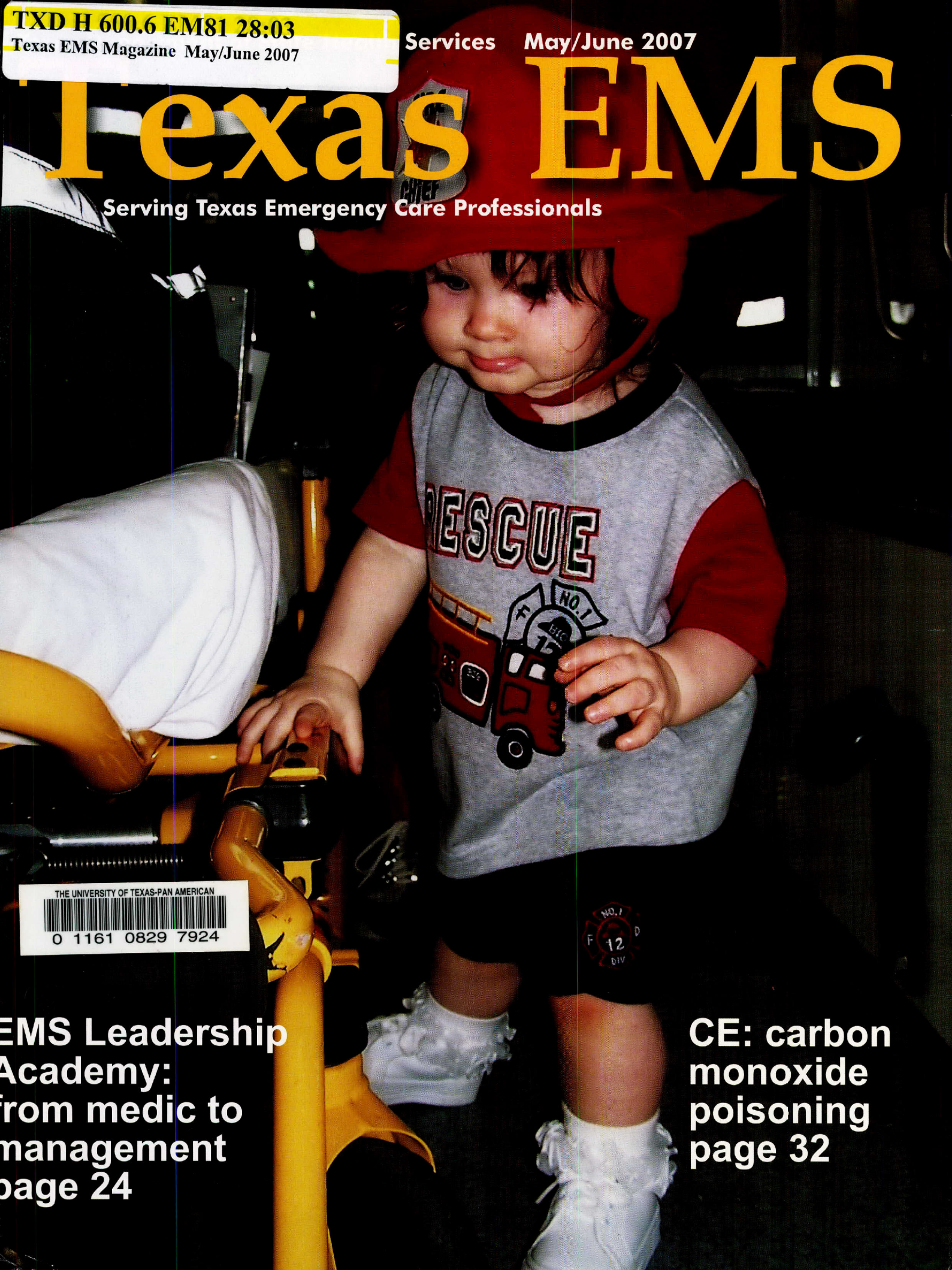


Texas EMS

Serving Texas Emergency Care Professionals



THE UNIVERSITY OF TEXAS-PAN AMERICAN

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**EMS Leadership
Academy:
from medic to
management
page 24**

**CE: carbon
monoxide
poisoning
page 32**

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_____ **“When Minutes Count—A Citizen’s Guide to Medical Emergencies” brochure.** A foldout first aid guide. Can be personalized by the EMS service. (EMS-014)

_____ **“I’m an EMS Friend” sticker.** Ready Teddy in a 2-½ inch, 3-color sticker.

_____ **“EMS Questions and Answers about Citizen Participation” brochure.** Answers questions about how to call, what to do and how the community can help EMS. (EMS-008)

_____ **Concussion cards.** 4 inch X 9 inch card with signs and symptoms of a brain injury for adults and children. One side English and one side Spanish. Adults-(6-81); Children-(6-80)

Mail or fax order form to: Office of EMS/Trauma Systems Coordination
Texas Department of State Health Services
1100 W. 49th St., Austin, TX 78756
or fax to (512) 834-6736

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1100 W. 49th St.
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On the cover: Carl Kemp of Deer Park VFD believes in getting his 8-month-old granddaughter started early in EMS. He snapped this photo for the 2006 Photo Contest.

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Texas Department of State Health Services

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www.dshs.state.tx.us/emstraumasystems
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EMS compliance offices by group

North group
PO Box 60968, WTAMU Station
Canyon, TX 79016
(806) 655-7151

1109 Kemper
Lubbock, TX 79403
(806) 767-0488

1301 South Bowen Road, Suite 200
Arlington, TX 76013
(817) 264-4720

Physical: 6515 Kemp Blvd., Bldg. 509
Mailing: EMS Compliance 509
PO Box 300
Wichita Falls, TX 76307-0300
(904) 689-5928

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Abilene, TX 79605
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(903) 533-5370

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GETAC
May 23-25
Hilton
Austin Airport

Texas EMS

M a g a z i n e

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Editor's office: (512) 834-6700, 1100 W. 49th St., Austin, Texas 78756-3199 or FAX (512) 834-6736.

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EMS transfers data to new computer system

In the Texas Department of State Health Services (DSHS) organizational structure, EMS and Trauma Systems resides within the Regulatory Division, which is led by Assistant Commissioner Kathy Perkins. In 2006, the entire Regulatory Division of DSHS began its migration to a new database system that would integrate licenses and certifications from all of the different units within the Regulatory Division. In February, the EMS database system, which includes all certifications, licenses and complaints, came on-line. As with any new system, there were operational challenges—many anticipated, a few unforeseen. Our information technology staff have worked non-stop to fix the most urgent issues. By the time you're reading this, we anticipate everything being back to normal. If not, know that we have been continuing to work with programmers to fix all the bugs in the system. Many thanks for your patience during this electronic journey. Our ability to serve the public will be improved over the long-haul.

Hurricane season officially begins June 1, and we continue to seek out providers that are willing to sign a Memorandum of Agreement (MOA) to respond during disasters for state facility evacuations or state missions, or both. Both MOAs guarantee that DSHS will reimburse providers. For more information, go to www.dshs.state.tx.us/emstraumasystems/RevisedMOA_GroundAmbulances.shtm and click on FAQs about MOAs.

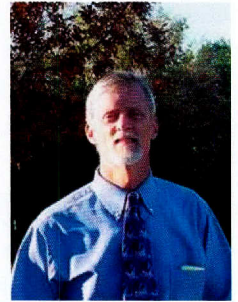
State EMS Director Maxie Bishop continues to monitor the passing rates of the National Registry's computerized testing and will update the Governor's EMS and Trauma Advisory Council (GETAC) and its appropriate committees in May.

The Texas Legislature winds up its 80th session on May 28. The governor then has 20 days to sign or veto bills, or simply let them become law without his signature. We are following many bills that affect EMS and trauma systems as they wind their way through the tortuous process to get to the governor's desk. The content can change dramatically as a bill passes through committee and then onto the floor – if it even makes it through committee. We will run a recap of all the bills that affect EMS and trauma systems in the July/August issue. In the meantime, you can search for a particular bill, or any bill that contains certain keywords, by going to www.capitol.state.tx.us.

Looks like a lot of people really, really like the Bayou City. Our Call for Presentations brought in a record number of workshops submissions for Texas EMS Conference 2007 to be held in Houston in November. We have decided on the pre-conference classes for this year (see page 16), but we're still deciding on the two-hour and one-hour classes. We think you will appreciate the layout of the George R. Brown Convention Center. All of the classes, the exhibit hall and the Monday lunch are on one level of the center. For the Tuesday lunch, we'll be at the Hilton Americas, which is attached by a skyway to the George R. Brown Convention Center. By the way, we could only get a limited number of rooms at the conference rate at the Hilton, so please call early if that's your hotel preference. You'll find a list of all hotels on page 14.

GETAC meets in Austin on May 25 at the Hilton Austin Airport, and committees will hold their meetings on the preceding two days. Turn to page 6 for a complete schedule or go to our website at www.dshs.state.tx.us/emstraumasystems. Be sure and download the documents for the meetings you would like to attend. Newly appointed and re-appointed committee members will be seated at the May meetings. Please go to page 27 for a listing of new committee members, or go to the GETAC section of our website at www.dshs.state.tx.us/emstraumasystems/governor.shtm for a complete list of members. We hope to see all of you in May...

FROM THIS SIDE



Steve Janda
Office of EMS/Trauma
Systems Coordination

A handwritten signature in dark ink, appearing to read "Steve Janda".

Patience requested: Computer system debuts

Effective February 19, 2007, most of EMS went live with a new database system known as Regulatory Automation System (RAS). In 2006, the entire Regulatory Division of DSHS began its migration to a new database system that would integrate licenses and certifications from all of the different units within the Regulatory Division. As with any new system, there were operational challenges—many

anticipated, a few unforeseen. Our IT staff has worked nonstop to fix the most urgent issues. By the time you're reading this, we anticipate everything will be back to normal, including the certification query. If not, know that we have been continuing to work with programmers to fix all the bugs in the system. Many thanks for your patience during this electronic journey. Our ability to serve the public will be improved over the long haul.

Governor's EMS and Trauma Advisory Council (GETAC)

**Hilton Austin Airport
9515 New Airport Drive
Austin, Texas**

Wednesday, May 23, 2007

8:00am-12:00pm Stroke Committee
1:00pm-3:00pm Pediatric Committee
3:00pm-5:00pm Trauma Systems Committee
5:00pm-7:00pm Regional Advisory Council (RAC)
Chairs

Thursday, May 24, 2007

8:00am-10:00am Air Medical Committee
10:00am-12:00pm Injury Prevention Committee
1:00pm-3:00pm Education Committee
3:00pm-5:00pm EMS Committee
5:00pm-7:00pm Medical Directors Committee

Friday, May 25, 2007

9:00am Governor's EMS and Trauma Advisory Council

EMS Obituaries

Guillermo E. "Benny"

Balderrama, 32, of Kyle died March 2 in a motorcycle crash. He was a firefighter for the Austin Fire Department and was a certified EMT.

Joshua M. Boyd, 30, of Abilene died in March from wounds suffered during combat service in Iraq. He was an Army combat medic designated as a trauma specialist and was assigned to the 82nd Airborne Division.

Barbara Jones Buda, 57, of Austin died March 19 after a brief illness. She was a former EMT, paramedic and instructor for the city of Austin.

John H. Coats, 65, of Hutto died March 9. An ECA and president of Williamson County Emergency Services District 3, Coats was a former chief of the Hutto Fire Department who helped shepherd it from a volunteer service to a paid department, and a longtime EMS conference volunteer.

Joe David Green, 74, of Pampa and formerly of Vega, died February 19 after an extended illness. He was a retired EMT and a former member of Logan Volunteer Ambulance service in Logan, New Mexico.

Merrell C. Hendrix, 93, died February 23 after a lengthy illness. He was a former chief of the Dallas Fire Department and created the ambulance service during his tenure, requiring all personnel to be both firefighters and EMTs or paramedics.

Wade Kludt, 40, of Mt. Pleasant died February 5 in an automobile accident. A longtime paramedic, Kludt was a presenter at Texas EMS Conference 2006.

Keith Lloyd Wampler, 33, died February 18. He was a firefighter and paramedic for the Austin Fire Department.

Johnny Wendeborn, 41, died March 4 after a battle with cancer. He was a paramedic for Andrews EMS.

Start planning now for the week and month that honors emergency responders

EMS Week, May 20-26, 2007

Texas Trauma Awareness Month, May 2007

Have you started planning for EMS Week, May 20-26? What about Trauma Awareness Month in May? EMS Week honors all who work as part of the EMS and Texas Trauma Network. These two events are the perfect time to tell people in your community about the important role you play in the health of your community. And that's a message you can't emphasize too much as your workload increases and government budgets shrink. It's



EMS: Extraordinary People, Extraordinary Service, which focuses on the commitment and dedication of the EMS providers who provide an essential community service

everyday nationwide. ACEP's packet can be ordered online at www.acep.org. Packets also can be ordered directly from ACEP by calling (800) 798-1822, then pressing 3261 when prompted. For more information, call us at (512) 834-6700.

also a perfect opportunity to bring the message of safety to your community. The American College of Emergency Physicians once again has produced complimentary planning packets to help communities promote EMS Week Activities. The theme this year is

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Medical Eagles soar in Dallas

By Watson Kohankie, LP

Ever wonder what is around the corner for EMS? Those who attended the "EMS State of the Science: A Gathering of Eagles Conference" in Irving in February might know what's in store for EMS in the coming years.

The conference began in 1998 as a way for leading EMS physicians to exchange ideas about prehospital care, and that tradition has continued. This year over 300 EMS professionals attended, including more than 40 medical directors and industry leaders from around the state. This year's presentations covered staffing issues (shift schedules, education and skills requirements); mild, induced hypothermia for the resuscitated cardiac patient; new advanced protocols for the treatment of stroke patients; the use



of new IO devices; and many other topics.

What does this mean for you?

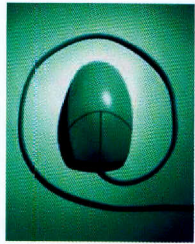
If you're a street medic or first responder, this is where medical directors can discuss the results of studies that ultimately change those protocols we are using in the streets. For example, ever wonder why the number of chest compressions changes in your protocol? Your medical director might have discussed it at the

conference.

EMS educators can look to the conference for an idea of things they might be teaching in a few years. When I attended my first Eagles conference a few years ago, capnography/ETCO₂ was considered something we'd never use on the street. Today, I wouldn't be without it.

The conference happens each February in Dallas. Go to www.gatheringofeagles.us for information on this year's conference and the information on next year's conference when it's available.

Watson Kohankie is a firefighter/paramedic with the City of Carrollton and has attended several EMS State of the Science conferences. He sometimes uses his camera to document EMS life and won first place in the 2006 Texas EMS Conference photo contest.



New website finally up

It took a server crash and a whole lot of panic, but the new EMS/trauma systems website is now up and ... looking just like all the other DSHS sites, as required. If you have the old site bookmarked, please mark the new sites in your "Favorites." There will be a page that will redirect you to the new site for a few months longer, or until the old server finally dies. The new address is www.dshs.state.tx.us/emtraumasystems.

Recruitment brochures for sale from NREMT

NREMT has produced two brochures to help in recruiting EMTs. The cost is \$10 for 25, which includes shipping and handling. Focusing on career EMTs, one brochure is geared to the high school and young adult audience looking for a rewarding and exciting career. The second brochure encourages community members (especially those in rural areas) to make a difference by volunteering as an EMT. To order, go to www.nremt.org and click on "Purchase NREMT Items" in the left margin.



Send in your EMS Awards nominations

Send us your best in EMS and trauma! We've posted the award nomination form on our website at www.dshs.state.tx.us/emtraumasystems/07AwardsIntroduction.shtm. Save this Microsoft Word document to your computer and fill it out by clicking in the gray areas beside each question. When you finish, save the file and email it back to EMSAwards@dshs.state.tx.us.

Each category honors a person or organization that exemplifies the best that the EMS/Trauma System has to offer. It's quite an honor to be nominated and to win. You can find a listing of the categories and the explanations on our website.

Fill out the information requested on the form. Include written examples of why this person or organization should win. Please be specific, using examples when possible. Keep in mind that the people who review the nominations most likely won't be as familiar with your nominee as you are.

Send the file to us by email no later than October 1, 2007. The packets are then distributed to the OEMS/TS programs and sent to each EMS compliance group. Each program and compliance service group ranks the nominations for each category and returns the information to the OEMS/TS, where scores are tallied. Scores are kept confidential from all except those who tally the scores. Winners are announced at the Awards Luncheon at Texas EMS Conference in Houston.

Award Categories 2007

- ★ EMS Educator Award
- ★ EMS Medical Director Award
- ★ EMS Administrator Award
- ★ Public Information/Injury Prevention Award
- ★ Citizen Award
- ★ Private/Public Provider Award
- ★ Volunteer Provider Award
- ★ First Responder Award
- ★ Air Medical Service Award
- ★ Outstanding EMS Person of the Year
- ★ Telecommunicator of the Year
- ★ Trauma Facility of the Year

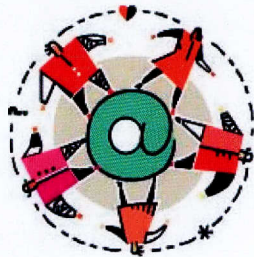


Check NREMT status online

You know you can check your status online at our website. Did you know you can also check National Registry status online? If you know the city/state and at least the last name, go to www.nremt.org/about/checkEMTStatus.asp. If you know the Social Security number, National Registry number and date of birth, go to www.nremt.org and click on Check Registrant Status near the bottom of the page.

New members named to committees

GETAC recently appointed some new members to its committees. Turn to the GETAC Recap on page 26 for a listing of new members, or go to our website at www.dshs.state.tx.us/emtraumasystems/governor for a complete listing of the committees. GETAC meets May 23-25 at the Hilton Austin Airport. See a complete schedule on page 6.



Hospital burn admissions rise

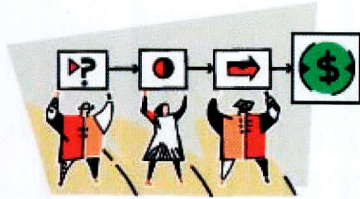
The Agency for Healthcare Research and Quality reported in January that hospital admissions for burns rose nearly 22 percent between 2000 and 2004 – from 26,700 to 32,000. The rise in burn admissions comes after a 44 percent decline in the previous seven years. Nearly 20 percent of burns were a result of hot liquid, such as cooking oil, or hot vapor, such as steam. Burns from gasoline, lighter fluid and other highly flammable products accounted for 13 percent of admissions, followed by electrical appliances (10 percent), scalding tap water (5 percent) and chemical and causative or corrosive products (4 percent). Two thirds of admitted burn patients were under age 45, and 27 percent of those were under age 18. The elderly accounted for 12 percent of burns. For information on burns or for other interesting information about health care, go to www.ahrq.gov.

Star of Texas nominations accepted soon

In 2003, the 78th Texas Legislature passed House Bill 1937, which created the Star of Texas Awards to honor first responders seriously injured or killed while performing their duties as peace officers, firefighters and emergency medical first responders. HB 1937 also designated September 11 of every year as Texas First Responders Day. The first Star of Texas awards were presented in 2004 to three Texas responders, one for each category of first responder: emergency medical, fire, and law enforcement. The 79th Texas Legislature amended the original legislation to require awards for every first responder seriously injured or killed after September 1, 2003. Nominations are now open for the awards. To be eligible, the critical incident must have occurred after September 1, 2003, and the individual must not have previously received a Star of Texas Award. Nominations for the current year are usually taken until July. The awards ceremony is normally held on September 11. To nominate a first responder, go to www.governor.state.tx.us/divisions/cjd/awards/TexasStarAward.



On Duty



Tips may help make funding request a success

Has your area suffered a devastating event that might qualify you for Extraordinary Emergency Funding? The Commissioner's Extraordinary Emergency Funding is available to assist licensed EMS providers, hospitals and registered first responder organizations if unforeseeable events cause a degradation of service to the community. Situations that may severely reduce or incapacitate emergency response capability are considered extraordinary emergencies.

You can increase your chances of successful funding by remembering these simple guidelines:

- Organizations eligible to apply include: licensed EMS providers, licensed hospitals and registered first responder organizations.
- Your organization must be meeting its Regional Advisory Council (RAC) participation requirements. Contact your RAC to verify this requirement.
- Requests are evaluated to determine whether the "emergent" need will create a degradation in the service you currently provide to your community if not fulfilled.
- Items cannot be purchased

prior to receiving a contract. This fund is not a reimbursement grant. Items funded can only be purchased during the contract period once the grant is awarded.

- In the case of a malfunctioning piece of equipment, include with your request the documents showing the repair history of the product. Other helpful documentation could include a supportive statement from the manufacturer indicating that the product has been outdated and cannot be fixed.
- Extraordinary Emergency Funding is not available for equipment upgrades or enhancement of services. For that, please contact our office or your local EMS regional staff about the annual Local Projects Grant. After a request has been funded, your organization must send in receipts to verify purchase of the requested items/services. You also will be required to send an impact statement of how the funding has helped your organization and community at large.

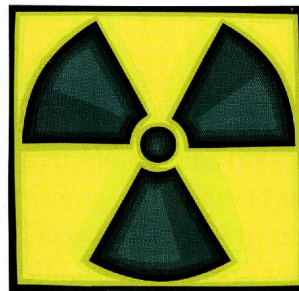
The following organizations were awarded Extraordinary Emergency Funding recently:

Ropesville Volunteer EMS - \$16,405 to assist with the purchase of a Lifepak 12 Cardiac Monitor/AED

Citizens Emergency Medical Services, Inc. - \$10,000 to assist with operational expenses

For further information, please contact Linda Reyes at linda.reyes@dshs.state.tx.us or (512) 834-6684.

Radiation book available for first responders



Do you know what an RDD is? Or how to respond to one? The Conference of Radiation Control Program Directors (CRCPD) has created a *Handbook for Responding to a Radiological Dispersal Device First Responder's Guide—The First 12 Hours*

for first responders, regardless of radiological experience. The guide includes a flow chart for responding to an RDD, determination of various radiation zones, use of radiation instrumentation and decontamination guidelines. The guide also has sample forms and lists of state, local and federal radiation control contacts that can provide assistance. Many of the concepts introduced in the handbook can be applied to a variety of radiation incidents, and do not apply exclusively to dirty bombs.

It is intended for use by first responders (fire, EMS, police, HAZMAT), although the first receivers (EMS/EMT, medical staff at hospitals or other clinical settings) may

also elect to use it as a guide when preparing to respond to an RDD event. The RDD Handbook (publication #06-6) consists of the bound document, a CD containing forms and handouts, and one RDD Pocket Guide. The \$30 price includes shipping within the United States. Quantity discounts are available.

The *RDD First Responder's Pocket Guide*, a companion to the RDD Handbook, is designed to be taken into the field as a quick reference. This very durable, waterproof, and alcohol-safe pocket guide provides both general and specific information for use during the first 12 hours after the detonation of an RDD. The guide (publication #06-RDD-PG) is available for \$1.50, including shipping within the United States. Discounts are available for quantities.

CRCPPD is a nonprofit, non-governmental professional organization dedicated to radiation protection. Its mission is "to promote consistency in addressing and resolving radiation protection issues, to encourage high standards of quality in radiation protection programs, and to provide leadership in radiation safety and education." For more information or to order the guides, go to <http://www.crcppd.org/Pubs/RDDGuide/Webpage.pdf>.

National EMS advisory committee formed

The NHTSA Office of EMS recently announced the establishment of a National EMS Advisory Committee (NEMSAC). The goal of the committee is to bring together EMS representatives and consumers from across the nation to provide advice and recommendations to NHTSA as it develops programs and works to improve EMS systems.



Among the issues that NEMSAC will consider are:

- National EMS needs assessment and strategic planning;
- EMS standards, guidelines, benchmarks, and data collection development;
- Methods for improving community-based EMS;
- Strategies for strengthening EMS systems through enhanced workforce development, education, training, exercises, equipment, and medical oversight;
- Improved coordination and support of EMS activities among federal programs; and
- Other issues or topics as determined by NHTSA and NEMSAC.

NEMSAC will not be involved in program management

or in regulation development. The inaugural committee is being chosen now by NHTSA representatives based on expertise and an ability to represent interests of the EMS community. Nominations are closed for this year, but a new committee will be chosen in two years. For more information, go to www.nhtsa.dot.gov/people/injury/ems/EMSNewsletterWinter07/index.htm.

New Texas EMS editorial board forming

First things first: we want to thank the dedicated folks who have served on our editorial board for many years. This month, we will be accepting applications for a new editorial board. Current members are welcome to re-apply. There will be new criteria, however, including attendance at two half-day (at most) meetings in Austin per year. We hope to schedule them in February and August on the Tuesday before GETAC meets. Each member will be responsible for his or her own travel expenses. We'd like the new editorial board to give us feedback about what folks would like to see in the magazine, and to lend us some technical expertise on subjects from time to time. The time commitment would be minimal, except for the meetings twice a year. For more information, go to our website at www.dshs.state.tx.us/emstraumasystems and click on "Editorial Board" under News/Features.



On Duty

Provider guilty of Medicaid fraud

Anura Andradi, 47, and his company, Doctor's Ambulance, LLC, of Dallas were convicted by a federal jury of 40 counts of health care fraud in March. According to information presented by prosecutors, from March 2004 to December 2005, the defendant defrauded Medicare and the Texas Medicaid program by certifying that patients met those programs' guidelines when, in fact, they did not. The jury found that Andradi and Doctor's received \$750,000 from the fraudulent scheme. Five ambulances and more than \$220,000 were seized by federal agents. Andradi faces up to 10 years in federal prison and a fine of up to \$250,000 at sentencing. Doctor's Ambulance faces a sentence of up to five years probation and a fine of up to \$500,000.

Good news for younger candidates

When Texas switched to computer-based testing, some EMS students in high school were left behind – the system wouldn't let them test before their 18th birthday. Now, thanks to a new arrangement between DSHS and National Registry, that glitch is fixed.

Here's how it works: After you complete your course, our office will verify that you are eligible to test. For verification purposes, coordinators must send a roster of those students under age 18 who successfully completed

the course to state EMS director Maxie Bishop. After verification, candidates under 18 must apply to take the NR *assessment* exam, NOT the initial exam. In addition to passing the NR exam, you'll also have to complete the state application for initial certification and pay your fees. When you turn 18, send a copy of your driver's license to the NR and to DSHS EMS Certification. This will allow us to verify your age, and, if all other requirements have been met, we'll issue your Texas EMS certification. If you want to gain NR certification, you won't have to take another test; NR will accept your passing of the assessment exam (but there will be an administrative fee).

For more information, go to our website: www.dshs.state.tx.us/emstraumasystems/.

New foundation created

A nonprofit foundation to support the EMS, trauma and acute care systems was created in November. The Texas EMS, Trauma and Acute Care Foundation has filed articles of incorporation and is a non-profit 501(c)(3) organization. The mission of the Foundation is to assist the membership organizations implement the Texas EMS/Trauma System Strategic Plan, the HRSA/CDC EMS Agenda and HRSA/CDC Trauma Agenda.

Thirteen RACs have joined as founding members, and the newly elected board of directors recently created other stakeholder membership categories. The Foundation is organized into six divisions: EMS, trauma system development, injury prevention/injury control/research, disaster/crisis response, acute care system development and provider education. Four of the divisions have elected directors who will serve on a volunteer basis. Elected were Scott Mitchell, EMS division; Brenda Putz, trauma system division; Gail Martin, acute care division; and Beth Tracey, provider education division. The remaining divisions' directors will be elected in coming months.

In addition to the divisions, there are standing committees: membership/recognition, management oversight, finance/grants management, and mentorship/performance improvement/advisory committee. The goal is to engage all interested emergency healthcare parties and agencies in the functions and decision-making for the Foundation. For more information, email Jorie Klein at JKLEIN@parknet.pmh.org or any of the board members or division directors.



Texas EMS Conference 2007 REGISTRATION FORM

George R. Brown (GRB) Convention Center Houston

\$150 until November 1
\$175 after November 1

(Please type or print clearly)

You may register online at www.texasemsconference.com

Name _____
 Company _____
 Address _____
 City _____ State _____ Zip _____
 Phone _____ - _____ - _____ E-mail address: _____
 Area Code _____

Note: Make a copy of this form for each registration — only one registration per form. Fill in the name exactly like you want your name tag to be printed.

General Information:

www.dshs.state.tx.us/emstraumasystems/07conference.shtm (512) 834-6700

Registration information: (512) 759-1720

Credit card registration fax: (512) 759-1719

PRECONFERENCE CLASSES Preconference registration deadline: October 15, 2007

If you are taking a preconference class, check the preconference class title

- | | | |
|---|--|---|
| <input type="checkbox"/> Helicopter Operations, \$50 | <input type="checkbox"/> Radiological Preparedness, no cost | <input type="checkbox"/> AST/MTF Leader Course, \$125 |
| <input type="checkbox"/> EMS Management 101, \$95 | <input type="checkbox"/> ACLS-EP, \$175* | <input type="checkbox"/> Emergency Pediatric Care, \$200 |
| <input type="checkbox"/> Vehicle Response Safety, \$60 | <input type="checkbox"/> Future of Technology Education, \$100 | <input type="checkbox"/> EMS Instructor Course, \$295 |
| <input type="checkbox"/> Who's Afraid of Kids?, \$100 | <input type="checkbox"/> Enhanced 12 Lead, \$75 | <input type="checkbox"/> Confined Space, \$125* |
| <input type="checkbox"/> Writing Multiple Choice Exams, \$135 | <input type="checkbox"/> Slap the Cap, \$75 | <input type="checkbox"/> New Car Technology, \$125* |
| <input type="checkbox"/> 12-Lead, \$150 | <input type="checkbox"/> SLAM, \$350 | <input type="checkbox"/> High Angle Rescue, \$125* |
| <input type="checkbox"/> Patient Care Documentation, \$80 | <input type="checkbox"/> Coordinator Course, \$325 | <input type="checkbox"/> Saturday <input type="checkbox"/> Sunday |
| <input type="checkbox"/> Trauma Life Support, \$325 | Total Preconference Class Fee \$ _____ | |

* Email address required.

No refunds after November 1, 2007.

Sunday, November 18, 2007

1:00 pm - 7:00 pm Registration-GRB Convention Center
3:00 pm - 7:00 pm **Exhibit Hall Opens-Welcome Reception**

Monday, November 19, 2007

7:00 am - 6:00 pm Registration-GRB Convention Center

Tuesday, November 20, 2007

7:00 am - 3:00 pm Registration-GRB Convention Center

Registration Information: (512) 759-1720

Conference Registration Fee \$ _____

Preconference class fee included + _____

Total Amount enclosed \$ _____

Make check payable to:
Texas EMS Conference

Mail to:
Texas EMS Conference
P.O. Box 100
Hutto, Texas 78634

\$175 registration at the door

Registrations by fax will be accepted only if you are using a credit card — a check, money order or credit card number must accompany your mailed registration. No mailed or faxed registrations accepted after 11/1/2007. No refund after 11/1/2007. There is an 18% administration fee if a refund is necessary.

By signing up for the conference, you agree to have your likeness reproduced in publications.

Official Use Only

MC Visa AmEx

If paying by credit card, you may fax your completed registration to: **(512) 759-1719**

Date Rec'd. _____

Credit Card No: _____ - _____ - _____ - _____

Type of Pmt. _____
(if check, write #)

Card Holder _____ Card Exp _____

Amt. Rec'd. _____

Signature of Card Holder _____

Zip Code of Billing Address _____

You may register online at www.texasemsconference.com

November 18-21, 2007

Texas EMS Conference – Houston

(Exhibit Hall open November 18-20)

It's the biggest city in Texas and the fourth-biggest in the nation. Yet Houston has never hosted the best EMS conference around – that is, until now!

This year, Texas EMS Conference will set up shop in the spacious and attractive George R. Brown Convention Center, on the southern end of Houston's vibrant downtown. Conference 2007 promises to deliver all the goods you've come to expect – top-notch education, speakers and exhibits that will keep you on the cutting edge of emergency medicine.

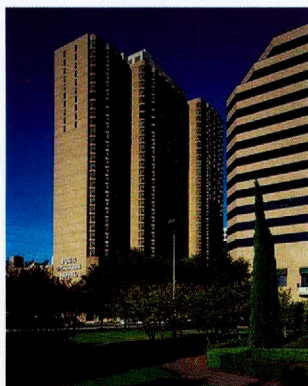
But, as always, we're not content to rest on our laurels. That's why this year we're expanding the selection of two-hour, hands-on classes, which were hugely popular when introduced in 2006. In addition, the exhibit hall will feature a new layout designed to make browsing as easy as possible, and the annual EMS Awards Luncheon will be held in the stunning Lanier Grand Ballroom of Hilton Americas-Houston.

Even with all these perks, we remain committed to giving you the best value for your dollar. Our low conference rate includes access to 15 hours of continuing education, a tote bag, coffee and snack breaks, a buffet lunch, and the Awards Luncheon, which honors the best in Texas EMS and trauma.

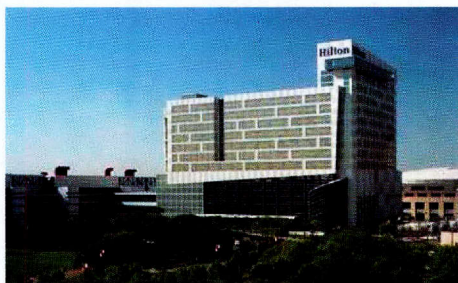
Special room rates for conference attendees and exhibitors are available at three downtown hotels. Hilton Americas-Houston, our host hotel, is connected to the convention center by a skyway, while the Four Seasons Hotel and Doubletree Hotel Houston Downtown are just a short walk away. Don't pass up these great deals – make your reservation now before the hotels are booked.

See you in November!

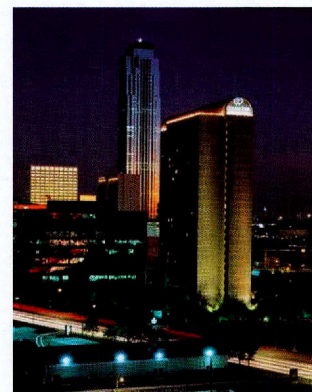
HOTELS



Four Seasons Hotel
1300 Lamar St.
Houston, TX 77010-3017
713-650-1300
www.fourseasons.com/houston
\$149/\$169



Hilton Americas-Houston
1600 Lamar St.
Houston, TX 77010
713-739-8000
www.hilton.com
\$85/\$125



Doubletree Hotel Houston
Downtown
400 Dallas St.
Houston, TX 77002-4777
713-759-0202
www.doubletree.com
\$85/\$110

Schedule

Conference At-A-Glance

Sunday, November 18

1:00 pm - 7:00 pm Registration in George R. Brown Exhibit Hall B3
 3:00 pm - 7:00 pm Exhibit Hall opens with Welcome Reception

Monday, November 19

7:00 am - 6:00 pm Registration in George R. Brown Exhibit Hall B3
 8:15 am - 9:30 am Opening Session
 9:45 am - 10:45 am Workshop Breakouts
 10:00 am - 3:00 pm Exhibit Hall open (Exhibit Hall closed 3-5pm)
 5:00 pm - 7:00 pm Exhibit Hall open
 11:00 am - Noon Workshop Breakouts
 12:00 pm - 1:00 pm Lunch in Exhibit Hall
 2:00 pm - 3:00 pm Workshop Breakouts
 3:15 pm - 4:15 pm Workshop Breakouts
 4:30 pm - 5:30 pm Workshop Breakouts

Tuesday, November 20

7:00 am - 3:00 pm Registration in George R. Brown Exhibit Hall B3
 7:30 am - 8:30 am Early Bird Workshop Breakouts
 8:45 am - 9:45 am Workshop Breakouts
 9:00 am - 11:45 am Exhibit Hall open (closed during Awards Luncheon)
 10:00 am - 11:00 am Workshop Breakouts
 11:45 am - 1:30 pm Awards Luncheon-Exhibit Hall (Exhibit Hall open immediately after Awards Luncheon)
 1:30 pm - 3:00 pm Exhibit Hall open
 2:00 pm - 3:00 pm Workshop Breakouts
 3:00 pm Exhibit Hall closes
 3:15 pm - 4:15 pm Workshop Breakouts
 4:30 pm - 5:30 pm Workshop Breakouts

Wednesday, November 21

8:30 am - 9:30 am Workshop Breakouts
 9:45 am - 10:45 am Workshop Breakouts
 11:00 am - noon Workshop Breakouts
 Conference adjourns

GRAND PRIZE - \$250; FIRST PLACE - \$175; SECOND PLACE - \$100; THIRD PLACE - \$75; HONORABLE MENTION - \$50

2007 Texas EMS Photography Contest entry form

Photographer's Name _____
 Employed by _____
 Address _____
 City _____ State _____ Zip _____
 Phone (HM) _____ / _____ - _____ (WK) _____ / _____ - _____
 E-mail Address _____

Mail to: Texas Department of State Health Services/EMS
 1100 W. 49th St., Austin, TX 78756-3199.

Deadline for entering: November 12, 2007

Tape this form to the back of the photo.

Brief explanation of scene: _____

Photo Contest Rules

- **Winning categories and prizes:**
 Grand Prize winner (either color or black and white)—\$250 and a plaque.
 First Place—\$175 and a ribbon.
 Second Place—\$100 and a ribbon.
 Third Place—\$75 and a ribbon.
 Honorable Mention—\$50 and a ribbon.
- **Deadline:** Entries must be received no later than **November 12, 2007**. All photos will be displayed at Texas EMS Conference, and winners will be printed in the January/February issue of *Texas EMS Magazine*.
- **Photos:** Send unmatted prints, in color or black and white (5 X 7 to 9 X 12 is best). Fill out the entry form, tape it to the back of your photograph and mail your entry to: Texas Department of State Health Services/EMS, 1100 W. 49th St., Austin, TX 78756-3199.
- **For digital photos:** Please print out a copy and mail it with the entry form attached. You also may e-mail the photo in .jpg format, using CMYK colors, to Dawn.Whitfield@dshs.state.tx.us.
- The photographer's name will be printed along with the photo.
- Anyone is eligible; no entry fee is required.
- Photographs should show good patient care.
- The ownership of the negative will remain with the photographer.



Preconference classes

November 16, 17 and 18 (class registration closes October 15)

For registration information or to see if the class is full, call (512) 759-1720. For information on class content, call the contact listed under each class description.

Friday/Saturday/Sunday

National Association of EMS

Educators Instructor Course: \$295; *Fri-Sun, 11/16-11/18; 8a-5:30p (1 ½ hours for lunch); George R. Brown Convention Center; CE: Additional.* NAEMSE's EMS Instructor Course has been designed and developed by the same individuals who produced the DOT/NHTSA 2002 National Guidelines for Educating EMS Instructors. The NAEMSE Instructor Course provides the didactic component and practical application to become an EMS instructor. The content of this 24-hour course aligns the NAEMSE developed modules with the curriculum objectives of the 2002 National Guidelines. NAEMSE recognizes that the development of a professional EMS educator requires many components including formalized education in all aspects of the educational process and practical experience in teaching and mentoring by other members of the educational team to foster personal growth and development. This course does not include all these components, only the beginning steps of the process. Individuals who attend the entire course and pass the post test will receive a Certificate of Course Completion from NAEMSE. Candidates who pass the exam at the end of the course will be eligible to be certified as EMS instructors in Texas. Continuing education hours have been applied for through NAEMSE, which is accredited by the Continuing Education Coordinating Board for Emergency Medical Services (CECBEMS). For more information contact Joann Freel at joann.freel@naemse.org or (412) 920-4775.

Saturday

Helicopter Operations at EMS

Incidents: \$50; *Saturday, 11/17; 8a-12p; Location TBA; CE: Clinically Related Operations.* In this class sponsored by Memorial Hermann Life Flight and other Texas air medical programs, participants will be actively involved as they learn the

fundamentals of air operations. This 4-hour hands-on class will cover the factors to consider, both from the ground and air, when air resources will be utilized during an EMS operation. Students will have an opportunity to participate in hands-on exercises. Lunch provided. For information on class content contact Jeremy Thomas at Jeremy.Thomas@memorialhermann.org or (713) 898-7515.

Emergency Vehicle Response

Safety: \$60; *Saturday, 11/17; 1p-5p; George R. Brown Convention Center; CE: Clinically Related Operations.* Every year, more than 100 emergency service personnel are killed in the line of duty - many while responding to incidents. This 4-hour seminar addresses safety concerns for emergency service personnel when operating emergency vehicles. Topics include: safe vehicle operations, intersections, roll-over prevention and liability issues. Real life case studies are used. This program assists emergency vehicle operators in making good driving decisions and provides practical safety guidelines. For more information contact Dave Bradley at dbradley@vfis.com or (717) 487-0170.

Writing Realistic and Valid

Multiple Choice Exams: \$135; *Saturday, 11/17; 8a-5p; George R. Brown Convention Center; CE: Additional.* This 8-hour class will help you construct test items that accurately measure achievement, ability and aptitude. The power to interpret test scores is directly related to the quality of these items. The State of EMS Education Research Project (SEERP) has identified the task of learning to write realistic and valid exams as one of the top ten challenges for EMS educators. This pre-conference workshop introduces the EMS educator to some very simple techniques for improving the quality of their multiple-choice examinations. Taught by Kenneth Navarro and Lynne Dees. For more information contact Kenneth Navarro at kenneth.navarro@utsouthwestern.edu or (214) 648-6877.

navarro@utsouthwestern.edu or (214) 648-6877.

Multi-Lead Medics™ 12-Lead ECG Interpretation for Acute and Critical Care Providers:

\$150; Saturday, 11/17; 8a-5p; George R. Brown Convention Center; CE: Medical. If anyone told you that you could take a 12-lead class and have fun, would you believe them? Presented by Bob Page, author of the book *12-Lead ECG for Acute and Critical Care Providers*, this 8-hour, highly motivating, non-stop, interactive course on 12-Lead ECG, includes proper lead placement, axis and hemi-block determination, bundle branch blocks, differentiating wide complex tachycardia and myocardial infarction recognition. Also included is the use of a 15-lead ECG. The course includes a workbook with practice problems and handy charts for rapid use in the field. Participants in the program will read approximately 200 12-lead ECGs, gaining both experience and confidence in their newly-learned skill. There is also website that supports graduates of the program with continual competency and feedback from the instructor. The seminar is delivered as a state-of-the-art computer presentation enhanced with sound, graphics, animation, music and video clips. This course is the perfect filler to pick up where ACLS and Experienced Provider courses left off! For more information contact Bob Page at edutainment@mac.com.

Sunday

Patient Care Documentation - A

Proactive Approach: \$80; *Sunday, 11/18; 1p-5p; George R. Brown Convention Center; CE: Clinically Related Operations.* The patient care report is the single item that holds all of the facts related to an event. So often we take this document for granted. This 4-hour class explores the intricacies and importance of completing an accurate and comprehensive PCR. Learn the skills that will set you apart from the crowd! For

Preconference classes

November 16, 17 and 18 (class registration closes October 15)



For registration information or to see if the class is full, call (512) 759-1720. For information on class content, call the contact listed under each class description.

more information contact Dave Bradley at dbradley@vfris.com or (717) 487-0170.

EMS Management 101: \$95; Sunday, 11/18; 1p-5pm, George R. Brown Convention Center; CE: Clinically Related Operations. Often new supervisors receive little training in supervisory techniques and management practices. They may have to rely on "the way things were done." This 4-hour course looks at the challenges of making the transition from Paramedic/EMT into a supervisory role. Using best practices and solid management principles this class will help the new supervisor build a solid foundation of skills. For more information contact Raphael M. Barishansky at rbarishansky@gmail.com or (201) 530-0892.

REP—Radiological Emergency Preparedness: No cost; Sunday, 11/18; 8a-5p; George R. Brown Convention Center; EMS CE: 1 Pt Assess, 2 Med, 2 CRO, 3 Spec Cons. This 8-hour, performance-based course is designed for emergency first responders who may respond to a radiological incident (awareness level). Topics include radiation fundamentals, radiation detection instruments, survey techniques, radiological protective actions, decontamination procedures, patient handling and first responder actions, and radiological terrorist threats. A maximum of 8 Category I continuing medical education contact hours also are available for physicians, physician assistants and advanced practice nurses; 9.6 continuing nursing education contact hours is available for registered and vocational nurses. CE also available for fire, law enforcement and other personnel. For information, contact Mike Rutherford at mike.rutherford@dshs.state.tx.us, (512)/834-6688 ext. 2021 or Keith Steinhurst at keith.steinhurst@dshs.state.tx.us, (512) 834-6688 ext. 2137.

Advanced Cardiac Life Support for Experienced Providers (ACLS-EP): \$175; Sunday, 11/18; 8a-5p; George R. Brown Convention Center; CE: 1 Airway, 6 Medical, 1 Spec Cons. This presentation is the American Heart Association ACLS-EP course designed for those renewing ACLS or who have experience in a critical care setting. This 8-hour course presents various ACLS in an in-depth format involving scenarios which require critical thinking and a focused treatment approach. All participants will have the opportunity to involve themselves in case-based discussion. This provides a more realistic and relaxed environment for those who are renewing ACLS, but have become tired of the usual renewal process every 2 years. Prior to the actual class, all attendees will be contacted so the scenarios and discussions can be formatted to the patients whom they commonly encounter. Attending students will have current BLS and ACLS skills verified and a written test on the current ACLS standards will be administered. This course will provide ACLS-EP certification and meets the requirements for the National Registry (ACLS card) and ACLS renewal for work requirements. For more information contact Mark Montgomery at mark.montgomery@kimberkoch.com or (210) 858-9996.

The Future of Technology Education in EMS is Now!: \$100; Sunday, 11/18; 9a-12p; George R. Brown Convention Center; CE: Additional. Do you really know how to use educational technology? Or do you know just enough to be dangerous to yourself and your students? Do you maximize the ability to bring reality to the classroom through a multitude of audiovisual tools? Are your case-based scenarios as exciting as they could be? This 3-hour workshop reveals the strengths and weaknesses of applying educational technology (ET) in the classroom. This session examines the logistics of bringing ET to your classroom

and the proper way to harness this growing technology. It examines various teaching styles and their use to maximize the student's learning potential. Learn about webcasting and podcasting, incorporating distance education into your classroom via asynchronous mode programs such as Blackboard and WebCT, and the use of national training programs such as PEPP, EMT-B, and eACLS online. Learn how to deliver live quality education lectures online via synchronous mode distance education applications such as Microsoft LIVE Meeting, CENTRA, and others. Whether you are a technology novice or an advanced instructor, there is something here for EMS instructors of any level. It is not a clinical session and does not matter whether the attendees are BLS or ALS providers. Taught by Larry Newell, EdD., NREMT-P, CCEMT-P. For more information contact Patty Einstein at peinstein@jbpublish.com or (201) 664-4437.

Enhanced Multi-Lead Medics™ 12-Lead Course: \$75; Sunday, 11/18; 8am-12pm; George R. Brown Convention Center; CE: Medical. Bob Page offers this course as a continuation of the Multi-Lead Medics course offered Saturday. This 4-hour enhanced course is designed to show acute care providers how to get extra information from a 12 or 15-lead ECG allowing greater insight into the pathophysiology behind the patient with cardiac or other problems. The course is designed for those who have already taken the Multi-Lead Medics™ Course and have a strong working knowledge and high level of comfort with the basic concepts taught in the course. Participants should also be experienced in caring for cardiac patients in an emergency or critical care environment. Topics in this course include LBBB and AMI, chamber enlargements, electrolyte changes, pericarditis and more. For more information contact Bob Page at edutainment@mac.com.



Preconference classes

November 16, 17 and 18 (class registration closes October 15)

For registration information or to see if the class is full, call (512) 759-1720. For information on class content, call the contact listed under each class description.

Who's afraid of the Big, Bad

Kids...?: \$100; Sunday, 11/18; 1p-5p; George R. Brown Convention Center; CE: Special Considerations. This 4-hour class covers advanced pediatric assessment and management of cardiovascular emergencies, respiratory emergencies, special needs children, pediatric maltreatment, how EMS makes a difference for children through advocacy, and the special circumstances of helping children in pre-disaster planning in the community. It includes hands-on skill station practice involving pediatric airway management, patient assessment scenarios and IV/IO skill demonstrations. This presentation fulfills the requirements of the National Registry Advance Pediatrics portion of the National Registry Advanced Refresher. Taught by Jules Scadden and Kelly Grayson. For more information contact Jules Scadden at jkaymdc@aim.com or (712) 660-0881.

Slap the Cap! Real Use for Capnography in EMS; \$75; Sunday, 11/18; 1p-5p; George R. Brown Convention Center; CE: Medical. You've had your introduction, heard about it, read about it, now it is time to get down to it. Capnography represents an important upgrade for your clinical assessment skills. In this 4-hour, non-stop session, participants will perform real waveform analysis of actual cases along with some pretty incredible real time video of capnography. Come and see how the tool can be an incredible asset for the intubated and non-intubated patient. Taught by Bob Page. For more information contact Bob Page at edutainment@mac.com.

SLAM Emergency Airway Provider Course: \$350; Sunday, 11/18; 8a-5p; George R. Brown Convention Center; CE: Airway. SLAM is an 8-hour program on emergency airway management. There will be 2 hours of lecture followed by 6 hours of hands-on. A cricothyrotomy workshop is also included using pig laryngeal tracheal segments. All aspects of emergency airway management are covered including airway assessment, SLAM flowchart, rapid sequence intubation, difficult intubation strategies, management of the crash airway, and rescue ventilation strategies. The textbook SLAM – Street Level Airway Management is the basic text for the course. For more information contact James Rich at jrofdallas@gmail.com or (214) 717-7742.

Saturday/Sunday

Coordinator Course: \$325; Saturday/Sunday, times to be announced; George R. Brown Convention Center; course limited to 25 attendees. No CE. This 12-hour course is intended to train course coordinators for Texas. Participants will be selected through a competitive application process. Applications will be accepted until July 13, 2007. To apply, complete the application found at www.dshs.state.tx.us/emstraumasystems/CoordApp.shtm. Along with the application you will need to attach a letter detailing why a coordinator is needed in the area you intend to serve and explain in detail how you plan to meet that need. Those applying must meet the requirements as outlined on the DSHS EMS Course Coordinator Application, specifically section D-1 or D-2 as applicable. Candidates will complete the course application and those that are accepted for the course will be sent additional instructions. Send applications to 1100 West 49th Street, Austin, TX 78756 Attention: EMS – 2007 Course Coordinator. Attendees will be selected by September 1, 2007. Do not send money

until told to do so. Lunch will be provided on one day. For information, contact Phil Lockwood at (512) 834-2032 or phil.lockwood@dshs.state.tx.us.

Basic Trauma Life Support/ International Trauma Life Support: \$325; Saturday and Sunday, 11/17-11/18; 8a-5:30p (1 ½ hours for lunch on own) George R. Brown Convention Center; CE: 1 Prep, 2 Airway, 3 Pt Assess, 10 Trauma. This 16-hour comprehensive course is designed for providers who are first to evaluate and stabilize the trauma patient. The course provides complete training in the skills needed for rapid assessment, resuscitation, stabilization and transportation of trauma patients. The ITLS course provides the core of knowledge and skills appropriate for all levels of EMS personnel, including EMT-Bs, first responders and other technicians as well as builds on this knowledge, emphasizing evaluation steps and sequencing as well as techniques for resuscitating and packaging patients. ITLS Advanced is appropriate for advanced EMTs, paramedics, trauma nurses, physicians and other advanced EMS personnel. Hands-on stations include patient assessment and management, basic and advanced airway management, needle chest decompression and fluid resuscitation, and many others. Taught by Michael Nelson and Leon Charpentier. For more information contact Michael A. Nelson at nelsonmichael@air-evac.com or (817) 657-6050.

Ambulance Strike Team/Medical Task Force Leader Course: \$125; Saturday and Sunday, 11/17-11/18; 8a-5:30p (1 ½ hours for lunch on own) George R. Brown Convention Center; CE: Clinically Related Operations. This 16-hour course is the introduction to the position of the Ambulance Strike Team (AST)/Medical Task Force (MTF) Leader. The information presented in this course does not qualify individuals

NOMINATE!

TEXAS EMS AND
TRAUMA AWARDS
PAGE 8

Preconference classes

November 16, 17 and 18 (class registration closes October 15)



For registration information or to see if the class is full, call (512) 759-1720. For information on class content, call the contact listed under each class description.

for the position of AST/MTF Leader but does introduce the concepts. After taking this course, participants are encouraged to develop their skills further through continuing education and experience. Prior to attending this course, participants should be certified to the ICS 100/200 level (ICS 300 preferred) and complete NIMS training. Instructor: TEEX EMS Staff. For more information contact Tony Garcia at tony.garcia@teexmail.tamu.edu or (979) 458-3401.

The Emergency Pediatric Care (EPC) - Combined Provider and Instructor Course: \$200; Saturday and Sunday, 11/17-11/18; 8a-5:30p (1 ½ hours for lunch on own) George R. Brown Convention Center; CE: *Special Considerations*. This NAEMT Course is designed as true continuing education for professionals interested in enhancing their pediatric assessment and treatment skills. Rather than simply reviewing basic skills, this 16-hour course goes beyond the traditional DOT material, making it useful for caregivers at all levels and experience. The Emergency Pediatric Care Course (EPC) is an in-depth study of the pre-hospital care of injured and ill children. This course emphasizes a pragmatic approach and format, based on teaching providers a problem-focused, assessment based approach while concentrating on what they need to know. The curriculum allows for a minimal amount of lecture and an ample amount of actual hands-on practice using case-based scenarios. The material covered in the resources supplements the cognitive material delivered in the program. Because medicine is ever changing, periodic revisions and updates will occur as the scientific and medical fields uncover new advances and techniques. Taught by Robert K. Waddell, II. For more information contact Robert K. Waddell at bobwaddell@bresnan.net or (307) 920-2020.

Outdoor/Rescue Classes

High Angle Rescue: \$125, Saturday, 11/17, repeated Sunday, 11/18; 8a-5p; Off-site (meet at Hilton at 7:15a for bus transport); CE: 2-Prep, 2-Pt. Assess, 4-Trauma. This 8-hour course focuses on working in a high-angle environment. This course covers description of basic equipment used in high-angle rescue, rappelling, belays, simple hauls and lowers, and self-rescue techniques. Students will be required to bring: sturdy boots, rugged clothing, harness (provided if you do not have one), helmet (firefighting, wilderness or industrial style), leather gloves (non-firefighting or hazmat), canteen or water bottle. Lunch provided. For information on class content contact John Green at john@texasroperescue.com. **Note: one-day class. Class repeats on Sunday.**

Confined Space: \$125; Sunday, 11/18; 8a-5p; Off-site (meet at Hilton at 7:15am); CE: *Clinically Related Operations*. This course focuses on patient packaging and excavation in a confined space environment. This 8-hour course covers OSHA regulations, air monitoring, lockout/tagout, equipment review, retrieval systems and patient packaging (no IDLH training or on air scenarios). Student is required to be an active member on a confined space rescue team or ERT and is also responsible for having a working knowledge of rope systems, confined space operations and ICS. This class will satisfy the OSHA 1910.146 requirement for practicing a rescue in a confined space. Students will be required to bring: sturdy boots, rugged clothing, helmet (firefighting or industrial style), leather gloves (non-firefighting or hazmat), knee pads and elbow pads recommended, and canteen or water bottle. Lunch provided. For class information contact John Green at john@texasroperescue.com.

New Car Technology: \$125; Saturday, 11/17; 8a-5p; Off-site (meet at Hilton at 7:15am); CE: *Clinically Related Operations*. Frontal crash airbags, side-curtain airbags -- car crash technology keeps improving and changing. Are you changing how you respond? This 8-hour course covers the best response to the ever-changing crash technology. The hands-on class, co-sponsored by the Houston Fire Department, uses extrication tools you probably already have on the car's new technology. Students will be required to bring: sturdy boots, rugged clothing, jacket, helmet (firefighting or industrial style), leather gloves (non-firefighting or hazmat), knee pads and elbow pads (recommended) and canteen or water bottle. Lunch provided. For class information contact John Green at john@texasroperescue.com.

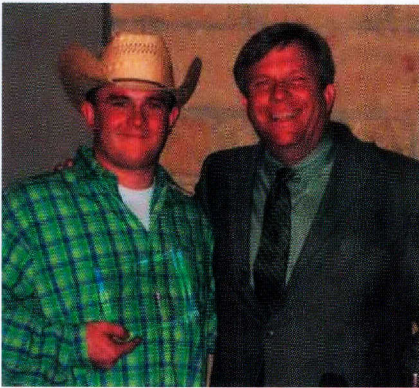
And now, back by popular demand ...

Last year's two-hour classes were a great success! This year, in addition to the one-hour lecture classes at Texas EMS Conference, we'll offer two-hour classes that will emphasize intense, hands-on experiences in a small classroom. We're still deciding which classes to offer, but you can bet we'll cover topics that you care about, from airway to wilderness rescue.

Here's the important part:

Because these classes are limited in attendance, you **MUST** sign up for the class in advance and get a ticket to be admitted to class. Once the tickets for that class are gone, there will be no more issued. Sign-up for the classes will be at the conference registration desk beginning at 1 p.m. on Sunday, November 18.

by John LeBas



Adam Gaver, a firefighter/paramedic with the Flower Mound Fire Department, receives the department's EMS Person of the Year award from Fire Chief Eric Metzger.

Flower Mound firefighter/paramedic honored

Adam Gaver, a firefighter/paramedic, was named the Flower Mound Fire Department's EMS Person of the Year during the department's annual awards banquet in March. Gaver has worked for the Flower Mound Fire Department for five years. He seeks out new ideas and better methods to enable himself and his shift teammates to provide quality patient care, according to department administrators.

New device trains drivers for ambulance skids

Medics in the Austin-Travis County EMS Training Academy now learn about avoiding dangerous skids using new equipment that provides all of the realism, but none of the risks. The SkidTruck System attaches to the suspension of a training ambulance and, using hydraulics, can raise the vehicle off the ground to mimic the effects of ice, rain and other slick roadway conditions. The instructor has access to 20 different traction

settings from inside the ambulance, allowing her or him to put the vehicle into a spin or skid at low speeds and then instantly bring it back under control. The advantage for cadets is that they learn evasive skills and vehicle dynamics in a real-world environment. New cadets at the training academy receive 18 hours of driver education and training, while staff receive an additional eight hours of driver education, training and skills evaluation each year.



This training ambulance is equipped with the SkidTruck System.

A breath of fresh air for Central Texas pets

Several Central Texas public safety agencies now have an extra tool to help save man's best friend: specially designed oxygen-delivery masks. The pet-friendly devices are being provided to Austin-Travis County EMS and the Oak Hill, Westlake and Austin fire departments by Pets America Partnership. The organization plans to eventually

donate 100 of the masks to the four agencies. Nearby Ce-Bar Fire Department also has added the masks to its arsenal of life-saving equipment. The cone-shaped masks, designed to accommodate snouts, are reusable and deliver oxygen to dogs and cats in a comfortable and efficient manner. Thanks to these devices, department personnel no

longer have to improvise with human masks when they encounter a pet that needs resuscitation. "Our mission is to preserve life, improve health and promote safety," Austin-Travis County EMS Division Commander Jason Martin said. "With the addition of this new tool, we will be better able to support our mission and serve the public."

Local & Regional EMS News

Robstown personnel lauded

Three Robstown EMS personnel credited with going above and beyond the call of duty in attempting to save a teen gunshot victim have been honored for their efforts. The 18-year-old suffered a self-inflicted gunshot wound in January. EMS director Ray Vargas, paramedic Roman Lopez and EMT Kevin Ramon quickly transported the teen to Corpus Christi Medical Center Northwest for stabilization before transferring him to Christus Spohn Memorial Hospital. Unfortunately, the teen died in the hospital the day after the shooting. In honoring Vargas, Lopez and Ramon the following month, Robstown Mayor Rodrigo Ramon said the team handled the situation professionally, a credit to the department and city, the *Nueces County Record Star* reported.



EMS, fire and law enforcement personnel take part in a Shattered Dreams event in Rankin.

Rankin experiences Shattered Dreams

Shattered Dreams – the program that fights underage drinking and drunken driving with emotional real-world scenarios – recently visited the small West Texas town of Rankin. The event began with a mock DWI collision, with junior high and high school students watching as fire and EMS crews worked the scene. Later, students watched as one of their classmates left class every 15 minutes to represent the number of DWI-related deaths in this country.

Finally, the kids heard from families who've lost people to DWI wrecks and held a memorial service for the student "killed" in the mock collision. Organizers are hopeful that the event sent a strong message to the community about the dangers and impact of drunken driving. Taking part in making the effort were Carestar, Rankin ISD, the Upton County Sheriff's Department and Dr. Paul McLean.

Hospitals receive trauma center verifications

East Texas Medical Center in Tyler has been reverified as a Level I trauma center by the Committee on Trauma of the American College of Surgeons (ACS). This reverification indicates the hospital has met the organization's highest standards for trauma care and resources. Also, the Mother Frances Hospital in Tyler has been verified by the ACS as a Level II trauma center.

San Antonio entities tapped for national trauma research

A group of San Antonio-area trauma centers has been elevated to a national institute that officials hope will improve trauma care through research. The National Trauma Institute will include Level I trauma centers Brooke Army Medical Center at Fort Sam Houston, Wilford Hall Medical Center at Lackland Air Force Base and University Hospital (which currently make up the Trauma Institute of San Antonio, Texas, or TRISAT), along with the Institute of Surgical Research

and the University of Texas Health Science Center at San Antonio. Together, the partners will focus on research that can be used in trauma treatment to improve patient care, officials said in announcing the new institute in February. "We want to increase funding, increase research, increase vision and increase impact," Col. John Holcomb, commander of the Institute of Surgical Research, said in an Associated Press story. "We expect to have an impact in national trauma research."

Local & Regional EMS News



Champion EMS personnel recently taught an EMT-basic course to Waskom-area volunteers.

Champion EMS brings training to Waskom

Personnel from the Waskom Volunteer Fire Department and other nearby volunteer agencies recently completed an EMT-basic course sponsored by Champion EMS in Longview. The lead instructor was Mike Williams, EMT-P. Richard Adams, LP, coordinated the class. Completing the class were: Matt Ayers, Terrel Broxson, Debbie Goyne-Smith, David Ingram, Arliss Yellot, Brenda Byrd, Christopher Collins, Kelly Drake, Cara Formby, Jayna Lay, Donna Miller and John Pritchard.

No money for a station? No problem, Bonham firefighter/medics said

Bonham's firefighter/medics recently put in 9,500 man-hours to build the city's second and largest fire station – reducing response times and saving taxpayers thousands of dollars. Construction began last June, more than a year after voters defeated a bond proposal for a new station, the *Herald-Democrat* newspaper reported. Personnel worked on their own time and between calls, and the building – once a tire store – was converted into the

new station by December. All the welding, plumbing, electrical and carpentry work was done by firefighters and inmate work crews. The project cost about \$315,000, saving the city and county about \$225,000, the paper reported. In addition to the cost savings, response times are down about eight minutes. Bonham EMS serves all of Fannin County's 947 square miles, responding to about 380 calls a month.

Organizations honored for transplant efforts

The Parkland Health Hospital System in Dallas and Southwest Transplant Alliance have been recognized by the Health Resources and Services Administration for their efforts to increase organ donation rates. The two entities have worked together to identify and evaluate potential organ donors, with the goal of getting family members to consent to donation. The Health Resources and Services Administration recognized organizations that, like Parkland, have sustained donation rates of 75 percent or more among eligible donors. The national average was 59 percent as of 2005.

Dallas hospital eyes better field care

Children's Medical Center in Dallas has a new prehospital committee that administrators hope will result in better pediatric prehospital care. Representatives on the committee include the hospital's ER attending physicians, nurses, senior director, children's medical director and EMS professionals. The committee plans to meet medical directors through the hospital's patient area in an effort to close gaps in communication and knowledge between prehospital and ER care providers.

Profile: EMS Compliance – North Group

The business of regulating EMS is statewide, and each area of the state has an EMS compliance office responsible for EMS education program and course approval, inspections of ambulances, provider licensing and complaint investigation. There are four compliance service areas: north, south, east and central. The North Group employs 11 staff and has six offices located across 123 counties, four public health regions and eight trauma service areas. EMS Compliance is part of the Patient Care Quality Unit in the Health Care Quality Section. The Section is in the Division of Regulatory Services. Kathy Perkins is assistant commissioner for the Division; Renee Clack is director of the Section; and Derek Jakovich is director of the Unit.

In addition to their regulatory responsibilities, EMS Compliance staff are also actively involved in the EMS/trauma regional advisory councils and in providing technical assistance to EMS providers, certifiants and the public. From the Panhandle to the D/FW Metroplex to the deep East Texas woods, the EMS Compliance North Group has a wide-ranging area of responsibility.

Kevin Veal – Arlington Manager, North EMS Compliance Group

Past/current EMS certifications

Previous Certifications — EMT, EMT-I, EMT-P, Advanced Coordinator; Current – LP (Inactive)

How long in EMS?

17 years

How long with the state?

11 years

Phone number/email address

817-264-4720

kevin.veal@dshs.state.tx.us

Sharon Tillman – Canyon

The primary coverage area for the Canyon office is the northernmost 26 counties of the Texas Panhandle. Fifty-one EMS organizations are in Trauma Service Area A. All



North Group staff include: (top row, from left) Denny Martin, Valerie Tumlinson, Kevin Veal, Sharon Tillman, Andrew Cargile and Tami Littleton; (bottom row, from left) Pat Dilday, Jerry Bradshaw, Pat Elmes and Donn Barnes; (inset) David Post.

but six of these operate under one medical director. Carl Paetzold, MD, has served as medical director for Panhandle Emergency Medical Service System (PEMSS) since 1997. Dr. Paetzold began his EMS career as a paramedic in Amarillo. I appreciate the dedication of our EMS personnel in serving our citizens and all those traveling through the Texas Panhandle.

Past/current EMS certifications (and related, such as LE and FF) EMT

How long in EMS?

I began my EMS career in May 1997.

How long with the state?

In March 2007, I began my 25th year of state service.

Phone number/email address

806-655-7151 ext. 251

sharon.tillman@dshs.state.tx.us

Denny Martin – Lubbock

The South Plains EMS organization (SPEMS) is a 501(c)(3) corporation and is a consortium of approximately 40 EMS ambulance services and first responder organizations. SPEMS offers medical direction for all organizations under its purview. Providers under the SPEMS direction also are required to participate in its quality improvement program, which consists of a doctor-led, peer-driven case review model. The organization has a set of treatment protocols that are constantly monitored

by a committee of providers.

Protocols are communicated and provided to all providers in the group. All the provider members are encouraged to participate in the operations of the organization. Also, all member providers are required to sign a mutual-aid agreement with SPEMS that ensures mutual aid to the area. Mutual aid is coordinated through the Lubbock EMS regional dispatching center.

Also, there is a large first-responder organization, the Rapid Response and Medical Support team (RRAMS team), that provides medical support for large-scale events in and around the Lubbock area. They are affiliated with SPEMS but are operated as a committee of SPEMS. This is a volunteer organization; it handles stand-by events that are large for Lubbock. The volunteers stand by at Texas Tech University football and basketball games and coordinate medical care for their transporting agency, Lubbock EMS. Also, they stand by at the largest free fireworks display in the state every fourth of July. The administrator of RRAMS is a practicing field medic and a consultant to the RAC-B and SPEMS Inc.

Lubbock, is in the southern portion of the Texas Panhandle in an area commonly referred to as the South Plains. There are approximately 400,000 people in the RAC-B; 210,000 of them live in Lubbock. The area also is known as the Llano Estacado, or the staked plains – in other words, everything is flat. Toward the east side of the South Plains, you start seeing what is referred to as “ranch country,” which is made up of wild grassland and is home to several of the larger ranches in Texas, including the 6666 and Pitchfork, among many others.

Past/current EMS certifications (and related, such as LE and FF)

Licensed paramedic

How long in EMS?

25 years

How long with the state?

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Leading the way

Under TEEEX, the EMS Leadership Academy trains medics for a career in management

By Kelly Harrell

Ernie Rodriguez, now deputy director for Austin/Travis County EMS, learned EMS management the hard way. And he doesn't recommend it.

He'd been a firefighter and paramedic for several years before he applied for assistant director of EMS at the Corpus Christi Fire Department. After rounds of interviews, he was told he got the job and to report to administration rather than the fire station the following week.

"From then on, it was the school of hard knocks," Rodriguez says. "I was making every mistake known to man. We implemented a lot of great things. But it wasn't the easy way. I told myself that if I ever got the chance to do something so someone else wouldn't have to go through this, I would."

Rodriguez got his chance when he came to work for TDH (now DSHS) and convinced Gene Weatherall, chief of the Bureau of Emergency Management, and Pam West, state EMS director, to let him give it a try. TDH began offering a few classes for EMS personnel in quality management, grant writing and computer skills. (This was the early 1990s, remember.) But he had a bigger dream – a set curricula of classes created especially for the medic transitioning into management.

About the same time, Chris Black, then assistant EMS program director at Texas Tech, was offering classes in EMS management in

Lubbock. Having come up through the ranks himself, he knew how important the skills were.

"In EMS in general, we tend to look at people who are great medics and think they will make great supervisors," Black says. "But a supervisor and a practitioner are two different things. We were teaching people to be paramedics, but we weren't teaching them to be supervisors."

Black said he heard that Rodriguez wanted to start an EMS management academy. Rodriguez heard that Black was teaching EMS management classes in Lubbock. The result? Immediate distrust. Rodriguez wondered what an academic egghead knew about running an ambulance service. Black wondered what a guy from TDH knew about anything.

Their opinions changed when they spent a day together and found out they'd both paid their management dues: Rodriguez at the

Corpus Christ Fire Department and Black at several EMS providers in West Texas. Although each of the men had come from the different parts of the state and had different experiences in EMS, the men shared a dream of teaching EMS management. And Black says they shared a key trait.

"Ernie and I are wired the same – no challenge is too big to get over," he says. "We just concentrated on solutions."

The men and their respective agencies began a collaboration based on finding solutions. The EMS Management Academy (as it was first called) launched its first class in September of 1994 in Junction. The setting served two purposes. The rural setting, far from cell phone towers (at the time), meant students had to break their addiction to electronic devices such as phones, television and computers. The Junction campus, part of the Texas Tech system, was



The first group to complete all three modules of the EMS Leadership Academy graduated last May. The academy teaches management skills to EMS personnel who want to move into system management. Texas Engineering Extension Service (TEEX) sponsors the courses, which are free to eligible personnel.

also cheap. Room and meals for the week were only \$400. Instructors donated their time, so tuition was free. The academy was on the way to realizing its goal of creating the next generation of EMS leaders in Texas.

But in 1998, after several years of success, the Academy hit a series of obstacles. Rodriguez always knew that the academy would have to move to more permanent funding. But as budgets tightened at state agencies, that goal seemed even further away. In addition, the pool of interested candidates had shrunk as well.

“We had educated so many people that the demand for training had died out for a while,” Black says.

Key staff had left Texas Tech and TDH, which left no advocates at those agencies. Rodriguez reluctantly stored the class materials. For several years, he tried to keep the idea alive by incorporating as a non-profit and soliciting support. Eventually, he dissolved the organization.

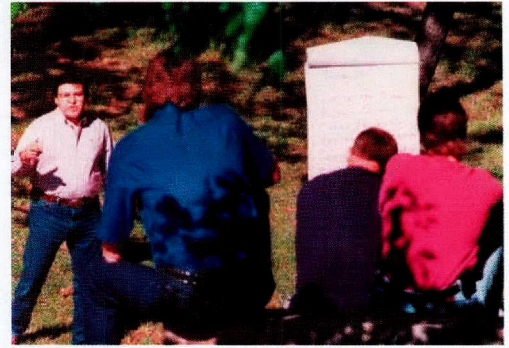
John Rinard, who had worked with Ernie at TDH and had gone to work at Texas Engineering Extension Service (TEEX), had never forgotten about the EMS Management Academy. TEEX, part of the Texas A&M University System, has a history of providing hands-on training and technical assistance to emergency responders. In 2003, Rinard resurrected the idea of an EMS management academy with his boss, Lanny Smith, director of TEEX. The Leadership Academy, as it was now called, was one of several programs funded by TEEX using money appropriated by the Texas Legislature. Rinard says

the program filled a great need in EMS.

“We... have not done a good job of educating tomorrow’s leadership,” Rinard says. “It would be unheard of ... if we woke up one morning and took a person off the street, handed them a catheter and asked them to start an IV. (Yet) this is in essence exactly what we do with the leadership and succession process.”

An advisory board that read like a partial Who’s Who in Texas EMS was chosen to oversee curriculum development. Members included Ernie Rodriguez, Austin/Travis County EMS; Ralph Hendricks, Sherman Fire Department; Brett Hart, DSHS; Alan Johnson, Montgomery County Hospital District; David Phillips, Scott and White EMS; Scott Reichel, ECI; Judy Crum, representing the National Association of State EMS Directors; John Roquemore, president, NAEMT; Gene Gandy, Tech Pro Services, Inc.; and Dave Snavely, LifeNet EMS. Forrest “Woody” Wood, former state EMS director for Arizona, was hired as a full-time coordinator.

The board oversaw the development of a three-part curriculum of 40 hours each. The first module, Basic Supervisory Practices, teaches the basics of supervision, including team development, time management, budget justification, employee complaints and working with the public. The second module, EMS System Management, focuses more on operational issues such as quality improvement, human resources law, performance measures, clinical practices management and ethics. The third



The first EMS Management Academy classes took advantage of the natural beauty of the Hill County. Ernie Rodriguez, left, was one of the instructors at the first courses in Junction.

and final part, EMS Executive Development, covers ethics, effective communication and strategic planning, and how to use leadership skills to manage organizations.

Gary Scarborough, deputy director for Austin County EMS, completed all three classes. He believes the courses helped him become a better manager and changed the way he approached problems.

“All too often EMS managers/administrators come up through the ranks ... and do not receive proper education (in) management techniques to run today’s EMS operations,” Scarborough says. “The courses are designed to encourage the modern-day supervisor, manager and administrator to rethink the way (they) operate.”

Academy classes are taught throughout the state and tuition is still free to eligible students, which include anyone in emergency response: paramedics, dispatchers and emergency room technicians. Agencies are encouraged to send personnel who are moving into supervisory roles. Since 2003, TEEX invested \$1 million in state money, mainly to provide a tuition subsidy to the 656 students from

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GETAC Recap

The Governor's EMS and Trauma Advisory Council (GETAC) met Friday, February 23, 2007, in Austin. The council unanimously approved the minutes from its November 20, 2006, meeting and heard reports from the chair, committee/task force chairs and Department of State Health Services (DSHS) staff.

Chair report: Chair Edward M. Racht, MD, welcomed everyone to the meeting and announced that David Lakey, MD, is the new commissioner for the Department of State Health Services.

Dr. Racht introduced the newly-appointed members of GETAC subcommittees and reminded them to complete the Texas Public Information Act and Open Meetings Act training videos within 90 days of their appointments. Failure to complete both training videos can result in suspension from committees and/or the council.

In other business, Dr. Racht discussed the idea of having a council retreat to examine the rules and structure of the GETAC subcommittees because of some redundancy issues. He also said he would like to set up a survey program similar to the one conducted at the Texas EMS Conference 2006 in Dallas.

Dr. Racht discussed the "Optimal Care of the STEMI Patient: A Comprehensive Statewide Approach" meeting held in Austin on Jan 25-26 that was coordinated by the American Heart Association, the American College of Cardiology and the Texas Medical Association.

He also discussed Gov. Perry's proposal for a health professions commission that could possibly affect some components of the state EMS regulatory structure. He mentioned that GETAC welcomes all comments and concerns about this proposal and would like to represent all points of view equally and fairly.

Staff reports: Kathryn C. Perkins,

assistant commissioner for the Division of Regulatory Services, was unable to attend the meeting. Her report was given by Steve Janda, director of the Office of EMS/Trauma Systems Coordination (OEMS/TS).

Mr. Janda reported that a Comprehensive Clinical Management Program (CCMP) draft rule would be completed by the next GETAC meeting and is expected to be placed on the next council agenda for a vote. From there, it would then move to the DSHS Council for consideration.

Numerous bills related to EMS and trauma systems are being followed this legislative session, including HB 92, HB 259, HB 1412, SB 570, HB 70, SB 125, SB 26, SB 28, HB 1520 and SB 125.

Mr. Janda said the other GETAC meeting dates in 2007 are May 23-25, 2007; August 22-24, 2007; and November 17-19, 2007, in conjunction with Texas EMS Conference in Houston. Kelly Harrell, manager of the Stakeholder Information Group and the conference coordinator, accepted proposals for presenters and speakers for this year's conference until March 15, 2007.

Mr. Janda also reported the pediatric trauma facility designation tie to disproportionate share hospital (DSH) funds has been endorsed at two Texas Health and Human Services Commission (HHSC) advisory councils and goes to the HHSC Council itself for consideration on March 29, 2007.

He announced that the OEMS/TS has a new website with a new address: www.dshs.state.tx.us/emstraumasystems. Mr. Janda also spoke about the National Practitioner Databank and the possibility that this information and a link may be provided on the EMS/Trauma Systems website so certain people or groups can access it.

Maxie Bishop, state EMS director, discussed the EMS memorandum of agreement (MOA) for mutual aid in a disaster and reminded everyone that hurricane season is approaching. He thanked services that have chosen to participate and encouraged others to apply. There are 88 ground ambulance providers and two

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New committee member lists available online

GETAC committees recently got some new (and reappointed) faces in response to term expirations and resignations. The decisions were difficult: Chair Ed Racht, MD, along with the committee chairs, carefully evaluated applications from many qualified and enthusiastic folks to end up with committees representative of the diverse EMS and trauma systems community. For a complete list of the committees, go to www.dshs.state.tx.us/emtraumasystems/governor.shtm.

New members will attend their first committee meetings in May.

Air Medical Committee

Stacy Gregory, RN, LP
Chief Flight Nurse
Mother Frances Hospital Flight For Life
Tyler, Texas

Dennis Hebner, LP
Director of Support Services
South Texas Emergency Care Foundation,
Inc./ Valley AirCare
Harlingen, Texas

Robert Phelan III, MD
Del Sol Medical Center/AirMed El Paso
El Paso, Texas

Daniel Saltarelli, Jr., RN/LP
Flight Nurse/Clinical Educator
Halo Flight, Inc.
Rockport, Texas

Peggy Word, NREMT-P
Chief Flight Coordinator
Medical Center Hospital
Odessa, Texas

Education Committee

Michael Hay, NREMT-P
Education Coordinator
Harris County ESD 1
Houston, Texas

Lorie Lefevers, LP, EMT-P
EMS Education Director
Grayson County College
Denison, Texas

Scott Miles, EMT-P
Staff Development Educator
Champion EMS
Longview, Texas

Lance Villers, EMT-P
Department Chair
University of Texas Health Science
Center at San Antonio
San Antonio, Texas

EMS Committee

Christian E. Callsen, Jr., LP

Assistant Director, EMS Operations
Austin/Travis County EMS
Austin, Texas

Brett Coghlan, EMT-P
Austin County EMS
Brenham, Texas

Kevin Deramus, LP
EMS Director
Washington County EMS
Brenham, Texas

Michael Farris, LP
EMS Director
Medina Valley EMS/Edwards
County EMS/City of Devine EMS
Castroville, Texas

Antonio Garcia, LP
Program Coordinator
Texas Engineering Extension Service
College Station, Texas

Larry Mitchell, LP
Director of EMS
City of Bovina
Bovina, Texas

Keven Roles, EMT-P
Operations Director
San Marcos/Hays County EMS
San Marcos, Texas

William Curtis Smith, LP
Captain/EMS Coordinator
Prosper Fire Department
Prosper, Texas

Lon Squyres, EMT-P
Chief
Jacinto City Fire Department
Jacinto City, Texas

Injury Prevention (IP) Committee

Wayne Dennis, EMT-P
EMS Supervisor/
Clinical Practices Director
Life Care Plus EMS
Gorman, Texas

Stephen Hougen, MD, FACS
Trauma Medical Director
Citizens Medical Center
Victoria, Texas

Jennifer Northway
Executive Director
Mothers Against Drunk Driving
South Texas Region
San Antonio, Texas

Terrence O'Keeffe, MD, MPH
Assistant Professor
University of Texas Southwestern
Medical Center at Dallas
Dallas, Texas

Claudia Romo
Injury Prevention Program Manager
Children's Medical Center
Dallas, Texas

Rohit Sheno, MD
Assistant Professor of Pediatrics/
Section of Emergency Medicine
Baylor College of Medicine/
Texas Children's Hospital
Houston, Texas

Medical Directors Committee

Richard Bradley, MD

Associate Professor of Emergency Medicine
University of Texas Health Science Center
Houston, Texas

Donald Gordon, PhD, MD
Professor, EHS, UTHSC-SA
EMS Medical Director, UHS Ambulance
Svc.
San Antonio Fire Department
Leon Valley Fire Department
Bexar County First Responders Network
San Antonio, TX

John Griswell, MD, FACEP
Medical Director/Emergency Physicians
Advisory Board
Fort Worth Med Star
Chief of Staff/Emergency Department
Director
Huguley Hospital
Fort Worth, Texas

James R. (Randy) Loflin, MD, FACEP
Medical Director
City of El Paso EMSS,
Department of Emergency Medicine Texas
Tech Medical School – El Paso
El Paso, Texas

William Moore, MD, FACEP
Chief of Staff and Reg. EMS Medical
Director
East Texas Medical Center
Tyler, Texas

Paul Sirbaugh, DO
Chief Section of Pediatric
Emergency Medicine
Baylor College of Medicine
Houston, Texas

Matthew Young, MD, FACEP
Medical Director
LifeNet, Inc. EMS
Christus St. Michael Hospital
Emergency Services
Texarkana, Texas

Pediatrics Committee

Kimberly Aaron, MD
Medical Director of Emergency Services
Cook Children's Medical Center
Fort Worth, Texas

Craig Huang, MD
Division of Emergency Medicine
Department of Pediatrics
University of Texas Southwestern
Medical Center
Dallas, Texas

William Langston, Jr., MD
Pediatric Emergency Medicine/Physician
Children's Hospital of Austin
Austin, Texas

Charles Macias, MD, MPH
Associate Professor of Pediatrics
Baylor College of Medicine
Texas Children's Hospital
Houston, Texas

David E. Wesson, MD
Chief, General Surgery Service
Texas Children's Hospital
Houston, Texas

Stroke Committee

Darryl Camp, MD
Director of Neurology
AMEP
Austin, Texas

J. Brent Dalley
Critical Care Flight Paramedic
PHI Air Medical
Mansfield, Texas

Robert Knappage, EMT-P
EMS Lieutenant
Sachse Fire Rescue
Sachse, Texas

Lise Labiche, MD
Stroke Program Director
Baylor University Medical Center
Dallas, Texas

Warren Porter, LP
EMS Programs Manager
Garland Fire Department
EMS Division
Garland, Texas

Peter Shedden, MD, FACS
Neurosurgeon Director
The Greater Houston
Neurosurgery Center
Woodlands, Texas

Beverly Welch, RN
Chair, Texas Association of Trauma RACs
St. Joseph Regional Health System
Bryan, Texas

Raymond U. Weir, MD
Assistant Professor of Radiology
University of Texas Health
Science Center at Houston
Houston, Texas

Trauma Systems Committee

Craig Daniel, MD
Trauma Medical Director
Medical Center Hospital
Odessa, Texas

Dennis B. Dove, MD
Trauma Medical Director
Northwest Texas Hospital
Chairman, Department of Surgery/Texas
Tech University School of Medicine
– Amarillo
Amarillo, Texas

Jason Martin, LP
Division Commander
Austin-Travis County EMS
Austin, Texas

Wendi McNabb, RN
Trauma and Burn Program Director
UMC Health System
Lubbock, Texas

Craig Rhyne
Trauma Medical Director
Covenant Health System
Medical Director
AeroCare
Lubbock, Texas

David Smith, MD
Trauma Medical Director
Harris Methodist Fort
Worth Hospital
Fort Worth, Texas

Mark Sparkman, MD
Emergency Physician
Assistant Professor, Dept. of Surgery
UTHSCSA
San Antonio, Texas

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air ambulance providers that have signed up for state missions and/or state facility evacuations.

Mr. Bishop discussed the so-called “gurney car” bills and his recent meeting with State Sen. Carlos Uresti. Mr. Bishop anticipated legislative action on the bills soon, as well as the introduction of another bill.

He also discussed National Registry scores that were released recently and compared Texas scores to national scores. The passing rates were as follows:

	Texas	National
First Responders	81%	71%
EMT-Basic	74%	76%
EMT-Intermediate	81%	68%
EMT-Paramedic	59%	59%

Since Texas moved to computerized testing on January 1, scores have been improving in all categories with the exception of EMT-paramedic. This may be because there have not been many established programs that help prepare these students for the National Registry exam, Mr. Bishop said. He also said some students are not applying for the correct exam and that providers should be assisting students in this process to ensure their information is correct.

Linda Jones, program manager of the Environmental Epidemiology and Injury Surveillance Group, reported that Texas EMS/Trauma Registry staff has received its second-year funding for the EMSC projects. Ms. Jones has been working on the revision of rules that is required every four years and did not notice any substantive changes. She is hoping to reorganize and consolidate information and databases to improve the process of viewing this information.

Combined EMS Committee and Air Medical Committees – EMS Committee Chair Pete Wolf and Air Medical Committee Chair Shirley Scholz reported that the committees discussed EMS subscription draft rule 157.XX and the liability insurance requirements. Both committees agreed to

move forward with the draft changes for Title 25 of the Texas Administrative Code, Sections 157.XX, 157.12 and 157.13. Helipad use and landing were also discussed.

Air Medical Committee – Ms. Scholz reported that the committee discussed a letter received by DSHS counsel Don Jansky concerning liability and subscription plans. The committee has considered adopting CAAMS standards for the subscription plans, but also is looking for an alternative, state-approved plan with appropriate verbiage.

EMS Committee – Mr. Wolf reported that the committee was updated on what the Disaster/Emergency Preparedness Task Force discussed at its meeting. The committee also discussed draft changes for Title 25 of Texas Administrative Code, Sections 157.XX, 157.12 and 157.13, as well as bariatric patient transports and the need to increase EMS reimbursements because of growing populations and patient needs. Mr. Wolf also told the committee about the lack of money appropriated for EMS as an essential service, and the committee will be looking for alternative resources.

Education Committee – Chair Jodie Harbert, III reported that the committee looked at the prerequisites for admission into EMS programs at public and private post-secondary schools in order to devise an improvement plan. The committee also looked into the idea of early reviews for potential applicants.

Injury Prevention Committee – In the absence of Chair Gary Kesling, PhD, Rick Moore, a member of the Injury Prevention Committee, reported that the committee discussed the Texas Trauma and Emergency Healthcare Coalition. The Data Informatics and Research Task Force (DIRT) would have the program completed by May.

Medical Directors – In the absence of Chair Steve Ellerbe, DO, GETAC Liaison Fred Hagedorn, MD, reported that discussion topics included Stroke Committee draft recommendations for a stroke EMS transport plan, as well as performance measures. It was suggested that the Pediatric and Medical Directors committee members be

FYI

An .XX suffix means that a draft rule has not yet been assigned a number.

present when deciding issues for which both committees are asked for input.

Pediatric Committee – Chair Joan Shook, MD, reported that there have been several Pediatrics members assigned as liaisons to attend other committee meetings. The committee discussed a letter pertaining to state EMS medical directors. Dr. Shook also suggested building closer relationships with school districts and EMS to stay informed on issues related to special-needs children and other topics.

Stroke Committee – Chair Neal Rutledge, MD, reported that the committee discussed the possibility of composing a stroke coordination plan similar to the present Trauma System plan.

Trauma Systems Committee – Chair Ronald Stewart, MD, reported that an update was provided on the Texas Foundation for EMS/Trauma Care by Jorie Klein, RN. Dr. Stewart also told the committee that Todd Maxson, MD, member of the Trauma Systems Committee and GETAC liaison to the Traumatic Brain Injury Advisory Council, will be proposing rule changes for the Pediatric Inter-facility Transfer plan after working with Mr. Janda on recommendations.

Comprehensive Clinical Management Program (CCMP) Strike Force – Dr. Racht reported that a draft rule will be completed and an invitation has been extended to all committees for any further input or suggestions. The strike force will continue to move forward with this draft.

EMS and Trauma Regulatory Task Force – Co-chair Dudley Wait, EMT-P, reported the task force has met twice since the November GETAC meeting and closed the previous polling that was started at Texas EMS Conference. The survey closed in December with approximately 1,100 responses. The next meeting was scheduled for March 22, 2007, at the Austin Learning Resource Center.

Disaster/Emergency Preparedness – Ms. Klein reported that the task force will be focusing on MOU contracts with the

state and will possibly develop a strike team to move forward with this task. Evacuation plans and strategies also were discussed, along with education training and the importance of attending or setting up classes with this information.

Other reports/public comment on action items:

DSHS Preparedness Coordination Council – GETAC liaison Leon Charpentier reported the registration and database for health professionals is out. The next meeting was scheduled for March 19, 2007.

Traumatic Brain Injury Advisory Council – No one available to report.

DSHS Hospital Licensing Rules Review Workgroup – Jim Parisi reported another rules review meeting upcoming in March 2007.

Texas Foundation for EMS/Trauma Care – Jorie Klein, RN, reported that the foundation met February 20, 2007, and took action on several items. Ms. Klein also reported that 13 of the 22 RACs have registered with the foundation and have paid their dues to participate in voting and discussion items. She also discussed alternate funding for the foundation.

General public comment: Public comment was heard on a number of issues, including a request to implement a two-year certification rule instead of the current four-year certification rule; the time frame for the Stroke Committee recommendations; the progress of legislation that is relevant to EMS; concern about bills that are not being listed by the committees nor discussed but that are relevant to EMS; and the possibility of using RACs to inform their regions about the STEMI association and possible conference.

Action items: No actions items were presented.

Meeting dates for 2007: May 23-25, 2007, and August 22-24, 2007, at the Hilton Austin Airport; and November 17-19, 2007, in Houston in conjunction with Texas EMS Conference 2007.

Adjournment: The meeting adjourned at 12:13 p.m.

FAQ

Frequently Asked Questions

By Mattie Mendoza and Phil Lockwood

Q: I have coordinated basic EMT courses for years, but I have never been able to clearly explain to my students the details of how the certification/licensing process works or why it takes the length of time it does. Can you give me a quick run-down?

A: Processing times vary according to special circumstances (e.g., our recent transition to a new computer system, application volume, deficient applications and criminal history administrative review), but there are a few constants:

- **Mail – Six days** (at least three business days each way, on average).
- **Money – Three to 10 business days.** All applications first go to the department's fiscal processing office, which is in a different building than the Office of EMS/Trauma Systems Coordination. Staff there open envelopes and process all money received before forwarding applications to us. For electronically submitted applications, the fee is processed electronically.
- **Application processing – Five to 10 business days.** This includes running the criminal history background check; data entry; ensuring all documentation is accounted for and correct; and printing the certificates.

As you can see, the certification/licensing process can take up to **26 business days**, or about five weeks, from the time you submit your application until you receive your certificate or license. Applying online can shorten this time frame, as it eliminates mailing and the fee is processed quickly, so we encourage electronic submission. **Note that our office controls only five to 10 days of the whole process.** The EMS Certification unit processes all certification applications. Out of the eight employees, only two process applications full-time.

The processing time will be extended if your application is subject to an administrative

review based on your criminal history; if an incomplete application is submitted; if your check is returned due to non-sufficient funds; or if we have to wait for your National Registry test scores. For information on NR exams, you will need to contact National Registry. NR's website (www.nremt.org) has lots of information, so you may want to explore it first. Otherwise, contact National Registry by phone at (614) 888-4484.

Q: I tried to check my EMS certification status on your website (at <http://dshsregn.dshs.state.tx.us/ems/certquery.htm>) and it seems to be down. Can you tell me when it will be working again?

A: Effective February 19, 2007, most of EMS went live with a new database system known as RAS. The Certification Query was a live link to our previous database, and connecting it to the new system turned out to be quite a technological challenge. A roster of all certified personnel is now being posted to the website to temporarily replace the Certification Query function. The list is updated twice a week (every Wednesday and Friday morning) until the Certification Query function is linked to our new database and once again operable. Thank you so much for your patience and understanding during this transition period.

Q: I am currently certified in another state. I have been told that to gain certification in Texas I will now have to submit to a federal background check through the FBI. Have the requirements for reciprocity certification in Texas changed?

A: Yes, there are several changes to the rules regarding reciprocity requirements. Effective March 1, 2007, you must submit to an FBI criminal background check to gain reciprocity certification in Texas. You can find all the information, instructions and forms on the FBI's website at: www.fbi.gov/hq/cjisd/fprequest.htm. Also, effective January 1, 2007, every reciprocity applicant who does

FAQ

Frequently Asked Questions

not hold current National Registry must pass the National Registry assessment exam *prior* to the completion of all requirements for certification, per EMS Rule §157.33(i). And, per EMS Rule §157.33(E), a candidate who meets the requirements of this section shall be certified for four years beginning on the date of issuance of a certificate and wallet-size certificate. You must also send an out-of-state verification form to each state you are currently certified in to be completed by that state agency and faxed to us, prior to certification. All of this information and the necessary forms can be found on our website at: www.dshs.state.tx.us/emstraumasystems/stdrecip.shtm.

Q: I was certified in Texas as an EMT-B a long time ago, but I didn't renew my certification. I am now a LVN in Texas. Can I challenge the test to get recertified as an EMT-B or EMT-I?

A: EMS rules allow a candidate who is certified or licensed in another health care discipline, or who has completed training outside the United States, to gain Texas EMS certification or licensure. You should contact a DSHS-approved post-secondary educational institution (college or university) to review your education and experience and determine its equivalency to its EMS program curriculum. You will be responsible for complying with its policies and procedures for awarding credit by transfer or advanced placement. Contact your local EMS field office (www.dshs.state.tx.us/emstraumasystems/regions.shtm) for a list of approved educational institutions. Also see <http://www.dshs.state.tx.us/emstraumasystems/formsresources.shtm> for a statewide list of approved EMS education programs. Passing the National Registry exam also is a state requirement.

Q: As part of my NREMT registration renewal, I'm supposed to complete a

refresher course. Texas training programs don't seem to have any state-approved refresher courses. Why is that?

A: We don't recognize refresher courses, *per se*, so your best bet is probably a "recertification" course, if you can find one (they're sparse). We approve initial, remedial and recertification courses. Remedial courses are designed to retrain those who fail to pass the initial exam in the first three attempts. The recertification course was designed to address a wide variety of subject areas required for Option 4 of the recertification process, but it's more hours than the standard NREMT refresher. See appendix K and L of the EMS Education and Training Manual (www.dshs.state.tx.us/emstraumasystems/EducTrainManual.PDF) to compare the hour and subject area requirements of each to compare with NREMT requirements. If you're a student looking for one of these courses, call an education program director or course coordinator. They may already have the course approved as remedial or recertification or can get approval for it.

Q: How do I determine if a particular CE provider is state approved?

A: The program should be able to provide you with verification of current department approval and a valid CE course number. We also recognize CE providers that are approved by other accrediting agencies. See a list of these on our website at www.dshs.state.tx.us/emstraumasystems/sotherce.shtm. Some national standardized courses (i.e., ACLS, BTLS, etc.) also are accepted. See the breakdown of CE credit awarded for those courses at www.dshs.state.tx.us/emstraumasystems/ceapprov2002.pdf. As you may have heard, we are retooling the certification query and switching to a new license database. One new feature allows us to search for approved CE and education programs, licensed EMS providers and first responders.

A clarification of a FAQ item printed in the March/April issue of Texas EMS Magazine: For classes required every two years (i.e., CPR, ACLS, etc.), you may count them only twice during your four-year certification period, per EMS Rule §157.38.

CARBON MONOXIDE POISONING: THE PREHOSPITAL PERSPECTIVE

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OBJECTIVES

At the end of this CE module, the EMS provider will be able to:

1. Discuss the pathophysiology of carbon monoxide poisoning.
2. Detail the relationship of carbon monoxide and oxygen in hemoglobin binding.
3. Summarize the physiological effects of carbon monoxide poisoning.
4. Detail why the signs and symptoms of carbon monoxide are vague and non-specific.
5. List common long-term complications of carbon monoxide exposure.
6. List the types of hemoglobin detected by CO-oximetry.
7. Detail the physiological effects of administering high concentrations of oxygen to victims of carbon monoxide poisoning.
8. Discuss the controversy surrounding the use of hyperbaric oxygen therapy in carbon monoxide poisoning.

Introduction

Carbon monoxide is the most common cause of poisoning in industrialized countries, including the United States. Emergency medical services (EMS) and fire department personnel often are the first to encounter victims of carbon monoxide poisoning. In addition, because of the nature of the profession, firefighters are at increased risk of occupational exposure to carbon monoxide.

In this presentation we will review the chemistry, incidence, pathophysiology, detection and treatment of carbon monoxide poisoning. There will be an emphasis on new technologies that allow the diagnosis and monitoring of patients exposed to carbon monoxide in the prehospital setting.

Chemistry of carbon monoxide

Carbon monoxide (CO) is an odorless, colorless, tasteless gas. It is non-irritating and results from the incomplete combustion of carbon-containing fuels. While CO is often associated with fossil fuels, it is important to remember that it also results from the incomplete combustion of wood and charcoal. CO is a major source of poisoning in many third-world countries, where much of the cooking occurs over wood-fired stoves and ovens. It is also prevalent when wood-fired heaters are used to warm a structure.

Sources of carbon monoxide

There are three primary sources of CO. These are classified as either endogenous or exogenous. In addition, the hydrocarbon methylene chloride is also a source of CO.

Small amounts of CO are routinely produced through endogenous sources. The primary endogenous source is a normal breakdown of hemoglobin in a process called heme catabolism. In certain disease states, the



breakout of hemoglobin is increased. These conditions include such things as the hemolytic anemias and can also occur in sepsis.

Certainly, most CO exposure is related to exogenous causes. Among these are house fires, automobile exhaust fumes, fumes from propane-powered vehicles (i.e., forklifts), heaters, indoor stoves, camp stoves, boat exhaust fumes, cigarette smoke and smoke from charcoal-fired cook stoves and ovens. Essentially, any combustible item should be considered a possible source of CO.

Methylene chloride is an organic hydrocarbon consisting of two hydrogen ions and two chloride ions bound to a carbon molecule. It is often used as an industrial solvent, particularly as a paint remover and adhesive remover. Methylene chloride is converted to CO in the liver after inhalation. Persons exposed to high levels of methylene chloride can develop carboxyhemoglobinemia and the signs and symptoms of CO toxicity.

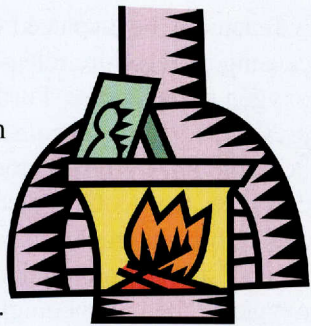
Incidence of carbon monoxide poisoning

As discussed above, CO is the leading cause of poisoning deaths in industrialized countries. In fact, CO may be responsible for half of all poisonings worldwide. Approximately 40,000 to 50,000 emergency department visits annually are due to CO poisoning. In the United States, as many as 5,000 to 6,000 people die annually as a result of CO poisoning. The majority are, unfortunately, suicides. Accidental CO poisoning deaths are declining. This decline may be due to improved CO detection including the use of home-based CO detectors.

Most accidental CO deaths were found to be due to house fires, automobile exhaust fumes, indoor heating systems, stoves and other appliances, charcoal grills, camp stoves, water heaters and boat exhaust fumes. There is an increased risk of accidental CO deaths in patients who are male, older than age 65, and

who are intoxicated with ethanol.

Accidental CO deaths tend to peak in winter months. This is primarily related to the use of heating systems combined with closed windows.



There is often a significant increase in CO poisonings following disasters and storms. Such an increase was seen in southeastern Texas and southern Louisiana following Hurricanes Katrina and Rita in 2005. In addition, the severe winter storms that struck Seattle and the Pacific Northwest in early 2007 were associated with a significant increase in CO-related poisonings. This increase was primarily related to the use of generators and fuel-powered heaters following a loss of utilities.

Pregnancy is a particular risk factor for CO poisoning. The developing fetus contains a type of hemoglobin that is different from adult hemoglobin. Fetal hemoglobin (H_fF) is the principal type of hemoglobin found during fetal development and has a much greater affinity for oxygen than adult hemoglobin. This assures that the developing fetus has adequate oxygen stores during the crucial stages of development. Fetal hemoglobin is largely replaced by adult hemoglobin (H_aA) shortly after birth. In addition to an increased affinity of fetal hemoglobin for oxygen, there is also an increased affinity for CO. Thus, while the mother may experience mild to moderate symptoms following CO exposure, the fetus may have devastating damage. Intrauterine exposure to CO has been associated with an increased incidence in cerebral palsy, seizure disorders and death. This factor is one of the physiological reasons that pregnant women should not smoke.

Carbon monoxide exposure

Small quantities of CO are present in the environment. In most environments exposure is typically less than 0.001 percent (10 ppm). Environmental CO levels are higher in urban and heavily industrialized areas. Primary sources of environmental CO include volcanic gases, brush fires and human pollution. The amount of CO in the environment varies

significantly from year to year depending upon climatic changes and volcanic activity.

CO exposure in living organisms is directly related to four factors:

- Minute volume – The minute volume (V_{min}) is the amount of air exchanged in the lungs during one minute. It is a function of the respiratory rate and the tidal volume. The tidal volume (V_t) is the amount of air in each inhaled breath that ultimately reaches the point in the alveoli where gas exchange can occur. Minute volume is reflected in the following formula:
$$V_{min} = V_t \times \text{respiratory rate}$$
- Duration of exposure – The duration of exposure is the amount of time that the organism is exposed to CO. As a rule, the longer the duration of exposure, the more severe the poisoning.
- CO concentration – The concentration of CO in the atmosphere is directly related to the severity of poisoning. High levels of CO will cause signs and symptoms of toxicity much faster than lower levels. However, even low levels of CO can ultimately result in toxicity.

- Oxygen concentration – Because CO competes with oxygen for the oxygen-binding sites on hemoglobin, the concentration of oxygen in the atmosphere directly affects the rate and degree of CO exposure. In environments with oxygen concentrations less than that of the atmosphere (normally 21 percent at sea level), the risks of developing CO toxicity from exposure are increased. This is a particular problem in closed-space rescue situations and a significant problem in the mining industry. The role of oxygen concentration is important when considering treatment strategies. As oxygen and CO compete for the same binding sites, increasing the concentration of inhaled oxygen (F_iO₂) can help minimize the binding of CO to hemoglobin and can, in fact, displace some CO that has already bound to hemoglobin. Furthermore, increasing the F_iO₂ will help promote the removal of carboxyhemoglobin from the circulation.

Several government agencies have established exposure limits for CO. The



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Occupational Safety and Health Administration (OSHA) has set an exposure level of 50 ppm (as an eight-hour, time-weighted average). The National Institute for Occupational Safety and Health (NIOSH) of the Centers for Disease Control and Prevention (CDC) has set an exposure level of 35 ppm (as an eight-hour, time-weighted average). The NIOSH level is lower because it is based on the negative cardiac effects of CO.

CO is a particular risk for firefighters. Many of the environments encountered by firefighters have the potential for having elevated CO levels. Sources of CO exposure for the fire service include structure fires, apparatus fumes, portable equipment fumes (i.e., gasoline-powered saws and generators), underground utility fires and closed-space rescue situations.

Pathophysiology of carbon monoxide poisoning

The pathophysiology of carbon monoxide poisoning is actually quite complex. While CO poisoning was first described in 1857 by French physician Claude Bernard, only in recent years has the pathophysiology of CO poisoning been elucidated.

CO competes with oxygen for the oxygen-binding sites on hemoglobin (see Figure 1). Each hemoglobin molecule contains four oxygen-binding sites. These binding sites contain iron and form a complex referred to as heme. The heme structure is, in turn, connected to the protein segments of hemoglobin. Because of its molecular structure, CO will bind to hemoglobin with an affinity that is approximately 250 times that of oxygen. The binding of CO to hemoglobin results in the formation of a compound called carboxyhemoglobin (CO-Hb). As CO levels increase in the blood, oxygen molecules

will actually be displaced from hemoglobin, causing a premature release of the remaining oxygen in the tissues. Furthermore, CO will prevent oxygen molecules from binding to hemoglobin. Carboxyhemoglobin cannot carry oxygen. As CO poisoning increases and carboxyhemoglobin levels rise, the amount of hemoglobin that is saturated with oxygen, called oxyhemoglobin, is increasingly diminished. This ultimately affects organ systems that are highly dependent on aerobic metabolism and, thus, oxygen.

Once CO binds to hemoglobin and forms carboxyhemoglobin, it can only be removed via degradation of carboxyhemoglobin. That is, carboxyhemoglobin is ultimately removed from the circulation and destroyed. The normal half-life of carboxyhemoglobin, when the patient is breathing room air, is 240 to 360 minutes (four to six hours). The half-life of CO can be decreased to 80 minutes with the administration of 100 percent oxygen. The administration of oxygen under pressure, termed hyperbaric oxygen (HBO) therapy, further reduces the half-life of carboxyhemoglobin to approximately 22 minutes.

In addition to binding to hemoglobin, CO also binds to other iron-containing proteins. These include myoglobin and cytochrome, among others. The effects of CO on myoglobin are particularly important. Myoglobin is iron-containing protein similar to hemoglobin; is found in selected tissues, particularly muscles; and serves as a storage site for oxygen. Myoglobin is especially important in the heart. A reduction in functional myoglobin results in decreased oxygen levels in the heart. This could lead to cardiac ischemia, dysrhythmias and other types of cardiac dysfunction.

One of the mechanisms of action of CO has only recently been understood. CO causes an increase in the circulating levels of nitric oxide (NO). Nitric oxide is a highly reactive gas that is essential in many biochemical processes. Nitric oxide relaxes the smooth muscle in the walls of the arterioles, causing vasodilation. Following contraction of the heart (systole), the endothelial cells lining the interior of the arterioles will release small amounts of NO that promote vasodilation, allowing the pulsatile blood to readily pass through the vessel. Drugs such as nitroglycerin (used in

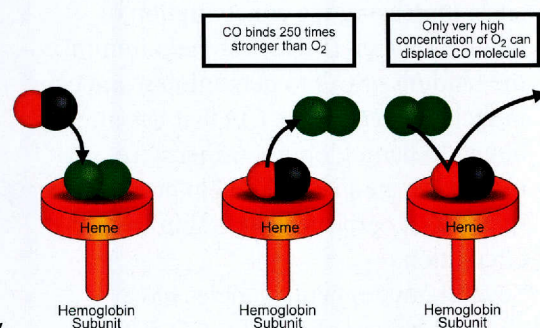
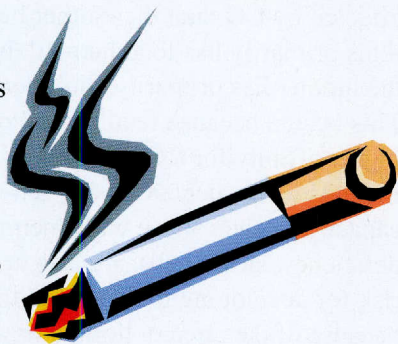


Fig. 1

the treatment of angina pectoris) and sildenafil (used in the treatment of erectile dysfunction) work by dilating the arteries, increasing blood flow. CO causes an increase in the circulating levels of NO. This results in both cerebral and peripheral vasodilation and plays a major role in causing the syncope and headache associated with CO toxicity. Increased NO levels result in the formation of oxygen-free radicals – especially following periods of ischemia. These are thought to cause oxidative damage to the brain and are the probable cause of delayed neurologic sequelae (DNS). Nitric oxide oxidizes hemoglobin forming methemoglobin. As methemoglobin levels increase, the oxygen-carrying capacity of the blood falls.

Some levels of carboxyhemoglobin are normally present in the blood – either from environmental exposure and endogenous sources. These levels are, of course, higher in tobacco smokers. Endogenous CO production usually results in carboxyhemoglobin levels (CO-Hb) between 0.4 percent and 0.7 percent. Persons who smoke one pack of cigarettes per day will often have CO-Hb levels ranging from 5 percent to 6 percent. Persons who smoke two to three packs per day will often have levels ranging between 7 percent and 9 percent (or even higher) depending on the cigarette type and filter. CO production from cigar smoking varies significantly. CO-Hb levels of up to 20 percent have been reported with cigar smoking. However, these levels are extremely variable, depending on whether the smoker inhales the cigar smoke and the duration of exposure. CO-Hb levels are higher in urban commuters. Interestingly, CO toxicity is a particular concern for persons working in toll booths – particularly in urban areas where cars idle. Methylene chloride exposure (100 ppm for eight hours) can result in CO-Hb levels of 3 percent to 5 percent.



The impact of CO poisoning on major body systems is quite varied. Body systems that are highly reliant upon aerobic metabolism

are particularly vulnerable to the effects of CO. Of these, the central nervous system and the cardiovascular system are most frequently affected.

As a rule, the impact of CO on the central nervous system causes nervous system depression. This results in impairment manifesting as headache, dizziness, confusion, seizures and, ultimately, coma. It has been well-documented that there are now long-term complications associated with CO exposure. These primarily are cognitive and psychiatric problems.

The cardiovascular system is also adversely affected by CO. This usually manifests as depressed myocardial function and results in several signs and symptoms. These include such things as chest pain, hypotension with tachycardia, cardiac dysrhythmias, myocardial ischemia and, ultimately, ventricular fibrillation. Most deaths from CO poisoning are due to ventricular fibrillation. It has been shown that CO has adverse, long-term effects on the cardiovascular system. For example, the risks of a premature cardiac death are higher in patients who sustain a myocardial injury during the initial CO insult.

In addition to the central nervous system and cardiovascular system, other body systems are also adversely affected by CO poisoning. For example, metabolic derangements are common following CO exposure. Initially, respiratory alkalosis occurs primarily from hyperventilation. Later, and with severe exposures, metabolic acidosis is noted.

The respiratory system also is adversely affected by CO. In approximately 10 percent to 30 percent of patients with CO poisoning, pulmonary edema will occur. This can result from the direct effect of CO on the alveolar membrane. It can also occur with left ventricular failure that is secondary to myocardial depression. Because CO is often associated with nausea and vomiting, the possibility of aspiration as a cause of acute pulmonary edema must also be considered. In addition, because of the effects of CO on the central nervous system, neurogenic pulmonary edema must also be considered.

Ultimately, especially with significant exposures, multiple organ dysfunction syndrome (MODS) can result. MODS occurs when two or more organ systems fail

to maintain their essential functions. The mortality rate with MODS is quite high.

In summary, the pathophysiological effects of CO can be detailed as follows:

- Limits oxygen transport – CO binds more readily to hemoglobin than oxygen, forming carboxyhemoglobin, which cannot transport oxygen.
- Inhibits oxygen transfer – CO changes the structure of hemoglobin, thus causing the premature release of oxygen into the tissues.
- Causes tissue inflammation – Poor and inadequate tissue perfusion initiates and maintains an inflammatory response. This response may, at times, further injure body cells and tissues.
- Causes reduced cardiac function – CO is a myocardial depressant and adversely affects myocardial function. This can lead to dysrhythmias, myocardial ischemia and even myocardial infarction. Long-term cardiac effects, including an increased risk of premature cardiac death, have been documented.
- Increases activation of nitric oxide – Nitric oxide levels are increased following CO exposure, resulting in cerebral and systemic vasodilation. This can result in headache and syncope. In addition, increased nitric oxide levels induce an inflammatory response that can harm delicate tissues.
- Causes vasodilation – Vasodilation, as detailed above, can cause syncope and worsen tissue perfusion. This vasodilation is primarily mediated through the increased release of gaseous nitric oxide. Nitric oxide oxidizes hemoglobin, forming methemoglobin. As methemoglobin levels

increase, the oxygen-carrying capacity of the blood falls.

- Induces free-radical formation – The increase in nitric oxide levels following CO exposure results in the increased formation of free-radical compounds. These free radicals can cause injury to the inner lining of blood vessels and oxidative brain damage.

Several patient populations are at increased risk for significant CO poisoning. Persons at the extremes of age, the very young and the elderly, are at increased risk of developing toxic effects from CO due to alterations in their physiology. As well, persons with heart disease are more vulnerable to the ill-effects of CO. They are already having problems related to poor or inadequate myocardial oxygenation. The added effects of CO for these patients can be problematic or even fatal. Pregnant women, for reasons previously detailed, are at risk for the adverse effects of CO. This is primarily due to the effects of CO on the fetus rather than the mother. The fetus is oftentimes more affected by CO than the mother because the fetus primarily has fetal hemoglobin while the mother has primarily adult hemoglobin. This occurs because fetal hemoglobin has a higher affinity for CO than it does for oxygen. Patients with a decreased oxygen-carrying capacity, such as those with anemia (i.e., iron deficiency, sickle cell), are also at increased risk for developing toxic effects from CO because of the already limited oxygen-carrying capacity of their blood. Finally, patients with chronic respiratory disease (i.e., asthma, COPD, cystic fibrosis) are at increased risk because their respiratory systems are already compromised and inefficient in hemoglobin oxygenation. Any decline in oxygen levels

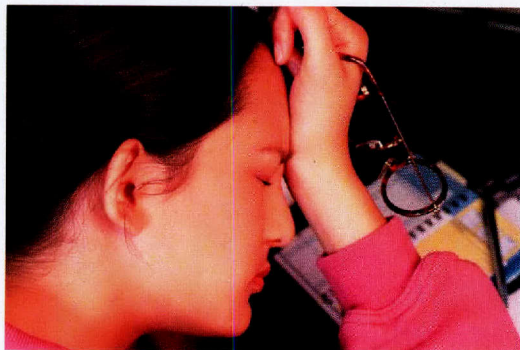
Signs and symptoms of acute CO poisoning

- Malaise
- Flu-like symptoms
- Fatigue
- Dyspnea on exertion
- Chest pain
- Palpitations
- Lethargy
- Confusion
- Depression
- Impulsiveness
- Hallucination
- Confabulation
- Agitation
- Nausea
- Vomiting
- Diarrhea
- Abdominal pain
- Headache
- Drowsiness
- Dizziness
- Weakness
- Confusion
- Visual disturbances
- Syncope
- Seizures
- Fecal incontinence
- Urinary incontinence
- Memory disturbances
- Gait disturbances
- Bizarre neurologic symptoms
- Coma
- Death

Table 1.

CO-Hb	Severity	Signs and Symptoms
<15-20%	Mild	Headache, nausea, vomiting, dizziness, blurred vision
21-40%	Moderate	Confusion, syncope, chest pain, dyspnea, tachycardia, tachypnea, weakness
41-59%	Severe	Dysrhythmias, hypotension, cardiac ischemia, palpitations, respiratory arrest, pulmonary edema, seizures, coma, cardiac arrest
>60%	Fatal	Death

Table 2. Signs and symptoms of carbon monoxide poisoning.



Long-term complications of carbon monoxide poisoning

It has been well established in the scientific literature that there are numerous long-term complications from carbon monoxide poisoning. Again, as discussed above, these primarily affect the neurologic and cardiovascular systems because these systems are most oxygen-dependent.



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from CO exposure will worsen the situation.

Signs and symptoms of carbon monoxide poisoning

The signs and symptoms of carbon monoxide poisoning are vague and nonspecific. The signs and symptoms closely resemble those of other diseases. Thus, CO poisoning is often called “the great imitator.” It is for this reason that CO poisoning is often misdiagnosed. CO poisoning is often diagnosed as a viral illness (i.e., influenza), acute coronary syndrome and even migraine.

CO poisoning is typically classified as either acute or chronic. Acute carbon monoxide poisoning results from short exposure to a relatively high level of carbon monoxide. Chronic CO exposure, on the other hand, results from long or recurrent exposures to relatively low levels of carbon monoxide.

The signs and symptoms of acute CO poisoning are quite diverse. Some patients will develop certain signs and symptoms, while others will not. Table 1 lists signs and symptoms associated with acute CO poisoning.

The signs and symptoms of chronic CO poisoning are essentially the same as those with acute CO poisoning. However, their onset and severity may be extremely varied.

As a rule, the signs and symptoms of acute CO poisoning worsen with increasing levels of CO-Hb. Table 2 illustrates the signs and symptoms of CO poisoning and the associated classification.

It is important to point out that CO-Hb levels do not always correlate with signs and symptoms, nor do they predict sequelae. Interestingly, the cherry-red skin color so often associated with CO poisoning is actually an unreliable finding. When present, it is usually associated with significant CO exposure.

Neurological complications

One of the well-documented, long-term effects of CO poisoning is delayed neurologic syndrome (DNS). The actual incidence of DNS is somewhat uncertain. Some estimates place the true prevalence of DNS anywhere from 1 percent to 47 percent. It is clear that DNS is more common in patients who are symptomatic initially following CO exposure. This is particularly true for patients who suffer loss of consciousness during the initial CO exposure. The development of DNS is somewhat enigmatic. Generally, recovery from the initial CO poisoning is essentially normal. However, between two and 40 days later, the patient begins to develop behavioral and neurological deterioration. The most common signs and symptoms of DNS include: memory loss, confusion, ataxia, seizures, urinary incontinence, fecal incontinence, emotional lability, disorientation, hallucinations, Parkinsonism, mutism, cortical blindness, psychosis, gait disturbances and other motor disturbances.

Cardiovascular complications

In a long-term study of patients who suffered moderate to severe CO poisoning, it was found that patients who suffer a myocardial injury during the initial exposure were at a significantly increased risk of sustaining early cardiac death. Patients in the same study who did not sustain myocardial injury during the acute CO exposure did not appear to exhibit an increased risk of early cardiac death. Although the exact cause remains a mystery, theories point to the inflammatory effects of CO poisoning as a likely cause.

Other effects

Several studies have indicated that psychiatric symptoms, especially depression

and anxiety, can exist for up to 12 months following CO exposure. In one study, the incidence of depression was higher at six weeks in patients who had attempted suicide by CO. However, at 12 months post-exposure, there was no difference in the rates of symptoms between those with accidental CO exposure and those with exposure during an attempt at suicide.

Carbon monoxide detection

Carbon monoxide detectors have now been widely available for more than a decade. However, even today, these remain vastly underutilized. There are numerous models of inexpensive CO detectors available for the home. It is important to point out that in 1998, Underwriters Laboratories (UL) revised the guidelines for CO detectors. Thus, units made before 1998 should not be used.

Handheld CO detectors have been available for some time. Non-commercial detectors will only detect CO. Commercial detectors, such as those used by most fire departments, measure several gases. The most commonly measured gases are CO, oxygen, hydrogen sulfide and combustible gases. Until recently, biologic detection of CO required hospital-based arterial blood gas sampling or venous blood analysis. Now, technologies developed to detect biological carboxyhemoglobin levels in the prehospital and emergency department setting are available. This technology, referred to as CO-oximetry, functions in a fashion similar to that of pulse oximetry (see Figure 2). However, unlike pulse oximetry, CO-oximetry can detect deoxyhemoglobin (Hb), oxyhemoglobin (O₂-Hb), carboxyhemoglobin (CO-Hb) and methemoglobin (MET-Hb). The CO-oximeter can provide the following values: oxygen saturation (SpO₂), carboxyhemoglobin percentage (SpCO), methemoglobin percentage (SpMET), and pulse rate. CO-oximetry uses a finger probe similar to that of pulse oximetry. However, instead of measuring only two wavelengths of light, the CO-oximeter is able to measure eight different wavelengths. Research has demonstrated that carboxyhemoglobin levels as measured by CO-oximetry closely correlate to those measured using hospital-based technologies.

Because the signs and symptoms of

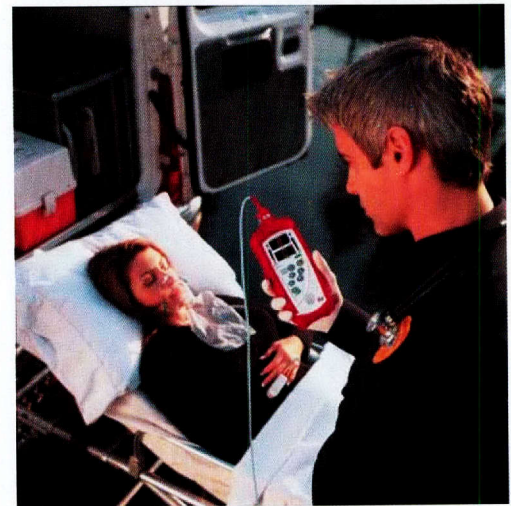


Fig. 2

CO poisoning are so vague, CO exposure and poisoning are easy to miss. Failing to detect and diagnose CO poisoning can result in the patient being allowed to return to the contaminated environment with devastating outcomes. Missed CO poisonings are a particular area of legal liability for fire and emergency personnel. Because of the associated risk and insidious nature of CO poisoning, CO-oximetry should be routine for all fire service and EMS personnel.

Treatment of carbon monoxide poisoning

It is important to have a low threshold for treating victims of CO exposure. The CDC has established diagnostic criteria for CO poisoning. CO poisoning can be diagnosed through biological testing when carboxyhemoglobin levels (SpCO) exceed 5 percent in nonsmokers and 10 percent in smokers. At present, there is no environmental test for confirmation of CO poisoning. In addition, the CDC has established diagnostic categories for CO poisoning. These are:

- Suspected – There is a potentially exposed person, yet no credible threat.
- Probable – There is a clinically compatible case where a credible threat exists.
- Confirmed – There is a clinically compatible case where biological tests have confirmed exposure.

The treatment of CO poisoning should be based upon the severity of symptoms. As a rule, treatment is generally indicated when the SpCO exceeds 10 percent to 12 percent (see Figure 3). It is important to always be prepared to treat the complications of CO poisoning,

such as seizures, cardiac dysrhythmias and cardiac ischemia.

After the patient has been removed to a safe area, it is important to begin the administration of high-concentration oxygen. This will serve to maximize hemoglobin oxygen saturation. As oxygen levels in the blood increase, some carbon monoxide molecules will be displaced from hemoglobin. Furthermore, studies have shown an improvement in neurologic outcome and cardiac complications following early administration of high concentrations of oxygen.

It has been common practice to place patients with moderate to severe CO poisoning in a hyperbaric oxygen (HBO) therapy chamber. This increases the atmospheric pressure around the patient and serves to drive oxygen into the tissues and to fully saturate remaining hemoglobin oxygen-binding sites. Although widely used, there is no significant body of research that demonstrates that patient outcomes are better following HBO therapy. Regardless, it is still commonly used. The benefits of HBO therapy include the alleviation of tissue hypoxia and a reduction in the half-life of carboxyhemoglobin. Normally, the half-life of carboxyhemoglobin is four to six hours. Through HBO therapy, the effective half-life of carboxyhemoglobin can be decreased to 22 minutes. HBO therapy should be strongly considered for patients who have altered mental status, coma, focal

neurologic deficits, patients who are pregnant and have a carboxyhemoglobin level greater than 15 percent, and patients with a history of a loss of consciousness. HBO therapy should be less strongly considered for patients who exhibit signs or symptoms of cardiovascular compromise or metabolic acidosis, or patients who are at the extremes of age.

Treatment and monitoring of the patient with CO exposure should continue on scene and en route to the hospital. It is important to continuously monitor SpO2 and SpCO levels. For those who are ALS providers, obtain a 12-lead ECG and monitor the ECG en route. Always document your findings and plot any trends. It is important to point out that many first-generation pulse oximeters may give falsely elevated SpO2 readings in the presence of carbon monoxide poisoning.

Methylene chloride

Methylene chloride is widely used in industry as a paint and adhesive remover. Repetitive and prolonged exposure to methylene chloride can result in the development CO in the patient. Following exposure, methylene chloride is slowly metabolized to CO in the liver. Victims of methylene chloride exposure do not pose a particular contamination risk to rescuers. However, contaminated clothing and skin can secondarily contaminate rescuers. In addition, vomitus from the exposed patient can off-gas methylene chloride, possibly exposing rescuers to the gas.

The effects of methylene chloride parallel those of CO. They include central nervous system depression, respiratory depression, cardiac dysrhythmias, respiratory tract irritation (at high levels) and non-cardiogenic pulmonary edema (at high levels).

The treatment of methylene chloride poisoning is primarily symptomatic. No antidote is available. It is important to support cardiac and

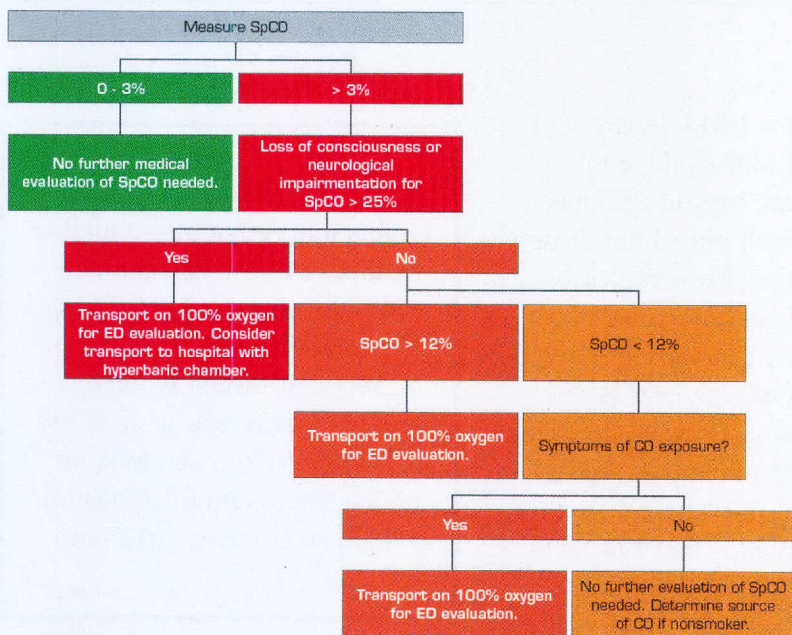


Fig. 3

respiratory functions. Also, as with CO, high concentrations of oxygen should be administered. In addition to fully saturating available hemoglobin, high-concentration oxygen serves as an antagonist of the metabolically released CO.

Summary

Carbon monoxide is the most common cause of poisoning in industrialized countries. EMS and fire department personnel are often the first to encounter victims of carbon monoxide poisoning. Furthermore, because of the nature of the profession, firefighters are at an increased risk of exposure to carbon monoxide. Technologies are now available to detect the presence of CO in the out-of-hospital setting – both biologically and in the environment. The failure to identify a case of carbon monoxide poisoning can result in the patient being returned to the hazardous environment with possibly devastating results. Because of this, emergency personnel must always maintain a high index of suspicion for CO poisoning and must have the capability to detect CO poisoning in patients encountered.

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continued from page 25

150 EMS and fire providers. The original estimate of 21 courses taught more than doubled. Last May, the first class of students to complete all three modules graduated from the program, the fulfillment of the dream first articulated by Rodriguez and Black.

“It’s great to see that an idea developed by Ernie (Rodriguez) and Pam (West) so many years ago ... was able to achieve the level of impact it has now.”

Black, now EMS department chair for Del Mar College in Corpus Christi, says he still has people approach him about those early EMS management classes.

“I would get letters and notes that saying the academy has helped me to be a better leader,” Black says. “It’s a very positive thing for the state and I’m happy to have been a part of it. If there’s anything other than my kids that I’m really proud of it’s seeing this thing become a success.”

For information about EMS Leadership Academy, available courses or how you can help with development activities, contact Forrest “Woody” Wood at forrest.wood@teemail.tamu.edu or at (979) 862-6949. You can look at course times and offerings on the web at www.tex.com.

Carbon Monoxide Poisoning Quiz

1. Which of the following statements about carbon monoxide is false?

- a. It is colorless.
- b. It is tasteless.
- c. It has a bitter almond smell.
- d. It is a byproduct of incomplete carbonaceous combustion.

2. Which of the following substances is converted to carbon monoxide by the liver following exposure?

- a. Hydrogen cyanide
- b. Methylene chloride
- c. Hydrogen sulfide
- d. Oxygen

3. When carbon monoxide combines with hemoglobin, the resultant substance is called:

- a. Carboxyhemoglobin
- b. Carbaminohemoglobin
- c. Deoxyhemoglobin
- d. Methemoglobin

4. Most carbon monoxide-related deaths in the United States are due to:

- a. Structure fires
- b. Eating apricots
- c. Boat exhausts
- d. Suicide

5. Which of the following statements regarding carbon monoxide poisoning is true?

- a. A mother will suffer the symptoms of carbon monoxide toxicity before her fetus will.
- b. Carbon monoxide poisoning is more common in the summer when people use their barbecues.
- c. Missed carbon monoxide poisoning is a significant risk for EMS personnel.

d. Carbon dioxide will displace carbon monoxide from hemoglobin.

6. Which of the following statements is false?

- a. Carbon monoxide binds to hemoglobin with an affinity that is approximately 250 times that of oxygen.
- b. Small quantities of carbon monoxide are present in the environment.
- c. Firefighters are at increased risk for carbon monoxide poisoning.
- d. Cow flatulence is a major source of carbon monoxide in Texas.

7. Which of the following factors is not a factor in carbon monoxide exposure?

- a. Carbon dioxide concentration
- b. Duration of exposure.
- c. Oxygen concentration
- d. Minute volume

8. The half-life of carbon monoxide in atmospheric air is?

- a. 240 to 360 minutes
- b. 24 hours
- c. 80 minutes
- d. 22 minutes

9. Which of the following body systems is most affected by carbon monoxide poisoning?

- a. Genitourinary
- b. Gastrointestinal
- c. Endocrine
- d. Nervous

10. Treatment for carbon monoxide poisoning should begin when carboxyhemoglobin levels exceed:

- a. 2 percent
- b. 4 percent
- c. 8 percent
- d. 12 percent

11. People who die from carbon monoxide poisoning usually die from:

- a. Asystole
- b. Status epilepticus
- c. Ventricular fibrillation
- d. Atrial fibrillation

12. The primary treatment for carbon monoxide poisoning is:

- a. Oxygen
- b. Methylene blue
- c. Vitamin B12
- d. Naloxone

13. Carbon monoxide poisoning is often mistaken for:

- a. Viral illnesses
- b. Acute coronary syndrome
- c. Migraine headache
- d. All of the above

14. Which of the following factors puts a victim of carbon monoxide poisoning at risk for development of delayed neurologic syndrome?

- a. Alcohol intoxication
- b. Nitroglycerin use
- c. Loss of consciousness during the initial exposure
- d. Carboxyhemoglobin levels greater than 25 percent on initial presentation

15. The handheld device used for prehospital biological detection of carbon monoxide is called a:

- a. Pulse oximeter
- b. CO-oximeter
- c. Metoximeter
- d. Toxylyzer

This answer sheet must be postmarked by June 20, 2007

CE Answer Sheet Texas EMS Magazine

Name _____ SSN _____

Certification Level _____ Expiration Date _____

Organization _____ Work Phone _____
area code

Address _____ City _____
street

State _____ Zip _____ Home Phone _____
area code

Note: Due to the cost of processing CE, each answer sheet must be accompanied by a check or money order for \$5, made out to UT Southwestern.

For DSHS CE credit, mail your completed answer sheet with a check or money order for \$5 made out to UT Southwestern to:

Debra Cason, RN, MS
EMS Training Coordinator
The University of Texas
Southwestern Medical Center
5323 Harry Hines Blvd.
Dallas, Texas 75390-9134

You will receive your certificate for 1.5 hours of CE about six weeks after the closing date. A grade of 70 percent is required to receive CE credit.

Answer Form

Check the appropriate box for each question. All questions must be answered.

- | | | | | | | | | | | | | | | | | | |
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| 9. | A. | <input type="checkbox"/> | B. | <input type="checkbox"/> | C. | <input type="checkbox"/> | D. | <input type="checkbox"/> | | | | | | | | | |
| 10. | A. | <input type="checkbox"/> | B. | <input type="checkbox"/> | C. | <input type="checkbox"/> | D. | <input type="checkbox"/> | | | | | | | | | |

Did you enclose your \$5 check or money order?

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29 years

Phone number/email address

806-767-0488

denver.martin@dshs.state.tx.us

Jerry Bradshaw – Wichita Falls

The Wichita Falls Field Office, located on the campus of the North Texas State Hospital for the past two years, covers 13 rural counties in North Central Texas. The TSA-C consists of 18 providers, 11 registered FROs and two air medical services. All services are 911 providers located within their counties, and each service is small and uniquely willing to share information and provide aid, when needed.

I was instrumental in developing the current Providers Association, which has grown over the years to the point that there is a mutual-aid agreement, regional communications, regional protocols and a regional reporting system. The providers are strongly involved in the RAC and have played a significant role within the regional advisory council.

Past/current EMS certifications (and related, such as LE and FF)

Former certified volunteer firefighter, EMT (1980), paramedic (1981), advanced instructor (1984), advanced coordinator (1985)

How long in EMS?

27 years

How long with the state?

12 years

Phone number/email address

940-689-5928

jerry.bradshaw@dshs.state.tx.us

Andrew Cargile – Abilene

The Abilene office of the North EMS Compliance Group supervises 32 EMS providers and 21 first-responder organizations. There are four major educational programs handled by the Abilene office. The Big Country Regional Advisory Council assists most of the Abilene area providers and first responders. Prior to the BCRAC, EMS managers and hospital personnel formed the Abilene Area Pre-hospital Committee. Since 1990, the Big Country EMS Providers Organization has operated its own EMS organization with the goal of developing a network to assist each other. For many years, this area has worked towards excellence in pre-hospital care.

Past/current EMS certifications (and related, such as LE and FF)

Currently a licensed paramedic; originally certified as an EMT in 1976

How long in EMS?

31 years

How long with the state?

29 years

Phone number/email address

325-795-5859

andrew.cargile@dshs.state.tx.us

Donn Barnes, David Post, Pat Elmes and Tami Littleton – Arlington

The staff in the Arlington EMS compliance office covers 19 counties in the Dallas-Fort Worth area, including more than 130 providers, more than 85 FROs, 23 education programs and several CE training programs. Our staff works closely with various law

enforcement and other regulatory agencies. The Arlington staff serves as ad-hoc members to RAC-E committees, area medical control groups, education advisory councils and local governmental groups. All the Arlington EMS staff serves in some capacity with state disaster groups, e.g., EOC, DDC, RSS, etc.

Donn Barnes

Past/current EMS certifications (and related, such as LE and FF)

ARC Advanced 1st Aid card (1971); Texas EMT (1990); Texas paramedic (1993); National Registry paramedic (1993) Texas instructor (1994); Texas examiner (1994); Texas licensed paramedic (2000); former ACLS instructor; former BTLS instructor; former REMS (Remote Environment Medical Support) instructor; former AHA CPR instructor trainer.

How long in EMS?

36 years

How long with the state?

2 years

Phone number/email address

817-264-4723

donn.barnes@dshs.state.tx.us

David Post

Past/current EMS certifications (and related, such as LE and FF)

EMT-P, former Texas police officer (1985 to 1991), U.S. Air Force medical specialist (1965 to 1969), U.S. Naval corpsman (1981 to 1989); San Francisco county paramedic (1969 to 1979).

How long in EMS?

I started in emergency medicine in 1965 (served in the Air Force in the Vietnam War, 1968). After working in EMS in California until 1979, I came to Texas and have been working here in EMS since.

How long with the state?

10 years

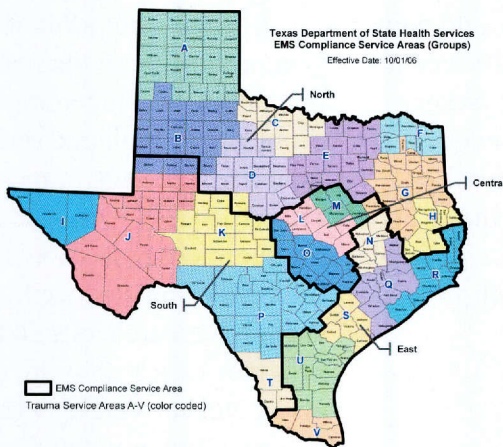
Phone number/email address

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Pat Elmes

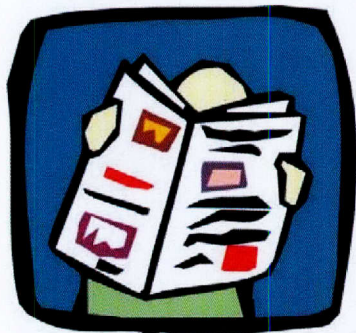
Past/current EMS certifications (and



Source: Office of EMS/Trauma Systems Coordination November 2004

Mapped by GIS Staff, Center for Health Statistics July 2006

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In findings that could shake long-standing thinking on CPR, researchers have found that heart attack victims may survive at higher rates when given chest compressions alone, without mouth-to-mouth. Japanese researchers studied more than 4,000 heart attack victims and learned that those who received only compressions were twice as likely to survive as those

Researchers found that stopping chest compressions to give mouth-to-mouth substantially reduces blood flow.

who received traditional CPR.

“The main determinant of restoration of a spontaneous pulse is maintaining a high enough blood pressure in the heart,” said Dr. Paul E. Pepe, head of the emergency medicine department at the University of Texas Southwestern Medical School, in commenting on the findings.

Stopping chest compressions to give mouth-to-mouth substantially reduces blood flow, and it doesn’t do much to oxygenate the patient. Those suffering a heart attack have enough oxygen in their blood for seven or eight minutes, and most gasp spontaneously every 15 to 20 seconds, providing their bodies with more oxygen than does mouth-to-mouth. However, patients who have suffered respiratory arrest still need traditional CPR, the researchers stressed. From the *Los Angeles Times*, “CPR study: Nix the mouth-to-mouth,” March 16, 2007.

The painkiller methadone is increasingly likely to be abused, often with deadly results. Long used to help heroin addicts with their dependency, Methadone has in recent years been responsible for more and more fatal overdoses, according to a recent study

Among drug overdoses, only cocaine kills more people than methadone.

by the National Center for Health Statistics. In fact, among drug overdoses, only cocaine kills more people than methadone. Authorities are examining several possible factors in the 390 percent increase in methadone-related deaths from 1999 to 2004. For one, more doctors are prescribing the drug as a low-cost alternative to pricier painkillers. Also, methadone is addictive, and it can stay in the body for hours after the dose wears off. Taken too often, methadone can build up to a toxic level in the body. From *USA Today*, “Deadly abuse of methadone tops other prescription drugs,” February 13, 2007.

Kids tend to gain more weight over the summer than during the school year, according to the results of a study that points the finger at parents on the problem of childhood obesity. The study of 5- and 6-year-olds found that their BMIs, or body-mass index, increased more during the summer break. However, growth of the BMIs slowed once kids were back in school. Researchers said the summertime provides kids with more chances to lounge about and eat snacks, while the school year is busier and more structured.

Did you read?

“Trying to improve the quality of school lunches, getting the soda machines out of schools – those are still good

The summertime provides kids with more chances to lounge about and eat snacks, while the school year is busier and more structured.

approaches,” said Doug Downey, an Ohio State University sociologist who co-authored the study. “But clearly the source of children’s obesity problems lie outside of the school.”

The study appears in the April issue of the *American Journal of Public Health*. From the *Austin American-Statesman*, “Study finds kids gain weight over summer,” March 1, 2007.

Children benefit more from a nasal-spray flu vaccine than traditional shots, according to a recent study. The study found that children ages

The study found that children ages 6 months to 5 years suffered fewer cases of influenza when given the nasal vaccine.

6 months to 5 years suffered fewer cases of influenza when given the nasal vaccine, FluMist, instead of shots. FluMist isn’t yet sanctioned for use in children younger than

age 5, but the manufacturer is seeking federal approval for children one year or older who don’t have a history of asthma or wheezing. That’s because the study also found that children younger than one year faced higher risk of hospitalization and wheezing with FluMist. Even with this risk, many doctors said the findings point to an important way to protect kids from flu and fight the spread of the disease. Children are considered the main spreaders of flu and come down with the virus twice as often as adults. From *New York Times*, “Flu spray most effective for children, study finds,” February 15, 2007.



Did you read?

Governor’s EMS and Trauma Advisory Council (GETAC)

**Hilton Austin Airport
9515 New Airport Drive
Austin, Texas**

Wednesday, May 23, 2007

8:00am-12:00pm Stroke Committee
1:00pm-3:00pm Pediatric Committee
3:00pm-5:00pm Trauma Systems Committee
5:00pm-7:00pm Regional Advisory Council (RAC) Chairs

Thursday, May 24, 2007

8:00am-10:00am Air Medical Committee
10:00am-12:00pm Injury Prevention Committee
1:00pm-3:00pm Education Committee
3:00pm-5:00pm EMS Committee
5:00pm-7:00pm Medical Directors Committee

Friday, May 25, 2007

9:00am Governor’s EMS and Trauma Advisory Council

DISCIPLINARY ACTIONS

Absolute Ambulance Service, Weslaco, TX. June 16, 2006, Administrative penalty in the amount of \$5,950.00, for violating the EMS Rules 157.11 and 157.16.

Alexander, Christofer J., Allen, TX. July 7, 2006, Reprimand, for violating the EMS Rules 157.36.

Alfaro, Carlos M., La Vernia, TX. August 14, 2006, Reprimand, for violating the EMS Rules 157.36.

Allison, Phillip G., Whitewright, TX. January 30, 2006, Reprimand, for violating the EMS Rules 157.36.

All Nations Group DBA Ang EMS, Houston, TX. September 30, 2006, assessment of an administrative penalty in the amount of \$9,750.00, for violating the EMS Rules 25 TAC § 157.11 and 157.16.

Allen, Roger L., Vernon, TX. July 21, 2006, Reprimand, for violating the EMS Rules 157.36.

Anders, Scott W., Ponder, TX. July 3, 2006, Reprimand, for violating the EMS Rules 157.36.

Arguello, Luis, San Juan, TX. December 22, 2005 through December 22, 2007, 24 month probated suspension, for violating the EMS Rules 157.37 and Texas Occupation Code Chapter 53 and the Texas Health and Safety Code § 773.061.

Baileys, Anson, Arlington, TX. Forty-eight (48) month probated suspension of EMS certification through July 21, 2008, for one (1) misdemeanor conviction, and two (2) felony convictions. EMS Rules 157.37 and 157.36(b) and (c).

Barnes, Thomas E., Kerrville, TX. August 14, 2006, Revoked, for violating the EMS Rules 157.36

Bernal, Luis, Houston, TX. December 4, 2006, Reprimand, for violating the EMS Rules 157.36.

Bishop, Chance C., Lockhart, TX. December 4, 2006, Reprimand, for violating the EMS Rules 157.36.

Bishop, James T., Stephenville, TX. November 20, 2006, Reprimand, for violating the EMS Rules 157.36.

Boldra, Michael, San Antonio, TX. 1 month suspension, followed by 48-month probated suspension through February 2008 of the EMT certification. EMS Rules 157.36(b)(1), (2), (17) and (28).

Bonilla, David, Mission, TX. Thirty-six (36) month probated suspension of EMS certification through November 4, 2007,

for one (1) felony deferred adjudication, and one (1) misdemeanor conviction. EMS Rules 157.37 and 157.36(b) and (c).

Border Ambulance, Carrizo Springs, TX. October 18, 2006, Reprimand, for violating the EMS Rules 157.11 and 157.16.

Brasher, Jr., John L., Texas City, TX. August 3, 2006, Reprimand for violating the EMS Rules 157.36.

Bray, Randall, San Antonio, TX. August 25, 2006, Revoked for violating the EMS Rules 157.36.

Byrd, Michael W., Houston, TX. August 3, 2006, Reprimand, for violating the EMS Rules 157.37.

Careflight Ground, Grand Praire, TX. June 23, 2006, Administrative penalty in the amount of \$500.00, for violating the EMS Rules 157.11 and 157.16.

Carillo, Tito, El Paso, TX. August 25, 2006, Reprimand, for violating the EMS Rules 157.36.

Castleberry, Robert W., Houston, TX. January 23, 2007, Reprimand, for violating the EMS Rules 157.36.

Christus Spohn Brooks EMS, Falfurrias, TX. July 3, 2006, Reprimand, for violating the EMS Rules 157.11 and 157.16.

Clarke, Russell G., Midland, TX. June 5, 2006, 19 month 26 day suspension, for violating the EMS Rules 157.36.

Clear Lake Emergency Medial Corps, Houston, TX. August 25, 2006, Reprimand, for violating the EMS Rules 157.11.

Clements, Elizabeth A., Tyler, TX. July 21, 2006, Revocation, for violating the EMS Rules 157.36.

Cole, Kenneth M., Millsap, TX. July 3, 2006, Reprimand, for violating the EMS Rules 157.36.

Cooke County EMS, Gainesville, TX. August 14, 2006, assessed an administrative penalty in the amount of \$890.00 for violating the EMS Rules 157.11 and 157.16.

Cooper, Keith A., El Paso, TX. September 27, 2006, Reprimand, for violating the EMS Rules 25 TAC § 157.36.

Crain, Chad E., Abilene, TX. February 24, 2007, Reprimand, for violating the EMS Rules 157.36.

D & L EMS, Porter, TX. February 19, 2007, Reprimand, for violating the EMS Rules 157.11.

Davis, Richard L., Baytown, TX. October 29, 2006, Reprimand, for violating the EMS Rules 157.36.

Depau, James A., LaPorte, TX. February 21, 2006, 24 months suspension with 18 months probated, for violating the EMS Rules 157.36.

Diaz, Gilbert, Houston, TX. August 9, 2006, Reprimand, for violating the EMS Rules 157.36.

Dunn, Joshua D., Beckville, TX. September 14, 2006, Reprimand, for violating the EMS Rules 25 TAC § 157.36.

Duran, Lisa D., Ferris, TX. July 21, 2006, Reprimand, for violating the EMS Rules 157.36.

Enerman EMS, Everman, TX. July 21, 2006, Reprimand, for violating the EMS Rules 157.11.

Escamilla, Daniel, Corpus Christi, TX. 48 month probated suspension of EMS certification through September 2007, misdemeanor convictions and misdemeanor deferred adjudication probation. EMS Rules 157.37, 157.36(b) and (c).

Fason, Carl W., Arlington, TX. June 12, 2006, 8 month suspension through February 12, 2007, for violating the EMS Rules at 25 TAC § 157.36.

Feemster, Bobby, Stephenville, TX. October 18, 2006, 24 months suspension with 18 months probated suspension after serving an actual six-month suspension through October 18, 2008, for violating the EMS Rules 157.36.

Fenner, Lisa L., Pasadena, TX. September 30, 2006, 24 months probated suspension, for violating the EMS Rules 157.36 and 157.37.

Fickey, Bobby, College Station, TX. August 25, 2006, Reprimand, for violating the EMS Rules 157.36.

Flower Mound Fire Department, Flower Mound, TX. September 30, 2006, assessment of an administrative penalty in the amount of \$1,050.00, for violating the EMS Rules 157.11.

Franks, Steven L., Sherman, TX. July 21, 2006, Reprimand, for violating the EMS Rules 157.36.

First Response Medical Services, McAllen, TX. July 21, 2006, assessed an administrative penalty in the amount of \$9,800.00 for violating the EMS Rules

DISCIPLINARY ACTIONS

- 157.11.
- Garcia, Ismael N.**, Odem, TX. June 5, 2006, 12 months 25 day suspension, for violating the EMS Rules 157.36.
- Garcia, Mark A.**, Houston, TX. June 12, 2006, 11 months 19 day suspension through May 31, 2007, for violating the EMS Rules 157.36.
- Garner, John**, Burleson, TX. 12 month suspension followed by 36 month probated suspension of EMS certification through June 3, 2007 for misdemeanor convictions. EMS Rules 157.37, 157.36(b) and (c).
- Garza, Diana**, Weslaco, TX. August 14, 2006, Reprimand, for violating the EMS Rules 157.36.
- Giannotti, Koy R.**, Sugar Land, TX. February 15, 2006, 24 month probated suspension, for violating the EMS Rules 157.36
- Gonzalez, Donna**, Princeton, TX. 48 months probated suspension of EMT-P license through July 2007. EMS Rules 157.36(b)(1), (2), (26), (27) and (28).
- Gonzalez, Fernando**, Zapata, TX. December 22, 2005, 48 months suspension with 45 months probated suspension, for violating the EMS Rules 157.36.
- Gonzales, Robert**, San Antonio, TX. August 9, 2006, Revocation, for violating the EMS Rules 157.36.
- Goodson, Angela R.**, Amarillo, TX. July 21, 2006, Reprimand, for violating the EMS Rules 157.36.
- Grabs, Teresa**, Valley Mills, TX. 108 months probated suspension of LP through September 26, 2010. EMS Rules 157.37(c)(2)(3)(G).
- Graham, Kevin W.**, Nemo, TX. February 19, 2007, Reprimand, for violating the EMS Rules 157.36.
- Granado, Sammy S., Jr.**, Midland, TX. August 25, 2006, Reprimand, for violating the EMS Rules 157.36.
- Gray, Javiya**, Houston, TX. 60 month probated suspension of EMT certification through December 17, 2007, felony deferred adjudication. EMS Rules 157.37, 157.36(b) and/or (c).
- Griggs, Clayton**, Bagwell, TX. 48 month probated suspension of EMS certification through November 1, 2008, for three (3) misdemeanor convictions. EMS Rules 157.37 and 157.36(b) and (c).
- Groves, Brent**, Lake Dallas, TX. 48 month probated suspension of EMS certification through May 5, 2007, felony deferred adjudication probation. EMS Rules 157.37, 157.36(b), and/or (c).
- Guin, James A.**, Bloomburg, TX. July 3, 2006, Reprimand, for violating the EMS Rules 157.36.
- Guthrie, Tammy L.**, Kempner, TX. August 14, 2006, 24 months suspension with 23 months probated suspension after serving an actual one-month suspension, for violating the EMS Rules 25 TAC § 157.36.
- Hall, Lee**, Victoria, TX. 48 month probated suspension of EMS certification through June 29, 2008, for six misdemeanor convictions. EMS Rules 157.37 and 157.36(b) and (c).
- Hartz, Mikel**, North Richland Hills, TX. September 20, 2006, Reprimand, for violating the EMS Rules 25 TAC § 157.36.
- Hayden, Christopher T.**, North Richland Hills, TX. June 5, 2006, 9 month 23 day suspension, for violating the EMS Rules 157.36.
- Hendrickson, Andrew A.**, Carrollton, TX. August 9, 2006, Reprimand, for violating the EMS Rules 157.36.
- Hernandez, Francisco**, Del Rio, TX. October 20, 2006, Application for EMT denied, pursuant to EMS Rules 157.36.
- Hernandez, Rogerio**, Brownsville, TX. 36 months probated suspension of EMS certification through November 1, 2007, for one (1) felony deferred adjudication probation. EMS Rules 157.37 and 157.36(b) and (c).
- Herrera, Jorge**, El Paso, TX. June 5, 2006, 24 months 5 day suspension, for violating the EMS Rules 157.36.
- Hiltbrunner, Lois**, Shamrock, TX. 48 months probated suspension of EMS certification through September 30, 2007, felony deferred adjudication probation. EMS Rules 157.37, 157.36(b) and (c).
- Johnson, Doyle D.**, New Caney, TX. February 22, 2007, Revocation of EMT-Basic certification, for violating the EMS Rules 157.36.
- Kennedy, William L.**, Gun Barrel, TX. September 6, 2006, 12 month suspension, for violating the EMS Rules 25 TAC § 157.36.
- Kinney County EMS**, Brackettville, TX. February 22, 2007, Reprimand, for violating EMS Rules 157.11 and 157.16.
- Kline, Kyle**, San Leon, TX. 48 months probated suspension of EMS certification through June 29, 2008, for three misdemeanor convictions. EMS Rules 157.37 and 157.36(b) and (c).
- Krodel, James R.**, Royse City, TX. December 2, 2005 through December 2, 2007, 24 month probated suspension, for violating the EMS Rules 157.36.
- Lacey, Michael C.**, Austin, TX. June 12, 2006, Reprimand, for violating the EMS Rules 157.36.
- Langdale, Charles T.**, Killeen, TX. September 27, 2006, Reprimand, for violating the EMS Rules 25 TAC § 157.36.
- Lifeguard Ambulance Service**, Dallas, TX. September 6, 2006, assessed an administrative penalty in the amount of \$5,650.00 with \$50,850.00 administrative penalty probated for 12 months, for violating the EMS Rules 157.11 and 157.16.
- Llano County EMS**, Llano, TX. July 21, 2006, Reprimand, for violating the EMS Rules 157.11.
- Loar, David R.**, Lubbock, TX. August 25, 2006, Reprimand, for violating the EMS Rules 157.36.
- Longoria, Leonard**, Murphy, TX. August 9, 2006, Reprimand, for violating the EMS Rules 25 157.36.
- Lugo, Karim**, Houston, TX. February 27, 2007, Reprimand, for violating the EMS Rules 157.36.
- Luna, Stephanie D.**, Lewisville, TX. June 5, 2006, 15 months suspension, for violating the EMS Rules 157.36.
- Martello, Joseph**, Cooper, TX. December 22, 2005, 36 months probated suspension, for violating the EMS Rules 157.37.
- Martinez, Desiderio**, La Feria, TX. September 30, 2006, Reprimand, for violating the EMS Rules 25 TAC § 157.36.
- Martinez, Jose G.**, Brownsville, TX. June 12, 2006, Reprimand, for violating the EMS Rules 157.36.
- Martinez, Oscar**, Lindale, TX. 48 months probated suspension of EMT-P certification through September 2007. EMS Rules 157.36(b)(1), (2), (19), (26), (27), (28) and (29).
- Massey, Charles D.**, Fort Worth, TX. July 3, 2006, Reprimand, for violating the EMS

DISCIPLINARY ACTIONS

Rules 157.36.

Mata, Daniel, McAllen, TX. December 11, 2006, 24 month probated suspension, for violating the EMS Rules 157.36.

McMeans, Nancy H., Santa Fe, TX. July 3, 2006, Reprimand, for violating the EMS Rules 157.36.

Medical Ambulance Services Inc., Laredo, TX. June 16, 2006, Administrative penalty in the amount of \$11,200.00, for violating the EMS Rules 157.11 and 157.16.

Mendoza, Carlos, El Paso, TX. July 21, 2006, Reprimand, for violating the EMS Rules 157.36.

Mendoza, Juan C., Elmer, OK. June 12, 2006, Reprimand, for violating the EMS Rules 157.36.

Metro-Med, Edingburg, TX. July 21, 2006, assessed an administrative penalty in the amount of \$3,750.00 for violating the EMS Rules 157.11.

Mid-Valley EMS, McAllen, TX. June 12, 2006, Reprimand, for violating the EMS Rules 157.11 and 157.16.

Mitlacher, Carol L., Leander, TX. June 7, 2006, 18 months 23 day suspension, for violating the EMS Rules 157.36.

Needham, Christopher, Troup, TX. 12 months suspension followed by a 36 months probated suspension of EMS certification through November 4, 2008, for EMS rule violations. EMS Rules 157.37 and 157.36(b) (1), (2), (26), (27), (28), and/or (29).

Nichols, James J., Lavon, TX. April 19, 2006, 24 month probated suspension, for violating the EMS Rules 157.36.

Nix, Jaime L., Cleburne, TX. December 4, 2006, Reprimand, for violating the EMS Rules 157.36.

North East Texas EMS, Center, TX. September 14, 2006, Reprimand, for violating the EMS Rules 157.11 and 157.16.

Padron, Jason, San Antonio, TX. October 18, 2006, Reprimand, for violating the EMS Rules 157.36.

Pappas, James, Wake Village, TX. August 25, 2006, Assessed a \$700.00 administrative penalty against EMS Coordinator certification, for violating the EMS Rules 157.43.

Parker, Alvin, Jefferson, TX. August 12, 2005, Twenty four (24) month suspension of EMT certification with twenty one (21)

months probated, for violating EMS Rules 157.36. (August 12, 2005-August 12, 2007).

Paul, Jon, Rowlett, TX. 48 month probated suspension of EMS certification through September 2, 2007, felony convictions. EMS Rules 157.37, 157.36(b), and/or (c).

Pendergrass, Cassandra D., El Paso, TX. August 25, 2006, Reprimand, for violating the EMS Rules 157.36.

Pirkle, Lisa L., Cleburne, TX. December 4, 2006, Reprimand, for violating the EMS Rules 157.36.

Pitts, Edward D., Teague, TX. February 19, 2007, Reprimand, for violating the EMS Rules 157.36.

Pointer, Lonnie W., Whitewright, TX. February 19, 2007, Reprimand, for violating the EMS Rules 157.36.

Pompa, Veronica, Corpus Christi, TX. December 2, 2005, 36 month probated suspension, for violating the EMS Rules 157.37.

Possum Kingdom Lake Volunteer EMS, Graford, TX. February 22, 2007, Reprimand, for violating EMS Rule 157.11.

Reed, Carroll, Houston, TX. 48 month probated suspension of EMS certification through August 22, 2007, felony deferred adjudication probation. EMS Rules 157.37, 157.36(b) and (c).

Reid, James G., Denton, TX. June 12, 2006, Reprimand, for violating the EMS Rules 157.37.

Rio Grande Ambulance Service, El Paso, TX. January 25, 2007, assessed an administrative penalty of \$1,000.00, for violating HSC 773, EMS Rules 157.11 and 157.16.

Rivera, Adrian G., Houston, TX. November 20, 2006, Reprimand, for violating the EMS Rules 157.36.

Roberts, Michael Y., Lewisville, TX. October 24, 2006, Reprimand, for violating the EMS Rules 157.36.

Rosser, Daniel E., Corinth, TX. June 12, 2006, Reprimand, for violating the EMS Rules 157.37.

Roth, Peter W., Bandera, TX. August 14, 2006, EMS Instructor certification Revoked, for violating the EMS Rules 157.32 and 157.44.

Royal EMS Ambulance Service, Houston, TX. July 7, 2006, Administrative

penalty in the amount of \$5,200.00 with \$2,700.00 probated for three months, for violating the EMS Rules 157.11 and 157.16.

Ruffcorn, Derek, Stockdale, TX. 24 month probated suspension of EMS certification through October 6, 2006, for one (1) felony deferred adjudication. EMS Rules 157.37 and 157.36(b) and (c).

Russell, Richard A., Lufkin, TX. July 21, 2006, 12 month suspension with 11 months and three weeks probated after serving an actual 1 week suspension, for violating the EMS Rules 157.36.

Salas, Rosa M., Brady, TX. August 25, 2006, Reprimand, for violating the EMS Rules 157.36.

Scarborough, Samuel L., Hamilton, TX. August 25, 2006, Reprimand, for violating the EMS Rules 157.36.

Schertz EMS, Schertz, TX. February 27, 2007, assessed an administrative penalty of \$1,220.00, for violating HSC 773, EMS Rules 157.11 and 157.16.

SF Diamond Corporation, Houston, TX. August 14, 2006, assessed an administrative penalty in the amount of \$500.00 for violating the EMS Rules 157.11.

Shelton, Tommy, Crosby, TX. Thirty-Six (36) month probated suspension of EMS certification through May 24, 2007, for one (1) felony misdemeanor. EMS Rules 157.37 and 157.36(b) and (c).

Silvas, Lisa, Cedar Hills, TX. October 20, 2006, 24 month probated suspension, for violating the EMS Rules 157.36.

Simmons, Kevin W., Bryan, TX. September 6, 2006, Reprimand, for violating the EMS Rules 157.36.

Skiles, Billy, Dallas, TX. a one month suspension followed by a 47 month probated suspension through March 28, 2009, for violating EMS Rules 157.36, and/or 157.37. (March 28, 2005)

Snowden, Casey L., League City, TX. March 1, 2006 through March 1, 2008, 24 months probated suspension, for violating the EMS Rules 157.36.

Snyder EMS, Inc., Snyder, TX. February 22, 2007, Reprimand, for violating EMS Rule 157.11.

Southeast Texas EMS, Beaumont, TX. July 21, 2006, administrative penalty in the amount of \$5,000.00, for violating the EMS Rules 157.11.

DISCIPLINARY ACTIONS

St. Jo Volunteer Fire & EMS, Saint Jo, TX. October 24, 2006, Reprimand, for violating HSC § 773 and EMS Rules 157.11.

Stewart, Alvin D., Comanche, TX. August 25, 2006, Reprimand, for violating the EMS Rules 157.36.

Stonewall County Ambulance Service, Aspermont, TX. February 22, 2007, Reprimand, for violating EMS Rule 157.11.

Sutton, Brian M., Sherman, TX. September 20, 2006, Reprimand, for violating the Health and Safety Code (Act) § 773 and EMS Rules 157.36.

Todd II, Jack W., Tulia, TX. September 14, 2006, Reprimand, for violating the EMS Rules 157.36.

Torrez, Adriana L., Hurst, TX. July 7, 2006, Reprimand, for violating the EMS Rules 157.36.

Torres, Johnny, McAllen, TX. July 21, 2006, Reprimand, for violating the EMS Rules 157.36.

Torres, Jr., Roberto C., Houston, TX. June 12, 2006, Reprimand, for violating the EMS Rules 157.36.

Trevino, Guadalupe, Harlingen, TX. July 21, 2006, Reprimand, for violating the EMS Rules 157.36.

Tucker, Chad, Allen, TX. December 7, 2005, 24 month suspension with 21 month probated suspension, for violating the EMS Rules 157.36.

Tuijillo, Thomas, Fort Worth, TX. July 21, 2006, Reprimand, for violating the EMS Rules 157.36.

USA Ambulance Service, Sugar Land, TX. July 3, 2006, Reprimand, for violating the EMS Rules 157.11 and 157.16.

Vernon Fire/EMS Dept., Vernon, TX. June 12, 2006, Reprimand, for violating the EMS Rules 157.11 and 157.16.

Vernon Fire/EMS Dept., Vernon, TX. October 24, 2006, Reprimanded and assessed an administrative penalty of \$2,600.00; however, the \$2,600.00 is probated for 12 months through October 24, 2007, for violating EMS Rules 157.11 and 157.16.

Wade, Matthew A., San Antonio, TX. March 27, 2006, 36 month probated suspension, for violating the EMS Rules 157.37.

Wheel Care EMS, Houston, TX. August 25, 2006, assessed an administrative penalty in the amount of \$15,000.00 for violating the EMS Rules 157.11.

Willhite, III, John H., Alvin, TX. March 16, 2006, 48 month probated suspension,

for violating the EMS Rules 157.36.

Wilson, Keni M., Clyde, TX. July 21, 2006, Reprimand, for violating the EMS Rules 157.36.

Woody, William K., Cleburne, TX. July 21, 2006, Reprimand, for violating the EMS Rules 157.36.

Woolly, Lane A., Royse City, TX. November 9, 2006, Reprimand, for violating the EMS Rules 157.36.

Wooten, Danny M., Horseshoe Bay, TX. September 6, 2006, Revoked, for violating the EMS Rules 157.36.

All postings will remain on the website and in the Texas EMS Magazine listing:

- Until the suspension or probation expires; or,
- For one year after final action is taken (for decertifications, denials, revocations and administrative penalties).

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related, such as LE and FF)

Paramedic, U.S. Navy-1st Class Petty Officer-Marine (FMF) Corpsman and Operating Room Technician.

How long in EMS?

29 Years in EMS

How long with the state?

20 years

Phone number/email address

817-264-4722

pat.elmes@dshs.state.tx.us

Tami Littleton

How long with the state?

6 years with DSHS

Phone number/email address

817-264-4720

tami.littleton@dshs.state.tx.us

Pat Dilday and Valerie Tumlinson – Tyler

Our office is in the Cotton Belt Building, just around the corner from the famous Tyler Rose Garden. Tyler is in the Piney Woods of East Texas and is host to the beautiful Azalea Trail. Our coverage area consists of 33 counties, bordering Oklahoma, Louisiana, Arkansas and the Gulf of Mexico. Providers in Hardin, Jefferson and Orange counties are currently in our coverage area. Our service area includes the largest first-responder network in the state -- approximately 150 registered first-responder organizations. Their role is an integral part of the EMS system. Our area also includes three very active Regional Advisory Councils (RACs). Our education programs, EMS providers, first responders and RACs are each unique, but all share the same goal of providing quality patient care.

Pat Dilday

Past/current EMS certifications (and related, such as LE and FF)

EMT

How long in EMS?

13 years

How long with the state?

14 years

Phone number/email address

903-533-5377

pat.dilday@dshs.state.tx.us

Valerie Tumlinson

Past/current EMS certifications (and related, such as LE and FF)

EMT-I

How long in EMS?

12 years

How long with the state?

13 years

Phone number/email address

903-533-5282

valerie.tumlinson@dshs.state.tx.us

**GETAC
May 23-25**

Meetings & Notices

Calendar

May 23-24, 2007. ABC³: The Ambulance Billing, Coding, & Compliance Clinic. Hyatt Regency at Union Station, St. Louis, Missouri. A conference dedicated to improving the bottom line of America's ambulance services. Page, Wolfberg, & Wirth, LLC, created ABC³ to address a need within the ambulance industry, the need for sound and legally compliant information about the critical issues of billing and compliance that also improves your bottom line. Sessions will be led by nationally acclaimed EMS attorneys Doug Wolfberg and Steve Wirth and reimbursement consultant Maggie Adams. Call 1-877-EMS-LAW1 (1-877-367-5291) or visit www.pwwemslaw.com for more information.

June 21, 2007. Emergency Care Update Conference 2007. Will be held at the Arlington Convention Center. For more information, visit

Deadlines and information for meetings and advertisements

Deadline: Meetings and notices must be sent in six weeks in advance. Timeline: After the pages of this magazine have completely gone through editorial, design and layout, the magazine goes to the printshop to get printed (a 15-working-day process), then on to our mailing service (a four-day process), and then to the post office.

Cost: Calendar items are run at no charge. Calendar items run in the meeting and notices section until just prior to the meeting or class. Classified ads run for two issues unless we are notified to cancel the ad.

Fax or mail: Calendar items can be faxed to 512/834-6736 or mailed to Texas EMS Magazine, Texas Department of State Health Services, 1100 W. 49th St., Austin, TX 78756-3199. Call 512/834-6700 if you have a question about the meetings and notices section.

www.careflite.org.

July 2-3, 2007. Pediatric Education for Prehospital Professionals (PEPP). Presented by Children's Medical Center Emergency Services and sponsored by North Central Texas Trauma Advisory Council (NCTTRAC). Will be held in the Moore Auditorium at Children's Medical Center, 1935 Motor Street, Dallas, Texas. Limited to 24 participants, register early to ensure enrollment! To register, contact Vickie Thedford, NCTTRAC, at 817/608-0390 or vickit@ncttrac.org. For course information, contact Lanie St. Claire, RN, Children's EMS Liaison at 214/456-7308 or lanie.st.claire@childrens.com.

August 20-22, 2007. 13th Annual San Antonio Trauma Symposium. San Antonio, Texas. For more information, contact Patti Ruffin 210/567-2247; email ruffin@uthscsa.edu; or visit www.hjf.org/events/index.html.

Jobs

Paramedic: Rockwall County EMS has openings for full-time paramedics. Competitive pay and progressive protocols, applications online at rockwallems.com or call 972/772-4148. +

EMT/EMT-I/Paramedic: Central Texas Regional EMS is seeking EMT's, Intermediates, and Paramedics for both our Temple and Georgetown operations. Both PRN and full-time, with benefits, competitive pay and great working conditions. For an on-line application visit www.centraltexasems.com or contact Scott Evan at 512/864-9956 or email Scott.centraltexasems@gmail.com. +

Paramedic: Childress Regional Medical Center EMS has a full-time paramedic position available. Competitive salary with benefits. We

provide 911 coverage for Childress County and provide hospital transfers for CRMC. Contact Gerardo Garcia, NREMT-P, Director of EMS, at 940/937-9218 or email ggarcia@childresshospital.com for more information. +

EMT/EMT-I/Paramedic: American Medical Response (AMR) is now hiring EMT, EMT-I, and paramedics across the state. AMR offers competitive wages and benefits, tuition reimbursement, paramedic and CCT sponsorship programs and much more. For information regarding openings in Dallas, Arlington, Hunt County, and Wichita Falls, please contact Melissa Bode, HR Generalist, at 214/535-7610 or email mbode@amr-ems.com. For information regarding openings in Houston, Austin, San Antonio, Milam County and Alice, please contact Carrie Jordan, HR Generalist, at 713/741-7474 ext. 3007, or email cjordan@amr-ems.com. +

Paramedic/SSM Controllers: MedStar EMS is seeking experienced paramedics and SSM controllers in the Dallas/Fort Worth metroplex. For detailed information, visit their website at www.medstar911.org. +
EMT/EMT-P/Dispatcher: ACE Ambulance Inc. is accepting applications for part/full-time positions. Offer competitive salary, benefits and flexible schedule. For information contact Rick Moreno at 832/689-1515. Mail resume to: Director of Operations, 7100 Regency Square, Suite 104, Houston, TX 77036 or fax to 713/975-7797 or send by email to: rick@aceambulance.com. *

Paramedic: Texas City EMS Department is accepting applications in order to establish qualified applicants for current and future positions. Full-time salary is \$50,000 a year with city benefits and retirement. PRN paramedics make \$15.54 per hour with overtime after 40

Meetings & Notices

hours. 24-hour shifts with progressive protocols and new equipment. Email your resume to mparker@texas-city-tx.org or call 409/643-5728.*

For Sale

For Sale: Rugged laptops, tablets, handhelds, vehicle mounts, and docking stations. Call George for details and prices. 281/255-6785 or email texas11@houston.rr.com. *

For Sale: Two 2005 Type III E-405 ambulances, turbo diesel, less than 50,000 miles, LED lights, Ferno 93 stretchers, loaded, white with red, gray, and blue stripes. For pictures and drawings call Bobby Joe Spearman at 903/572-0689 or email BJSMVS@aol.com. *

For Sale: CPR Manikins, face shields, disposable airways, pocket masks, BVM's, AED trainers, choking manikins, AHA books and videos, ACLS and PALS products. Our prices will beat any other source and most products are shipped the day of the order. Contact: Ron Zaring, Manikin Repair Center of Texas at 281.484.8382, fax 281.922.4429, rzmrctx@aol.com or www.manikinrepaircenter.com.*

Miscellaneous

CE Solutions: www.ems-ce.com offers online EMS continuing education that is convenient, cost effective and interesting. Visit www.ems-ce.com for a free test-drive or call 1-888-447-1993. +

Firefighter Continuing Education: Now available online at www.FirefighterCE.com. FirefighterCE is accepted by the Texas Commission on Fire Protection. Visit www.FirefighterCE.com for a free test-drive or call 1-888-447-1993. +

EmCert.com: Online CE courses,

approved by DSHS and CECBEMS, for EMS/Fire professionals. Cost effective subscription pricing for individuals or groups. Visit online for free 1-hour CE or call 1-877-367-4376 for more info. +

prnMedics.com: Free web-based listing service for all certification levels of EMTs. If you are looking for full or part-time employment you can list with us. For more information, call 409/284-2947. +

Rope Rescue Training: Training for fire, EMS, law enforcement and industry in technical rescue, rope rescue, fire rescue, cave rescue, vehicle rescue and wilderness first aid. Call John Green at 361/938-7080 or visit www.texasroperescue.com. +

Ultrasound Guided Central Line Placement: Learn ultrasound guided central line placement. Course will cover basic peripheral and central line placement utilizing direct visualization, didactic, lab and hands-on training. Sunday 9/9/07 and Monday 9/10/07, Fort Worth, Tx., 16 hour ACEP CME-\$825. For more information call 800-806-1982 or visit www.911sono.com. *

Bachelor's degree: St. Edward's University, Austin. Degree in public safety management, designed for

working adult students. Credit for prior learning through life learning experiences is available. A degree completion program is available online or may be blended with classroom courses. Visit www.stedwards.edu/newc/pacepsm.htm or call 512/428-1050 for more information. *

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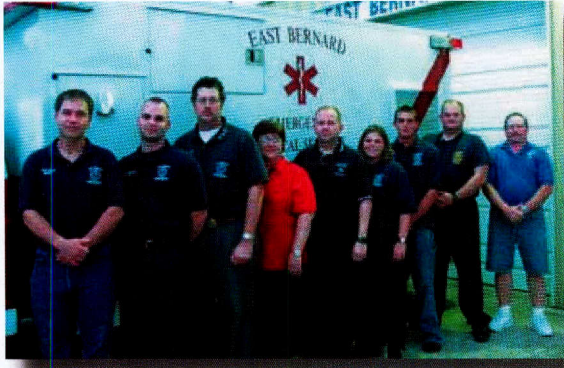
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EMS Profile: East Bernard Emergency Medical Services



From left: Jeffrey Jasek, EMT-P, deputy director; David Waindel, EMT-P; Fate Breedlove, ECA; Kathy Korenek, ECA; John Szymanski, LP; Christi Barger, EMT-I; Jeff Brummer, EMT-B; Douglas Hancock, EMT-B, director; and James Kresta Jr., ECA
Not pictured: Chris McAnally EMT-P; and Becky Vacek, EMT-I.

Number of personnel: We have seen membership fluctuate from five to an astonishing 45-member roster over the past 26 years. Currently, 12 dedicated members staff our ambulance 24-7. Personnel consist of three ECAs, two EMT-basics, two EMT-intermediates, three EMT-paramedics and one LP. A few members are cross-trained as firefighters, as well. Dr. Larry Penick, MD, provides outstanding leadership as our medical director. Dr. Penick practices at surrounding emergency departments and operates Rice Medical Clinic in East Bernard. Although our membership is relatively small, we have continued to provide a high-caliber EMS service.


How many years in service: East Bernard EMS proudly made the transition from first-responder organization to fully functioning EMS service 26 years ago, in July 1981. Our station/offices are located at 103 Main St. in East Bernard. Our coverage area in northern Wharton County is 125 square miles, with an estimated population of around 3,200. Our service area includes the city of East Bernard, the communities of Lissie and Chesterville, and a small portion of Fort Bend County. Members live throughout our service area and respond directly to the scene with EMS equipment. This greatly reduces response time, as it takes our ambulance 15 to 20 minutes to reach remote parts of our service area. Transport to the closest hospital, depending on scene location, is between six and

34 miles. There are four local hospitals that we regularly transport to. Funding is received from patient billing, donations from citizens, the city and grants. All of these funding sources provide us with state-of-the-art equipment. We receive no financial assistance from Wharton County.

Number of units and capabilities: We currently have one ambulance: a 2001 Ford Frazier Type 1 functioning at BLS with MICU capability. We have aggressive protocols that include current AHA guidelines, CPAP, RSI, fentanyl for pain management and 12-lead EKG capability. Since airway control is paramount, our EMTs are authorized to place CombiTubes. PHI Air Med 9 and AirEvac Lifeteam provide air transport for critical medical and trauma patients to the Texas Medical Center. Backup units are provided by surrounding EMS agencies with which we have mutual aid agreements, including Wharton EMS, Colorado County EMS, Fort Bend County EMS and Austin County EMS.

Number of calls: In 2006, East Bernard EMS responded to 230 calls, while in recent years past we have averaged between 150 and 230 calls annually. There has been a notable increase in 911 calls over the years. A second unit is continually considered, but with the current numbers, we think the need is not yet there. A first-response vehicle is currently being considered.

Current programs: Our members continue working closely with businesses and local organizations in educating the public about EMS. We continue to provide first-aid classes and CPR classes to the public, civic groups, Boy Scouts and businesses. We have continued to distribute Vials of Life and offered residents information on ways to make their homes safer for themselves, children and grandparents. During high school football season, East Bernard EMS and Dr. Penick provide EMS stand-by for all home games. In November 2007, plans are to co-host a Shattered Dreams program. Another project that we are researching is the possibility of an emergency services district, which would guarantee funding for the future. One past project that we are proud to have been part of was the AED program that we helped establish for East Bernard ISD. This program came about after a 16-year-old student experienced sudden cardiac arrest. East Bernard EMS successfully resuscitated the student, who has no neurological deficits.

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