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NAR WIT

Make plans to attend the NAEMT Annual Meeting and EMS EXPO in Orlando.
Visit www.emsexpo2007.com to register.

Fall 2007

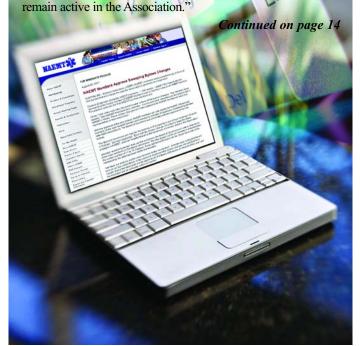
NAEMT Members Vote to Change Bylaws

n August, NAEMT members voted overwhelmingly in favor of new bylaws that will change the way the Association is governed and organized.

Close to 20 percent of eligible NAEMT members – 1,006 people – voted in the election, representing the largest number of NAEMT members ever to cast their votes in an NAEMT election. This election, which took place online from August 5 to August 18, also was the first NAEMT has held electronically.

Of the 1,006 votes cast, 942 (94 percent) were in favor of the bylaws changes. With the approval of the new bylaws, NAEMT members will vote directly for NAEMT officers and directors. In the past, NAEMT leaders were elected by the Board of Governors, representing affiliated state EMS associations. The Board of Governors was eliminated with the approval of the new bylaws.

"The Board of Governors will meet for the last time in that capacity at our annual meeting in Orlando," Johnston explained. "Even with the bylaws change, it's critical to keep the states engaged in NAEMT, and I hope that all of the Governors will



VIEW FROM THE TRENCHES



By Jerry Johnston
The votes are in, and the members have spoken.
More than 1,000 of you participated in our recent online vote, and the proposed bylaws changes passed by an overwhelming majority.
Now, it's time to roll up our sleeves and get to work.

In the coming months, I will be pulling together an ad hoc committee that will create a transition plan and will craft NAEMT's operational policy that implements the bylaws changes. Part of that plan includes the formulation of a voting process that will allow NAEMT members to vote in a special election next year to select four more representatives to the Board of Directors, bringing our total to 15.

The Board of Governors will meet one final time in

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View from the Trenches

Continued from cover

Orlando to fulfill part of the bylaws changes you voted on last year. The governors will elect three members of the Board of Directors. This will be the last time that the governors choose the association's board members.

Because we value our relationship with the states, we want to keep the state associations engaged with a constituency group similar to the governors that will meet annually. This will allow those state associations that wish to remain engaged the opportunity to do so, while pulling in states (and NAEMT members) that previously may not have had the opportunity. This process will be much less formal,



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Connie Meyer, Vice President
Robert A. Loftus, Secretary
Edward Sawicki, Treasurer
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but it will allow us to maintain our information flow.

Another important part of the transition plan will be for us to examine carefully the work of NAEMT's committees and divisions. Our goal is to have committee work that is productive, meaningful and accountable back to you, the membership. I plan on meeting personally with all the divisions and committees at our Annual

There may be some bumps in the road as we move forward, but I believe that if we all keep our eye on the target, NAEMT will emerge a much stronger, more vibrant and more credible organization.

Meeting. We currently have 15 divisions and committees under the NAEMT umbrella; when the transition plan is completed, we may have the same number, or we may have fewer committees and divisions to represent the special interest groups NAEMT members wish to be part of. After we determine which committees and divisions are active, vital parts of the NAEMT organization, we will select theleaders that have proven their abilities and willingness not only to work with our organization but with our partners and members as well. Our revitalized committees then will be ready to move forward.

Because these changes are so large in scope, they cannot be implemented overnight. There may be some bumps in the road as we move forward, but I believe that if we all keep our eye on the target, NAEMT will emerge a much stronger, more vibrant and more credible organization. I anticipate the changes will take three to six months to implement, and I ask you to be patient during the transition. We will continue to keep you informed as the changes take place via this newsletter, online e-mail updates and postings on the NAEMT Web site.

This is the most sweeping bylaws change in the organization's history, and I'm proud to have been president when it took place. It was also the association's first electronic vote and the first time members have been able to vote directly to influence NAEMT's future. Thanks to all of you who participated in the process. I want NAEMT to be representative of your concerns and to champion your causes, whether they be worker safety, recruitment and retention or salary concerns. It's important for you, the members, to have a say in the future of your association, and these bylaws changes now make that possible.

Submission Guidelines for NAEMT News

Articles for *NAEMT News* range in length from 150 words for short news items to 600 words for member profiles. Submit your materials for consideration to jarach1963@aol.com in the text of an e-mail. Photos are welcome, too. Please submit photos in .jpg format that are 300 dpi for the best reproduction quality in the printed newsletter.

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NAEMT Offers EMS Educational Scholarships

o allow for the advancement of EMS personnel, NAEMT is proud to offer a scholarship program that will allow interested NAEMT members to advance their EMS education.

Scholarships are available for the following categories:

First Responders (to become EMT-Basic): Four scholarships, each in the amount of \$500.

EMT-Basic (to become EMT-Paramedic): Three scholarships, each in the amount of \$5.000.

Paramedics (to advance their education in the realm of EMS): Four scholarships, each in the amount of \$2,000.

Application Guidelines

Applicants must be active, dues-paying NAEMT members

Applicants must submit a complete, accurate and legible application by the stated dead-line.

The scholarship application for starting classes in Spring 2008 is October 1, 2007. Scholarship applicants will be notified of a decision by the NAEMT Scholarship Review Board by November 1, 2007.

The scholarship application for starting classes in Fall 2008 is June 1, 2008. Scholarship applicants will be notified of a decision by the NAEMT Scholarship Review Board by July 1, 2008.

Applicants must write a letter of request that describes why he or she is pursuing EMS education, educational and employment goals, and how the scholarship would be of benefit. Scholarships are awarded for the next school year only (Fall semester through Summer semester).

Scholarship payments are made directly to the educational institution for expenses incurred; therefore, the institution must submit an invoice to the scholarship program for payment.

Recipients must begin the EMS educational program and begin accessing the scholarship in the award year. Recipients who continue their EMS program without interruption into the next school year will continue to receive funds to the limit of the scholarship.

Recipients who withdraw or discontinue the EMS course mid-term must immediately refund scholarship funds. This includes discontinuation within the student's control, e.g., dropping the course, academic dismissal for absences, etc. The scholarship will cease with no penalty to be paid by the recipient who is unable to continue in the course for reasons beyond their control. Proof of reasons for program termination will be required.

Scholarship recipients must maintain passing grades and remain in good standing throughout the course of study. Recipients may be asked to submit grades each term prior to the next scholarship payment.

Recipients must seek certification by testing upon completion of their Emergency Medical Technician or EMT-Paramedic program.

Recipients must provide follow-up information and respond to NAEMT requests pertaining to their EMS education and career. Recipients must sign a contract agreeing to these scholarship requirements.

Visit www.naemt.org/join
NAEMT/scholarshipinfo.htm
for more information on the scholarship program.

NAEMT by the Numbers

Membership Increases

August 2006: 21,854 Comp 15,949 P.

Paid: 5,905

August 2007: 37,367

Complimentary: 31,350

Paid: 6,017

NAEMT has members from across the United States and 63 foreign countries.

Educational Courses Status Report, 2007

Program	Courses conducted	Providers trained	Instructors trained
PHTLS	2,111	19,596	10,605
AMLS	554	7,276	736
EPC Property Polisies Cert	421	129	N/A

Financial Snapshot for CY 2006

NAEMT Revenues \$1.2 million NAEMT Expenses \$986,674

NAEMT Net Assets \$1.4 million (up \$232,000 from CY 2005)

Membership dues accounted for more than \$210,000 in revenues at the end of CY 2006.

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Annual Meeting Agenda Set for Orlando

he 2007 NAEMT
Annual Meeting will
take place October 9
to 13 in Orlando, Florida. It
is co-located with EMS
EXPO and offers many educational and professional
networking opportunities for
attendees.

NAEMT members may attend the division and committee meetings, the NAEMT board of governors meeting, the general business meeting and the election of officers free of charge.

Come Early and Learn

NAEMT members who arrive before the Annual Meeting can attend NAEMT preconference courses, including the Advanced Medical Life Support (AMLS) Provider and Instructor Courses, the new Emergency Pediatric Care (EPC) Provider and Instructor Courses and the PreHospital Trauma Life Support (PHTLS) Combined Instructor and Transition Course.

AMLS Provider Course, Tuesday, October 9, and Wednesday, October 10, 8 am to 5 pm

AMLS Instructor Course, Wednesday, October 10, 6 to 10 pm

Advanced Medical Life Support (AMLS) offers a practical approach to adult medical emergencies. The course format facilitates participants' ability to assess and manage a medical patient from an initial field impression through determining a differential diagnosis. The course is designed to allow for a minimal amount of lecture and ample actual hands-



on physical assessment of the medical patient.

The AMLS course is designed for the provider who is currently taking or has completed paramedic or other advanced-level training. Topics addressed include advanced assessment, airway management, oxygenation and ventilation, as well as venous access and medication administration. Topics addressed in a complaintbased, integrated approach to patient care include shock, dyspnea, chest pain, altered neurological status, acute abdominal pain, gastrointestinal bleeding, seizure and syn-

Students completing the course will receive 16 hours of continuing education in the area of patient assessment and medical emergency. The course is recognized for CECBEMS accreditation and National Registry recertification. Provider students must attend the entire course and pass the final skills evaluation and written exam to be eligible for a course completion certificate. Qualified participants may attend the Instructor Course, which follows the Provider Course on Wednesday evening, October

10. Instructor candidates must be experienced in teaching at the advanced provider level.

Required materials: A textbook is included in the cost of registration and will be mailed to each registrant for precourse preparation, which is necessary for successful completion. AMLS Instructor Books will be available for purchase at the beginning of the class for those who qualify to become an Instructor.

AMLS Instructor course candidates must be an advanced level provider and instructor, successfully complete the AMLS provider course and pass the written exam with an 84 percent score.

Enrollment is limited. Please register early to ensure participation. Pre-registration required. NAEMT reserves the right to cancel this course if minimum registration is not met.

EPC Provider Course, Tuesday, October 9, and Wednesday, October 10, 8 am to 5 pm

EPC Instructor Course, Wednesday, October 10, 6 to 10 pm

Pediatric emergency care has traditionally been the

most challenging facet of prehospital medicine. This difficulty has often been attributed to insufficient content and depth of material by initial education programs for emergency medical services. In various surveys, students have expressed the need for additional training to better understand the anatomical, physiological, and communication challenges surrounding the care and treatment of children.

The EPC curriculum focuses on the care of sick and injured children and gives students a practical understanding of respiratory, cardiovascular, medical and traumatic emergencies in the pediatric patient population. Assessment is based upon the Pediatric Assessment Triangle, and lessons are consistent with current pediatric knowledge and skills. The program incorporates Family Centered Care throughout all scenarios, and includes a component on caring for children with special needs.

The target audience for the EPC Provider and Instructor courses is potential instructors. This two-part course is an accelerated program for the experienced EMS educator with prior pediatric CME experience or interest. This program allows participants to become recognized both as EPC providers and as EPC instructors. Qualified participants may participate in the Instructor course, which will take place on Wednesday evening following the provider course.

EPC Instructor course candidates must provide proof of recognition as an instructor in any EMS certification

Continued on page 6

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licensure or CME course, successfully complete the EPC provider course and pass the written exam with an 84 percent score.

Enrollment is limited. Please register early to ensure participation. Pre-registration required. NAEMT reserves the right to cancel this course if minimum registration is not

PHTLS Combined Instructor and Transition Course

Wednesday, October 10, 8 am to 5 pm

This unique PHTLS Instructor and Transition course is designed to orient PHTLS Instructor candidates and ITLS Instructors to PHTLS philosophy, administration and course content. After completion of the course, candidates will need to be monitored by PHTLS Affiliate Faculty to finalize their instructor training.

PHTLS providers and/or ITLS instructors are eligible for participation in this PHTLS Instructor Course, which will be conducted by National and State faculty.

Required materials: Proof of current PHTLS provider and/or ITLS Instructor status is required. Sixth edition PHTLS instruc-

tor manual is provided with registration.

Enrollment is limited. Please register early to ensure participation. Pre-registration required. NAEMT reserves the right to cancel this course if minimum registration is not

Researcher to Present Results

Melissa Alexander-Shook, EdD, will present her research at the NAEMT Annual Meeting in October. She will speak on "The Relationship between Level of Education and Occupational and Organizational Commitment among Paramedics" at the NAEMT booth at EMS

EXPO. Shook is the 2005 NAEMT/PCRF grant winner. For more information on how you can obtain an NAEMT/ PCRF grant to fund EMS research, see the related story on page 8 of this issue.

Scott B. Frame **Memorial Lecture**

One of the highlights of the NAEMT Annual Meeting is the Scott B. Frame Memorial Lecture, which takes place October 11 at 3 pm. This year's lecture, "The History of PHTLS in Latin America," will be presented by Osvaldo Rois, MD.

In this presentation, Rois will talk about the history of PHTLS in Argentina and Latin America and its impact on prehospital care and emergency medicine. He brought PHTLS into Argentina in 1995. Since then, thousands of providers have been trained all over Latin America.

Relax and Network

After the work is done, enjoy yourself at the National Registry of EMTs complimentary Wine and Cheese Reception for NAEMT members on Friday, October 12, from 5:30 to 7:30 pm at the Rosen Centre Hotel. The reception provides a wonderful opportunity for you to catch up with your EMS colleagues.

Take part in the EMS Caucus meeting on Saturday, October 13, at 8 am to ensure EMS has a voice in Wash-

On Saturday evening, be sure to attend the spectacular gala event honoring NAEMT's annual award winners. A catered dinner sponsored by Masimo will be followed by the presentation of numerous annual awards.

Tickets are \$40 and must be purchased in advance. Call EMS EXPO at (800) 827-8009 for more information.

NAEMT **Annual Meeting** Schedule

Tuesday, October 9

8 am - 5 pm	AMLS Provider Course (Day 1)
8 am - 5 pm	EPC Provider Course (Day 1)
10 am - 3 pm	Board of Directors Meeting
3 - 4 pm	NAEMT Foundation Meeting
6 - 7 pm	EPC Annual Meeting

Wednesday, October 10

AMLS Provider Course (Day 2)
EPC Provider Course (Day 2)
PHTLS Combined Instructor and
Transition Course
Board of Governors Meeting
AMLS Instructor Course
EPC Instructor Course

Thursday, October 11

8 am - 1 pm	PHTLS Division Meeting
8 - 10 am	NAEMT General Membership
	Meeting
1:30 - 2:30 pm	AMLS Annual Meeting
3 - 4:15 pm	Scott B. Frame Memorial Lecture
4 - 5 pm	Paramedic Division Meeting

Friday, October 12

8 - 9 am	Special Operations Division
	Meeting
9 - 10 am	Accreditation Committee Meeting
10 - 11 am	Education Committee Meeting
11 am - Noon	International Division Meeting
12 - 1 pm	Industrial Division Meeting
2 - 3 pm	National EMS Chiefs, Officers
	and Administrators Division
	Meeting
4 - 5 pm	Instructor/Coordinator Division
	Meeting
5:30 - 7:30 pm	National Registry Reception

Saturday, October 13

8 - 9 am	EMS Caucus Meeting
10:45 am - 12:45 pm	Health and Safety Task Force
	Meeting
11 am - Noon	Military Division Meeting
1 - 3 pm	Board of Governors reconvenes
	for election
6 - 7 pm	Reception
7 pm	NAEMT Annual Awards Dinner

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Applications for Research Grants Due December 31

AEMT and PHTLS, in conjunction with the Prehospital Care Research Forum (PCRF), are soliciting applications for two \$5,000 research grants for the study of EMS workforce issues and prehospital trauma care.

The next grant application deadline is December 31, 2007. Applications may be found on the NAEMT Web site (www.NAEMT.org/aboutNAEMT/grantsandprojects.htm).

"NAEMT is pleased to join forces with PCRF again to sponsor these two grants this year," said NAEMT President Jerry Johnston.
"Part of NAEMT's mission is to support EMS research, and to encourage EMTs and paramedics to participate in research so that we can improve our profession."

Baxter Larmon, PhD, MICP, founding director of PCRF, agreed that research can help advance EMS as a profession.

"Our industry is becoming more scrutinized all the time. That's a good thing, because it keeps us moving forward as a profession," he said. "The bad thing is that there is not a lot of research."

How to Get Started

Larmon and others familiar with EMS research have speculated that EMTs and paramedics may not feel confident doing EMS research because they perceive it to be too difficult, or they think that they don't have the necessary skills to conduct research properly.

An Introduction to EMS Research

Lawrence H. Brown Elizabeth A. Criss N. Heramba Prasad

An Introduction to EMS Research by, Lawrence Brown, Elizabeth Criss, N. Heramba Prasad and Baxter Larmon, available on Amazon for \$34.49.

EMS research need not be intimidating, Larmon countered, and one need not have an advanced degree to do it. On the other hand, he said that NAEMT members have several resources at their disposal to assist them in getting started in EMS research.

First, he recommended the book *An Introduction to EMS Research* written with fellow EMS researchers Lawrence Brown, Elizabeth



Baxter Larmon, PhD, MICP

Criss and N. Heramba Prasad. The book is available on Amazon for \$34.49 and includes a chapter on data analysis as well as a step-bystep guide to EMS-specific research.

Another place to find help is a journal club, which may be found at your local hospital emergency department (emergency residents often participate in journal clubs) or academic facility. Journal club participants review and discuss research in their field. Community college classes that can help researchers include basic statistics and writing classes, although Larmon stressed that neither is a prerequisite to doing EMS research.

Grant Application Tips

For NAEMT members considering applying for a research grant to study EMS workforce or trauma issues, Larmon said the first step is to frame a question on the topic in which you are interested. He suggested that potential researchers choose a topic about which they are passionate because, he said, research is "like a long-term love affair. The money becomes secondary to it."

Keep the focus of your question narrow, and then consider if and how the question can be answered. Someone interested in roadside safety might ask, "How many EMTs and paramedics are killed or injured each year in roadside accidents?" While this is an important and narrowly focused question, Larmon said, "The answer may be almost impossible to get. There are some great questions that are completely

Continued on page 12



Indications and Usage: DuoDote Auto-Injectors are indicated for the treatment of poisoning by organophosphorus nerve agents as well as organophosphorus insecticides. DuoDote Auto-Injectors should be administered by emergency medical services personnel who have had adequate training in the recognition and treatment of nerve agent or insecticide intoxication.

Important Safety Information: Individuals should not rely solely upon atropine and pralidoxime to provide complete protection from chemical nerve agents and insecticide poisoning. Primary protection against exposure to chemical nerve agents and insecticide poisoning is the wearing of protective garments including masks designed specifically for this use. Evacuation and decontamination procedures should be undertaken as soon as possible. Medical personnel assisting evacuated victims of nerve agent poisoning should avoid contaminating themselves by exposure to the victim's clothing.

In the presence of life-threatening poisoning by organophosphorus nerve agents or insecticides, there are no absolute contraindications to the use of the DuoDote Auto-Injector. When symptoms of poisoning are not severe, DuoDote Auto-Injectors should be used with extreme caution in people with heart disease, arrhythmias, recent myocardial infarction, severe narrow angle glaucoma, pyloric stenosis, prostatic hypertrophy, significant renal insufficiency, chronic pulmonary disease, or hypersensitivity to any component of the product. **PLEASE SEE BRIEF SUMMARY OF FULL PRESCRIBING INFORMATION ON ADJACENT PAGE.**

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References: 1. DuoDoteTM (atropine and pralidoxime chloride injection) Auto-Injector [package insert]. Columbia, MD: Meridian Medical TechnologiesTM, Inc.; 2007. 2. Agency for Toxic Substances and Disease Registry, Medical Management Guidelines (MMGs) for nerve agents: tabun (GA); sarin (GB); soman (GD); and VX. Available at: http://www.atsdr.cdc.gov/hMM/mrmg166.html. Accessed February 21, 2007. 3. Holstege CP, Dobmeier SG. Nerve agent toxicity and treatment. Curr Treat Options Neurol. 2005;7:91-98.
4. Data on file. Columbia, MD: Meridian Medical TechnologiesTM. Inc.



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INDICATIONS AND USAGE

DuoDote™ Auto-Injector is indicated for the treatment of poisoning by organophosphorus nerve agents as well as organophosphorus insecticides

DuoDote™ Auto-Injector should be administered by emergency medical services personnel who have had adequate training in the recognition and treatment of nerve agent or insecticide intoxication.

DuoDote™ Auto-Injector is intended as an initial treatment of the symptoms of organophosphorus insecticide or nerve agent poisonings; definitive medical care should be sought immediately.

DuoDote™ Auto-Injector should be administered as soon as symptoms of organophosphorus poisoning appear (eg, usually tearing, excessive oral secretions, sneezing, muscle fasciculations).

CONTRAINDICATIONS

In the presence of life-threatening poisoning by organophosphorus nerve agents or insecticides, there are no absolute contraindications to the use of DuoDote™ Auto-Injector.

WARNINGS

CAUTION! INDIVIDUALS SHOULD NOT RELY SOLELY UPON ATROPINE AND PRALIDOXIME TO PROVIDE COMPLETE PROTECTION FROM CHEMICAL NERVE AGENTS AND INSECTICIDE POISONING.

PRIMARY PROTECTION AGAINST EXPOSURE TO CHEMICAL NERVE AGENTS AND INSECTICIDE POISONING IS THE WEARING OF PROTECTIVE GARMENTS INCLUDING MASKS DESIGNED SPECIFICALLY FOR THIS USE.

EVACUATION AND DECONTAMINATION PROCEDURES SHOULD BE UNDERTAKEN AS SOON AS POSSIBLE. MEDICAL PERSONNEL ASSISTING EVACUATED VICTIMS OF NERVE AGENT POISONING SHOULD AVOID CONTAMINATING THEMSELVES BY EXPOSURE TO THE VICTIM'S CLOTHING.

When symptoms of poisoning are not severe, DuoDote™ Auto-Injector should be used with extreme caution in people with heart disease, arrhythmias, recent myocardial infarction, severe narrow angle glaucoma, pyloric stenosis, prostatic hypertrophy, significant renal insufficiency, chronic pulmonary disease, or hypersensitivity to any component of the product. Organophosphorus nerve agent poisoning often causes bradycardia but can be associated with a heart rate in the low, high, or normal range. Atropine increases heart rate and alleviates the bradycardia. In patients with a recent myocardial infarction and/or severe coronary artery disease, there is a possibility that atropine-induced tachycardia may cause ischemia, extend or initiate myocardial infarcts, and stimulate ventricular ectopy and fibrillation. In patients without cardiac disease, atropine administration is associated with the rare occurrence of ventricular ectopy or ventricular tachycardia. Conventional systemic doses may precipitate acute glaucoma in susceptible individuals, convert partial pyloric stenosis into complete pyloric obstruction, precipitate urinary retention in individuals with prostatic hypertrophy, or cause inspiration of bronchial secretions and formation of dangerous viscid plugs in individuals with chronic lung disease.

More than 1 dose of DuoDote™ Auto-Injector, to a maximum of 3 doses, may be necessary initially when symptoms are severe. No more than 3 doses should be administered unless definitive medical care (eg, hospitalization, respiratory support) is available.

Severe difficulty in breathing after organophosphorus poisoning requires artificial respiration in addition to the use of DuoDote $^{\rm TM}$ Auto-Injector.

A potential hazardous effect of atropine is inhibition of sweating, which in a warm environment or with exercise, can lead to hyperthermia and heat injury.

The elderly and children may be more susceptible to the effects of atropine.

PRECAUTIONS

General: The desperate condition of the organophosphorus-poisoned individual will generally mask such minor signs and symptoms of atropine and pralidoxime treatment as have been noted in normal subjects.

Because pralidoxime is excreted in the urine, a decrease in renal function will result in increased blood levels of the drug.

DuoDote™ Auto-Injector temporarily increases blood pressure, a known effect of pralidoxime. In a study of 24 healthy young adults administered a signal dose of atropine and pralidoxime auto-injector intramuscularly (approximately 9 mg/kg pralidoxime chloride), diastolic blood pressure increased from baseline by 11 ± 14 mmHg (mean ± SD), and systolic

blood pressure increased by 16 ± 19 mmHg, at 15 minutes post-dose. Blood pressures remained elevated at these approximate levels through 1 hour post-dose, began to decrease at 2 hours post-dose and were near pre-dose baseline at 4 hours post-dose. Intravenous pralidoxime doses of 30-45 mg/kg can produce moderate to marked increases in diastolic and systolic blood pressure.

Laboratory Tests: If organophosphorus poisoning is known or suspected, treatment should be instituted without waiting for confirmation of the diagnosis by laboratory tests. Red blood cell and plasma cholinesterase, and urinary paranitrophenol measurements (in the case of parathion exposure) may be helpful in confirming the diagnosis and following the course of the illness. However, miosis, rhinorntea, and/or airway symptoms due to nerve agent vapor exposure may occur with normal cholinesterase levels. Also, normal red blood cell and plasma cholinesterase values vary widely by ethnic group, age, and whether the person is pregnant. A reduction in red blood cell cholinesterase concentration to below 50% of normal is strongly suggestive of organophosphorus ester poisoning.

Drug Interactions: When atropine and pralidoxime are used together, pralidoxime may potentiate the effect of atropine. When used in combination, signs of atropinization (flushing, mydriasis, tachycardia, dryness of the mouth and nose) may occur earlier than might be expected when atropine is used alone.

The following precautions should be kept in mind in the treatment of anticholinesterase poisoning, although they do not bear directly on the use of atropine and pralidoxime.

- Barbiturates are potentiated by the anticholinesterases; therefore, barbiturates should be used cautiously in the treatment of convulsions.
- Morphine, theophylline, aminophylline, succinylcholine, reserpine, and phenothiazine-type tranquilizers should be avoided in treating personnel with organophosphorus poisoning.
- Succinylcholine and mivacurium are metabolized by cholinesterases.
 Since pralidoxime reactivates cholinesterases, use of pralidoxime in organophosphorus poisoning may accelerate reversal of the neuro-muscular blocking effects of succinylcholine and mivacurium.

Drug-drug interaction potential involving cytochrome P450 isozymes has not been studied.

Carcinogenesis, Mutagenesis, Impairment of Fertility: DuoDote™ Auto-Injector is indicated for short-term emergency use only, and no adequate studies regarding the potential of atropine or pralidoxime chloride for carcinogenesis or mutagenesis have been conducted.

Impairment of Fertility: In studies in which male rats were orally administered atropine (62.5 to 125 mg/kg) for one week prior to mating and throughout a 5-day mating period with untreated temales, a dose-related decrease in fertility was observed. A no-effect dose for male reproductive toxicity was not established. The low-effect dose was 290 times (on a mg/m² basis) the dose of atropine in a single application of DuoDote™ Auto-Injector (2.1 mg).

Fertility studies of atropine in females or of pralidoxime in males or females have not been conducted.

Pregnancy

Pregnancy Category C: Adequate animal reproduction studies have not been conducted with atropine, pralidoxime, or the combination. It is not known whether pralidoxime or atropine can cause fetal harm when administered to a pregnant woman or if they can affect reproductive capacity. Atropine readily crosses the placental barrier and enters the fetal circulation.

DuoDote™ Auto-Injector should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

Nursing Mothers: Atropine has been reported to be excreted in human milk. It is not known whether pralidoxime is excreted in human milk because many drugs are excreted in human milk, caution should be exercised when DuoDote™ Auto-Injector is administered to a nursing woman.

Pediatric Use: Safety and effectiveness of DuoDote™ Auto-Injector in pediatric patients have not been established.

ADVERSE REACTIONS

Muscle tightness and sometimes pain may occur at the injection site.

Atropine

The most common side effects of atropine can be attributed to its antimuscarinic action. These include dryness of the mouth, blurred vision, dry eyes, photophobia, confusion, headache, dizziness, tachycardia, palpitations, flushing, urinary hesitancy or retention, constipation, abdominal pain, abdominal distention, nausea and vomiting, loss of libido, and impotence. Anhidrosis may produce heat intolerance and impairment of temperature regulation in a hot environment. Dysphagia, paralytic ileus, and acute angle closure glaucoma, maculopapular rash, petechial rash, and scartetiniform rash have also been reported.

Larger or toxic doses may produce such central effects as restlessness, tremor, fatigue, locomotor difficulties, delirium followed by hallucinations, depression, and, ultimately medullary paralysis and death. Large doses can also lead to circulatory collapse. In such cases, blood pressure declines and death due to respiratory failure may ensue following paralysis and coma.

Cardiovascular adverse events reported in the literature for atropine include, but are not limited to, sinus tachycardia, palpitations, premature ventricular contractions, atrial flutter, atrial fibrillation, ventricular fibrillation, cardiac syncope, asystole, and myocardial infarction. (See **PRECAUTIONS**.)

Hypersensitivity reactions will occasionally occur, are usually seen as skin rashes, and may progress to exfoliation. Anaphylactic reaction and laryngospasm are rare.

Pralidoxime Chloride

Pralidoxime can cause blurred vision, diplopia and impaired accommodation, dizziness, headache, drowsiness, nausea, tachycardia, increased systolic and diastolic blood pressure, muscular weakness, dry mouth, emesis, rash, dry skin, hyperventilation, decreased renal function, and decreased sweating when given parenterally to normal volunteers who have not been exposed to anticholinesterase poisons.

In several cases of organophosphorus poisoning, excitement and manic behavior have occurred immediately following recovery of consciousness, in either the presence or absence of pralidoxime administration. However, similar behavior has not been reported in subjects given pralidoxime in the absence of organophosphorus poisoning.

Elevations in SGOT and/or SGPT enzyme levels were observed in 1 of 6 normal volunteers given 1200 mg of pralidoxime intramuscularly, and in 4 of 6 volunteers given 1800 mg intramuscularly. Levels returned to normal in about 2 weeks. Transient elevations in creatine kinase were observed in all normal volunteers given the drug.

Atropine and Pralidoxime Chloride

When atropine and pralidoxime are used together, the signs of atropinization may occur earlier than might be expected when atropine is used alone.

OVERDOSAGE

Symptoms:

Atropine

Manifestations of atropine overdose are dose-related and include flushing, dry skin and mucous membranes, tachycardia, widely dilated pupils that are poorly responsive to light, blurred vision, and fever (which can sometimes be dangerously elevated). Locomotor difficulties, disorientation, hallucinations, delirium, confusion, agitation, coma, and central depression can occur and may last 48 hours or longer. In instances of severe atropine intoxication, respiratory depression, coma, circulatory collapse, and death may occur.

The fatal dose of atropine is unknown. In the treatment of organophosphorus poisoning, doses as high as 1000 mg have been given. The few deaths in adults reported in the literature were generally seen using typical clinical doses of atropine often in the setting of bradycardia associated with an acute myocardial infarction, or with larger doses, due to overheating in a setting of vigorous physical activity in a hot environment.

Pralidoxime

It may be difficult to differentiate some of the side effects due to pralidoxime from those due to organophosphorus poisoning. Symptoms of pralidoxime overdose may include: dizziness, blurred vision, diplopia, headache, impaired accommodation, nausea, and slight tachycardia. Transient hypertension due to pralidoxime may last several hours.

Treatment: For atropine overdose, supportive treatment should be administered. If respiration is depressed, artificial respiration with oxygen is necessary. Ice bags, a hypothermia blanket, or other methods of cooling may be required to reduce atropine-induced fever, especially in children. Catheterization may be necessary if urinary retention occurs. Since atropine elimination takes place through the kidney, urinary output must be maintained and increased if possible; intravenous fluids may be indicated. Because of atropine-induced photophobia, the room should be darkened.

A short-acting barbiturate or diazepam may be needed to control marked excitement and convulsions. However, large doses for sedation should be avoided because central depressant action may coincide with the depression occurring late in severe atropine poisoning. Central stimulants are not recommended.

Physostigmine, given as an atropine antidote by slow intravenous injection of 1 to 4 mg (0.5 to 1.0 mg in children) rapidly abolishes delirium and coma caused by large doses of atropine. Since physostigmine has a short duration of action, the patient may again lapse into coma after 1 or 2 hours, and require repeated doses. Neostigmine, pilocarpine, and methacholine are of little benefit, since they do not penetrate the blood-brain barrier.

Pralidoxime-induced hypertension has been treated by administering phentolamine 5 mg intravenously, repeated if necessary due to phentolamine's short duration of action. In the absence of substantial clinical data regarding use of phentolamine to treat pralidoxime-induced hypertension, consider slow infusion to avoid precipitous corrections in blood pressure.

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MMT 4864 07/07

in the classroom

PHTLS

As the first year of the 6th edition of PHTLS draws to a close, it is proving to be the most successful launch of a PHTLS revision ever.
Course activity is growing everywhere. All over the US, regional and state Faculty are working to assist

PHTLS into their programs. If you are having difficulty finding a course or you are interested in becoming a PHTLS course site, take a look at our Web site at www.phtls.org and contact us directly.

The launch of the PHTLS podcasts has been a huge success with thousands of downloads and Web site hits. Through the efforts of Associate Medical Director Jeffrey Guy, seven podcasts are currently available. This new tool is going to be useful in updating providers and Faculty.

Will Chapleau, Jeffrey Guy and Augie Bamonti traveled to Poland in July to assist with the inaugural courses



In all, 42 providers and 27 instructors were trained in Warsaw and Krakow.

within that country; training 23 providers and 11 instructors in Warsaw, and 19 providers and 16 instructors in Krakow. Please join me in welcoming our new Polish providers and Faculty: Michal Soczynski; Dr. Sebastian T. Ochenduszko; Marek Maslanka and Marek Dabrowski. Contact information is available on the PHTLS Web site.

Swiss, Luxembourg,
Dutch and American Faculty
will be training German
Faculty during the beginning of
September, with the first
German courses to be run in
October. Lithuania will be running its first courses in
October/November. And
courses are also scheduled to
take place in Costa Rica, the

Philippines and Uruguay by the end of the year.

The PHTLS Executive Council will continue to develop and engage in a strategic planning process to meet the future needs of PHTLS, with meetings throughout the fall months. In addition, the process of revision for the 7th edition text will begin as part of these meetings.

Your comments, ideas and thoughts regarding the 6th edition text, materials and course are welcome and needed to shape the future of PHTLS. So please bring these with you to Orlando, and we look forward to seeing you then.—*Mary-Ann Clarkes*

AMLS

The Advanced Medical Life Support program is filling a very important space in the competency and objectives profiles for prehospital providers in the USA and Canada.

As a Canadian paramedic, I can vouch for the fear and apprehension of going to a call of "malaise" or the breathing difficulty patient. Especially as an EMT, these medical calls were often daunting. The

AMLS course allows participants and Faculty to learn and share their knowledge, experience and feelings about the medical patient. The opportunity in this scenario-based class to provide assessment, care, and discuss differential diagnosis as a team is paramount to the success of the program.

AMLS is offered in many countries and it is growing. And with this growth and expansion into new countries, cultures and varying levels of medical care, we see many common threads.

As a member of the AMLS Executive Committee, I have had the honor of both teaching AMLS and introducing it into several countries now. Regardless of the language or culture in which AMLS is taught, you still see these threads that tie us all together in EMS. For example, while we were observing new Mexican AMLS Faculty teaching in Mexico City at a Naval Medical Training Centre, we could observe the students working through various cases. The look on their faces, the feedback from their patients and the input from Faculty clearly showed their passion to learn, and most of all, their dedication to the best patient care possible.

In Norway, the students in class were offered lectures by outstanding physicians and Faculty, and they were shown that patient care ranks as priority one. The students asked

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Will Chapleau, Augie Bamonti and Jeffrey Guy traveled to Poland in July to conduct the first PHTLS courses there.



PHTLS Division Chair Will Chapleau teaches one of the inaugural PHTLS courses in Poland.

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NAEMT member/spokesman Shane Fabie of Lompoc, California, is featured on a new "Reach and Teach" multipurpose van used by the Santa Barbara County chapter of the Red Cross. It will expand the chapter's Advanced First Aid Training classes and other emergency preparedness and safety preparation outreach efforts in Spanish and English and help provide offsite training to underserved areas throughout the county. The van will carry sufficient Red Cross equipment and educational materials to train a classroom of students. Fabie was working as the head lifeguard at the Lompoc Aquatic Center when the Red Cross took photos of him and other lifeguards for instructional purposes.

Research Grants

Continued from 8

unanswerable." A better question might consider various kinds of safety devices (traffic cones, lights, vehicle positioning) and their impact alone and in combination on the safety of EMS and first responders in one's area.

Applications for an NAEMT/PHTLS/PCRF research grant will be evaluated based on:

- Relevance of the research to the goals of NAEMT (and PHTLS for trauma grant);
- •. Originality of the research proposal;
- Institutional support personnel, facilities, and commitment to research;
- •. Letters of support;
- •. Completeness of application; and

• Ability to complete project within 18 months.

Research Presentations

Applicants who receive an NAEMT/PHTLS/PCRF grant are expected to report on the results of their research in the form of a 350-word abstract, which Larmon said is formulaic and not very difficult to write. In addition, grantees are asked to present their research orally at the NAEMT Annual Meeting that follows the completion of the research.

The 2005 NAEMT/PCRF grant winner, Melissa Alexander-Shook, EdD, will present her research at the NAEMT Annual Meeting in October. She will speak on "The Relationship between Level of Education and Occupational and Organizational Commitment

among Paramedics" at the NAEMT booth at EMS EXPO.

Last year's research grantee, who will present his research findings in 2008, is Michael Dailey, MD, Albany, New York, who is researching "Prehospital Pain Management Quality Improvement Review." In addition to the research grants offered in conjunction with PCRF, PHLTS awarded a research grant to M. Kay Vonderschmidt, Cincinnati, Ohio, whose research project is called "Comparison of EMS vs. ED Evaluations of the Trauma Patient using the Kampala Trauma Score."

For more information or assistance with preparing a grant application, contact PCRF at blarmon@ mednet.ucla.edu.

EMS Researchers Wanted

The National Association of EMTs and the PreHospital Trauma Life Support program are offering two \$5,000 research grants in conjunction with the Prehospital Care Research Forum. One grant is for the study of EMS workforce issues. The other grant is for a study of issues related to prehospital trauma care. Grant application review will be provided by Prehospital Care Research Forum, Only **NAEMT Members are** eligible to apply.

Application Deadline: Dec. 31, 2007

Go to www.NAEMT/grantsand-projects.htm to learn more. (If you're not an NAEMT member, you still have time to activate your membership and apply for the grant. Go to www.NAEMT.org/joinNAEMT to join now.)







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Bylaws Changes

Continued from cover

Johnston went on to explain that, per the old bylaws, the Board of Governors will vote in Orlando for three open positions on the Board of Directors. The new bylaws call for an increase in Directors from the current number of 11 to 15; however, those additional Directors will be chosen by a vote of the membership. No date has been set for that election.

"We have our work cut out for us to transition to the new bylaws," Johnston said, noting that he will form an ad hoc committee to write a policy to implement the bylaws changes. He said that he is hopeful that a transition plan will be approved by the Board of Directors by the end of this year, and the transition will be complete within six months.

The NAEMT Board of Directors manages the affairs of the Association, including supervising all funds and approving budgets of the Association and the appointment of staff as is necessary to carry out the business of the Association. The Board of Directors has the authority to establish committees and divisions to carry on the work of the Association.

The Board will assess

these divisions and committees: Bylaws; Membership and Credentialing; Finance; Nominating; Programs and Awards; National EMS Chiefs, Officers and Administrators; AMLS; Industrial; Instructor/ Coordinator; International; Military; Paramedic; PHTLS; Pediatrics; and Special Operations.

"I look forward to working with the leadership and membership in moving this Association forward," Johnston said. "Toward that end, I will meet with each of the divisions and committees at the annual meeting in Orlando to give them an opportunity to work with the Board on creating operational plans for the future."

Online Voting

NAEMT conducted its vote through Votenet Solutions, Inc., a leading provider of electronic voting services. Active, duespaying NAEMT members were eligible to vote, and NAEMT headquarters reported that the voting process went smoothly, making it likely that future NAEMT elections also will be conducted electronically.

"Electronic voting gives everyone an opportunity to participate in the Association," Johnston stressed. "That's what this election was all about – giving NAEMT members a voice in their future."

Previous Bylaws Votes by NAEMT

1975: The National Association of Emergency Medical Technicians (NAEMT) was founded with support from the National Registry of EMTs and numerous leaders in emergency medicine. In the beginning, it was a confederation of state organizations. The governing body was the Board of Directors, comprised of one member (often the president) from each participating state organization; one "at large" director representing the unaffiliated states; a director representing the National Registry; the chairman of the NAEMT board of medical advisors; the editor of the association; and some presidential appointments. There was also a recommending body, the House of Delegates, which had a different member from each participating state organization. The House was supposed to maintain close contact with the members and make recommendations to the board.

1979: Bylaws were amended to allow state-certified EMTs to be NAEMT members. Previously, the bylaws called for only Nationally Registered EMTs to be NAEMT members

1994: Bylaws were changed to eliminate the Board of Directors and delegate powers of the active members to the Board of Governors and the Executive Council and officers.

2006: Bylaws were amended to give active members the opportunity to elect NAEMT president-elect, vice president, secretary and treasurer. Prior to this change, the Board of Governors had selected the association's officers. However, the Board of Governors still selects Board of Directors members. This bylaws change opened NAEMT membership to first responders and international EMTs, and it created a special lifetime membership category.

2007: NAEMT members voted to amend the bylaws. This change, which was approved by 94 percent of the voters, disbanded the Board of Governors and allowed NAEMT members to vote directly for association officers and directors. The change also increased the size of the Board of Directors to 15 members, and it reorganized the association's divisions and committees. This was the first electronic vote in NAEMT history.

In the Classroom

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questions, and received the feedback shown at programs all over the world. Often the only differences we observed in other countries were the name of the medication, or the style of equipment.

Trinidad was a really amazing site and opportunity for Linda Abrahamson (AMLS chair) and me to attend. This country's EMS professionals have worked tirelessly to get their own training at their own expense, often by traveling to the USA or Canada. Then, shortly after the AMLS program, they formed an EMS Registry, a first for this country.

If you are interested in attending an AMLS program or would like to teach, please check out AMLS online via the www.naemt.org Web site. We have information about the program and where and when courses will be taught in your region or country. A listing of international coordinators is available for medical personnel

who are not located in North America.

We will also be offering the AMLS provider and instructor course October 9-10, 2007, at the NAEMT Annual Meeting/EMS EXPO as a preconference workshop. This program will be taught by our Executive Council Members with assistance from current AMLS Faculty. Once again, refer to the NAEMT Web site, and follow the link to NAEMT Annual Meeting/EMS EXPO 2007 for registration information.

EMS professionals around the world are committed to providing outstanding patient care, often with limited resources, poor wages, and difficult conditions.

Courses like AMLS, PHTLS, and EPC offered by NAEMT tie us all together. These educational programs should continue to work toward the goal of providing excellence in care, and bringing prehospital and hospital personnel together. –*Greg Clarkes, AMLS EC Member*



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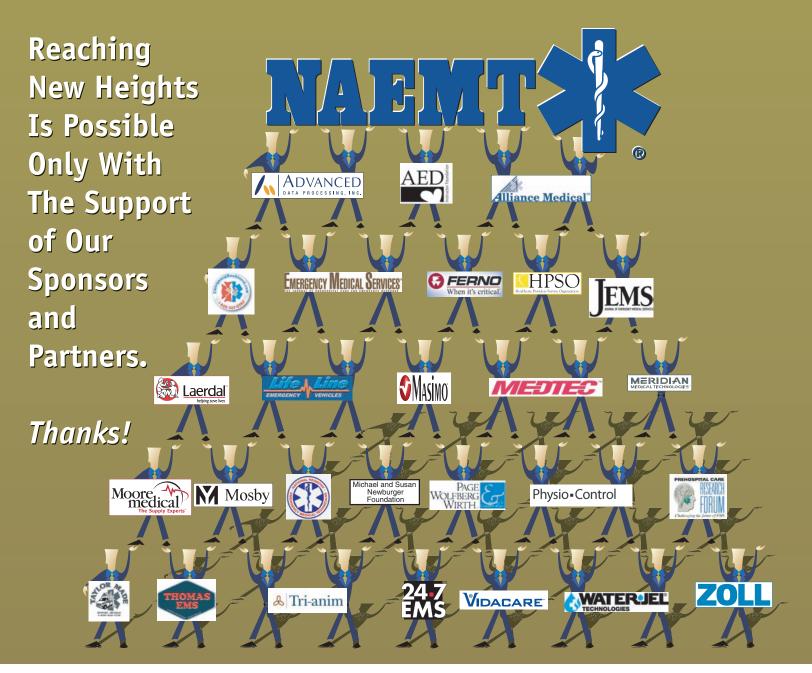
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