

# NAEMT news



EMS in Kansas,  
page 6

## INSIDE:

4

### Your Association at Work

NAEMT adopts  
strategic plan

8

### EMS Toolbox

Learn what's new in PPE

10

### EMS EXPO Celebrates 20 Years

Make plans now to be part of  
the excitement in Las Vegas

Visit

[www.naemt.org](http://www.naemt.org)  
for the latest  
association news.

Fall 2008

## Technology Helps EMS Practitioners Work Safer, Smarter

Once upon a time, EMS practitioners answered calls with a limited number of medications in their drug boxes and very few tools to help them care for patients.

Today, EMS practitioners have technology at their fingertips in the form of all sorts of high-tech equipment, including stretchers, splints and medication delivery devices. They can also harness technology to help communicate with their patients better using translation software, and computers play a part in all aspects of prehospital care, from crew scheduling to patient billing.

### Trauma Tech

While it's not the most glamorous piece of equipment on a rig, a good stretcher can help prolong your EMS career. In light of the number of on-the-job back injuries EMS practitioners suffer, stretcher manufacturers have

Continued on page 12

## MESSAGE FROM THE PRESIDENT



By Jerry Johnston

### If I Were EMS King...

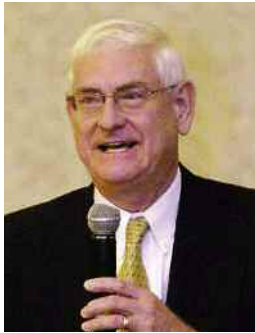
As I reflected on my last message as President, I thought I would incorporate what I have learned in my travels over the last two years into what I believe would describe a model for EMS as we move forward. While you may or may not agree, I would hope that we could all agree that these points are certainly worth working toward—if not, at least thought provoking.

EMS needs a single lead agency led by a "real EMS'er." I believe in FICEMS. I am also a long-time proponent of inter-agency cooperation at all levels. That said, EMS needs a go-to agency or person at the federal level that can fight the good fight for us. And, that person needs to be one of "us"...one who has been in the

Continued on page 3

## SCOTT B. FRAME MEMORIAL LECTURE

# EMS: Past, Present, & Future



*presented by*

**John E. Campbell, M.D., FACEP**  
Thursday, October 16, 2008, 4:30pm

Drawing on 37 years of experience, Dr. Campbell will discuss the forging of prehospital EMS in the crucible of war, its early years in the U.S., some of the giants upon whose shoulders it was raised, the current state of the profession, and the future challenges that must be faced. Dr. Campbell will present the Scott B. Frame Memorial Lecture as a part of the NAEMT Annual Meeting/EMS EXPO in Las Vegas, Nevada. For more information contact NAEMT at 800-34-NAEMT or [www.naemt.org](http://www.naemt.org).



© 2008 MEDTEC AMBULANCE CORPORATION



[www.medtecambulance.com](http://www.medtecambulance.com)

BE READY. BE SURE.™  
**MEDTEC**  
**BE READY**  
FOR THE **UNEXPECTED**

The job of an emergency medical professional means you never know what's going to happen next. That's why everything we build into Medtec ambulances is there to help you be ready for the unexpected. Medtec Ambulance Corporation is a proud sponsor of the National Association of Emergency Medical Technicians.

MEDTEC AMBULANCE CORPORATION 574.534.2631 64697 US HWY 33 EAST, GOSHEN, IN 46526  
An Oshkosh Corporation Company

# Message from the President

*Continued from cover*

trenches and fully understands the needs and issues of the EMS community. Those there now do a wonderful job with a paltry budget, but wouldn't it be nice to be funded at a level similar to the USFA (or even a small percentage)?

EMS would roll off the tongues of the President, Congressional representatives, and other high-ranking officials like the terms first responder or firefighter or police officer. Don't get me wrong, they've earned their due, but working side by side with them should earn us similar respect and recognition.

EMS systems would be run one way. It would be based on sound science; that is evidence based—both from a clinical and operational perspective. That's right...I said one way. Keep in mind, though, that one way would be supported by sound science. And, while I'm really out there, wouldn't it be nice if these EMS systems were fully funded? How nice would it be to not have to rely on Medicare, other third party payers, or even the patients or their families to pay the bill?

That leads to my next point. If we had one way of operating our EMS systems, we'd all be on the same page. Hence, we would all be collaborating and "singing from the same sheet of music." We would enjoy a unity; the likes of which we've never seen or enjoyed. How impressive

be on the ambulance safety bandwagon one month, then scene safety for awhile, then maybe back safety. With few exceptions, this issue permeates few organizations where this truly becomes part of the culture. We must embrace safety as part of everything we do and make it part of our everyday

***EMS would roll off the tongues of the President, Congressional representatives, and other high-ranking officials like the terms first responder or firefighter or police officer. ...working side by side with them should earn us similar respect and recognition.***

would that be on the Hill (or other places for that matter)?

A fully funded EMS system would (in theory) be able to pay EMTs and Paramedics a wage that would keep them from having to work two to three jobs to feed their families and provide them a benefit package that is comparable to other types of professional employment—one that includes health insurance, retirement, etc.

We've got to quit killing and injuring our people. Why hasn't safety become more of an issue? Seems to me this issue ebbs and flows. We might

EMS culture. This is ditto for health. Again, how many of our EMS organizations really embrace a health-conscious culture? My experience is that few do. Let's face it...we work in a fast-paced environment; we eat on the run (usually out of a bag; and usually something that is really not good for us). We get home and are (insert your own excuse here) to exercise; and you know where this is headed. Our EMS organizations need to promote more of a health-conscious culture.

Did I mention data? EMS systems would be data driven in all aspects. We would be

able to access data to make all our decisions. This would be done through a national data base that looks at our system from every conceivable angle: workforce, operations, clinical, etc. As we are finding, the lack of data poses serious challenges to our industry and our future.

These are just a few of the things that I would make happen if I were EMS King. Space limits 'the King' from being all-inclusive. I am sure that you can add your own, as well. The important point to take from this is that while some of this is obviously tongue-in-cheek, some of this can and should happen if we unite as an EMS community.

It truly has been an honor to serve as your president the last two years. These have been two of the most challenging, yet rewarding, years of my 33-year EMS career. It is my hope that you would believe that I leave NAEMT a stronger, more vibrant organization while settling into my role of Immediate Past President in October.

Speaking of which, I hope that you will be able to join me in October at EMS EXPO where I will pass the gavel to President-Elect Patrick Moore. This year's EXPO and NAEMT's Annual Meeting promise to be one of the best yet! \*

## NAEMT news

### Officers

Jerry Johnston, *President*  
Patrick Moore, *President-Elect*  
Robert A. Loftus, *Secretary*  
Edward Sawicki, *Treasurer*  
Ken Bouvier, *Immediate Past President*

### Board of Directors

Jennifer Frenette, *Director, Region I*  
Jim Slattery, *Director, Region I*  
Richard Ellis, *Director, Region II*  
Don Lundy, *Director, Region II*  
Will Chapleau, *Director, Region III*  
Sue Jacobus, *Director, Region III*  
Charlene Donahue, *Director, Region IV*  
KC Jones, *Director, Region IV*  
C.T. "Chuck" Kearns, *At-Large Director*  
Connie Meyer, *At-Large Director*  
Paul Hinchey, MD, *Medical Director*  
Martin S. Stillman, Esq., *Legal Counsel*

### NAEMT Committee Chairs

Linda Abrahamson, *AMLS*  
Will Chapleau, *PHTLS*  
Greg Chapman, *Special Operations*  
Heather Davis, *Education*  
Richard Ellis, *Membership*  
Bruce Evans, *Health and Safety*  
Mike Hay, *Military Affairs*  
Kurt Krumperman, *Advocacy*  
Jerry Johnston, *EPC*  
Edward Sawicki, *Finance*

### NAEMT Staff

Pamela Cohen, *Executive Director*  
Lisa Lindsay, *Business Manager*  
Corine Curd, *Education Manager*  
Candace Barnett, *Membership Coordinator*  
Keshia Robinson, *Office Coordinator*  
Sylvia McGowan, *Education Coordinator*

### Production

Kent Mummert, *RiverWorks*

NAEMT News, Volume 20, Number 4, is an official publication of the NAEMT Foundation, a not-for-profit corporation associated with the National Association of Emergency Medical Technicians (NAEMT). This newsletter is published four times yearly as a service to the association's members and the national EMS community. Only the officers or the Board of Directors may make official statements on behalf of the National Association of Emergency Medical Technicians. Advertisement in NAEMT News does not constitute endorsement by the Association of any particular product or service. © 2008 by The National Association of EMTs. All rights reserved. Photocopying articles for non-commercial use is permitted. Reprinting articles in other publications is not permitted without the express permission of NAEMT. For reprint permission, contact NAEMT at the

addresses below.

All NAEMT News correspondence should be directed to NAEMT Headquarters by fax: 601-924-7325, by e-mail: NEWS@NAEMT.org, or by mail: NAEMT News, P.O. Box 1400, Clinton, MS 39060-1400.

For membership info contact NAEMT by e-mail at membership@naemt.org, by mail: P.O. Box 1400, Clinton, MS 39060-1400, by fax: 601-924-7325 or by phone: 800-34-NAEMT. To reach NAEMT online, go to www.NAEMT.org. To reach NAEMT News online, e-mail NEWS@NAEMT.ORG.



# NAEMT Adopts Strategic Plan

The NAEMT Board adopted the association's strategic plan during its August conference call. The plan is the culmination of input from all active members, NAEMT leadership, the committees and the Affiliate Advisory Council.

The strategic plan will serve as the guide for future association activities and operations. It reads as follows:

**Our Mission:** The mission of the National Association of Emergency Medical Technicians is to represent and serve Emergency Medical Services personnel through advocacy, educational programs and research.

**Our Vision:** NAEMT will be the recognized national voice for all EMS practitioners and a passionate advocate of EMS professionalism.

**Our Values:**

- We believe EMS is a unique and distinct public service.
- We believe professional education, national education standards and EMS research are essential to the consistent delivery of high quality EMS.
- We believe all EMS practitioners are entitled to a safe, healthy and respectful work environment.
- We shall represent the views and concerns of all EMS practitioners wherever they serve.
- We believe collaboration and unity are essential to the betterment of EMS for all.
- We shall conduct all aspects of our business with integrity and adhere to the ethical standards of our profession.

**Our Strategic Goals:**

We shall achieve significant membership growth by:

- Enhancing and improving our membership product.
- Expanding and intensifying our outreach efforts.
- Strengthening our communications with members.

We shall strengthen our national voice and expand our advocacy for all EMS practitioners by:

- Exercising greater leadership in advocating for issues of importance to EMS practitioners.
- Exercising greater leadership in unifying the EMS industry through collaboration.

We shall continue to grow our educational programs by expanding the reach of our current programs and developing new programs.

## NAEMT Adds Education Outreach Specialist

Trevor Hicks has joined the NAEMT Headquarters staff as our new Education Outreach Specialist.

The NAEMT Board created this new position to work with our AMLS, EPC and PHTLS committees and volunteers to expand our education programs to new areas and reach more EMS professionals.

Hicks brings to his position 18 years of prehospital and hospital experience from a varied background, including neonatal and pediatric transport, as well as many years of air medical experience for a Level One Trauma Center. Hicks holds a BSBA Degree in

General Management from Thomas Edison State College in Trenton, New Jersey, and is certified by the Florida Board of Critical Care Transport as a flight paramedic.

Along with his field experience, Hicks also brings many years of experience as an EMS instructor in various courses. Hicks served as the state coordinator for PHTLS (Florida) for the last four years.

## NAEMT Welcomes New Affiliates

NAEMT is honored to have the New Mexico Emergency Medical Technicians Association (NMEMTA), the Maryland Emergency Medical Service Program (MDEMSP) and the Professional Ambulance Association of Wisconsin, Inc. (PAAW) as its newest affiliates.

NMEMTA is a non-profit, all-volunteer organization supporting EMTs and others serving the public in the emergency services sector. It provides educational opportunities to qualified individuals throughout

New Mexico. Membership is open to anyone in the emergency services field.

MDEMSP recognizes Maryland EMS providers through specialized license tags, scholarships and charity programs. It covers all licensed or certified EMS providers in the state.

PAAW was created to represent the interests of Wisconsin non-profit, third-service, hospital-based and independent ambulance services. Its primary purpose is to promote excellence and quality in the ambulance industry.

For more information on the New Mexico EMTA, visit [www.nmemta.org](http://www.nmemta.org). For more information on the MDEMSP, visit [mdemsp.org](http://mdemsp.org). For more information on PAAW, visit [www.paaw.us](http://www.paaw.us).

The AAC continues to grow as more EMS associations become affiliated. NAEMT looks forward to working with its affiliates to increase the level of involvement of EMS professionals in their associations and to strengthen the collective voice

## Advocacy Update

The NAEMT Board of Directors agreed to endorse the forthcoming report by The American Academy of Pediatrics (AAP) "Patient- and Family-Centered Care in the Emergency Department," recently approved by the AAP Board of Directors and scheduled for publication in the August 2008 issue of Pediatrics Electronic Pages.

The report can be viewed at <http://pediatrics.aappublications.org/cgi/reprint/122/2/e511>.

The Board approved sending a response to the Federal Communications Commission on their proposed changes in regulation affecting public safety broadcasting. It is NAEMT's position that these regulations, if passed, will have a negative impact on EMS. For more information on the proposed changes, go to: [www.fcc.gov](http://www.fcc.gov).

## Free NAEMT T-Shirt

Renew your membership online more than 30 days prior to your expiration date and receive a free NAEMT T-shirt! Please be sure that your e-mail address is current so you can take advantage of this offer. You will receive a renewal reminder by e-mail 45 days before your membership expiration date. Go to <https://www.naemt.org/joinNAEMT/memberapp.htm> to renew your membership or update your profile.

\* Shipping will be charged for T-shirts delivered outside the United States.



of EMTs and paramedics nationwide. For information on affiliation, please contact NAEMT at 800-346-2368.

## EPC Committee Adds Member

The EPC Committee is pleased to announce the addition of Christopher Cebollero to the committee. He presently holds the position of clinical services manager with MedStar in Fort Worth, Texas. As the clinical services manager for MedStar, Cebollero's responsibilities include all clinical aspects for the Fort Worth EMS system.

Cebollero brings 24 years of experience to the committee. Prior to joining MedStar, he was the training coordinator to the Wound and Hyperbaric Center at the Osteopathic Medical Center of Texas.

## New Membership Discount Program for EMS Services

EMS practitioners have a new way to become members of NAEMT. EMS services can now purchase NAEMT memberships with full benefits for their EMTs and Paramedics at a significant discount.

This is a great way for EMS services to support the professional development of their practitioners at a great price. Discounts are tiered based on the number of memberships purchased.

For more information, please contact Pamela Cohen,

Executive Director, at 800-34-NAEMT (346-2368).

## New Look Coming for NAEMT Website

NAEMT will launch its new Website in October! The redesign has been in progress for several months and the new Website is scheduled to go live in conjunction with the NAEMT Annual Meeting.

The purpose of redesigning the Website is to provide NAEMT members with user-friendly site with upgraded functionality and a fresh, more professional look.

## Call for Abstracts Issued by Prehospital Care Research Forum

The Prehospital Care Research Forum has issued a call for abstracts for presentation and publication in 2009.

Abstracts regarding clinical, systems, management and personnel categories are due by October 31. These papers will be presented at EMS Today, set for March 24 to 28, 2009, in Baltimore.

Abstracts regarding educational issues are due by March 27, 2009. They will be presented at the National Association of EMS Educators conference in Orlando, Florida.

Abstracts are submitted electronically. Visit [www.pcrf.mednet.ucla.edu](http://www.pcrf.mednet.ucla.edu) for submission details.

## PHTLS

The PHTLS podcasts continue to be popular, with more than 536,000 downloads since they were first posted in May 2007. The podcasts were developed by PHTLS Assistant Medical Director Jeffrey Guy, MD. Many services now download the podcasts and have staff listen to them when they aren't busy on calls.

Podcast topics include discussions regarding key concepts as well as interesting trauma lectures from the latest conferences. Visit the PHTLS homepage at [www.phtls.org](http://www.phtls.org) for more information on podcasts.

On the international front, Austria has completed initial training and its inaugural course is scheduled for November. Belgium has completed initial training and hopes to schedule its inaugural courses later this year. Georgia is planning its initial training dates.

The inaugural course in Oman was successful. Representatives from the Sudan are planning to come to the United States for initial training in the next few months, and Nigeria is in discussions for initial training.

## AMLS

Many EMS agencies and EMS medical directors provide (and often require) a variety of continuing education courses to maintain active status as an EMT, paramedic, prehospital RN or other advanced provider. These requirements may include ACLS, a trauma life support course and a pediatric emergency course. It is interesting to consider that even if all of the above programs are required; this still leaves a huge and important gap in EMS provider continuing education. This would be medical emergencies which, in fact, comprise the great majority of complaints to which EMS responds.

AMLS provides a uniquely useful approach to caring for patients with medical emergen-

cies. The course guides providers to perform careful assessments and use critical thinking to integrate their findings and discern diagnostic probabilities from a broad initial differential. Whereas initial training and many textbooks teach illness by body systems, AMLS teaches students how to assess patients based on what they will encounter in practice—i.e., by symptom presentation. AMLS nurtures the development from certified provider to competent clinician.

We encourage EMS service training/education coordinators, directors and medical directors to consider including AMLS as part of your continuing education program.

## Update from Norway

The Norwegian Air Ambulance or "Luftambulans" has been providing AMLS and PHTLS education and leadership on behalf of NAEMT for many years now. The Norwegian Air Ambulance Foundation (Norsk Luftambulans) is a voluntary membership-based organization. It currently serves 820,000 members. This is extraordinary as Norway's population is presently 4.6 million people. The membership funds three important companies under the Luftambulans umbrella:

**Norsk Luftambulans AS:** Operates with eight Eurocopter-135 helicopters. On-board is an anesthetist, rescue EMS member and the pilot;

**Global Medical Support (GMS):** This service returns Scandinavian citizens from around the world back home in case of medical emergency; and

**Svensk Flyambulans AB:** A Swedish fixed-wing program operating in southern Sweden, providing flight support for members in that region.

Medical education and training are an important part of the Norsk Luftambulans operation. Training in AMLS, PHTLS and other programs is

*Continued on page 9*

# A Snapshot of Kansas EMS

By Connie Meyer

**E**MS in Kansas builds on the strength of its volunteers to provide coverage in roughly 80 percent of the state, but 80 percent of the population is served by the state's larger paid services.

The city of Newton, Kansas, had one of the earliest advanced life support ambulances in the country in 1970. This was led by Jim Werries, who is a past winner of the Rocco V. Morando Lifetime Achievement Award.

There are 173 ambulance services in the state and 10,586 certified attendants from First Responder through MICT, which is the Kansas equivalent of Paramedic. The scope of practice for First Responders and EMTs follows the national standard with the addition of multi-lumen airways, Epi-pen, aspirin administration, nebulized bronchodilators and blood glucose monitoring for EMT level. MICT programs in Kansas are required to be accredited associate degree programs. Testing for initial certification is the National Registry test except at the EMT-Intermediate level.

Attendants are certified and ambulance services are licensed through a 13-member regulatory Board of EMS appointed by the Governor. Robert Waller is the administrator for the Kansas Board of EMS.

Kansas has six EMS Regional Councils that were formed as nonprofit entities to help local EMS providers within their area with training, technical assistance and other support. These work in conjunction with Regional Trauma Committees established by the state Trauma Plan.

Prior to the concern of ter-



*Kiowa County EMS Director Tim Smith (left) met with MERGe team members (L to R) Jon Friesen, Mark Willis, Kerry McCue, Chris Way and Terry David in Greensburg.*

## Kansas EMS—Just the Facts

**Ambulance services in state: 173**

**Certified attendants in state: 10,586**

**Agency responsible for licensing ambulance services and certifying attendants: Kansas Board of EMS ([www.ksbems.org](http://www.ksbems.org))**

**State associations for practitioners: Kansas EMS Association (KEMSA; [www.kemsa.org](http://www.kemsa.org)) and Kansas EMT Association (KEMTA; [www.kemta.com](http://www.kemta.com)). KEMSA is an NAEMT affiliate.**



*Miami County EMS brought its mass casualty trailer to Greensburg to assist with search and rescue efforts after the May 2007 tornado.*

rorist attacks, the citizens of Kansas have always faced the dangers of severe weather incidents with the most prevalent being tornadoes. In a predominantly rural state, this can provide unique challenges in responding to a disaster since many EMS systems in Kansas are faced with the day-to-day challenge of just being able to cover daily calls.

After a 1993 tornado in Sedgewick and Butler Counties required a large number of outside EMS agencies to mitigate the incident, a system was proposed to provide a more organized way of responding to such incidents. A database was created to list all available EMS resources within the region and the MERGe or Major Emergency Response Group was born with 13 EMS leaders who agreed to put individual agendas aside and work toward a common goal of responding and assisting during a disaster.

As the MERGe team evolved, they found there was no shortage of EMS personnel to respond to a disaster. The MERGe team mission became to form a team that could provide resources of equipment, personnel, and people trained in Incident Command who could assist local providers in the management of an incident. The team has a duty officer available 24/7 and a 1-800 phone number that is answered 24 hours a day. While the MERGe team is primarily in the south-central and southeastern parts of the state, other regions in the state have adopted a team concept for disaster response.

The MERGe team has continued to provide leadership within the state in disaster response with five deployments



*The MERGe team held a command staff meeting amid the devastation in Greensburg.*



*Area EMS services from across Kansas responded to assist in Greensburg following the devastating tornado in 2007.*

to date. The most recent was the F-5 tornado that destroyed Greensburg in May 2007. The Greensburg deployment resulted in having MERGe members in Greensburg for over two weeks, 24 hours a day, to assist with the rebuilding process. The overall support from EMS providers across Kansas was unbelievable during this long-term event.

MERGe team member Terry L. David, Rice County EMS, credits several reasons for the team's success:

- The team was formed from the bottom up by local people, which has resulted in a deep amount of trust within the team.
- A passion to provide help was the driving force, the project was done with limited funding and support of local agencies rather than forming a team by throwing money at it.

- From the beginning, the team was dedicated to not respond unless requested by the local emergency manager or EMS director. Upon arrival, they would provide any help needed at any level, be it a paramedic on a unit, giving ICS advice or filling command roles.
- The team has regular training and after-action reviews from each deployment.

Kansas EMS practitioners are represented by two organizations that collaborate on advocacy for EMS issues at the state level: KEMSA (Kansas Emergency Medical Services Association) and KEMTA (Kansas Emergency Medical Technicians Association). Both provide membership for all levels of EMS practitioners in Kansas. KEMSA is currently an affiliate organization with NAEMT. ✪



## Whenever a Burn Emergency Strikes... WATER-JEL IS THERE.

### Did You Know?

- WATER-JEL stops the progression of the burn - and can be used on all types of burns.
- WATER-JEL Blankets & Sterile Burn Dressings utilize gel that is 96% water, contains no active ingredients and is water-soluble.
- WATER-JEL cools the burn, not the patient. Unlike water or saline, WATER-JEL evaporates very slowly so there's no need to rewet the WATER-JEL blankets or dressings and no increased risk of hypothermia.

Whether your medical protocols suggest dry or wet sterile dressings, you can use WATER-JEL dressings for small area burns (less than 15% TBSA) to stop the burning process and provide immediate pain relief.

Fire departments and EMS Services across the country are prepared for burn emergencies — large and small — with WATER-JEL Blankets and Dressings. Is your department prepared?



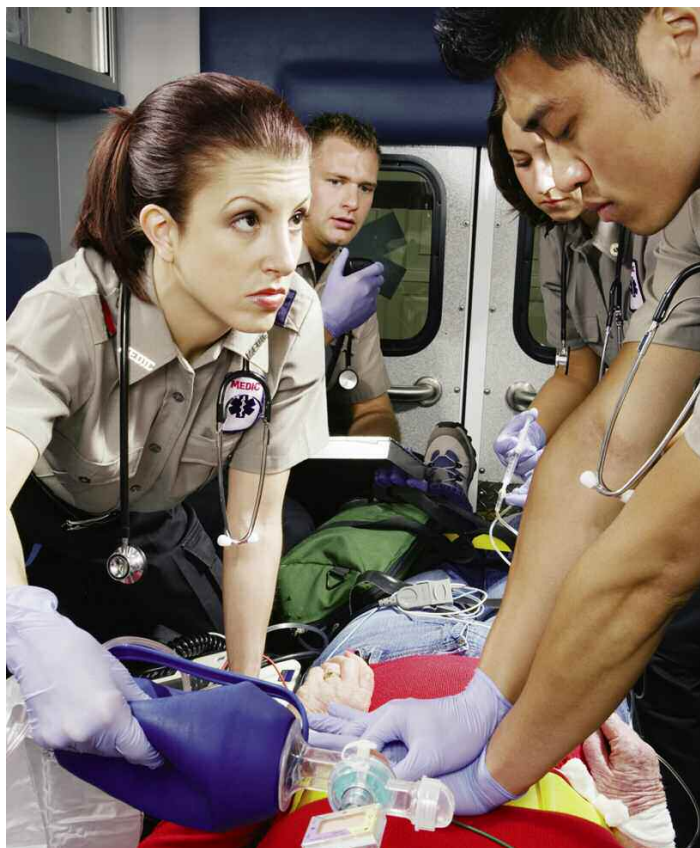
[www.waterjel.com](http://www.waterjel.com)

# PPE Adds to Practitioner Safety

**P**ractitioner safety ranked fourth among the concerns expressed by members in a recent NAEMT survey. One way to protect yourself during calls is to use personal protective equipment (PPE).

According to NFPA 1999: Standard on Protective Clothing for EMS, EMS PPE must provide blood and body fluid pathogen barrier protection for whatever parts of the body the equipment covers. While no partial protection is allowed for the EMS PPE item, the items might be configured to cover only part of the upper or lower torso, such as arms with sleeve protectors, torso front with apron styled garments, and face with face shields.

Additional items of emergency medical protective clothing and equipment have been added to the 2008 edition of NFPA 1999, including head protection (helmets); face-masks, eye and face protection devices; and a chemical/biological/radiological/nuclear



(CBRN) protective ensemble that will provide limited protection from biological terrorism agents and radiological particu-

lates for emergency medical responders.

Visit the Health and Safety Committee page at [www.naemt.org/divisionsandCommittees/healthAndSafetyCommittee.htm](http://www.naemt.org/divisionsandCommittees/healthAndSafetyCommittee.htm) for online access to the information listed below:

- Fact Sheet: Homeland Security Adopted Standards for First Responder Personal Protective Equipment
- EMS Guidelines for Pandemic Influenza Under Attack! Protecting EMS Personnel article from *EMS Magazine*
- NFPA 1999: Standard on Protective Clothing for Emergency Medical Operations, 2008 Edition
- EMS PPE products from North American Rescue
- Starfield Lion clothing for EMS, fire and police
- Globe Firefighter Suits ❄

## MyClyns: First Response Personal Protection

An innovative new product is now available to help EMS practitioners protect themselves against blood-borne diseases.

An article in the September 2006 *Annals of Epidemiology* revealed the results of a questionnaire sent to paramedics regarding blood exposure. Blood exposure was defined as "contact with patients' blood or body fluid containing blood." Blood exposure occurred via the five following routes: needle or lancet stick; cut from a

sharp object (e.g., scalpel, razor, glass); blood in eyes, nose or mouth; patient bite that broke the skin; and blood on non-intact skin. Twenty-two percent of paramedics reported one exposure and 7 percent reported more than one exposure. This translates into a rate of exposure of 4.8 blood exposures for 10,000 patients for all five routes combined. Surprisingly, the highest rate of exposure was for non-intact skin: 2.3 exposures per 10,000 patients.

All potential exposures must be assessed in accordance with the Exposure Control Plan (ECP) under the direction of the appropriate

health care professional. The results of this assessment determine the need for Post Exposure Prophylaxis (PEP). The nature of prehospital care creates a lag time between the exposure event and the availability of assessment and the initiation of PEP. For example, the questionnaire revealed that 34 percent of non-intact skin exposures occurred when paramedics were extricating a patient. 25 percent of mucous membrane exposures occurred when medics were resuscitating an intubated patient.

MyClyns, a disposable pocket spray, gives you the chance to be a first responder

for yourself or a crewmember at the time of the potential exposure, by spraying it directly on potential exposure sites.

When exposed, remove the cap and apply the entire contents to the affected area. MyClyns is a single-use product and should be disposed of immediately after use. Remember, the use of MyClyns does not replace or allow one to delay following the ECP and obtaining PEP.

For more information, visit [www.myclyns.com](http://www.myclyns.com).

—Mike Szczygiel



## Association

Continued from page 5

offered to the general membership, and also for all in-house medical professionals.

Approximately 20,000 participants attend the 1,600 courses offered each year

AMLS was introduced to Norway in December 2005. Since that first program, 1,200 participants have attended the 74 courses offered. Medical professionals in Norway have adopted the AMLS assessment formula and course content into their respective practices. As EMS education for EMTs expands in Norway, it is probable that PHTLS and AMLS will become mandatory certificate programs across the country. Translation of both AMLS and PHTLS textbooks, slides, and other written documents was done voluntarily by the Norsk Luftambulans educational personnel. For further information on the Norwegian Luftambulans, please visit the

website in Norwegian and English formats at: [norskluftambulans.no](http://norskluftambulans.no)

## EPC

### Calling all EPC instructors!

EPC instructors now have a choice of delivery formats for the EPC provider course. The new delivery format allows participants to take the lecture portion of the course online, followed by a single-day of face-to-face clinical instruction and evaluation to successfully complete the EPC provider course.

Interested in EPC? The Emergency Pediatric Care program provides the most comprehensive pediatric education program available to prehospital practitioners. If you are interested in hosting an EPC course, becoming an EPC instructor or introducing the program in your area, contact NAEMT Headquarters at 800-346-2368. Visit [www.naemt.org](http://www.naemt.org) for a list-

ing of upcoming classes. ✱

## Rollout Update

NAEMT sponsored one of several rollouts of the EPC course in Orlando, Florida, on August 23. The course was hosted at the Orlando Medical Institute by Felix Marquez, Jr., and his staff.

EPC Committee Members Robert Waddell, Jr., and Chris Cebollero, along with NAEMT President Jerry Johnston, conducted the course. It was a huge success despite Tropical Storm Fay's torrential downpours.

The rollout resulted in six new training sites and 13 new Instructor-Coordinators for the EPC program covering Tallahassee to Miami.

Future rollouts for the EPC Program are listed below. For additional information about attending a rollout or hosting a course, please contact NAEMT's Education Manager Corine Curd at 800-346-2368.

New Mexico	September 22-23, 2008	Las Vegas
Nevada	October 13-14, 2008	(In conjunction with EMS EXPO)
Nebraska	October 25-26, 2008	
New Jersey	October 31-Nov. 2, 2008	
California	November 6-7, 2008	(Southern)
California - UCLA	November 10, 2008	(Hybrid Program + Instructor)
Orlando, Florida	November 14-15, 2008	
Oregon	November 15-16, 2008	
Idaho	November 21-23, 2008	(Texas EMS Conference)
Texas		

# Advance Your Career While You Work!

## Now you can earn your RN license, Bachelor's, or Master's degree

- Without sitting in a classroom
- At your convenience
- \$150 NAEMT scholarship (for NAEMT members)
- 10% discount on The College Network Portion only

### PARTNERS IN EDUCATION



**866-243-4454 • [www.college-net.com/NAEMT](http://www.college-net.com/NAEMT)**

# EMS EXPO Celebrates 20 Years

**E**MS EXPO, billed as North America's largest gathering of EMS professionals, will take place October 13-17, 2008 in Las Vegas, Nevada. This year, the conference will celebrate its 20th anniversary.

NAEMT members are invited to attend a brand new General Membership Meeting and Awards Presentation, following by a Reception on October 14th, prior to the commencement of EMS EXPO. The purpose of the meeting is to bring together the "family" of NAEMT members to recognize sponsors, volunteers, and outstanding achievements of individuals within the EMS community. Make plans now to attend!

In addition to the NAEMT Annual Meeting, EMS Expo will feature the following events:

## Fire Service/EMS: Then and Now

The opening keynote address, set for 10:45 am on October 15, will be presented by Randolph Mantooth, best known as "Johnny Gage" from TV's EMERGENCY! Mantooth will discuss the cutting-edge 1970's television series that inspired thousands to answer the call, and helped advance the establishment of EMS systems across the United States during that decade.

Mantooth has served as honorary chairman and spokesperson for the County of Los Angeles Fire Museum Association for the past three years. In May 2007, the International Association of Fire Chiefs EMS Section recognized his inspirational contribution to the profession by presenting him with their James O. Page

EMS Achievement Award. Conference attendees will have an opportunity to meet Mantooth at the Third Alarm Fire Shop booth in the exhibit hall. He will be hosting a fund-raising autograph session for the County of Los Angeles Fire Museum.



## Freedom House Documentary

This documentary will have its world premiere at 6 pm October 15. It follows the story of 44 African-Americans in Pittsburgh who were deemed unemployable until they began training with Peter Safar, MD, of the University of Pittsburgh. These paramedics introduced CPR and designed today's MICU ambulances. This documentary portrays the early beginning of the program, the successful launch and the final demise.

## National Forum for EMS Associations

This year's EMS Expo will include a national forum for EMS associations from around the country. The purpose of this forum, to be hosted by NAEMT, will be to address issues of mutual concern, exchange information about what works and what doesn't, and develop solutions to common problems. This forum will be held on Thursday, October 16, from 12:30 – 2:30 p.m. at the Las Vegas Convention Center.

## Island Fever Party

This special event, sponsored by Bound Tree Medical, will take place at 7 pm on October 16 at the Las Vegas Hilton poolside. Tickets are \$25 per person and can be purchased online, on-site or at the party.

## Photo Contest

EMS EXPO and EMS Magazine are seeking submissions of photos of EMS/rescue/fire professionals in the field, at training events or in the workplace. Winning photos may appear in advertising campaigns, marketing materials or EMS Magazine. The grand prize winner will receive one 3-day conference program and one travel and hotel voucher valued up to \$1,000\* to attend EMS EXPO in Las Vegas! He or she will also go on location at a 5.11 Tactical photo shoot, all travel expenses paid, and

have a feature photo in the 5.11 Tactical catalog. Ten finalists will receive \$511 gift certificates for 5.11 tactical merchandise.

Send photos to Carrie Dunn at [carrie.dunn@cygnus-expos.com](mailto:carrie.dunn@cygnus-expos.com). Submission requirements can be found at: (url). The deadline for submission is September 16, 2008. If your files are too large to email go to <http://webftp.cygnuspub.com>, Enter name Carrie Dunn; then click continue. Instructions are provided to successfully transfer files. \*

## Abbreviated NAEMT Schedule

### Monday, Oct 13

Advanced Medical Life Support Provider Course (Day 1)  
Emergency Pediatric Care Provider Course (Day 1)  
Beyond the Streets: Essential Skills for Aspiring EMS Supervisors (Day 1)  
Demystifying Prehospital Research (Day 1)  
Finance Committee Meeting  
Education Committee Meeting  
Membership Committee Meeting  
Health & Safety Committee Meeting  
Advocacy Committee  
Military Affairs Committee  
Special Operations Committee  
Affiliate Advisory Council Meeting

### Tuesday, Oct.14

Advanced Medical Life Support Provider Course (Day 2)  
Emergency Pediatric Care Provider Course (Day 2)  
Beyond the Streets: Essential Skills for Aspiring EMS Supervisors (Day 2)  
Demystifying Prehospital Research (Day 2)  
PreHospital Trauma Life Support (PHTLS) Instructor & Transition Course  
NAEMT Board of Directors Meeting  
NAEMT Foundation Meeting  
NAEMT General Meeting/Awards Presentation  
NAEMT Member Reception

### Wednesday, Oct 15

EPC General Meeting  
AMLS General Meeting  
NREMT Wine & Cheese Reception

### Thursday, Oct 16

PHTLS General Meeting  
National Forum for EMS Associations  
Scott Frame Memorial Lecture

### Friday, Oct 17

EMS EXPO

# Why not choose the best?

*NAEMT courses provide comprehensive instruction in assessment, treatment, and cutting-edge techniques. If you want a higher standard in EMS education, choose NAEMT for your continuing education needs.*



**AMLS** – *Advanced Medical Life Support program-provides an innovative think outside the box approach to assessing and managing patients in medical crisis.*



**EPC** – *Emergency Pediatric Care program provides the most comprehensive pediatric education program available to prehospital providers.*



**PHTLS** – *Prehospital Trauma Life Support-program has been proven to decrease the mortality rate among trauma patients in the field. Endorsed by the*

## You have many choices in EMS continuing education.

**Take the best.  
Teach the best.  
NAEMT Education.**



*To host, teach or participate in an NAEMT education program, call 1-800-346-2368 or visit us at [www.naemt.org](http://www.naemt.org).*

# Technology

Continued from page 1

added features such as hydraulic lifts, pneumatic back rests, hand brakes, ergonomic hand grips and specially designed handles.

The increasing size of Americans has also been addressed by stretcher manufacturers with the introduction of bariatric units that can hold patients up to 1,600 pounds.

Other innovations in trauma care include hemostatic agents and pressure bandages first used in military field hospitals to control bleeding, gel-backed adhesive disks to better manage penetrating chest wounds, and new splint designs to minimize movement of injured extremities.

## Pediatric Tech

Pediatric patients have special needs that differ from those of adult patients. They are sometimes unable to communicate with practitioners, and some equipment on the rig is just not designed for their smaller sizes.

Safe transport of pediatric patients has been made easier in the past few years with the introduction of a specially engineered seat that attaches to a cot to restrain a child during transport. These seats accommodate children from 22 to 100 lbs. Another company has designed a special safety seat (hidden inside an adult attendant seat) that allows safe transport of children weighing between 5 and 85 lbs.

Other new developments in pediatric care include specially designed child-size splints and child-friendly nebulizing devices.

## Software and Computers

Computers play an increasingly larger role in the work life of today's EMS practitioner. Patient care reports can now be completed and submitted on a laptop, and global positioning systems help practitioners locate their patients on an on-screen road map. Computers are also used to generate billing and to schedule shifts.

Software is now available that allows practitioners to communicate with patients whose native language is not English, and practitioners can take advantage of online continuing education offerings or use test preparation software before taking a state or national certification examination.

Today's EMS practitioners are able to use technology to save lives every day, allowing some patients' stories to end "happily ever after." \* ❀

***Computers play an increasingly larger role in the work life of today's EMS practitioner. Patient care reports can now be completed and submitted on a laptop, and global positioning systems help practitioners locate their patients on an on-screen road map. Computers are also used to generate billing and to schedule shifts.***

## First Responders Say Advanced Technology Critical for Effectiveness

A recent national survey of 200 public safety officials and first responders shows that the ability to respond to a natural disaster is a top concern.

In February, Motorola, Inc. and the Association of Public-Safety Communications Officials released the findings of a national survey to assess how public safety organizations use current communications technology and what future capabilities they would deploy to help improve emergency response, officer effectiveness and public and officer safety.

Key survey findings reveal a strong demand for technology solutions that provide advanced situational awareness to first responders, improve incident coordination, and streamline emergency response. A top concern of first responders nationwide is their ability to react to natural disasters (65 percent), superseding both terrorist attacks (7 percent) and crime (10 percent). Regional fire and police officials dually note that advanced communications technology ranks as the most critical aid in preparedness and response, both now and in the future.

While technologies are improving, community officials report that the greatest need for improvement from advanced technologies in public safety arises in terms of range, speed, and availability (26 percent), interoperability (25 percent), and availability of equipment (17 percent). Topping responders' "wish lists" were rugged notebook computers, visual identification and recognition capabilities, and smart transportation navigation.

The survey also uncovered areas for improvement within departments, as well as additional communications needs for responders and communities. Community officials in both large and small populations listed mapping technologies, or GPS tracking, as the top tool they'd hope to see utilized as technology continues to evolve in the security and safety arena.

## NAEMT Uses Technology to Connect Members, Legislators

Technology not only helps EMS practitioners do their jobs better, but it also helps them stay in touch with their elected representatives on matters of national importance to the EMS industry. NAEMT has purchased a license for the use of Capwiz-XC online advocacy service which will be available to NAEMT members from the NAEMT Website.

The new service allows NAEMT members to communicate with their elected representatives in Washington, DC. Members can use the easy "look-up" capability to find their elected officials and the media for letter-writing campaigns. Sample letters and talking point templates will also be provided on the site.

Since this is an election year, members can use Capwiz-XC to find information on candidates, volunteer/donation opportunities, voter registration, ballot initiatives and polling information. The site also provides information on current legislation, as well as voting records back to 1996.

Members will be notified via e-mail when this new software is ready for use.

*To hell and back home again.*

*"My job involves risks. But no risk is worth taking if I don't get back home to my family. That's why I carry DuoDote.<sup>TM</sup>"*



DuoDote has replaced the Mark I<sup>TM</sup> Kit using advanced dual-delivery technology<sup>1</sup>

- Optimizes response to chemical nerve agents<sup>2,3</sup> by delivering both atropine and pralidoxime chloride in a single auto-injector
- Counteracts the life-threatening effects of a wide range of organophosphorus nerve agents and organophosphorus insecticides<sup>1</sup>
- Offers the same advanced technology used by the U.S. military and allied nations worldwide<sup>4</sup>

Please visit [www.DuoDote.com](http://www.DuoDote.com) or call 1-800-638-8093 for more information.

 **DuoDote**<sup>TM</sup> AUTO-INJECTOR  
(atropine and pralidoxime chloride injection)

*Preparing for the unexpected.*



**MERIDIAN**  
MEDICAL TECHNOLOGIES

The DuoDote<sup>TM</sup> Auto-Injector (atropine 2.1 mg/0.7 mL and pralidoxime chloride 600 mg/2 mL) is indicated for the treatment of poisoning by organophosphorus nerve agents as well as organophosphorus insecticides.

#### **Important Safety Information**

**The 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.** The 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.

Individuals should not rely solely upon agents such as 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-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.

**Please see brief summary of full Prescribing Information on adjacent page.**

© 2007 Meridian Medical Technologies<sup>TM</sup>, Inc., a subsidiary of King Pharmaceuticals<sup>®</sup>, Inc. DuoDote<sup>TM</sup> Auto-Injector, Mark I<sup>TM</sup> Kit, and the DuoDote Logo are trademarks of Meridian Medical Technologies<sup>TM</sup>, Inc. MMT 5173 11/07

**References:** 1. DuoDote<sup>TM</sup> (atropine and pralidoxime chloride injection) Auto-Injector [package insert]. Columbia, MD: Meridian Medical Technologies<sup>TM</sup>, 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/MMG/MMG166.html>. Accessed February 21, 2007. 3. Holstege CP, Dohmeier SG. Nerve agent toxicity and treatment. *Curr Treat Options Neurol*. 2005;7:91-98. 4. Data on file. Columbia, MD: Meridian Medical Technologies<sup>TM</sup>, Inc.



Rx Only  
Atropine 2.1 mg/0.7 mL  
Pralidoxime Chloride 600 mg/2 mL

Sterile solutions for intramuscular use only

FOR USE IN NERVE AGENT AND INSECTICIDE POISONING ONLY

**THE 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.**

#### 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™ 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 single dose of atropine and pralidoxime auto-injector intramuscularly (approximately 9 mg/kg pralidoxime chloride), diastolic blood pressure increased from baseline by  $11 \pm 14$  mmHg (mean  $\pm$  SD), and systolic

blood pressure increased by  $16 \pm 19$  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 paranthrophenol measurements (in the case of parathion exposure) may be helpful in confirming the diagnosis and following the course of the illness. However, miosis, rhinorrhea, 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 neuromuscular 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 females, 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/m<sup>2</sup> 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 scarlatiniform 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 flutter, 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, and 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.

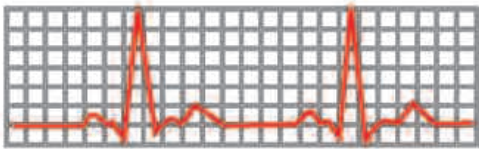
A short-acting barbiturate or diazepam may be needed to control marked excitement and convulsions. However, large doses for sedation should be avoided because central depressant action may coincide with the depression occurring late in severe atropine poisoning. Central stimulants are not recommended.

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.

## MERIDIAN MEDICAL TECHNOLOGIES

© 2007 Meridian Medical Technologies™, Inc., a subsidiary of King Pharmaceuticals®, Inc.  
Manufactured by: Meridian Medical Technologies™, Inc.  
Columbia, MD 21046  
DuoDote™ Auto-Injector and the DuoDote Logo are trademarks of Meridian Medical Technologies™, Inc.  
MMT 5173 11/07



# EMS<sup>SM</sup> EXPO

**NAEMT  
MEMBERS  
SAVE \$125!**



CO-LOCATED WITH:



1989 | 1990 | 1992 | 1994 | 1996 | 1998 | 2000 | 2002 | 2004 | 2008

**OCT 13-17, 2008 • LAS VEGAS CONVENTION CENTER • LAS VEGAS, NEVADA**

EMS EXPO, THE LARGEST GATHERING  
OF EMS PROFESSIONALS IN THE NATION, IS  
**SAVING NAEMT MEMBERS MONEY**

**Choose the NAEMT Member Rate  
and save money when registering.**

**REGISTER TODAY AT [WWW.EMSEXPO2008.COM](http://WWW.EMSEXPO2008.COM)!**



THE NATIONAL ASSOCIATION OF EMERGENCY MEDICAL TECHNICIANS  
WISH TO THANK OUR CORPORATE SPONSORS.

GOLD SPONSORS



SILVER SPONSORS



ANNUAL CONTRIBUTING SPONSORS



ANNUAL SPONSORS



National Association of  
Emergency Medical Technicians Foundation  
P.O. Box 1400 • Clinton, MS 39060-1400

Non-Profit Organization  
U.S. Postage  
**PAID**  
Clinton, MS  
Permit No. 20

