

NCEMSF NEWS

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When evaluating the health of our organizations:

*"We too often
respond to
crisis instead
of focusing on
preventive
maintenance!"*

Message from the President

Dr. George J. Koenig, Jr., NCEMSF President

As winter approaches, the early semester focus on recruitment, orientation, and training of new members shifts towards implementing plans to achieve broader goals that were set for the academic year. This momentary lull as gears shift provides time to reflect on the overall health of your organization. This is not as simple as it may seem as there are many metrics that can be used to evaluate an organization. Most equate the health of their organization to its number of new recruits or its total number of members. However, looking at overall membership can be misleading when assessing organizational health because it provides only a static snapshot and is not predictive of your organization's future.

Each year NCEMSF receives unfortunate news of squads that cease to exist. While the numbers of startup organizations continue to exceed failures, we continually ask ourselves why organizations fail and what we can learn from them to prevent future failures. The majority of organizations that fail are not the result of an isolated event or a group of "bad" individuals. Instead, their failure is often related to a compilation of events. Through early recognition and intervention most of these failures are preventable.

Over this past summer, NCEMSF was notified that two organizations folded. One cited lack of membership and interest, and the other cited a change in the university's administration resulting in closure of the group. Of the reasons commonly cited for the discontinuation of a campus EMS group, these two are the most common. It is concerning that both of these organizations were well established and had been providing service for over 10 years.

One of the organizations, recently celebrated its 10th anniversary with a gala, had strong alumni support and involvement, and had established an annual scholarship for a current member of the squad. This certainly did not seem like an organization that would fail from lack of interest or membership. The other

organization was well integrated into its university's community. The division of student life provided an on-campus house for residential living and a place to serve as a central gathering point for its members. It had an excellent relationship with campus safety and a robust membership. It would have seemed unlikely that a change in administration could cause the loss of its headquarters and the discontinuation of the group, especially when the incoming president was previously at a university with a campus EMS group.

The likely reason that both of these organizations failed was complacency and a failure to continually assess the health of their respective organizations. The greatest challenge that we face is identifying areas of improvement when operations are running smoothly. We respond to crisis instead of focusing on preventive maintenance. Think for a moment: Have you ever scheduled a meeting with your university president or dean of students to discuss your organization and its positive impact on your college campus? Have you ever held a meeting with your executive staff to discuss ways to improve membership recruitment and retention when your membership roster is filled? Do you continually train, educate, and inspire your membership to become leaders? The more typical scenario is that we schedule the meeting when we need something, we worry about membership when we have trouble filling shifts, or we train individuals for leadership once they already hold a title.

I challenge you during the mid-semester lull to identify potential weaknesses even if everything seems to be running smoothly; and, I encourage you to showcase your organization's strengths and contributions to your campus community during the upcoming Collegiate EMS Week!

Best wishes for a great year!



The King of Airways

Dr. Michael T. Hilton, NCEMSF National Coordinator

Pre-hospital intubation can be difficult and frequently is performed in less than ideal conditions. Most ground EMS services do not have RSI (Rapid Sequence Induction) protocols to help facilitate difficult intubations because of the associated risks. Blind airway securing devices were developed as alternative devices for these difficult airways. These have included the esophageal obturator airway (EOA) and the combitube, which replaced the EOA. The combitube has had some success as a rescue airway for many ALS services and has even been utilized by a small number of BLS services. However, the combitube is a complicated device with two lumens, two ports and two balloons with two pilot balloons. As one might expect, mistakes in the application of this rescue device have occurred.

The King LT (laryngeal tube) is another blind insertion device. It has a single lumen and only one pilot balloon that fills two distal balloons. The device is inserted by performing a chin-lift and sliding the tube into the pharynx along the midline of the tube body to the tube hub. When blindly inserted, the King LT sits in the proximal esophagus. The distal balloon fills this space and prevents air from entering the esophagus and stomach. The proximal balloon sits in the oropharynx and prevents air from escaping via the mouth and nose. There are multiple ports located between these balloons. When air enters the lumen of the device, it has only one place to go after exiting the ports: the trachea.

There are a number of contraindications to the use of the King LT. First, it should not be used in the setting of lower facial or major neck trauma. Inserting the King LT may cause further damage and it may not seat properly due to changed anatomy. Additionally, it should not be used if the patient has had burns to the upper airway or esophagus because of the risk of esophageal perforation. Additionally, if the patient is having significant or forceful emesis, the King LT should not be inserted. The King LT does not protect against aspiration and insertion in this setting may make aspiration more likely and also inhibits suctioning of the airway.

The King LT is not a definitive airway, however. Only two definitive airways

exist: endotracheal tube and tracheostomy. However, for the purposes of EMS and Emergency Medicine, the King LT is considered temporarily definitive. That is, if a King LT is in place and working, the airway is considered patent. There is no need to exchange the King LT for an endotracheal tube emergently or even urgently. Instead, the focus should be on resuscitation and management of other injuries or disease processes affecting the patient. The exchange of a King LT for an endotracheal tube or for a surgical airway can occur at a later point.

Research studies have indicated that the King LT can be placed successfully and quickly by advanced EMS providers. In one study of a flight medicine service in 2006, the King LT had just entered the market and was used as a rescue airway device for failed ETI (endotracheal intubation) in place of a cricothyrotomy. Of 575 ETIs, a King LT was used in 26 patients. All King LTs were successfully placed; 24 required a single attempt, and two required more than one attempt. No immediate complications were observed and no pre-hospital surgical airways were performed.¹ In another study in 2008, 69 paramedics were observed on a difficult airway simulator placing endotracheal tubes (ETT), Combitubes and King LTs. Overall success rates and time to successful placement were measured. Paramedic mean placement times were 91.3 seconds (76.6-106.0) for ETT, 53.7 seconds (48.3-59.1) for Combitube, and 27.0 seconds (24.3-29.7) for King LT. EMT-Ps successfully placed an ETT in 68.9% (31/45) of attempts. EMT-P success with the Combitube and the King LT was 82.2% (37/45) and 100% (45/45), respectively.² Clearly, the King LT was placed quickest and was the most successfully placed airway. In a meta-analysis of airway studies looking at success rates for insertion of an alternative airway, covering 10,000 patients, the King LT was the most successful alternative airway with a 96.5% success rate, compared to 82-87% for all other non-surgical airways.³

The King LT can be easily, quickly and successfully be placed as seen in the above studies. Therefore, recent studies have begun looking into whether untrained and basically-trained providers can place a King LT airway. This would

allow for the use of a King LT by first responders (FRs) and by EMT-Bs, including most of our campus based EMS providers. One study was a scripted phone call teaching untrained bystanders to place a King LT over the phone, in a simulated 911 situation with a manikin simulator. This study found an 80% success rate, which did not differ with prior CPR training and the median time to successful placement was 1min 50s.⁴ A second study, published in July, looked at an EMS system that changed its protocols to have FRs place a King LT in all non-traumatic cardiac arrests. They compared the ALS ETI success rate from the 4 months before the change to the BLS King LT success rate 4 months after the change. They found the frequency of first attempt success was 57.6% in the ETI group and 87.8% in the King LT group.⁵ This indicates that BLS providers can place a King LT airway successfully.

In summary, the King LT airway is a temporarily definitive airway that can be placed easily, quickly and successfully. It is a less complicated airway to use as compared to previous alternatives to ETI. It is a device that you will see frequently in the field. Through further research, it will be interesting to see whether it is an airway device that should be made available to basic providers.

Note: Dr. Hilton has no disclosures to report. He is in no way affiliated with the King LT or any other airway device. The preceding was another in a series of evidence based emergency medicine columns by Dr. Hilton intended to educate and not promote any particular product or service.



1. King airway use by air medical providers. Guyette FX, Wang H, Cole JS. *Prehosp Emerg Care*. 2007 Oct-Dec; 11(4): 473-6.

2. A comparison of the King-LT to endotracheal intubation and Combitube in a simulated difficult airway. Russi CS, Miller L, Hartley MJ. *Prehosp Emerg Care*. 2008 Jan-Mar; 12(1):35-41.

3. A meta-analysis of prehospital airway control techniques part II: alternative airway devices and cricothyrotomy success rates. Hubble MW, Wilfong DA, Brown LH, Hertelendy A, Benner RW. *Prehosp Emerg Care*. 2010 Oct-Dec; 14(4):515-30.

4. Simulated rescue airway use by laypersons with scripted telephonic instruction. Beauchamp G, Phrampus P, Guyette FX. *Resuscitation*. 2009 Aug; 80(8):925-9. Epub 2009 May 29.

5. King LT-D use by urban basic life support first responders as the primary airway device for out-of-hospital cardiac arrest. Gahan K, Studnek JR, Vandeventer S. *Resuscitation*. 2011 Jul 12. [Epub ahead of print]

Medication Safety Awareness and Campus Based EMS

John Janis, National Awareness Coordinator - DrugWatch.com

In a time when physicians are writing more prescriptions for pain relievers, stimulants and sedatives than ever before, the use of potentially dangerous medications is on the rise and prescription drug abuse and misuse has become a rising epidemic, particularly among college students and young adults.

Many young adults are prescribed medications that have a high potential for abuse, drug dependence and serious side effects, with painkillers, sedatives and stimulants like Ritalin and Adderall (frequently taken by college students for non-medical reasons to increase academic focus and concentration). Painkillers such as OxyContin and Vicodin, which have a high potential for dependence, act on the brain and spinal cord to alter the body's perception of pain.

According to the 2009 National Youth Risk Behavior Survey released by the U.S. Centers for Disease Control and Prevention, approximately 1 in 5 high school students have abused prescription

drugs in the U.S. Drug abuse was most common among 12th grade students, which means that millions of young adults will enter college with a history of drug-related problems.

It is important for campus emergency healthcare providers to take the necessary steps to educate college students about the importance of safely using prescription drugs for only their prescribed indications. Some drug side effects can be serious, especially if certain medications are combined with alcohol or common drugs used to treat allergies, colds, pain, insomnia or various infections. Drug interactions can be fatal in some cases, yet many students are unaware that severe complications can occur when certain drugs are combined.

Below is a list of warnings associated with medications commonly used on college campuses. Education and awareness is the key to preventing many problems associated with drug abuse and misuse in young people.



Stimulants

- Examples: Ritalin, Adderall
- Do not combine with allergy or cold medications, antidepressants or opioids
- Avoid consuming alcohol
- Can be habit-forming
- Not for people with a history of drug or alcohol abuse or a history of heart problems

Painkillers

- Examples: OxyContin, Vicodin, Percocet
- Do not combine with other pain medications, allergy or cold medications, sleeping pills, anxiety medications or antibiotics
- Avoid driving
- Avoid consuming alcohol
- Can lead to tolerance and dependence

Oral Contraceptives

- Examples: Yaz, Ortho Tri-Cyclen
- Do not combine with acetaminophen (Tylenol), St. John's wort, and certain other medications
- May lose effectiveness if taken inconsistently or in combination with antibiotics
- Avoid smoking
- Can cause fatal cardiovascular problems, such as blood clots, stroke and heart attack in some patients

Drug Interactions – www.DrugWatch.com provides up-to-date information on the side effects of prescription and over-the-counter medications. Visit DrugWatch to learn more information about the side effects of the medications you are currently taking.



NCEMSF
19TH ANNUAL
CONFERENCE
 February 24- 26, 2012
 Baltimore, Maryland

Why attend?

- 3 days of conference activities — Starting Friday at 4pm
- Over 50 expert lectures in up to 9 concurrent tracks
- Multiple moderated roundtable discussions
- Several hands-on skills labs
- Student speaker competition
- Two keynote addresses
- Collegiate EMS skills competition
- Annual NCEMSF awards ceremony
- Industry tradeshow featuring new products
- Lowest cost conference of its kind in the country
- Network with 900+ of your peers from nearly 100 schools

Host Facility:
 Hyatt Regency Baltimore
 300 Light Street
 Baltimore, MD 21202

Early registration opens online December 1st

Regional Roundup

News from Around the NCEMSF Regions

From the National Coordinator

The Regional Coordinator (RC) network facilitates communication between NCEMSF and its constituents. It is through the RCs that NCEMSF is best able to accomplish its mission of advocating and supporting campus based EMS. The RCs are equipped to assist each squad with the day-to-day issues it faces and to help publicize squad achievements. There are few issues that the NCEMSF leadership has not seen before and for which it is not equipped to offer advice and guidance. If you have not met your RC, please contact me and I will gladly introduce you.

Midwest

Case Western Reserve University EMS transitioned to a new medical director, Dr. Jeffrey Luk, as well as to a new electronic reporting system: emsCharts this fall. CaseEMS is also planning its annual MCI drill held in October.

Northern New England

Saint Anselm College Emergency Medical Services is retooling this fall after much of its squad graduated last spring. They have an almost entirely new team this year. Captain Matt Derkrikorian graduated this past spring and is replaced by Kathryn Marquis, a senior nursing major. James Ehrlich is their only returning lieutenant and he is joined by Thomas Dooley, Rachel Casazza and Kyle Baker their only underclassman lieutenant). The Saint Anselm team is

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currently operating with 12 members (hopefully more by the end of October) and because half of its team is new, the group is enacting more training sessions and new training techniques to assure that the quality of care the campus has become accustomed to remains unchanged. To that effect, Saint Anselm EMS has also worked with its outside agencies and is planning joint training.

Pennsylvania

NCEMSF attended the Pennsylvania Emergency Health Services Council (PEHSC) Annual Conference this summer. The conference was a great

networking event and provided a forum for mutual information sharing including further disseminating NCEMSF's core goals and objectives.

West

UCLA EMS has worked with its medical director, the UCLA School of Medicine and the UCLA Paramedic School to create opportunities that expose its personal to higher levels of medical training. This year, UCLA EMTs have served as testing proctors for the national registry skills test at the paramedic school, worked with their local ER on HAZMAT, MCI, Terrorist Attack and other multiagency response drills, interfaced with local fire departments on CE opportunities, developed and implemented field based research projects, and have even served as clinical care instructors for first year medical students. Each of these opportunities has strengthened the working knowledge of the EMTs and offered leadership experience that prepares students to one day not merely be participants in the medical field, but leaders in healthcare. "At UCLA EMS we have found these expansions to be innovative and exciting ways to enrich the experiences of our EMTs and hope others will follow and find the same as well."



Do you have news about your squad you'd like to share? Contact your RC and look for it in the next issue of NCEMSF News.



Alumni Corner

Joshua E. Glick, NCEMSF Alumni Coordinator

With the start of a new semester, most squads begin the process of recruiting new members in order to fill the void left by experienced recent graduates. New leadership can often struggle with obstacles relating to medical oversight, quality assurance/improvement, protocol changes, funding, and membership recruitment and training. In many cases these struggles are not unique, but have been encountered by squad leadership in previous years. Through creation and maintenance of an alumni database, new board members can find and contact specific alumni that may be able to provide guidance pertaining to a specific challenge.

NCEMSF understands that the creation and maintenance of an alumni network

may seem challenging. However, to assist with the process, NCEMSF has created an Alumni Network Development Packet, which has been posted on the NCEMSF website. Please use this packet to help create an initial database as well as find some ideas to keep alumni interested and invested in your organization.

An organization's greatest strength and staunchest supporters will always be its alumni base - make sure to be inclusive and keep in contact!

As always, please feel free to contact NCEMSF with any questions or comments regarding alumni affairs or individual network development.

NCEMSF wants your squad photos for our New Web site...

Send us actions shots, whole corps' photos and EMS Week and Conference pictures to:

webmaster@ncemsf.org

About This Publication

NCEMSF NEWS is an official publication of the National Collegiate Emergency Medical Services Foundation (NCEMSF). This newsletter is published as a service to the Foundation's members and the national EMS community.

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E-mail articles to be considered for publication to in-

Pilot Project to Help Define CBEMS Outcomes

Dr. Joshua A. Marks, NCEMSF Secretary
Joshua E. Glick, NCEMSF Alumni Coordinator

Later this fall, all campus-based EMS organizations will receive an invitation to participate in a pilot project to collect data on campus based EMS response to cardiac arrests. This project has two main goals: 1) assess the feasibility of establishing a campus based EMS call registry and database similar to other national databanks that exist and that may be used to measure quality as well as to research outcomes and 2) determine outcomes of cardiac arrest on our nation's campuses, focussing primarily on return of spontaneous circulation (ROSC) prior to patient transfer to a medical provider of equal or higher level of certification and training, and compare our collegiate data to national standards.

Cardiac arrest was chosen as the pilot project because of the relative ease of measuring defined outcomes in this patient population. Much of the EMS outcomes literature focusses on this patient population. Furthermore, in terms of assessing feasibility, cardiac arrests occur with limited frequency on most campuses and entering data on these patients should be less taxing on our constituent groups as each group will only be asked to enter a couple of patients initially.

The invitation to participate will include a Web link. After logging into the site, there will be a form consisting of 30 checkable data points pertaining to a patient. The form will be completed for each patient. The online form does not ask for any specific patient (HIPAA

compliant) or agency identifiers. Agencies are asked to categorize their campus type and population in an effort to draw comparisons and conclusions on the data, but specific squad names will not be requested.

Specific datapoints for this initial pilot study include:

- Patient Age, Gender
- Presumed Arrest Etiology
- Witnessed (Y/N)
- CPR prior to arrival
- Defibrillation prior to arrival
- Initial rhythm
- Number of shocks delivered
- Any ROSC for >30s
- ROSC at time of transfer
- Date of call and numerous time stamps

Of note, this initial project is being conducted exclusively for internal quality assurance and improvement purposes. IRB approval has not been obtained although may eventually be sought in order to retrospectively analyze and publish findings. Additionally, if this pilot collection of call data is successful, the desire over time is to collect a wider range of national campus EMS call information that can then be utilized by members for further research initiatives.

Thank you in advance for your participation!

JS

Become More Involved!

NCEMSF Leadership Positions Available

The NCEMSF Board of Directors is accepting applications for several Executive Board and Committee Chair positions including:

*Directors-at-Large
EMS Week Coordinator
Regional Coordinator*

Interested candidates should submit a current resume/curriculum vitae along with a brief essay (max 250 words) highlighting prior leadership experience, goals of being involved and specific ideas for the position for which you are applying. Send all application materials to president@ncemsf.org

Deadline to apply: December 1, 2011

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Please visit the Membership section of the NCEMSF Web site, renew your membership for the current academic year and update your contact information. Thank you for your ongoing support of campus based EMS and NCEMSF!

The NCEMSF Database of Collegiate EMS Providers is an excellent resource in the event of natural disaster or other public health emergency. Please keep your information up-to-date so that should the situation arise, we can contact you and collectively as campus based EMS answer the call to act!

NATIONAL COLLEGIATE EMS WEEK - November 7-13

Take advantage of this opportunity to celebrate campus based EMS together with all other collegiate corps nationwide. The annual packet filled with ideas for activities and publicity is available online.

Kick Off Collegiate EMS Week With...

NATIONAL COLLEGIATE CPR DAY

Monday, November 7

Join together on this single day in the pursuit of educating as many college students across North America as possible in the basic principles of CPR and how to save a life!

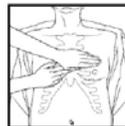
LEARN **2** STEPS SAVE ONE LIFE

CALL



CALL 911

PUSH HARD AND FAST



**POSITION HANDS
IN THE CENTER OF
THE CHEST**



**FIRMLY
PUSH DOWN
TWO INCHES
ON THE CHEST**

CONTINUE UNTIL HELP ARRIVES



Indicate your support of NCEMSF on your organization's homepage!



*For graphic contact:
webmaster@ncemsf.org*

Support Materials and Program Particulars Available Online at www.NCEMSF.org

Modeled after National EMS Week, endorsed by the American College of Emergency Physicians (ACEP), and supported by the American Heart Association (AHA)