

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





In June, the NAEMT Board of Directors approved a new position statement on Medicare reimbusement. NAEMT believes it is critical for Congress to ensure that Medicare reimburse EMS services for the average cost of providing high quality prehospital medical services to Medicare patients, as recommended in the May 2007 Government Accounting Office (GAO) report to

Congress. Medical services provided by EMS services, including treatment and release of patients (with no transport), treatment and referral, and treatment and transport to other healthcare facilities should be reimbursable under Medicare.

Although the EMS system, the nation's healthcare safety net, is used by an increasing number of patients who rely on Medicare benefits to pay for emergency medical care, Medicare reimbursement to EMS services per transport falls below their costs incurred for providing this care — on average 6% below cost, and 17% below cost in remote or "super rural" areas, according to the GAO.

This is a huge issue of concern, as Medicare is the single largest payer for many EMS services, particularly in rural

areas. Medicare's below-cost reimbursement for these services then results in inadequate funding for necessary EMS equipment and training. This discrepency occurs even though high quality prehospital medical care improves patient outcomes, including Medicare beneficiaries, resulting in a decrease in overall Medicare expenditures, as noted in the December 2009 National EMS Advisory Council report.

"EMS services continue to serve more patients and increase the level of care they provide, which requires additional equipment and training. However, due to chronically below-cost Medicare reimbursement, many of these EMS services are facing serious financial crises," says NAEMT President Patrick Moore. "To ensure that paramedics and EMTs can continue to provide the highest level of quality health care, improve EMS patient outcomes, and ensure the survival of the EMS system, particularly in rural areas, it is crucial that Medicare adequately reimburses EMS services for their costs."

To view the full position statement, please visit the NAEMT Positions page in the Advocacy section of www. naemt.org.

# Mark your calendars for EMS on the Hill Day 2011

NAEMT invites all members to attend the most important advocacy event of 2011 — EMS on the Hill Day, to be held May 3-4, 2011. EMS on the Hill Day provides you with the opportunity to join with other EMS professionals from across the nation and meet with your congressional leaders on Capitol Hill to advocate for the passage of key EMS legislation.

EMS on the Hill Day:

- includes representation from all sectors of the EMS community
- sends a consistent message to our elected leaders on the important issues facing EMS in our country
- builds and strengthens our relationships with Senate and House leaders and their staff

For more information, please visit the EMS on the Hill Day page on our web site.



A guarterly publication of the National Association of Emergency Medical Technicians

# Could **YOU** be an EMS leader? by Jay Fitch, Ph.D.

OULD YOU BE A LEADER IN YOUR CHOSEN FIELD OF EMS? True leadership comes from all levels of an EMS organization. Whether you are involved in only your local service, or are appearing on the "larger stage" of national leadership, it's important to know and carry out your exact role and become the most effective leader you can be.

Leadership can be a calling, but it also takes knowledge, added learning and hard work to be an effective leader. The three C's - Context, Commitment and Community – can help you remember what's involved in each step of leadership, whether you are at the bottom of the organizational ladder or on the very top rung.

**Context** – Understanding yourself, your role and your organization is key to mastering context, or what's going on around you. What is the mission and vision of the your EMS organization? Do your values align with its culture?

Many of us mindlessly move through our day-to-day activities without being fully aware of the importance of our values and how we use them to interpret the motives of others. Clarity about who you are and your EMS service's or association's culture provides a key frame for leadership as you move forward. And, just like the frame around a favorite photo, the values and goals of the organization in which you are involved help provide perspective on your leadership.

**Commitment** – When you choose, or are chosen, to serve as a leader within an organization or the larger community, it's important to make a strong commitment to your role. Sometimes, you have to "give up, show up and grow up" to become an EMS leader.

Giving up involves sacrificing the time it takes to learn leadership skills – time that could otherwise be spent with family or friends. Showing up involves being on the job both physically and emotionally, even when it's not convenient. It's about consistently delivering results of which you are proud. Growing up means paying





Fall 2010

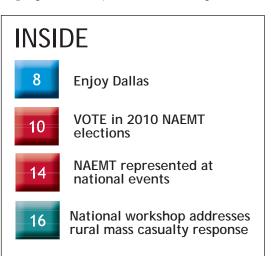


attention to your own behavior. It means realizing that as a leader you are always "on stage," with others keenly observing your attitude, skills, knowledge and style. Most importantly, leadership is about keeping commitments — holding yourself and others accountable for the best possible outcome in any given situation.

Community – Developing community means connecting with a

wide variety of stakeholders. These include subordinates, peers and bosses, patients and other customers, the medical community, national organizations and political leaders, to name just a few.

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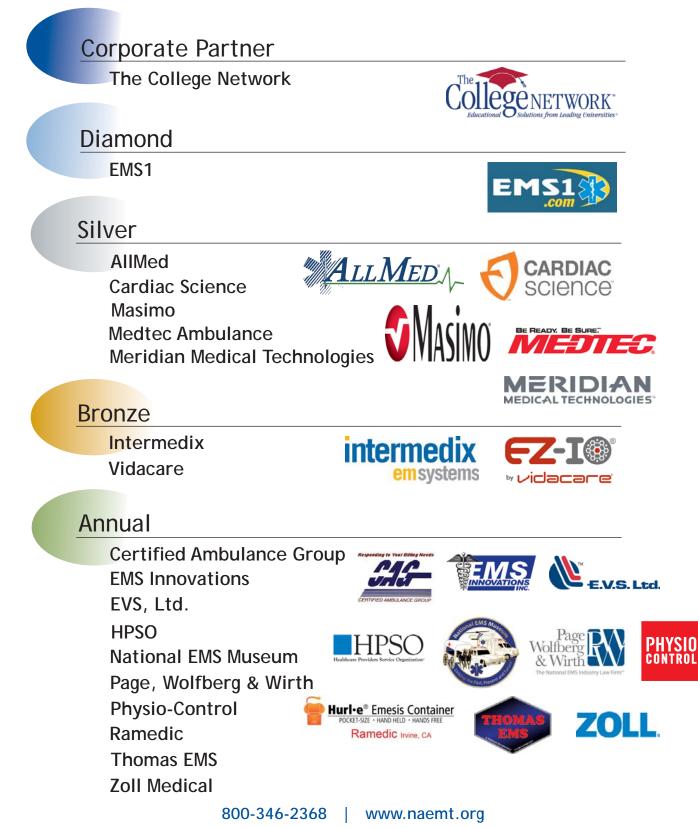


# NAEMT DISPATCHES

# FROM THE PRESIDENT

# Thank you to our sponsors

SPONSORSHIP IS VITAL TO NAEMT programs and services. Without the support of our corporate sponsors, we could not carry out our critical mission of representing and serving EMS practitioners nationally. NAEMT thanks our sponsors for their continued support, and welcomes our newest sponsors, **Cardiac Science** and **EMS Innovations**.



# What does it take to be a leader in EMS?

s president of the only national association of EMS practitioners, I often ask myself: What is leadership? Solid, strong leadership is a quality that every organization and company seeks and appreciates. "A leader leads by example, whether he intends to or not," said John Quincy Adams, who also said, "If your actions inspire others to dream more, learn more, do more and become more, you are a leader."

General Dwight D. Eisenhower defined leadership as the art of getting someone else to do something you want done because he wants to do it. Management guru Peter F. Drucker, for whom the Award for Nonprofit Innovation is named, further defines:

"Management is doing things right; leadership is doing the right things."

These are wise words from wise leaders. But how do they apply to EMS? As we enter our 2010 NAEMT election

cycle, we all are



Patrick Moore President

asked to select the leaders of our association. It's an opportune time to consider what leadership means to us in the context of EMS. Leadership is so important to everything we do in EMS, from our actions on the street in our communities and in our EMS agencies, to how we are trained, to the laws and regulations that govern our work within our states and our country.

To better define what leadership in EMS entails, I asked leaders from all sectors of our industry what leadership meant to them. Here are their thoughts.

Leadership entails sound decision-making and then the "guts" to move forward. Decision-making requires a knowledge base of the pros and cons of any decision; however, in the end the decision must be made without knowing exactly how it will affect the organization or individual. Experience in making good decisions helps propel one to make future decisions. However, one does not lead by him- or herself. Leading takes others to believe in the leader's ability to form a consensus based upon good decision-making. Execution of the decision and the ability to adjust course during the process help build the foundation of leadership.

William E. Brown, Jr., Executive Director, National Registry of EMTs, and 2009 NAEMT Rocco V. Morando Lifetime Achievement Award Winner

Leadership in EMS education means taking a stand on an aspect of professionalism that is highly controversial right now: namely, the role education plays in the growth of EMS.

# The NAEMT elections are an opportune time to consider what leadership means to us in the context of EMS.

Our profession is transitioning from technically focused training shaped primarily by those outside our ranks to training that is being led from within our field through carefully cultivated partnerships. It is an exciting time to be in EMS. We should never stop progressing, but at the same time, we should not leave anyone behind in the process. I am grateful that the "bar" for our profession is being raised.

Angel Burba, Past President, National Association of EMS Educators

Leadership in EMS is required at multiple levels. We need imaginative career educators to lead EMS education into platforms uniquely suited to prepare prehospital specialists for their practice. We need administrative leaders to help craft the best organizations for a variety of geographic and political atmospheres. And we need researchers to help us define our practice in terms of what truly affects patient outcomes in field practice.

#### Will Chapleau, Chair, NAEMT's PHTLS Committee

I see my role as one that strives to collaborate on all levels with the members of our association, who are the leaders of their respective organizations. In doing so, I aim to combine the best ideas, practices and solutions that our members develop everyday to meet the needs of the patients that we serve. In turn, we as an organization look to reach out to others within and outside our organization to work together for the common good of EMS.

Patrick Ryan, President, Professional Ambulance Association of Wisconsin

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NAEMT Rews

# NAEMT

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**NAEMT News** is the official guarterly publication of the NAEMT Foundation, a not-for-profit corporation of the National Association of Emergency Medical Technicians (NAEMT). NAEMT is the only national membership association for EMS practitioners, including paramedics, EMTs, first responders and other professionals working in prehospital emergency medicine. Education, Membership and Advocacy are the three tenets of the NAEMT strategic plan.

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# EDUCATION

# EDUCATION

# AMLS news: Program expands reach





The Advanced Medical Life Support (AMLS) program continues its growth, both in the U.S and abroad.

The course has started in the state of Utah, courtesy of Lee Richardson, AMLS Region 4 Program Coordinator, and Germany and Austria will add the course to their educational agenda in October 2010.

The AMLS Committee is excited about the all-new First Edition textbook, published by Elsevier/Mosby, Inc. While AMLS's unique assessment-based philosophy continues to

remain an integral component of the course, the updated program offers the new textbook, scenarios and lecture presentation content.

The committee is pleased to introduce the new content to AMLS faculty at EMS EXPO 2010, and believes they will be excited to teach the new course. EMS practitioners will continue to experience and participate in a dynamic, interactive course which enhances their patient assessment and management skills and helps them reduce morbidity and mortality.

Top: Amy Madsen, EMT-B; Nick Wittwer, R.N./Paramedic; Meghan Holmes, EMT-I and Kristin Ford, EMT-I experience hands-on learning.

Bottom: The state of Utah's first class. Back row: John Higley, Instructor; Shanna Alger, Program Director; Adam Wilson; Russell Farnsworth; Dale Watts; Chris Bown; Malinda Whipple; Dan Cummings and Lee Richardson, Affiliate Faculty. Front row: Meghan Holmes; Kristin Ford; Tiffany Peterson; Nick Wittwer; Zach Olsen and Amy Madsen.

# EPC news: Course site added

As the Emergency Pediatric Care (EPC) course continues forward in its march to become THE best EMS continuing



education course for pediatric care, the EPC Committee has some highlights to report.

Presently, the EPC course presentations are being updated with the latest information and the new course logo. The new presentation materials are being unveiled to instructors and attendees at EMS EXPO 2010 in Dallas.

The program also has added a new course site to the growing EPC family. National faculty traveled to North Carolina and assisted in the development of some great instructors. The committee thanks EPC Instructor **Devin Rhodes** for his hospitality and for ensuring the course went off without a hitch. EPC continues to offer the best resources available for emergency pediatric care. If you are interested in learning more about hosting an EPC course, please contact the NAEMT office.

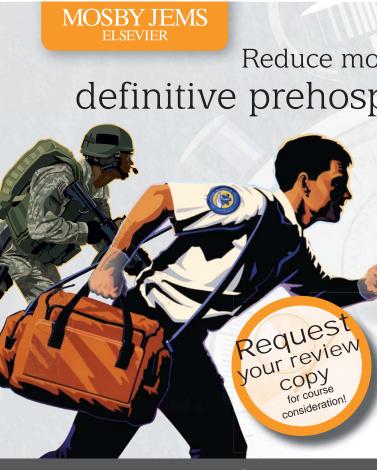
# PHTLS news: State coordinators appointed

We're pleased to announce that the Prehospital Traum



Life Support (PHTLS) program has added two new state coordinators: Kay Vonderschmidt, MS, EMT-P, for Ohio and John R. Zartman, BS, NREMT-P, P.I., for Indiana.

Vonderschmidt has enjoyed being involved in EMS since 1975, when she joined her local volunteer fire department in Crescent Springs, Ky. She became an EMT-Basic in 1976 and a Paramedic in 1980. In 2004, she traded her full-time paramedic and part-time education positions for a full time education/ research job as Assistant Director of the EMS Division, University of Cincinnati, Dept. of Emergency Medicine, and parttime paramedic position with Western Joint Ambulance District. Vonderschmidt also has earned two Master's degrees: one in Public Administration and one



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a	in Emergency Management. She
	continues to teach both EMS
	and emergency management
	classes locally and nationally. Her
	involvement in NAEMT includes
	serving as Affiliate Faculty for
	both AMLS and PHTLS.
	Zartman has served as affiliate

PHTLS faculty for many years,

and is Director of EMS Adminis-

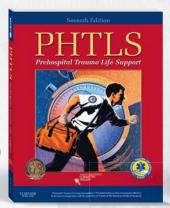


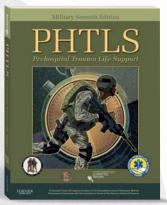
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tration and Education for the Community Health Network in Indianapolis, which supervises and sponsors EMS practitioners in five counties. He has worked in EMS his whole life, beginning in 1974 with a small town, funeral home based ambulance service.

 He began his career in EMS while still attending high
school, enrolling in one of Indiana's first EMT courses, becoming nationally certified, and then becoming a
dt paramedic in 1979 He holds provider and instructor certifications for CPR, ACLS, PALS, EPC, PHTLS, EVOC and Haz-Mat, and is an Indiana State Primary Instructor.

# Reduce morbidity and mortality with these definitive prehospital trauma resources!





PHTLS: Prehospital Trauma Life Support October 2010 ISBN: 978-0-323-06502-3

PHTLS: Prehospital Trauma Life Support, Military Edition October 2010 ISBN: 978-0-323-06503-0

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### **MEMBERSHIP**

### **MEMBERSHIP**

### From the president > > continued from page 3

Leadership in EMS is critical and an area that has not been given the attention it deserves within our profession. Through serving in numerous leadership roles within EMS, I have found that having both the street experience of performing the job of an EMT and the formal education one can only receive from college have been of great use to me. I am able to relate to both the volunteers that I lead as well as confidently interact with those leaders above me, not only within my own organization but across the state and country. To me, leadership in EMS means that you are able to command respect, clearly outline your plan(s) of action, and be inclusive of those around you who have great ideas. To be successful, a leader needs to have education, training and experience.

#### Captain Brad Gronke, MS, EMT, Starved Rock Trail Safety

There are so many qualities that a leader should possess, both in the emergent and non-emergent setting. In the non-emergent setting, it is imperative to always improve your knowledge base. Creating that strong foundation allows you to become a better, more competent practitioner out in the field.

Sometimes we overlook the most important things, such as our crew's well being. A healthy crew is very important, as a leader is only as good as the crew with whom he/she is working.

Being a good leader also means treating others the way you would like to be treated. It is important to help less experienced coworkers. Everyone has to start somewhere, and if you forget what it was like when you started out, it's difficult for you to assist those who are trying to follow in your footsteps.

A leader knows that his/her solution isn't always the best one; being open to suggestions allows others the opportunity to contribute their thoughts, which may differ from yours. Sometimes having a different perspective makes all the difference.

#### Chris Honda, Paramedic and 2009 NAEMT Paramedic of the Year

For EMS or any other business to succeed, there must be leadership at all levels. The newest EMT has an important role to play in leadership, just as the chief or service director does. Leadership is about making good decisions and being a good example and inspiration for others. It is about using that inner voice to guide you and doing what is right even if it's not the easiest thing to do.

Great leaders in EMS are often those who have served in the job of, or have taken the time to understand the needs of, those they lead. While good managers may keep an EMS agency running efficiently, if they do not have the respect of those under them — as a true leader does — the agency will experience turmoil and discontent.

Good leaders inspire rather than manage, and consistently set a good example of doing the right thing, at the right time, for the right reasons. They have a clear vision of where the organization needs to go and empower those they lead to do the things necessary to achieve those goals.

What this means to me as a member of the Board of Directors and incoming president of NAEMT is that to be a good leader I need to have the following traits.

I have to be passionate about NAEMT

■ I have to have a clear vision about where NAEMT should be going as an organization

I have to be ethical in decisions I make about NAEMT's business

■ I have to inspire others to feel the way I do and empower members to step up and be leaders themselves ■ I have to lead by example instead of just telling

people what they should do

Connie Meyer, President-elect

## Leadership is about using that inner voice to guide you and doing what is right even if it is not the easiest thing to do.

In summary, leadership requires participation, vision, responsibility, professionalism, experience, compassion, a dedication to learning and education, an openness to ideas, and above all, passion. A good leader must inspire, include and empower others.

Each member of NAEMT can be a leader in EMS by being involved in their national professional association, whether it is through running for office, serving on a committee, leading our education programs, recruiting and mentoring new members, working on national advocacy efforts, or simply by voting in the elections.

Please take the time to review our election candidates' information carefully and vote for those individuals whom you believe will best lead our association.

# Use these tools of resiliency by Michael T. Grill

n. Phil Callahan, Ph.D., Associate Professor of Educational Psychology at the University of Arizona, and Dr. Michael Marks, Ph.D., Lead Psychologist of the PTSD Clinical Team at the Southern Arizona Veterans Administration Health Care Center, have developed the following easy-to-remember learning tools known as the 'Resiliency Toolbox for EMS Providers.' These tools provide guidance on the physical issues of nutrition, sleep and relaxation, the cognitive issues of personal resiliency, communication and social support and the importance of social support and family.

Consider using this information to create a personal toolbox of 3 x 5 index cards or digital information for your use. Either way, the tools will serve as a quick source of information when reviewing or searching for a resiliency solution.

Michael T. Grill is an EMS educator for Porter, Littleton and Parker Adventist Hospital EMS Team in the Denver South Metro area.

This is a brief summary of information included in articles Grill contributed to NAEMT News. For more information, please see 2010 issues or visit www.naemt.org.

Goal Set	Eat Right	Exercise Might	Sleep Tight	
Why: We set dozens of goals for ourselves each day, but seldom think about the fact that we are going through this process. Goals allow us to mark progress and make adjustments.	Why: Good nutrition is the foundation for strengthening mental, social and spiritual fitness. Nutritional change can show positive results in a very short period of time to create a sense of control and accomplishment, leading to increased self-esteem.	Why: Exercise fosters a stronger heart and lower resting heart rate, maintains a healthy body, helps manage stress, enhances physical appearance, has a positive impact on self-esteem, and increases resiliency.	Why: Without quality sleep, our performance and judgment are dramatically impaired.	
How: Initially consider the goal to be a boundary or limit, then expand it to consider the length of time. Write the goal so you can measure progress and fulfillment. The goal needs to be realistically attainable and measurable. Identify the steps necessary to meet the goal. Develop as many steps as you need to identify key processes in attaining the goal.	How: Balance your actual dietary intake with your Estimated Energy Requirements (EER). Intake includes carbohydrates — classified as either simple or complex — proteins and fats. Carbohydrates should comprise 60% of your caloric intake, proteins 10 -15%, and fats, no more than 30%.	How: A moderately intense cardiovascular (aerobic) workout — exercising hard enough to raise your heart rate between 60%-90% of your maximum heart rate, or break a sweat yet still be able to carry on a conversation — should take about 30 minutes/day, five days a week for beneficial cardiovascular effect.	How: Let go and let sleep happen. Befor bed, make an effort to slow down. Avoid caffeine, cigarettes or alcohol. Sleep in cool, dark room. Practice positive image If you are not asleep within 15-20 minut get out of bed and do a quiet activity ur you become sleepy. Then return to bed. Avoid looking at your clock when you wa up in the night. When possible, get up a the same time every day, and avoid naps the late afternoon.	
Relaxation	Wins and Losses	Reaching Out	Pointing Out ABCs	
Why: Breathing correctly can help you reduce your arousal reaction to stress and thus break the cycle of arousal, vigilance and increased stress.	Why: People with high self-esteem are more likely to persist in tasks because they focus on the process and not on the outcome; profound life lessons can come from our failures.	Why: Resilient people understand that they can't do it alone.	Why: You want to immediately make the discomfort and stresses associated with problems go away. But you need to first understand the patterns in your thinking that create many of the problems.	
How: Perform diaphragmatic breathing by placing one hand on your chest and the other on your stomach. Keep the hand on your chest from moving up and down; have the hand on your stomach move up and down instead. Perform alternate nostril breathing by placing your thumb on one nostril, closing it. Breathe in through the open nostril, and then release your	How: Understand the process of wins and losses. Identify your attitudes and beliefs about winning and losing. Identify a situation where you were successful, and one where you failed, and what you learned. Which situation had the greatest impact on you? Identify an adversity you currently face and describe what you might learn from it. How would you rate your capacity to overcome adversities?	How: Reaching out and seeking help is a complex process of when and where to reach out, the problem under consideration, and the attitudes of the person offering help. Consider a stressful situation. Identify the fears you have about reaching out. Describe how reaching out might increase or decrease your stress. Identify the rewards in reaching out to others. Rate your level of stress after you reach out.	How: How: The ABC approach considers: Adversity or Activating Event (A), Beliefs or Thoughts (B) and Consequences or Feelings and Behaviors (C). This helps us understand situations that cause stress. activating event (A) can be an event tha makes us feel angry or happy, or perhap nothing at all. This triggers beliefs (B) in us, which in turn create feelings (C). Identify the activating situation; Belief, I think; Consequence, or I feel. What sel defeating thoughts are you using? What is a more realistic view of thinking	

NAEWT

# **MEMBERSHIP**

# **MEMBERSHIP**

# **Vote** in 2010 NAEMT elections

he 2010 NAEMT elections are coming up! All members were notified that through last month, candidate submissions were accepted for open officer and director positions, including



President-Elect, Treasurer, Secretary, At-Large Director and Directors for Regions 1, 2, 3 and 4.

Right now through October 1, endorsements of candidates by individual members in good standing are being accepted. Candidates' statements and endorsements will be posted on the web site through October 28. Members may endorse only one candidate for each open position.

Through October 28, you can visit the NAEMT web site to read your candidates' responses to important questions on the topics of leadership, ethics, professionalism and membership.

Voting commences October 15 through 28, and members will be notified of election results in November.

All NAEMT active members are encouraged to vote in the 2010 NAEMT elections - it's both your right and your responsibility as a NAEMT member. Look for your voting instructions soon — and VOTE!

### Could you be an EMS leader? > > continued from page 1

Bringing together a community involves learning to collaborate and communicate. Collaboration is about engaging and involving others in meaningful ways. Communication is the single most important skill and tool that true leaders develop and use. God gave us two ears and one mouth as a sign we need to listen more than we talk when communicating.

# Effective leaders learn to listen in 3D; that is, they listen with their ears, eyes and heart.

#### leadership skills.

One final concept to remember is that when we learn to help others meet their needs, ours usually can be met too. That's one of the not-so-secret lessons of being an effective leader, regardless of where you are in EMS.

Jay Fitch, Ph.D., is the founder of the EMS/public-safety consulting group Fitch & Associates. His firm conducts the Beyond the Street and Ambulance Service Manager workshops held nationwide. An early paramedic and EMS system director, he is a long-time supporter of NAEMT. If you'd like a free copy of "41 Key Competencies for EMS leaders,' contact Dr. Fitch directly at jfitch@emprize.net.

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Effective leaders learn to listen in 3D; that is, they listen with their ears, eyes and heart. Each provides important perspective on what's being said.

Developing community, keeping commitments and understanding context all help you continue to develop your



## **MEMBERSHIP**

## **MEMBERSHIP**

# Schedule of Events - 2010 Annual Meeting

We look forward to seeing you!

#### September 27 MONDAY

8 a.m 5 p.m. 8 a.m 5 p.m. 8 a.m 5 p.m.	NAEMT Preconference Courses PHTLS 7th Edition Instructor Update EPC Provider Course, Day 1 Beyond the Street EMS Supervisor Workshop	Room C1 C145 C141
9 a.m 12 p.m. 12:30 - 2 p.m. 12:30 - 2 p.m. 2 - 3 p.m. 2 - 4 p.m. 3 - 4 p.m. 4 - 6 p.m.	Meetings and Events NAEMT Board of Directors Meeting Health & Safety Committee Meeting Advocacy Committee Meeting Candidacy & Elections Committee Meeting Leadership Development Committee Meeting Finance Committee Meeting NAEMT Foundation Meeting	C140 C143 C147 C147 C148 C149 C149

## **TUESDAY**

# September 28

8 a.m 12 p.m. 8 a.m 5 p.m. 8 a.m 5 p.m. 8 a.m 5 p.m. 6 - 10 p.m.	NAEMT Preconference Courses AMLS Instructor Update EPC Provider Course, Day 2 Beyond the Street EMS Supervisor Workshop Trauma First Response Provider Course (PHTLS) EPC Instructor Course	Room C1 C145 C141 C140 C145
	Meetings and Events	
8:30 - 10:30 a.m.	Membership Committee Meeting	C143
8:30 - 10:30 a.m.	Education Committee Meeting	C149
11 a.m 4 p.m. 5:30 - 6:45 p.m.	Affiliate Advisory Council Meeting NAEMT General Membership Meeting and	C148
	Awards Presentation	C1
6:45 - 8:30 p.m.	NAEMT Member Reception	C4

#### September 29 WEDNESDAY

	Meetings and Events	Room
8 a.m 12 p.m.	PHTLS Annual Meeting	C155
1 – 2 p.m.	EPC Annual Meeting	C145
2 - 3 p.m.	AMLS Annual Meeting	C146
3 - 4:15 p.m.	Scott B. Frame Memorial Lecture	D170/172

# Three members win **\$12,000** in scholarships

NAEMT CONGRATULATES its most recent scholarship

winners:

April Lemanczyk, Wautoma, Wis., and Nicholas Hill, Festus, Mo. - \$5,000 EMT-Basic to Paramedic

Kevin McCarthy, Eagle Mountain, Utah - \$2,000 Paramedic to Advance Education in EMS

Lemanczyk says, "A simple thank you from a patient goes a long way! It gives me all the energy I need to further my education from EMT-Basic to Paramedic. Thank you to the National Association of Emergency Medical Technicians for this scholarship."

Hill, who will begin his paramedic training this fall, says, "Being awarded this scholarship is a blessing that enables me to continue my pursuit of becoming a respected

McCarthy

Lemanczyk

# New benefits added for squad members

ardiac Science, which provides defibrillation, ECG, stress, cant discounts on EMS products and services such as learning systems, PPE and emergency supplies, communications equipment and much more. Plus, it lets squads offer great NAEMT benefits CARDIAC - such as AD&D insur-**SCIENCE** ance, affordable limited health insurance, education discounts and discounted publications and supplies – to their service members.

rehab and Holter devices that connect to EMR and HIS systems, is the newest vendor in NAEMT's squad membership program. Cardiac Science is providing the following discounts to squads that belong to the program: Powerheart G3 AED Pro Package\* – \$1,999 (retail \$3,245) Powerheart G3 AED Plus Package\* - \$1,345 (retail \$2,095) \*Package includes two sets of adult pads, carry case, ready kit, battery. In support of the squad membership program, Cardiac Science also contributed an AED for a raffle for all new squads that joined the program. The winner of the raffle was Lyman

County Ambulance, Presho, South Dakota. "You don't know how exciting this is for us. We were just in the process of To learn more and enroll in the squad membership applying for a grant for a new AED, so this works out program, call 1-800-34-NAEMT or visit the Squad perfectly!" said the service's representative, Angela Ehlers. Membership page in the Become a Member section of The squad membership program provides squads with signifiwww.naemt.org.

#### 800-346-2368 www.naemt.org

paramedic in the field."

McCarthy comments, "My 25-year public safety career at the local level has been immensely satisfying to me. I feel privileged to have had these experiences, and now I wish to advance to an academic level which will allow me to give back to my community and help EMS grow."

NAEMT provides more than \$35,000 in scholarships each year to NAEMT members wishing to advance their education. The next NAEMT scholarship deadlines, including the degree completion scholarship offered through The College Network, are September 15 and December 15.

To learn more about NAEMT scholarships, please use vour member information to log in to the Member Resources section of our web site.



# NAEMT represented at national events

NAEMT PRESIDENT PATRICK MOORE AND PRESIDENT-ELECT CONNIE MEYER represented NAEMT at the National EMS Memorial Service weekend, June 25-27. Other NAEMT Board members, including Region III Director Aimee Binning and Region I Director Jennifer Frenette, also attended the service.

The mission of the National EMS Memorial Service is to honor and remember men and women serving in EMS who have given





their lives in the line of duty, and to recognize the sacrifice they have made in service to their communities and their fellow man.

#### To learn more, please visit www.nemsms.org.

Also in June, NAEMT leaders Patrick Moore, Connie Meyer, Jim Slattery and Rick Ellis attended the 40th anniversary of the founding of the National Registry of Emergency Technicians.

On the occasion of the anniversary, the NAEMT Board also published a resolution honoring the NREMT. The National Registry is the certifying body for EMS and has certified more than 1 million EMS practitioners since its inception in 1970.

#### To find out more about NREMT, please visit www.nremt.org.

In May, NAEMT was represented at the Pioneers of Paramedicine event in Los Angeles by President Patrick Moore and Director Aimee Binning. At the event, the County of Los Angeles Fire Museum inducted four founding fathers of paramedic programs – Eugene Nagel, M.D., Leonard Cobb, M.D., J. Michael Criley, M.D., and Walter Graf, M.D. – into the exhibit. The four also received Pioneers of Paramedicine Lifetime Achievement Awards.

The Pioneers of Paramedicine is a national program created by the County of Los Angeles Fire Museum Association to recognize and honor individuals whose lives and accomplishments exemplify the courage, independence and spirit of innovation that helped shape the development of modern EMS in the United States.

For more information, please visit www. pioneersof paramedicine.org.

Top: Jim Slattery, Connie Meyer, Patrick Moore and Rick Ellis congratulate NREMT executive director Bill Brown (second from right).

Bottom: Aimee Binning, Doug Meyer, Connie Meyer, Leslie Moore, Patrick Moore and Jennifer Frenette attend the National Memorial Service weekend.



Diane Witteman with her Star of Life.

# NAEMT members named Stars of Life

Three NAEMT members were named Stars of Life by the American Ambulance Association in May.

Congratulations to Terry Daniels of Arvada, Colo., Michael Devitte of Las Vegas, Nev., and Diane Witteman of Bismarck, N.D.

The Stars of Life is a national event to pay tribute to those EMS professionals who make a difference in the lives of the patients they serve and for their individual contributions to their communities, companies and colleagues.

In 2010, 76 Stars were recognized from 24 states and the country of Trinidad and Tobago.

# **Use it or lose it** *Take advantage of your continuing education credit during your membership year!*

INDIVIDUAL ACTIVE NAEMT MEMBERS receive two FREE credits of online EMS continuing education per year through CentreLearn. If you don't use this credit before the end of your membership year, it's gone!

Credit can be used toward online individual courses or toward the price of an annual subscription. You also have immediate access to a free online course as an introductory lesson.

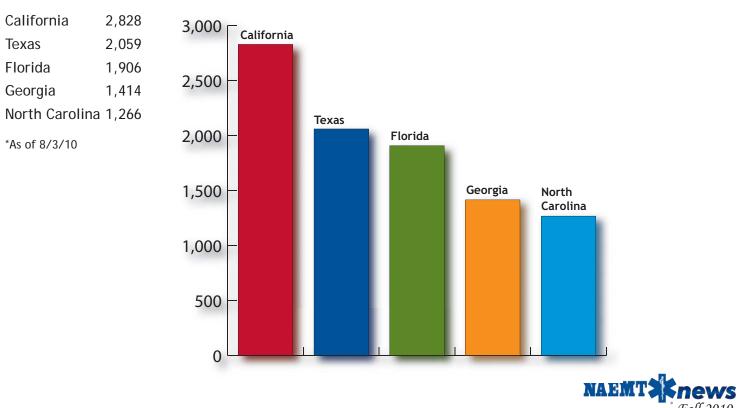
Each course offers one CE hour and courses cover numerous topics, including:

- Introduction to Capnography CCEMTP approved
- Non-Invasive Positive Pressure Ventilation
- Spinal Injury Assessment and Treatment
- Selective Spinal Immobilization
- Management of C-Spine Injuries in Athletics Part 1 and 2
- Non-Visualized Airways Part 1: Combitube CCEMTP approved
- Non-Visualized Airways Part 2: King LT and LMA CCEMTP approved

For more information and to access online education, log in to the Access Your Benefits section of our web site.

# Member snapshot

Which states have the most NAEMT members? Here are the top five\* states.



12 TP approved CCEMTP approved

# **ADVOCACY**

# National workshop addresses rural mass casualty response

# Themes, challenges and opportunities

n August 4 in Washington, D.C., many of the nation's thought leaders on rural EMS gathered together to address rural mass casualty response. The workshop was developed and hosted by the Institute of Medicine (IOM), an independent, nonprofit organization that works outside of government to provide unbiased and authoritative advice to decision makers and the public. Established in 1970, the IOM is the health arm of the National Academies of Science.

The workshop provided participants with the opportunity to examine the current response capabilities of rural EMS and future opportunities to improve integrated mass casualty response in rural settings.

# EMS needs recognition as an essential public service.

Specifically, the workshop:

- Reviewed the findings from NTSB report HAR-09/01 and discussed near- and long-term opportunities to improve response capabilities in rural settings.
- Explored existing standards, guidance, and innovative models and approaches in place for state and local jurisdictions.

Examined integrated systems approaches to improve the capability of the EMS system to respond to large-scale rural incidents.

 Discussed opportunities to improve the integration and coordination with public health systems to address challenges to national public health security, particularly in rural settings.

#### Themes

NAEMT Immediate Past President Jerry Johnston served on the event planning committee and as a panel facilitator. The planning committee was asked to provide three themes that they believed emerged from the workshop:

The struggle of rural EMS systems with day-to-day operations. It is even more daunting to ask them to prepare and respond to an incident of the scope of the January 2008 Mexican Hat incident. A 56-passenger motorcoach with a

driver and 52 passengers on board departed Telluride, Colo., en route to Phoenix, Az. At about 8:02 p.m., the motorcoach departed the right side of the roadway, overturned and came to rest on its wheels. As a result of this accident, nine passengers were fatally injured, and 43 passengers and the driver received injuries ranging from minor to serious. (www.ntsb.gov/publictn/2009/HAR0901. htm).

"The magnitude of the threat as well as the capability and capacity to respond to mass casualty incidents in rural and frontier areas of the United States is largely unmeasured, and government, the public and EMS responders are frequently unaware of the problem," notes Robert Bass, M.D., Executive Director, Maryland Institute for EMS.

Regionalization. While many EMS leaders and systems support the concept of regionalization, what works for one community may not work for another.

"Since EMS and hospitals are the safety net for the public when prevention fails, the resources provided to rural hospitals and EMS are broadened if they expand into regionalized systems of care. Regionalization is not centralization; it facilitates partnerships and sharing of resources," says Jolene R. Whitney, MPA, Deputy Director, Emergency Medical Services and Preparedness, Utah Department of Health.

Relying on volunteers to staff crucial public services. Much to their credit, our valuable volunteer EMS practitioners have been the backbone of our nation's EMS system since its inception. They have done more with less for years, and are to be commended. It's the system of reliance on volunteers that needs addressing. The number of EMS volunteers is dwindling. If we can't address the "why" of this and needed corrections, then we need to look at other — more costly alternatives.

#### Challenges

Workshop participants focused on the following challenges:

The economics and often minimal funding of EMS and the reliance on Medicare and fees-for-services. To effect reform, the EMS community must do a better job of advocating nationally on these issues, letting policy and decision-

Continued > > 19



DuoDote<sup>®</sup> Auto-Injector (atropine and pralidoxime chloride injection) is indicated for the treatment of poisoning by organophosphorous nerve agents as well as organophosphorous 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 organophosphorous insecticide or nerve agent poisoning; definitive medical care should be sought immediately.

#### Important Safety Information

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 organophosphorous nerve agents or insecticides, there are no absolute contraindications to the use of 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. Elderly people and children may be more susceptible to the effects of atropine. DuoDote® Auto-Injector is Pregnancy Category C and should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus. Safety and effectiveness in children have not been established.

Muscle tightness and sometimes pain may occur at the injection site. The most common side effects of atropine can be attributed to its antimuscarinic action. Pralidoxime chloride can cause changes in vision, dizziness, headache, drowsiness, nausea, tachycardia, increased blood pressure, muscular weakness, dry mouth, emesis, rash, dry skin, hyperventilation, decreased renal function, excitement, manic behavior, and transient elevation of liver enzymes and creatine phosphokinase. When atropine and pralidoxime are used together, the signs of atropinization may occur earlier than might be expected when atropine is used alone.

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

ences: 1. Agency for Toxic Substances and Disease Registry. Medical Management Guidelines (MMGs) for nerve agents: tabun (GA); sarin (GB); soman (GD); and VX. http://www.atsdr.cdc.gov/MHMI/mmg166.html. Updated August 22, 2008. Accessed May 20, 2010. 2. DuoDote Auto-Injector [package insert]. Columbia, MD: Meridian Medical Technologies, Inc.; 2007. 3. Rebmann T, Clements BW, Bailey JA, Evans RG. Org antidote auto-injectors vs. traditional administration: a time motion study. J Emerg Med. 2009;37(2):139-143

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# Have No Regrets. Be Prepared. By delivering the 2 recommended antidotes in an auto-injector, DuoDote® (atropine and pralidoxime chloride injection) offers the speed and simplicity to help you respond to poisoning by organophosphorous nerve agents or organophosphorous insecticides.<sup>1-3</sup> To find out more about DuoDote® and for information on grant assistance, visit or call



**READY TO RESPOND** 

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#### BRIEF SUMMARY OF FULL PRESCRIBING INFORMATION

Rx Only Atropine 2.1 ma/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<sup>™</sup> Auto-Injector is indicated for the treatment of poisoning by organophosphorus nerve agents as well as organophosphorus insecticides

DuoDote<sup>™</sup> 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<sup>™</sup> 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 atronine

#### 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 ± 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, 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 n 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 succinvlcholine and mivacurium.

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

Carcinogenesis, Mutagenesis, Impairment of Fertility: DuoDote<sup>™</sup> 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.

mpairment of Fertility: In studies in which male rats were orally nistered 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 oxicity was not established. The low-effect dose was 290 times (on a ng/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.

#### Preanancy

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

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

Nursing Mothers: Atronine 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<sup>™</sup> Auto-Injector in pediatric patients have not been established

#### ADVERSE REACTIONS

Atropine

Muscle tightness and sometimes pain may occur at the injection site

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, constipatio abdominal pain, abdominal distention, nausea and vomiting, loss of libido and impotence. Anhidrosis may produce heat intolerance and impairmen of temperature regulation in a hot environment. Dysphagia, paralytic ileus, and acute angle closure glaucoma, maculopapular rash, petechial rash, and scarletiniform 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 skir rashes, and may progress to exfoliation. Anaphylactic reaction and larvngospasm 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.

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 vocardial 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 o pralidoxime overdose may include: dizziness, blurred vision, diplopia headache, impaired accommodation, nausea, and slight tachycardia. Transien 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.

hysostigmine, 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 substantia 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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### **ADVOCACY**

#### Workshop > > continued from page 16

makers know that EMS is, indeed, an essential public service and should be treated as such, says Johnston.



"Obviously, funding is a major issue for everyone from local, county and state governments, to hospitals, physicians and EMS providers. Funding is needed for infrastructure development, system enhancements and reimbursements. The workshop provided a wonderful opportunity for federal

partners to understand the issues of rural healthcare providers so they may direct funding in the future to support and improve care," says Whitney.

The continued decrease in those willing to volunteer for EMS service. The regulatory barriers/burdens as well as the generational differences need to be addressed.

Preparedness and response in rural areas, in terms of both operational strategy and technology. This needs further research and development of operational strategies that will allow rural systems to be successful. The "one-size-fits-all" approach is not ideally suited or adaptable for rural and frontier EMS.

Technology. Technology in rural emergency and disaster response serves as both an opportunity and a challenge, says Whitney.

"Better communications and patient tracking can be a tremendous asset to everyone involved in a disaster response. Interoperability with all responders, including across state lines, would be the ultimate resolution. Standardization for patient tracking systems would be another desirable outcome.

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OVERDOSAGE Symptoms

Atropine

However, local politics, funding, coordination, federal guidelines, availability of bandwidths and equipment variability bring some insurmountable challenges to rural disaster and emergency care response."

#### **Opportunities**

Participants also identified the following opportunities:

Education and visibility of the plight of rural EMS. The forum served as a positive first step in bringing to light the plight of rural and frontier EMS. "We need to sustain momentum in moving forward," says Johnston.

Leveraging of information. We now have the opportunity to leverage the knowledge gained from other mass casualty incidents.

# The magnitude of the threat as well as the capability and capacity to respond to rural mass casualty incidents is largely unmeasured.

Bass recommends that EMS leaders "identify and share best practices in planning for and responding to mass casualty incidents in rural and frontier areas of the United States, including federal, state and local successes, the military experience in the Middle East wars, experiences from the private sector, and from other countries.'

Financial reform of the business model of rural EMS. We need to reduce the reliance on payment from the Centers for Medicare and Medicaid Services and fee for service. "EMS needs recognition as an essential public service," says Johnston.

Legislative and regulatory reform. There is a need for broad and effective laws to regulate the provision of EMS. "We need to eliminate those outdated or bureaucratic laws and rules that do not focus on patient care," Johnston notes.

For more information, please visit www.iom.edu and enter the search term "Rural EMS."

