



Securing the Airway: How are We Doing and Could We Do Better?

By Tom McGuire
EMS Quality Coordinator

System paramedics and Hayward Fire EMTs should be proud of their endotracheal intubation (ETI) skills. During a recent three month period, intubation was attempted on 263 patients and 223 were successfully intubated. That's an 85 percent success rate, and that number is consistent with benchmarks found around the country. Congratulations! The Hayward EMTs, part of a special EMT ETI trial project, should be especially proud because they did as well as system paramedics. The Hayward project will continue. The second ETI reporting period concluded on December 1, 2000, and we will continue to report success rates. Combitube use begins on that date, and we'll collect and report that data also.

After basking in our success, we have two choices. We can stand tall and keep it up. Of course, that would immediately end any reliable efforts to improve airway control. Period. Any change at that point would simply be a wild guess and perhaps wasted effort. Or, we can make a systematic effort to improve, and we should be committed to improve. A secure airway is a hallmark of good patient care and once achieved, makes patient care much more manageable. Additionally, field personnel deserve the best shot at securing that airway.

The next question then is, "How can we do better?" We don't know, but collectively we can find out. When you explain ETI to a layman, you explain something about putting a tube in the windpipe so you can breathe for the patient. Sounds easy. When you teach ETI, you get more specific, but it's pretty straightforward using the rubber dummy. We want to be much more specific. Try sitting down and describing the detailed processes involved in a successful, real-world field tube. Consider:

- The ETI tools (sufficiently rigid blade, adequate light, adequate stylet),
- The confirmation tools (EDD, colorimetric device),
- Associated tools (adequate suction, securing device),
- The practitioner (trouble shooting ability, confidence under extreme pressure),

- The patient (unusual anatomy, gagging, secretions, strange field settings, GCS, clenched teeth, laryngospasm), and
- Technique (proper positioning, concern for spinal alignment).

You'll think of more. The closer you look, the more details emerge. We know that all these processes are subject to variation; sometimes all goes well, sometimes not.

They say variations are the portals to discovery. Jazz trumpeter Miles Davis said, "Do not fear mistakes. There are none." Miles thrived on musical "mistakes," examined unexpected variations, and propelled the jazz literature forward. That's the idea: examine ETI variations and explore them, then propel our airway skills forward.

Field providers are the only ones who know what processes cause problems. You've already told us about some problems with easy fixes such as inadequate suction or flimsy stylets. Problems like these may be provider-specific, but we aren't even close to getting the big picture yet. By "we," I mean the provider liaisons to the Quality Council Committee. Your liaison will be asking you specifically about any unable to intubate experiences ("UTIs" - sorry about that unfortunate acronym) you have. What's the right answer to give? Whatever happened, in detail. Perhaps you'll mention an item from the short list above, perhaps you'll recognize other process problems. Should you feel singled out for experiencing a UTI? Don't worry, you have company. Your careful consideration may assist you or your partner down the road. If a patient didn't present an opportunity to even attempt a needed intubation, mention that, too, and why. Consider how a failed intubation can bring you down for the whole shift. Let's try to fix that. Remember, you are the experts in field intubation.

How can we improve? We won't know until you reveal the secrets. Equipment fixes rely on your careful evaluations. Specific training may help for some problems; so may a session in an operating room. We are pretty sure though, that intubating the same mannequin twenty times won't help much. Some of the problems may be agency-specific, others may be systemwide. Some patient anatomies confound the most experienced emergency physicians.

"We are all in this to provide the best care to the patient, and every medic wants to know that he or she is doing a good job. This happens best when we use a problem-solving approach in our quality programs."

Bob Negri, R.N.
EMS Coordinator
Hayward Fire Department

"What we are building is an environment where it is OK to say you had a problem."

Juliet Henshaw, MICP
Clinical and Educational Services Coordinator
American Medical Response

Patients presenting with clenched teeth will certainly be a problem in some cases. I suppose we could resurrect the oral screw, or perhaps you know of other solutions in the wings. The answers we seek lie somewhere in the characteristics of our equipment, our procedures and our patients. Your individual accounts will be highly valued, and when aggregated, should lead us to improvement. A failed intubation, for any reason, is a depressing event. Perhaps we should consider this an anti-depression campaign.

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From the Medical Director

The Airway Ladder

By Jim Pointer, MD

In keeping with the airway theme in this issue of our newsletter, I want to briefly describe the rationale behind some of the changes in our airway and intubation protocols and give you my thoughts for future enhancements. Endotracheal intubation is the standard of care for airway management in adults and children in both the hospital and out-of-hospital environments. This is true in spite of the well-publicized paper published by Doctor Marianne Gausche, (Gausche, et al., "Effect of Out-of-Hospital Pediatric Endotracheal Intubation on Survival and Neurologic Outcome," *JAMA*, 2000; 283:783-790).

Doctor Gausche's paper showed, that for the pediatric age group, the survival and neurologic outcome was the same for patients who received endotracheal intubation as it was for bag valve mask ventilation. In spite of Dr. Gausche's study which was methodologically sound, no EMS agencies in the state have removed pediatric intubation from their scope of practice. We have no plans to delete pediatric endotracheal intubation. In fact, as Tom McGuire's article in this issue points out, our intubation success rate is 85 percent; a figure that is in line with

success rates in a number of papers from the EMS literature. However, the determination of this success rate is just the first step in taking a very close look at our "airway ladder."

Some of you have asked me, "Why are we using the Combitube? Isn't this just a throwback to the esophageal obturator airway (EOA)?" This is hardly the case. The Combitube, which as you know is passed blindly, is a rescue airway. It is to be used only when three attempts at conventional endotracheal intubation are unsuccessful. Why do we need a rescue airway? First, other than bag valve mask and needle cricothyroidotomy, we had no alternatives if endotracheal intubation was unsuccessful. Second, the Combitube allows us to advance up the airway ladder, that is to employ more elegant and clinically useful procedures in the future. The American Society of Anesthesiologists publishes "difficult airway practice guidelines." You can find this at www.asahq.org/practice/diff_airway/difficult.html. This algorithm makes interesting reading because it is the tool that anesthesiologists follow for routine, rescue, and failed airway interventions.

As some of you know Dr. Mel Ochs in San Diego is conducting a trial study utilizing rapid sequence intubation

(RSI). San Diego County paramedics are giving succinylcholine, rocuronium, and midazolam to trauma patients who cannot be intubated by conventional means. The results in over two hundred patients show that paramedics not only can successfully use these drugs and perform intubation but that their oxygen saturations drastically improve after intubation. San Diego EMS utilizes the Combitube as a rescue airway. Use of the Combitube is essential to move to the next rung on the airway ladder-RSI. RSI is the technique that is commonly employed for the trauma patient in the hospital emergency department with a "clenched jaw" and in other conditions. We will strongly consider instituting RSI after Dr. Ochs reports his final results which are expected in 12 to 18 months.

I will have more to report to you in about six months when we have collected further data on the success of our new airway program. Meanwhile, remember that a rescue airway is another step up on the "airway ladder." It allows our excellent EMS system to make further advances in patient care. As usual please contact me with your questions or concerns at 267-3242 or jpointer@co.alameda.ca.us.

New Conference Helps Seniors Stay Injury Free

Helping senior citizens live independently throughout their lives is the focus of new efforts to develop injury prevention programs specifically for them. To help achieve this objective, the Senior Injury Prevention Project, a collaboration of non-profits and public sector agencies led by United Seniors of Oakland and the Public Health Department, is sponsoring the First Annual Bay Area Senior Injury Prevention Conference on March 8-9. The two day conference will draw together professionals from numerous disciplines to build a coalition that will identify and address the injury prevention needs of Bay Area seniors.

Physicians, nurses, pharmacists, physical therapists, occupational therapists, nutritionists, paramedics and first responders will meet for two days to assess the needs and resources in the nine Bay Area counties and begin to formulate a structure for a coordinated approach to this serious issue.

Older people have a unique set of injury issues. Simple things that most of us aren't even aware of like walking and window shopping at the same time, or wearing long, loose night-clothing can cause a person to trip. And whereas younger people can depend on quick reflexes to catch themselves, an older person frequently cannot and ends up falling. In too many instances a fall is the first step in a downward spiral that ends with the person leaving their home to enter a residential or

skilled nursing facility. With a few environmental and behavioral changes the older person can prevent these simple but devastating injuries and maintain their healthy independence.

"Anyone you talk to can tell you about an older relative or friend who has fallen and sustained a serious injury," says Colleen Campbell, Alameda County EMS Prevention Coordinator, who is organizing the conference. "We have very strong programs in childhood and workplace injury prevention. Now it's time to develop the same thing for seniors. Many service providers are addressing the issues separately. Now is the time to pull the resources together and develop a coordinated program."

The conference has four segments: program design, program implementation, program evaluation and funding/political action. After presentations in these areas participants will break into work groups to develop a beginning structure for a Senior Injury Prevention Program. The groups will share their ideas with the assembled participants before the close of the conference.

Keynote speakers include:

- Roger Trent, (Department of Health and Human Services) with newly released data on senior injuries by age and mechanism for each of the nine Bay Area counties,
- Barb Alberson, (Department of Health and Human Services) on DHS's viewpoint toward senior injury prevention,

- Scott Walsh, (Livermore/Pleasanton Fire Department) on the joint cities' Partners in Safety Program,
- Michael Radetsky, (San Francisco Community and Home Injury Prevention Project for Seniors),
- Dr. James Mittelberger, (gerontologist from Highland Hospital), on the ramifications of injuries to seniors,
- Larry Cohen, Executive Director of the Prevention Institute,
- A pharmacist, physical therapist and occupational therapist.

Participants will leave the conference with a basic structure for a Senior Injury Prevention Program that they can take back to their agency.

They will also see how their agency fits into the big picture and who they need to interact with to begin building the links necessary in a comprehensive Senior Injury Prevention Program.

The conference will be held March 8-9 at the Waterford Plaza Hotel at Jack London Square. Space is limited to 160 participants and preregistration is required by February 20. Continuing education is available for physicians, registered nurses and prehospital personnel. For more information or to register, contact Colleen Campbell at 267-3221 or cocampbe@co.alameda.ca.us.



EMS Caregiver Profile

John Eric Henry
EMT-I BLS Supervisor
American Medical Response

John Eric Henry has been an EMT in Alameda County since 1984. He was promoted to BLS Supervisor for AMR in May, 2000. He holds a Masters of Science degree in Public Health Administration and did undergraduate work in physical anthropology and forensics.

John's philosophy of management is a blending of the two disciplines he studied. "I invite the EMT's I supervise to see me as a team leader instead of a 'boss,'" he explains. "I believe my job is to bring talented people together and then accomplish things as a team. People know the right thing to do, and if you create an environment that is supportive and enjoyable for them, they will do their best work. This in turn brings forth excellent patient care."

"The job of an EMT is not what the media makes it out to be. The heroics people see on TV rarely occur. Our work really consists of taking care of the people we serve, whether that means carrying someone down a flight of stairs or holding their hand while they are being wheeled to the ambulance. It's all about caring. My job is to identify the people who really want to do this type of work, who truly enjoy helping people. Then I look for ways to assist them in developing along the path they choose. I provide support, resources and guidance to help that person achieve their ultimate objective."

"Emergency Medical Services is a system, and it takes all parts of the system working together to make it function. There are many participants in our EMS system, and patients receive the best care when we all work together harmoniously. With the changes that have occurred over the last few years, this is now happening more than ever. For example, the person an AMR medic sat next to in an ambulance for months or years may now provide the same service through a fire department. The

sheriff's department, helicopter transport agencies, hospital staff, dispatchers and others also play vital roles in ensuring that people who call 9-1-1 receive quality prehospital care."

"EMTs and paramedics are thrilled when they see the big picture. People's whole attitude frequently shifts when they get this. When they realize that we are all one system with a common goal, the way they see their job changes, the way they see others changes and the way they treat patients ultimately changes. My goal is to get people to see that taking care of each other is what it's all about. For us professionals, it's about working together as a team at every level, and for the public, it's about caring for one another, for people you know, and those you don't."

John was born and raised in Reno, Nevada. His parents, Joseph and Marie Henry, still live in Reno. He has two brothers and two sisters. His brother, Jeff, works at Edwards Air Force Base in southern California, and Noe is an EMT for an ambulance company in Reno. His sister, Melissa, is a nurse at Children's Hospital in Los Angeles, and his youngest sister, Judi, works in computer web design in Reno. John moved to northern California in 1984 and did his undergraduate and graduate work at UC Berkeley.

"I've learned from some outstanding teachers, and I have a lot of professors behind me in this. I appreciate all of their contributions, and want to especially acknowledge Dr. Meagan Conkey, the Chairwoman of the Anthropology Department; Dr. Leslie Fleming, a Department Chairman in Anthropology; Dr. Kathleen A. Clanon, Public Health; Professor Cecilia Arrington, Professor of Cultural Studies; and Dr. Paul Farmer, Professor at Harvard School of Medicine."

"Eventually I would like to work for an agency like the World Health Agency or the Centers for Disease Control to bring this philosophy of caring for one another into the international arena."

FEB.-MARCH 2001

Continuing Education Calendar

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All the courses listed below are offered by approved CE providers.

ACLS

San Francisco Paramedic Association
 8:00am-5:00pm
 February 10-11, 20-21, 27-28
 March 8-9, 19-20, 24-25

ACLS Re-recognition

San Francisco Paramedic Association
 8:00am-5:00pm
 February 13 March 6, 27

ACLS Prep

San Francisco Paramedic Association
 5:00pm-10:00pm Call for dates.

AMLS Instructor

San Francisco Paramedic Association
 Call for times. February 5

12 Lead EKG

San Francisco Paramedic Association
 Call for times. March 28-29

EMT-I Basic Class

Chabot College
 Thursdays, 8:00am-5:00pm
 January 18-May 24

Field Care Audits

For information on Highland Hospital's tape library of past Field Care Audits call 437-4550 or 437-4549.

Lecture Series

San Francisco Paramedic Association
 An Endangered Species: Are Trauma Systems at Risk?
 9:00am-noon Wednesday, February 7
 Call for location.

PALS

San Francisco Paramedic Association
 8:00am-5:00pm
 February 22-23 March 10-11

PALS Re-recognition

San Francisco Paramedic Association
 8:00am-5:00pm
 February 6 March 21

PHTLS Certification

San Francisco Paramedic Association
 8:00am-5:30pm (day 1)
 8:00am-5:00pm (day 2)
 February 14-15 March 22-23

PHTLS Instructor

San Francisco Paramedic Association
 Call for times. February 8

Hazardous Materials First Responder Awareness

Safety Compliance Website training course: www.hazmatschool.com

Continuing Education Providers

Chabot College 723-6600 ext.2456

Safety Compliance 925-362-3265

San Francisco Paramedic Association
 415-543-1161 www.sfparamedics.org

IMPORTANT ANNOUNCEMENT:

Mt. Diablo Hospital is planning to close its base station on February 1, 2001. John Muir Medical Center will then be the only base hospital in Contra Costa County. For more information, contact Ruth Burk at 925-947-4438.



Emergency Medical Services Agency
 A Division of the Alameda County
 Public Health Department
 1000 Broadway, Suite 5024
 Oakland, California 94607

510-267-8080 fax 510-465-5624

The EMS News is published bi-monthly to inform and educate its readers about the Alameda County EMS system and issues affecting prehospital medical care.

Your questions and comments are welcome and should be addressed to Kris Helander-Daugherty, 267-3227.

For change of address or number of copies, contact Sonya Lee, 267-3233.

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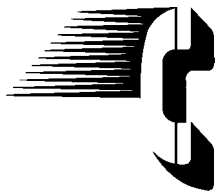
Arnold Perkins, Director
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Emergency Medical Services Agency

Cindy Abbissinio, RN, Acting Director
 James E. Pointer, MD, Medical Director

Newsletter Production

Kris Helander-Daugherty,
 EMS Newsletter Coordinator
 Maureen Dixon, Editor
 510-525-9210 fax 510-525-9209
 maureend@jps.net
 Diane Vallier, Designer



Alameda County EMS Staff Directory

Cindy Abbissinio, RN, (cabbissi) Acting Director	267-3299
Pat Bennett, RN, (pbennett) Trauma Coordinator	267-3238
Colleen Campbell, (cocampbe) Injury Prevention	267-3221
Kathryn Chester, RN, (kchester) Certification/EMSC	267-3235
O.D. Ford, (odford) Support Services/Procurement	267-3225
Cynthia Frankel, RN, (cfrankel) Disaster	267-3224
Kris Helander-Daugherty, RN, (khelande) Special Projects	267-3227
Dee Johnson, (djohnson) Administrative Assistant	267-3239
Sonya Lee, (slee) Support Services	267-3233
Tom McGuire, (tmcguire) Quality Coordinator	267-3228
Jim Pointer, MD, (jpointer) Medical Director	267-3242
Jautan Stancill, (jstancil) Support Services	267-3229
General Information	267-8080
EMS FAX	465-5624
EMS e-mail: First initial plus last name (as noted above) @co.alameda.ca.us	
EMS web site: www.co.alameda.ca.us Click on "Departments" then "EMS".	

An EMS staff person is on-call 24-hours a day for urgent matters.
 Page through ALCO-CMED 667-7777



EMS News and Announcements

Board of Supervisors Changes—Several changes have occurred on the Alameda County Board of Supervisors. Wilma Chan has been elected to the State Assembly, so she has vacated her position. Her successor is Alice Lai-Bitker. Nate Miley was elected as Board Representative for District Four. Mary King has retired.

EMS Adopts Families for the Holiday—Thanks to the staff at the EMS Agency, two families in Oakland were able to share a joyous holiday season with their families. EMS staff members shopped, wrapped, and then delivered toys, clothing, and a tree to a family of four and a family of eight. It was truly a pleasure to provide others with some happiness and we are looking forward to doing even more next year.

Amiodarone Data Reminder—As soon as possible after you administer Amiodarone call 267-3243 and provide:

- Date and time administered,
- Dosage—if other than 300 mg.,
- Names/dosage of medications given after Amiodarone,
- Was the patient transported to the hospital? (yes/no) If yes, what hospital?
- Did the patient have a spontaneous return of pulse **at the time of arrival at the hospital?** (yes/no)
- Paramedic reporting the data and provider agency.

EMS Orientation—First Thursday of each month. Reservations must be made by the provider agency to Kris Helander-Daugherty at 267-3227 or khelande@co.alameda.ca.us.

Meeting Notes

EMOC—Thurs., Feb. 15, 9:00-10:30am at the EMS District Office.

Research Committee—Thurs., Feb. 15, 11:00am-1:00pm at the EMS District Office. Lunch will be provided. Please RSVP to Tom McGuire at 267-3228 or tmcguire@co.alameda.ca.us.

Bay Area Paramedic Journal Club—Next meeting planned for late spring. Check the EMS web site for details.

Highland Emergency Medicine Residents Journal Club—Thurs., March 15, 6:00-9:00pm at an Oakland restaurant. Presenters include Jim Pointer, MD; John Brown, MD, SFEMS Medical Director, and Jacqueline Nemer, MD, Highland Emergency Medicine. For location and reservations, call Jackie Alberto 437-4563 by March 1.

2001 POLICY REVIEW PROCESS DATES

DEADLINE FOR POLICY IDEAS	PUBLIC DRAFT OUT	PUBLIC COMMENTS DUE	PUBLIC HEARING AT EMOC	FINAL POLICIES SENT OUT	UPDATE TRAINING	POLICIES IMPLEMENTED
FEBRUARY 23	APRIL 20	JUNE 22	AUGUST 16	SEPTEMBER	SEPT. -NOV.	DECEMBER 1