. 2000; 283: 2941–2947.
5. Antonucci D, Valenti R, Migliorini A, et al. Relation of time to treatment and mortality in patients with acute myocardial infarction undergoing primary coronary angioplasty. *Am J Cardiol*. 2002; 89: 1248–1252.
6. Brodie BR, Stuckey TD, Muncy DB, et al. Importance of time-to-reperfusion in patients with acute myocardial infarction with and without cardiogenic shock treated with primary percutaneous coronary intervention. *Am Heart J*. 2003; 145: 708–715.