National Collegiate EMS Foundation

Volume 18, Issue 3
Conference 2014

NCEMSF NEWS

Inside this issue:

"The network of friends and colleagues that you build today will allow you to strengthen your organization tomorrow"

Message from the President

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

Welcome to the 21st Annual NCEMSF Conference! We are thrilled to return to Boston for our annual conference. NCEMSF has grown considerably since our last visit to Boston in 2006. Then, I proudly announced in our conference newsletter our 40 seminars packed into 13 hours for the low cost of $60. There were 630 registrants representing 77 universities and colleges at that conference 8 years ago. In comparison, this year we will have over 100 lectures to choose from and nearly 1100 registrants from 106 colleges and universities. While we have continued to grow, we have remained committed to delivering high quality education at an affordable cost. At only $75, our conference represents the best value in EMS education.

There are several exciting additions to the program this year. The Saturday morning panel has been redesigned to focus on relevant campus EMS issues. You will hear from several experts on issues that affect all college campuses and how to effective deal with them. In the late morning, during the Vomacka Student Speaker Competition, we added a new lecture titled "This is How We Do It: Examples of Campus EMS Practice". The lecture is a combination of mini lectures that feature your campus EMS colleagues as they discuss how it is done on their campus. On Saturday night, our Maj. John P. Pryor, MD Memorial Lecture will be given by James Meisel, MD. He is not only one of the founders of Brandeis Emergency Medical Corps, but a phenomenal and energetic speaker. His lecture "It takes a Village - And Eight Steps" will be a lecture that you should not miss.

On Sunday, we have devoted several lectures to the events following the Boston Marathon bombing. The lecture series begins with a special panel presentation where you will hear the experience that your peers faced following the death of Sean Collier, a MIT police officer and friend. This lecture is followed by the Boston EMS perspective, presented by Captain Domaldo. Our closing keynote, presented by Alasdair Conn, MD, will discuss the time frame of events from one hospital, Massachusetts General, and focus on how disaster preparedness and response saves lives.

We continue to set the standard for quality EMS care. Fifteen years ago, we created the "Striving for Excellence" program to recognize collegiate organizations that demonstrate quality in the delivery of care, training, continuing of education, and service to the community. This highly successful program continues to recognize the best in campus EMS. Last year, we added "HEARTSafe Campus". This program mirrors HEARTSafe Communities, but is specifically geared toward college and university campuses. It represents a standard that all of us strive to achieve. It is not just about public access to AEDs. It is ensuring that all of the elements of the Chain of Survival are in place to improve the chances of survival and recovery for victims of heart attack, stroke, and other emergencies. I encourage everyone to review the requirements for each and consider applying.

We continue to strive to raise the bar for our conference, but we can only do it with your help. During the conference weekend, please take a few moments to reflect on your experience by filling out an evaluation form, which can be found online at www.ncemsf.org/conf2014. We value your comments, and continue to attempt to incorporate your suggestions at future conferences and develop initiatives throughout the year. We hope that our program exposes you to skills that are relevant to you today, but also skills that will be relevant to you in the future.

I look forward to meeting each of you. I hope that we exceed your conference expectations. I thank our NCEMSF friends for their support and the RCs and Board of Directors for their never-ending dedication and assistance.

The network of friends and colleagues that you build today will allow you to strengthen your organization tomorrow. If there is anything with which I directly can assist you, please do not hesitate to ask during the conference or email me at president@ncemsf.org.

Backboards: More Good than Harm or Harm than Good?

Dr. Michael T. Hilton, NCEMSF Director-At-Large

Pro - More Good than Harm:

- Geisler et al. in 1966 described 2 patients out of 958 who developed neurologic deficits 6-48 hours after an initial injury. Neither patient had spinal immobilization.[1]
- Perry et al in 1976 performed a study showing that head immobilization without full body immobilization is ineffective in reducing cervical spine motion at the neck.[2]
- Hughes in 1998 performed a radiological study showing that cervical collars by themselves are ineffective: "cervical immobilization is a myth."[3]
- DeVivo in 2012 performed a review of the epidemiology of spinal cord injury in the United States. There are about 40 spinal cord injuries per million population per year. This is higher than in the rest of the world and partly due to an aging population. Specifically, cervical spine injury rates are increasing while neurologic deficits are decreasing.[4]

Summary: Although, spinal cord injury is an uncommon event, it has a higher incidence in the U.S. compared to elsewhere and cervical spine injury rates are increasing due to the aging population. To properly immobilize the cervical spine, full body immobilization is required.

Con - More Harm than Good:

- Kosashvili et al in 2009 described how standard backboards are inferior to other rigid immobilization devices (backboard plus blanket padding, foam backboard and cushioned stretcher) for mechanical support.[5]
- Luscombe and Williams in 2003 showed that vacuum mattresses provide better stability and comfort than backboards.[6]
- Kwan and Bunn in 2005 described adverse effects of backboards, including impaired respiratory effort, skin ischemia, pain and discomfort.[7]
- March et al. in 2002 showed that spinal immobilization on backboards lead to false-positive exam for midline vertebral tenderness.[8]
- Totten and Sugarman in 1999 showed that immobilization restricts ventilation by 15% with both backboards and vacuum mattresses. Vacuum mattresses were more comfortable.[9]
- Lerner et al. in 1998 showed significantly more pain in unpadded vs. padded backboards.[10]
- Cordell et al in 1995 showed there is more pain with backboards than with backboards plus air mattresses. Also, tissue pressures (a risk factor for skin ischemia and ulcer formation) were higher in backboards without mattresses compared to backboards plus air mattresses.[11]

Summary: Backboards are inferior to other spinal immobilization devices for supporting the spine. Backboards cause more pain and skin ischemia than other immobilization devices. All spine immobilization devices cause restriction of ventilation that can be detrimental in a patient with chest trauma or with underlying respiratory disease. Backboards lead to false-positive findings of vertebral tenderness, which can lead to unnecessary radiologic imaging via CT scans to assess for a fracture, increasing healthcare costs and increasing unnecessary radiation exposure.

Bottom line: There is no evidence to show that backboards do what they are supposed to do, that is, immobilize the spine. Backboards have definite side-effects. However, full body immobilization is needed to properly immobilize the cervical spine. Cervical spine injury rates are increasing. The lack of evidence that backboards immobilize the spine or prevent delayed neurologic injury simply means that the studies have not been done.[12] It does not mean that studies have shown that backboards are not beneficial. One has to weigh the potential risk of not immobilizing (delayed neurologic injury) against the primary side-effect of backboards, which is pain. Pain is preventable (using alternative immobilization devices) and treatable. Delayed neurologic injury is not treatable and is potentially permanent.

Final Word: Until studies are done to show that backboards do or do not immobilize the spine and do or do not prevent delayed neurologic injury, spinal immobilization in the field should continue to occur. Devices other than a rigid backboard should be used for spinal immobilization.

The above is the first entry in a series focusing on hot topics in EMS relevant to campus based providers. Look for additional columns in subsequent issues of* NCEMSF News *and online as well as at NCEMSF Conferences as part of interactive sessions. Each article will provide literature based arguments for and against and provide a "Bottom Line" summary and a "Final Word" representing the editors' opinion of the balance of the pro and con debate. We invite readers to draw their own conclusions and participate in the debate!

Interested in contributing, writing a review, arguing a side and publishing in the official journal of the National Collegiate EMS Foundation? Contact info@ncemsf.org.

1. Geisler WO, Wynn-Jones M, Jousse AT. Early management of the patient with trauma to the spinal cord. Med Serv J Can. 1966;7:512-23.
2. Perry SD, McLellan B, McIlroy, et al. The efficacy of head immobilization techniques during simulated vehicle motion. Spine. 1999;24:1839-1844.
3. Hughes SJ. How effective is the Newport/Aspen collar? A prospective radiographic evaluation in healthy adult volunteers. J Trauma. 1998;45:374-8.
4. DeVivo MJ. Epidemiology of traumatic spinal cords injury: trends and future implications. Spinal Cord. 2012;50:365-372.
5. Kosashvili Y, Backstein D, Ziv YB, et al. A biomechanical comparison between the thoracolumbosacral surface contact area of a standard backboard with other rigid immobilization surfaces. J Trauma. 2990 Jan;66(1):191-4.
6. Luscombe MD, Williams JL. Comparison of a long spinal board and vacuum mattress for spinal immobilization. Emerg med J. 2003 Sep;20(5):476-8.
7. Kwan I and Bunn F. Effects of prehospital spinal immobilization: a systematic review of randomized trials on healthy subjects. Prehosp Disaster Med. 2005 jan-Feb;20(1): 47-53).
8. March JA, Ausband SC, Brown LH. Changes in physical exam caused by use of spinal immobilization Prehosp Emerg Care. 2002 Oct-Dec;6(4):421-4. .
9. Totten VY, Sugarman DB. Respiratory effects of spinal immobilization. Prehosp Emerg Care. 1999 Oct-Dec;3(4):347-52.
10. Lerner EB, Billittier AJ, Moscati RM. The effects of neutral positioning with and without padding on spinal immobilization of healthy subjects. Prehosp Emerg Care. 1998 Apr-Jun;2(2):112-6.
11. Cordell WH, Hollingsworth JC, olinger ML, et al. Pain and tissue-interface pressures during spine-board immobilization. Ann Emerg Med. 1995 Jul;26(1):31-6.
12. Kwan I, Bunn F, Roberts, IG. Spinal immobilization for trauma patients. Cochrane database of systematic reviews 2001, issue 2. Art. No: CD002803.

Your creativity can save a life! Win $1000 for your design.
Participate NOW through March 6, 2014.

Penn Defibrillator Design Challenge

A nationwide contest that uses public art and design to raise awareness about AEDs. The challenge aims to make AEDs more visible and memorable so more people will use them in an emergency.

Participate by submitting a design to win cash prizes and raise awareness or voting on your favorite designs. Visit:

www.DefibDesignChallenge.com

Heroin - A Cut Above

Les Polk, NREMT-P, NCEMSF Director-At-Large

Heroin, a recreational and prescribed drug of choice for many since the late 1800s has made a major resurgence with new potency and often unknown additives. It is only a matter of time before these blends arrive on college and university campuses if you have not seen them already. For those who believe that this will not impact their practice of pre-hospital medicine because of their population served, demographic catchment area, etc., please reconsider.

Heroin use has been increasingly popular in all age ranges in a variety of socio-economic backgrounds. This is no longer a drug of the urban areas-expect to see it in the wealthiest of communities and amongst some of the most unlikely of users. College and university campuses are the perfect outlet because of students with access to large sums of money with few daily living expenses, minimal supervision, and a rebellious nature looking to experiment and test life's limits. Collegiate EMS providers should be especially vigilant.

Latest concerns with heroin, besides varying potency, are the unknown additives with which it can be blended. One variation is heroin cut with fentanyl or acetyl-fentanyl which has been stamped with the words "Thera Flu," "Bud Light," "Bud Ice," "Diesel," or "Coors Light." This potent analgesic, frequently used by EMS in the clinical management of moderate to severe pain, potentiates the analgesic effects of heroin and can cause additional sedation properties. Additionally, this dangerous additive will dramatically increase the respiratory depression that is a hallmark of over dosage on heroin alone. EMS providers can expect to have prolonged periods of supportive airway management and ventilation until AEMT and paramedic providers can administer naloxone to combat respiratory depression (a BLS skill in some states as naloxone can be administered intranasally). Many EMS systems have increased par levels of naloxone on their units due to the anecdotal evidence that higher dosages of naloxone will be needed to reverse the respiratory depression from both heroin and any additive fentanyl-derivatives. ALS providers should be prepared to re-dose their patients with naloxone (a drip is frequently necessary once at the hospital) throughout the patient encounter as needed as well as repeat any supportive airway management and ventilation measures.

The second concern with tainted batches of heroin are the unknown additives that will require laboratory analysis to identify. Principles of scene safety are critical for EMS providers to follow regardless of law enforcement presence. The use of physical and/or chemical restraint may be necessary for patient and provider safety. ALS providers should carefully consider options within their medication formulary, scope of practice, and standing orders/ protocols and consider consultation with medical control for needed deviations from these normal treatment plans. A perfect example I encountered was a post-college age patient who, after being removed from a convenience store bathroom in a middle-class neighborhood, was found with a syringe and needle still in her arm. An unknown white powder was also found near the heroin she was using. This patient was agitated, combative, screaming, tachycardic and had a GCS of 9 (at best). Despite constricted pupils, her respiratory effort was not compromised. However, our collective safety clearly was. An alternative treatment plan using physical restraints then chemical restraint with intravenous midazolam and fluid challenge were effective in sedating the patient, which reduced her heart rate and blood pressure. As expected with benzodiazepines, the patient's ventilatory status needed to be closely monitored. Titration of oxygen via nasal cannula was effective in achieving a pulse oximetry reading consistently above 95%. After these treatments were complete, intravenous ondansetron for nausea/ vomiting abatement and airway protection followed by naloxone relieved the snoring ventilations and allowed the patient to be awake, protect her own airway, yet remain sedated, calm, and safe. I believe in this case, early naloxone administration would have caused withdrawal symptoms that would have made patient management much more difficult and an adverse patient outcome would have been likely.

In conclusion, EMS providers must be attentive to the safety of themselves, their partner, and their patient. EMS providers must be prepared for prolonged and repeated airway management and assisted ventilation scenarios. ALS providers must carefully titrate naloxone, be prepared to re-bolus it if needed, and be creative in developing treatment plans that ensure positive patient outcomes and safety of all involved.

Hypothermia - Quick Review

Kate Marquis, RN, NCEMSF Northern New England Regional Coordinator

With the cold weather in full gear, cold-related emergencies are on the rise. There are various predisposing factors for hypothermia, such as the very young or old, with alcohol or drug consumption, hypoglycemia, and shock/ major trauma.

Some signs and symptoms of hypothermia are shivering, loss of sensation, drowsiness, irrationality, loss of motor coordination, stupor and unconsciousness.

Passive rewarming, or allowing the body to rewarm itself through measures to preserve body heat, is allowed in all EMS systems. Get the patient out of the cold, if possible. Remove wet clothing, and wrap the patient in warm, dry blankets. Do not let the patient exert themselves-patients are in a delicate state during hypothermia. In severe cases, patients may be unresponsive and may not have a pulse. In this case, start CPR.

Core Temp	Symptoms
99-96 F	Shivering
95-91 F	Intense shivering, difficulty speaking
90-86 F	Muscular rigidity, loss of muscle coordination, thinking is less clear
85-81 F	Irrational, stupor, dysrhythmias, bradycardia/bradypnea
80-78 F	Cardiac arrest, unresponsive

Limmer, D., & O'Keefe, M. F. (2009). Emergency Care (11th ed., pp. 518-522). Upper Saddle River, NJ: Prentice Hall.

Regional Roundup (December 2013-February2014)

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 Regional Coordinators that NCEMSF is best able to accomplish its mission of advocating and supporting campus based EMS. The Regional Coordinators 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.

This past month, we welcomed Kate Marquis as our Northern New England RC. She rose through the ranks at St. Anselm's EMS and held the position of Captain. She is now working as a RN at Dartmouth-Hitchcock Medical Center in NH. Regional Coordinator vacancies still exist in the Southeast and West regions. If interested in applying please find me at conference and email me (Stephen Lanieri - nc@ncemsf.org) your application (available online).

Please join your RC at the regional roundtable discussions on Saturday morning and chat informally with your RC and other squads and leaders from your region throughout the conference.

Canada

Queens University First Aid was the host of the annual ACERT (Association of Campus Emergency Response Teams, the Canadian counterpart to NCEMSF) Mixer where teams from around the province joined for a weekend of educational lectures and skills competition.

University of Waterloo Campus Response Team (UWCRT) hosted its second annual "Tri-U" University event - a regional mini conference between the *UWCRT, University of Guelph First Response Team*, and the *Wilfrid Laurier Student Union Emergency Response Team*. This development day showcased a variety of lecturers from local fire departments and hospitals focusing on MCI and disaster management. The day included 4 station scenarios with the top teams competing in a final MCI scenario.

University of Western Ontario Student Emergency Response Team (UWOSERT) was proud to put their membership through recent training in mental health crisis. The two day workshop provided certification in how to help someone showing signs of a mental health problem or experiencing a mental health crisis. The first aid is given until appropriate professional treatment is received or until the crisis is resolved. The program equips responders to better deal with this increasingly common medical emergency.

University of Windsor Emergency Response Team (UWERT) saw it's highest enrollment semester ever. The number of recent applicants over positions continues to increase, creating a tougher recruitment process. They continue to replace and modernize equipment through new student fee funding acquired two years ago.

Central

Texas A&M Emergency Care Team added 12 EMTs to the roster who are active with the agency on a regular basis, including 4 who have cleared as “In Charges.” Throughout the 8 home football games this season, Care Team recorded 1,935 patient contacts, with another ~1,500 patients visiting stations just to "cool off" from the heat.

University of Arizona recently received a new utility cart to be used for responding to calls and moving equipment.

Massachusetts

One of *Boston University EMS’s* biggest successes this year has been the 100% pass rate on the state practical EMT exam and well above average written exam pass rates! BU is also meeting its goal to become more involved with community projects. Over the past year, BUEMS has sent a few delegations of EMTs to volunteer at a local food bank, and have made arrangements to volunteer with a community healthcare project for the homeless.

Massachusetts Institute of Technology EMS is excited to announce this year's arrival of a brand new ambulance! The ambulance was largely designed by students in order to optimize its functionality. A key focus was maintaining the safety of its service members; the new truck features five-point harnesses, a lack of any protrusions that EMTs can hit while working, and a backup camera. However, the most meaningful feature is the license plate. The number 179 is the badge number of Sean Collier, an MIT police officer who was killed in the line of duty last April. MIT EMS was awarded the 2013 Innovation Award by the Metropolitan Boston EMS Council for the development and implementation of this ambulance design. (attend Mark Forgues’ lecture at the conference about the ambulance’s safety design).

Mass. Maritime Academy EMS is excited to have moved into its new quarters conveniently placed on campus. The new crew room has all the necessary amenities and allows for faster response times, as crews respond together from a central location instead of their individual dorm rooms.

Northeastern University EMS was able to get a new Stryker MX-Pro Stretcher and Stryker Evacuation Chair free of charge through a grant. Additionally, over the past year, NUPD has put NUEMS in charge of the campus-wide AED program. They have inspected current AED's and replaced them, as well as recommended locations for new AED's to be placed. In October of 2013, Boston EMS responded to a cardiac arrest on campus, where an AED placed by NUEMS was deployed. NUEMS continues to teach CPR on a weekly basis and has trained 325 students since January of 2013!

UMass Lowell EMS just finished its second state inspection and passed with flying colors!

Mid Atlantic

The *Georgetown University* leadership is in the final stages of approving an official medical amnesty policy for all students, which is scheduled to be officially implemented in the fall. This past year, *GERMS* updated to a new system for radio communication with DC Fire & EMS, which allows members to directly communicate with the Office of Unified Communications to request Fire, EMS, or Police resources from the District of Columbia. GERMS also undertook a large overhaul of its protocols and SOPs to match best-practices across the country. Additionally, GERMS continued

(Continued on page 5 - RR)

Keep Your Squad's Database Profile Updated

Ian Feldman, NCEMSF Central Regional Coordinator

How often do you use the NCEMSF website? If it's just to register for the annual Conference, you're missing some great opportunities to promote your squad and learn about what other collegiate EMS agencies are doing. NCEMSF offers a comprehensive database of campus EMS organizations. If your squad hasn't updated its information recently, find out how.

To begin, log in with your squad's institutional account. If your squad registered for the conference using tokens, the institutional account was used to purchase those tokens. Each squad is allowed one institutional account. Please do not register a second if you can't access your original one!

Once you've logged in, you'll notice that new links appear at the top of each page. One of these links is called "Institutional Database Profile." Clicking that shows you the two areas that NCEMSF keeps data on your squad: in its membership system, and in the organizational database. We're concerned with the second option, but should you need to update information such as the email address associated with your squad's institutional account use option one. Selecting option two brings you to a listing for your squad. Next to that listing should be an option to edit it.

The edit window allows you to change all the information associated with your squad in the database. These can generally be divided into contact and statistical information. The contact information is what is publicly displayed about your squad. Recent additions to this section include social media links. The remainder of the fields are related to statistics, such as organization type, level of service, and number of calls per year. The more information you can add, the more informative your entry will be.

In addition to helping tell your squad's story, NCEMSF runs queries on the entries. If a startup wants to know how many of NCEMSF's members are student clubs compared to a subset of Student Health Services, the "Parent Department/Organization" field can give the answer. However, NCEMSF relies on its squads to keep their information up-to-date so that this data is as useful as possible. A good way to ensure that your data is kept up to date is to make a "Change of Command" checklist. Whenever your squad has a leadership change, go through the items in the checklist. This should include whatever internal tasks are necessary, but if you also add "Update NCEMSF Website Profile," your squad's database entry will always reflect the most current information. That's also a good way to make sure the new leadership can log in to your group's institutional account.

NCEMSF values your squad's input on the services we offer. If you have additional suggestions on how the organization can better serve your squad (through our website or in other ways), contact us.

(Continued from page 4 - RR)

to expand its social media presence, with a new Instagram, in addition to its existing Twitter and Facebook page. They have also partnered with the University Career Center to provide workshops for their members.

Midwest

Case Western Reserve University EMS, a BLS transport squad, started out the academic year by bringing their first ambulance into service. Since then, they have seen a 50% increase in call volume. In November, they staged a successful mock mass casualty incident featuring a two-vehicle MVC through a busy pedestrian intersection. The drill included responders from Cleveland EMS, Cleveland FD, Cleveland Heights FD, and CWRU PD. Current projects include expanding their on-site standby services developing in-house training protocols, and doing STEM outreach with the greater Cleveland community.

John Carroll University EMS is going strong with a newly chosen executive board. In the coming semesters, they will be returning to the original structure of their department, with EMT-B certified shift officers and EMR certified responders. They plan on speaking to freshmen at floor meetings in their dorms about the health resources on campus as well as alcohol safety.

Northeast

Rowan EMS became a state licensed organization. Over winter break, all the paperwork went through and the rigs were inspected. This is going to be a major benefit for the students because EMTs will now be allowed to apply to carry Epi-Pens. At the end of last semester, Rowan EMS hosted A.J. Heightman's MCI Management Course and followed the course up with a large, multi-agency drill simulating a school bus accident. They are now working out the details for their annual training symposium which is open to all NJ First Responders.

Stockton College EMS was recently awarded a Command Citation for exemplary conduct to the improvement of campus safety from the New Jersey College and University Public Safety Association (NJCUPSA). Stockton EMS is also proud to announce they are now affiliated with Cooper University Hospital, Camden NJ for medical direction. They also have been recognized by the NJ Office of Emergency Medical Services as a volunteer agency eligible for the EMS training fund; this allows them to send non-EMTs to the basic EMT course free of charge.

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*.

HEARTSafe Campus ROSC Data

Joshua E. Glick, NCEMSF Alumni Coordinator

With the creation of HEARTSafe Campus (www.HEARTSafecampus.org), NCEMSF sought to encourage and promote community awareness of the potential for saving the lives of sudden cardiac arrest victims through the use of CPR and increased public access to defibrillation. The intent of this program is to recognize quality campus based EMS organizations , the cornerstone of any HEARTSafe Campus, and their communities and hold them out as examples to other campuses as a means to improve overall cardiac arrest care.

To complement the HeartSafe certification, NCEMSF also developed a national registry to record all cardiac arrest emergencies responded to by collegiate EMS providers. With the data collected from our wide network of collegiate organizations, we hoped to identify a baseline set of characteristics regarding how our collegiate providers are managing cardiac arrest patients and identify any areas for potential improvement. While participation in the registry has yielded only 16 campus-based resuscitations thus far, some important concepts can be addressed based on the early results and analyses from this case series.

The American Heart Association outlined in its most recent guidelines that EMS systems and healthcare providers are at a unique position to identify and strengthen "weak links" in the Chain of Survival. Collegiate EMS agencies are capable of having a significant impact on patient outcomes through offering public CPR training, decreasing response times, and administering early and effective compressions and defibrillation.

When examining our set of 16 cardiac arrest patients, 10 were successfully resuscitated with a return of spontaneous circulation at time of patient hand off. Of these patients, 9 (90%) were witnessed arrests and 7 (70%) received bystander CPR prior to collegiate EMS arrival. Of the 6 patients who were not resuscitated, only 2 (33%) were witnessed and received bystander CPR. While these numbers are too small to draw any statistical significance and reflect a reporting bias, they do demonstrate that witnessed arrests tend to yield better patient outcomes, a fact that is consistent with cardiac arrest literature. More importantly, the high percentage of survivors who had bystander CPR stresses the importance of on-campus public education initiatives. As was mentioned earlier, one of the HeartSafe initiatives (through national collegiate CPR Day in November) is to increase training of hands-only CPR to students and staff on college campuses, with the hope of increasing the likelihood of bystander CPR.

With regard to early defibrillation, 6 of 9 (66%) of the patients with heart rhythms requiring defibrillation (ventricular tachycardia or fibrillation) received a shock prior to EMS arrival, further stressing the importance of bystander training and intervention. The remaining 3 patients received defibrillation within 3 minutes of EMS on-scene arrival. Of significance, all 9 of these patients regained a recognizable heart rhythm prior to EMS hand-off. This further suggests that defibrillation can indeed yield improvements in patient mortality when used early and appropriately in the course of a cardiac arrest.

While the NCEMSF Cardiac Arrest Registry is in its infancy, we are able to observe some important characteristics regarding the role and performance of collegiate EMS in cardiac arrest scenarios. The data collected further stresses the importance of early compressions and defibrillation and the role of public education in improving cardiac arrest outcomes. We will continue to analyze the database annually with the hope of identifying more trends in collegiate cardiac arrest care.

To submit your campus cardiac arrest calls, not only those with ROSC, visit: www.ncemsf.org/resources/research

How were Collegiate EMS Week and CPR Day celebrated on your campus???

We still want to hear - Email stories, photos, videos, and local press coverage:

emsweek @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 info@ncemsf.org

Did You Read the Tagline?

Dr. Scott C. Savett, NCEMSF Vice-President

Have you ever noticed the tagline on the end of most NCEMSF broadcast e-mail messages? If you're reading this article at the conference, you have undoubtedly received multiple messages with this text.

"NCEMSF is a 501(c)(3) non-profit organization committed to scholarship, research, and to creating safer, healthier environments on college and university campuses through the support, promotion, and advocacy of campus-based emergency medical services. In addition to providing for the acquisition of medical knowledge, campus-based EMS allows student participants to develop life skills including leadership, communication, and decision-making. NCEMSF creates an environment where ideas can be exchanged and problems solved."

I believe the last sentence of that statement is the most important. For the last 21 years, NCEMSF has been the "go-to" resource for sharing ideas and solving problems.

What started out as an e-mail discussion list quickly grew to annual meetings. And what was initially a small gathering of less than 150 people on Georgetown University's campus has grown to be a sizable conference of over 1,000 participants.

Take a look around the audience at one of the lectures you attend during the conference. If the person sitting next to you is wearing an MIT EMS uniform, they may be part of the team that designed a custom ambulance last year – ask them about it. Or ask a University of San Francisco attendee about their brand-new organization that just starting running in the fall semester of 2013. Or maybe you'll find yourself sitting next to a Boston College "Eagle EMS" EMT who helped care for 400 runners in the wake of the Boston Marathon bombing – they certainly have something to say about responding to MCIs.

The amount of knowledge, experience, dedication, and inspiration contained within the walls of an NCEMSF conference is immense. The sheer number of formal lecture, roundtable, and skills lab sessions is daunting. But not all educational information will be found in a scheduled session. You may strike up an equally valuable conversation with an attendee from another squad during a break between sessions or while walking to lunch.

The conference is planned to facilitate exchange of information throughout the weekend. Ultimately, it's up to each attendee to discover something new, discuss an experience with a fellow attendee, or learn a skill. I sincerely hope you make the most of your conference experience by soaking up all of the knowledge, both formal and informal, throughout the weekend.

Additionally, please let the NCEMSF officers know how we can be of service to you during the conference or throughout the year. We are here to serve you.

Campus EMS Lessons Learned

Zachary Matuzsan, NCEMSF Mid-Atlantic Regional Coordinator

A recent call reminded me of one of the most important campus EMS lessons I learned. The dispatch was short and uninformative: seizure at a local motel. Combining the lack of descriptors with the ungodly 3AM hour made me suspect that this was going to be drug-related, after all we had received several of these calls recently. As we walked into the lobby, the concierge pointed to a young couple holding an infant. I hesitated because this scene did not fit my expectations. The infant had a febrile seizure. The call was straightforward and we transported while reassuring the panicked parents.

With every call, there is always something to be gained. In this case, I was reminded that one can never assume. In college when the tones went off after midnight on a weekend, it was almost guaranteed that alcohol was the culprit. It became easy to fall into the trap of assuming that every scene would be the same and to become locked into a single mindset even before initiating patient contact.

Everyone has had experiences where there is a discrepancy between the dispatch and actual chief complaint. Approaching scenes with a narrow mindset gained simply from the dispatch can be dangerous and lead to mistakes. It is important to remind ourselves to ask the right questions and carefully listen to our patients' responses. We may find that our overly intoxicated patient has become inebriated as an unhealthy coping mechanism to deal with the stresses of college or because of an underlying mental health issue. If we can disregard our preconceived notions and the assumptions we make, these becomes

(Continued on page 8 - LESSONS)

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National Collegiate EMS Foundation
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Please visit the Membership section of the NCEMSF Web site to keep your contact information up-to-date. By virtue of your attendance at the 21st Annual Conference, you are now a NCEMSF Personal Member through the completion of the 2013-2014 academic year (May 31st). Thank you for your ongoing support of campus based EMS and NCEMSF!

In addition to making a continued commitment to the advancement of existing collegiate emergency medical services and the development of new response groups, your membership provides financial support to promote Collegiate EMS Week and our annual conference, produce publications, honor outstanding collegiate EMS organizations, and advocate for collegiate EMS.

Your membership in NCEMSF also entitles you to a number of member discounts including medical software and reference, EMS equipment and supplies, apparel and *EMS World Magazine*. These offers and discounts are detailed in their entirety on our Web site and are available only to NCEMSF members.

Your NCEMSF membership adds to the collective strength of hundreds of members throughout the nation - those participating in and advocating for collegiate EMS. Renewing your NCEMSF membership in June for the 2014-2015 academic year shows your continuing commitment to collegiate EMS. Don't let your enthusiasm for collegiate EMS diminish just because your college graduation is imminent. NCEMSF also offers life memberships that keep you in touch with the world of collegiate EMS. More information about our membership categories and rates can be found online at www.ncemsf.org/membership.

(Continued from page 7 - LESSONS)
opportunities to accomplish our true goal of providing the best medical care possible to our fellow students.

Reaching conclusions before entering a scene can also make us less aware of subtle clues during the call. This makes it all the more critical to look beyond the dispatch information and not be deceived by an initial impression. It can lead us to forget the fundamentals of being a first responder, including blunting our alertness to red flags that indicate an unsafe environment. Constant training can help to heighten our awareness of the assumptions we make every day on call and can prepare us to handle unforeseen situations on scene. College EMS is uniquely challenging in countless ways, and remembering to approach each patient with an open mind benefits us all and leads to improved patient care.

Campus EMS Startups Resources

Every year, NCEMSF receives multiple inquiries from enthusiastic EMTs on campuses across the country desiring to establish squads of their own. Among the many resources we provide to help new groups succeed, we advise strongly that organizers make it to the annual NCEMSF conference. One of the most challenging aspects of starting a collegiate EMS organization is developing a network of experienced providers at peer institutions who can give advice, answer questions, and serve as a sounding board for ideas.

This year is no exception, several new groups and those still trying to form are in attendance to learn from the whole of campus based EMS. Please reach out, welcome them and share your collective knowledge!

Campus EMS Alumni Resources

Alumni not only provide a rich source of advice on organizational management, but can also serve as a valuable career development tool for seniors and undergraduate members who are looking for academic and professional opportunities. An alumni network serves as an important resource for a collegiate squad. In order to facilitate the creation of these networks, NCEMSF maintains a helpful packet of information on the website that provides step-by-step instructions on how to set up a well-maintained alumni network as well as a list of activities and methods to keep in touch with alumni. The NCEMSF website also features a secure database of alumni who have volunteered to be mentors and be contacted by graduating students with questions regarding the next stages of their education, career, and life. If you are interested in serving as an Alumni Mentor, please contact alumni@ncemsf.org for more information.