Perkins honored for trauma system work page 7 Getting healthier with Maxie's Challenge page 28 Continuing education: Intraosseous infusion page 34



Texas Department of State Health Services Serving Texas Emergency Care Professionals **November/December 2010**



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FEATURES

7 Perkins honored for work on trauma system

Assistant Commissioner for Regulatory Services Kathy Perkins was named one of four Outstanding Women in Texas Government in September. Among other accomplishments, Perkins is credited with leading the development of the statewide trauma system.

16 Conference lecture and workshop schedules

Plan your days at Texas EMS Conference in Austin using our handy, color-coded schedules.

26 Texas EMS personnel win national awards

Ernesto "Ernie" RodrigLez, LP, earned the 2010 National EMS Executive of the Year Award from the National EMS Management Association and Lisa Camp, LP was named Paramedic of the Year by the National Association of EMTs. 27 A Day in the Life: EMS Certification We're launching a new mini-series of articles to introduce readers to the DSHS offices that keep the EMS/ Trauma System running. This month we feature EMS Certification—the staff members that process EMS certification and licensing applications.

28 Maxie's Challenge

State EMS Director Maxie Bishop is challenging himself and the entire Texas EMS community to exercise more and make healthier food choices. From November 1 through this time next year, Bishop will chron cle his progress in each issue of Texas EMS Magazine.

34 Continuing education: Intracsseous infusion

This continuing ecucation article by Kenneth Navarro, LP, explores intraosseous infusion, including the anatomy and physiology of the skeletal system, the indications and contraindications of intraosseous infusion and the potential complications.

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Above, in October emergency medical professionals from Hong Kong visited MedStar EMS in Fort Worth to discuss innovations and strategies MedStar uses in the United States. Here, MedStar's Associate Director of Operations Matt Zavadsky demonstrates the gateway technology that supports each ambulance unit. Photo by Bob Strickland, deployment manager, MedStar.

On the cover, Montgomery County Hospital District medics prepare for transfer of a critically injured child. Photo by Will Kennard

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Texas EMS

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Conference celebrates silver anniversary

The dreams start in October, those conference-fueled, anxiety-driven nightmares about getting everything done that needs to be done before 4,000 people show up on our doorstep. And this year, we have some extra tasks to check off for 25th anniversary. One part of it is easy: Everyone who registers will receive a 25th anniversary Texas EMS Conference lapel pin. We're also working on a couple of large displays of conference photos that span the first 25 years of the conference – they'll be near registration. All you conference veterans are encouraged to look for vintage photos of yourselves!

Don't forget: You'll have Tuesday morning this year to do any last minute shopping in the exhibit hall. Then at 11:15, we close the hall and head to the awards luncheon. As always, we will honor those who died in the line of duty this year at our Tuesday luncheon, plus we will announce the winners of the Texas EMS/Trauma awards. Honor guards from Austin-Travis County EMS, Lubbock EMS, Williamson County EMS and PHI will open the conference and help us honor those who lost their lives on duty this year. At press time, we have six to add to the Hall of Honor.

We have a lot of meetings in conjunction with the conference, as usual. The GETAC committees meet Saturday and Sunday at the Hilton and the council meets on Monday night. In addition, we have a panel discussion of the American College of Surgeons trauma study on Monday, orientation for new GETAC committee members, the Valsalva competition, a trauma registry vendor demonstration, and several other meetings. The current schedule is on page 14, and check the reader board at the Hilton or the conference program for final times and locations once you arrive.

And if you've been waiting for someone to challenge you to get healthier, look (up) no further than State EMS Director Maxie Bishop. He's vowed to get fit this year and he's inviting anyone in EMS and trauma to do the same. Turn to page 28 for the details on what he's doing and then follow Maxie's progress in each issue of Texas EMS Magazine through next year. You also can sign up to follow the Maxie Challenge on Facebook.

Ever wonder what happens to an EMS application once you send it in? Turn to page 27 to meet the people who take that application and turn it into a certificate six weeks later. Hint: it's a lot more complicated than you think.

Many of you have known Kathy Perkins for years (decades!) and know what a dedicated, hardworking person she is. When DSHS was given the charge by the Legislature in 1989 to build a trauma system – and no funding to do it – Kathy took on the challenge. Kathy, who is now assistant commissioner for Regulatory Services (and my boss's boss's boss), recently was named one of four outstanding women in state government, partly for her work on the development of the Texas Trauma System. Turn to page 7 for the full story. I'm so proud to know Kathy. She talks the talk and walks the walk in everything she does. And she's an extraordinarily nice person, too! Congrats to her on a well-deserved award.

And finally, I had the chance to visit the Bulverde-Spring Branch station opening in October and it reminded me of the good EMS can do in a community. I'm proud to be a part of EMS, even if I'm just the reporter.

See you at conference!

Killy

FROM THIS SIDE



Kelly Harrell Editor



First responders honored at Star of Texas Awards

On September 7, Texas Governor Rick Perry presented the Star of Texas Awards at the Capitol, honoring first responders who were killed or seriously injured in the line of duty. The 78th legislature created the Star of Texas Awards and designated September 11 as "Texas First Responders Day" to honor the bravery, courage and determination of Texas men and women who assist others in emergencies.

EMS first responder killed in the line of duty responding to a medical call:

Tracy Renee Chambers, LP Chambers was killed in a medical air crash on July 4 in Alpine.

The following EMS first responder was killed in the line of duty responding to a call other than a medical call:

Cohnway Matthew Johnson, EMT Johnson, a cadet with the Houston Fire Department, collapsed during training and passed away a few days later.

TEXAS EMS CERTIFICA	ATIONS
October 12, 2010)
ECA	3,167
EMT	31,151
EMT-I	3,827
EMT-P	14,354
LP	5,932
Total	58,431
BASIC COORDINATOR	120
Advanced Coordinator	218
INSTRUCTOR	1,978

Letters to the editor

To Texas EMS Magazine:

It is with great sadness that we note the passing of a dear friend and colleague, Dr. Gary F. Purdue. Dr. Purdue served as the chief of the burn section in the Department of Surgery at UT Southwestern Medical Center and codirector of the Parkland Memorial Hospital burn unit for 22 years.

Before attending medical school, Dr. Purdue worked as a paramedic for the volunteer fire department of Youngwood, Pennsylvania. Just before entering medical school, his father was electrocuted aboard a sailboat after touching an open wire, which reinforced his desire to pursue his dream of becoming a doctor. Despite being a nationally recognized expert in burn care, Dr. Purdue never forgot the streets. He was always willing to take time to teach UT Southwestern paramedic students about trauma and burn care. Dr. Purdue contributed his expertise to the BioTel Treatment Guidelines revision process by making protocol recommendations for trauma patients with a goal of improving the care delivered before patients arrived at the hospital. EMS in the North Central Texas region directly benefitted from his patient care observations and instruction.

We will miss him!

Debra Cason, Associate Professor Kenny Navarro, Assistant Professor UT Southwestern Medical Center at Dallas

EMS Obituaries

Brian Keith Slaughter, 41, of Huntsville, died August 11, 2010. Slaughter was an EMT with MedPro EMS in Huntsville.

Harold Crutsinger, 69, of Austin, died September 8, 2010, of complications following a pulmonary embolism. In 1976 Crutsinger took one of the first emergency medical care classes offered in Travis County and went on to volunteer with Travis County Fire Control until he retired in 1999. Crutsinger helped start the University of Texas EMS in 1978, and he was honored in 1986 by the National Association of EMTs as EMT of the Year.

John (J.P.) Murphy, 76, of Manor, died August 25, 2010, of complications from the shingles virus. Murphy retired from the Texas State Health Department as deputy director of the Vital Statistics Department. He was an EMT, a volunteer with Travis County ESD-4 for 38 years, and a longtime Texas EMS Conference volunteer.



Gary F. Purdue, MD, 65, of Carrollton, died October 3, 2010, of injuries following a motorcycle crash. Purdue was chief of the burn section

in the department of surgery at UT Southwestern and was co-director of the Parkland burn unit for 22 years. Purdue was a paramedic in Pennsylvania while attending medical school and remained active in prehospital medicine throughout his career.

Corrie Ann Hamer, 45, of Abilene, died September 30, 2010. Hamer was a trauma center nurse at Abilene Regional Medical Center and was a paramedic for several years during her career.

Kathy Perkins named one of four Outstanding Women in Texas Government

By Shelley Ogle, DSHS Staff News Editor

face familiar to the EMS and trauma communities was recently honored for her work in developing the trauma system. Kathy Perkins, along with three other women, was honored in September at a luncheon at the University of Texas. Her portrait hung in the Capitol rotunda that week.

Kathy Perkins was mystified. The assistant commissioner of DSHS Regulatory Services for the past four years, Perkins had been told by Commissioner David Lakey, in a serious tone, that he had something important to discuss with her. As she settled into a chair to have the discussion with him, Dr. Lakey added to her nervousness by solemnly calling in Ben Delgado, associate commissioner, and Luanne Southern, deputy commissioner. He then asked them to close the door.

"By this time," says Perkins, "I was starting to worry."

But, instead of receiving ominous news, Perkins was just being gently teased and congratulated by Lakey and his closest colleagues because she had been selected as one of four Outstanding Women in Texas Government, an honor presented once every two years to a small handful of state employees nominated by the directors of their state agencies.

"It took a moment to sink in," says Perkins.

This year's awards went to Perkins and three other women selected by the State Agency Council to the Governor's Commission for Women. The other three were honored for their outstanding management, contributions, and community involvement; Perkins was honored for outstanding professional development.



As assistant commissioner for Regulatory Services, Kathy Perkins manages more than 900 employees who protect our state's food supply, monitor patient care in health facilities, assure safety in youth camps, verify credentials of health-care professionals, protect us from radioactive materials, and work on the Texas EMS/Trauma System—and many other programs. "As we say: From ambulances to zebra meat, we do it all," says Perkins. Photo by J Mark Photography.

As an employee at DSHS, Perkins' profession here has developed over the 21 years since her start as a statistical clerk. Within months, the former U.S. Army nurse had moved into a field she was passionate about—trauma care—working first as a trauma program specialist and then beginning the development of the state's EMS/ Trauma System, followed by seven and a half years as the system's director.

After later serving as the Bureau's chief for four years, she became director of the Health Care Quality Section until being named assistant commissioner of the Regulatory Division in 2006.

But Perkins' award for professional development goes beyond her personal career. In many ways, it was earned by her dedication to helping to develop the system of trauma care itself.

"Before 1989, when Kathy accepted the challenge of developing and implementing a statewide trauma system to coordinate emergency medical resources, an injured patient's chances of survival depended more on luck and the geographic location where the injury occurred than on anything else," says Lakey. "A coordinated trauma system exists today because Kathy's passion and commitment were contagious. She relied on volunteers to unify a diverse group of 300 hospitals and 1,000 providers of emergency medical services. Twenty-one years later, statewide trauma care is a reality, with a network of 22 trauma-services areas, each overseen by its own regional advisory council, providing coordinated services."

"In 1989, there were no designated trauma facilities in Texas," says Perkins. "Today, the state has 257 of them, providing four different levels of care. Twenty years ago, ambulances generally took patients to the closest facility, not necessarily the most appropriate one. Hospitals and EMS generally didn't communicate about the best way to provide care for patients. Everyone worked in a vacuum then, but the regional advisory councils now provide the forum for that communication. There were no standards of trauma care, such as transferring critical patients to a higher level of care within two hours. Back then, there were no special educational requirements for nurses and physicians who care for trauma patients. Also, there was no requirement to accept transfers of trauma patients from

Continued on page 51



Moving? Change your address with NREMT and DSHS

Planning a move? You'll need to update both DSHS and the National Registry with your new mailing address. To change your address at DSHS, go to www.dshs.state. tx.us/emstraumasystems/ formsresources.shtm#EMS. Fill out the form and fax it back to (512) 834-6714 or mail to P.O. Box 149347, Austin, Texas 78714-9347. Remember that all information on an application is considered public record, with the exception of the social security number.

To change your mailing address with the NREMT, you will need to enter your social security number, national registration number and date of birth. Only individuals with valid National Registration will be permitted online access to change their mailing addresses.

Trauma Registry vendor announced

On October 7, 2010, DSHS announced a tentative contract award for a Trauma Registry Improvement System to Consilience Software. A full award is contingent upon the successful negotiations and execution of a contract. In the event negotiations are unsuccessful, DSHS may initiate negotiations with the next successful vendor or vendors. Look for updates on the EMS/Trauma Registry website (www.dshs.state. tx.us/injury).

Funding affidavits due by November 10

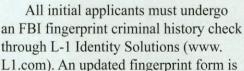


Each fiscal year, DSHS distributes EMS allotments from the EMS and Trauma Care System Account (911 funds); the Emergency Medical Services, Trauma Facilities, and Trauma Care System Fund (1131 funds); and the Designated Trauma Facility and Emergency Medical Services Fund (3588 funds). DSHS calculates the distribution for EMS allotments for these funds using a formula that includes a trauma service area's geographic size and population, and the number of eligible emergency health care runs (trauma and medical) submitted to the Texas EMS/Trauma Registry. An Excel spreadsheet on the website (www.dshs.state.tx.us/emstraumasystems/ Affidavit2011funding.shtm) has the EMS/Trauma run report that will be used to calculate EMS allotment funds. Please verify that your emergency health care runs have been accurately recorded. This list is not an indication of your eligibility to receive funds but rather a reflection of the runs recorded by the EMS/Trauma Registry.

If you think the EMS/Trauma Registry does not accurately reflect the number of runs submitted, you may submit an affidavit to attest that a good faith effort was made to: 1) submit calendar year (CY) 2009 data to the EMS/Trauma Registry; and 2) reconcile discrepancies in runs recorded by individual EMS providers during CY09 and runs reflected in the EMS/Trauma Registry.

If you would like to use the affidavit option, the data you submit on the affidavit form will be used instead of the EMS/ Trauma Registry run report to calculate the funding distribution. **Only affidavits postmarked on or before November 10, 2010, will be considered.** If a signed, complete affidavit from an EMS provider is not received by November 10, the run data provided by the EMS/Trauma Registry will be used. One caveat: Receipt of an affidavit form alone does not mean a provider is eligible to receive EMS allotment funds. For eligibility requirements, rules for EMS allotment funding and current funding eligibility status, go to www.dshs.state.tx.us/ emstraumasystems/SB102Elig.shtm.

Updated fingerprint form online



now online at www.dshs.state.tx.us/emstraumasystems/ FBIFASTPASS1209.pdf. As a reminder, make sure that you access the most recent DSHS form for all your certification needs by going to the "Forms and Resources" area of the website and printing a new form each time you need one. Sending in an outdated form can delay processing.

TEEX offers grants

The Texas Engineering Extension Service (TEEX), in conjunction with the Texas Department of



Transportation, has training grants available with the goal of improving prehospital and emergency response in rural and frontier areas. This grant program can help with initial EMS training, refresher training, continuing education and instructor training. Eligible courses include initial training for ECA/first responder, EMT and EMT-I; refresher courses for ECE, EMT, EMT-I and EMT-P; continuing education (PHTLS/ITLS, Pedi PHTLS, EVOC and EMD); and training for PHTLS/ITLS instructor and EMS instructor. Best of all, the instructors come to the students — minimizing time away from the station and keeping volunteers in their communities. Funding for the program is provided by the TxDOT Traffic Safety Division. For more information about the grants, go to www.teex.org/ems and scroll down to "Funding/Grants" and then "Rural/Frontier EMS Funding." Or contact Pam West at pam.west@teexmail.tamu.edu or (979) 845-2906.

HAZMAT: THERE'S AN APP FOR THAT



There's now a way to identify hazardous substances—and it's

at your fingertips. The Wireless Information System for Emergency Responders (WISER) is a system for helping first responders at the scene of hazardous material incidents-chemical, biological or radioactive-identify hazardous materials. The WISER application helps responders rapidly determine the substance involved, and once a substance is identified, WISER provides critical response information about it. Substance information and identification properties come from the Hazardous Substances Data Bank (HSDB), developed and maintained by the National Library of Medicine. WISER contains HSDB information and decision support logic for more than 400 substances. The substances were chosen based on input from first responders, degree of chemical hazard and historical frequency of incidents. WISER currently exists as a standalone application for several kinds of smartphones, including iPhones and Blackberrys, and computers. For more information, go to http://wiser.nlm.nih.gov.

FEMA offers free emergency planning exercises

FEMA is now providing a free series of tabletop exercise presentations available by download from its website. Each exercise goes through a realistic disaster scenario and facilitates discussion of how an organization would plan, protect, respond and recover. Each exercise includes full instructor's notes so an organization can conduct the exercise internally. The first two exercises, one for a major hurricane and the other a rail chemical incident, also feature simulated TV news videos suggesting exercise-focused local reporting of the disasters. The exercises typically take two to four hours from start to finish and can be customized to meet local needs. Go to www.fema.gov/ privatesector/exercises.shtm for more information.

"Vince and Larry" costumes donated to Smithsonian

Vince and Larry, the crashtest dummy costumes, and related auto safety items will soon become part of the permanent collection of the Smithsonian's National Museum of American History in Washington, DC. Beginning in 1985, the National Highway Traffic Safety Administration promoted highway safety through a series of public service television spots starring actors dressed up as talking crash-test dummies Vince and Larry. The spots aired on television and radio and also ran in magazines. The campaign, conducted through 1998, used slapstick humor and comical antics to remind people of the importance of wearing a seat belt.



Publication details ID of homemade explosives

Would you know how to identify a homemade explosive device? As a recent incident at the McKinney police station shows, homemade explosives can easily be part of a planned attack. In that incident, an armed man loaded a trailer with the makings of a bomb before setting it on fire outside the police station. When officers came out to investigate, the man opened fire. Police returned fire and killed the man and explosives were discovered in his trailer. The federal government now has a guide to assist first responders in the identification of homemade explosive devices. The guide contains images and text describing indicators and warnings pertaining to homemade explosives. The Homemade **Explosives Recognition Guide** provides a quick reference so that responders can recognize the materials, chemicals and equipment associated with the manufacture of homemade explosives. This document is specifically for military, federal, state and local agencies for training emergency personnel who could respond to a terrorist incident. Information in this publication is general and may not reflect the most recent threats. The book costs \$85 and is not available electronically. Go to http://bookstore.gpo. gov/actions/GetPublication. do?stocknumber=008-001-00201-7 to order a book.

Grants available for ECA training

Are you in a rural area that needs to beef up your EMS roster? DSHS has a total of \$50,000 in this fiscal year available for EMS training programs, registered first responder organizations (FROs), coordinators and instructors to conduct ECA courses in rural or underserved areas of the state lacking local EMS training resources. Grant funds cover the cost of instruction



and textbooks, and other expenses such as printing and supplies. OEMS/TS will accept grant applications on a first-come-first-served basis until the funds run out for the fiscal year. Eligibility requirements for grants are a minimum of three students; students must agree to perform emergency care attendant services for at least one year with a local emergency medical service provider or first responder organization; and services must be provided in a designated rural or underserved area of Texas, as determined by zip code or county. For more information, go to www.dshs.state.tx.us/ emstraumasystems/TrainingFunding.shtm or contact Roxanne Cuellar at (512) 834-6700 ext. 2377 or roxanne. cuellar@dshs.state.tx.us.

Recently awarded grants: City of Pineland (Pineland VFD) Possum Kingdom Lake EMS

CDC has new fact sheet for flu vaccine for health care providers



The H1N1 virus may be a fading memory, but flu vaccines are still important, especially for health care professionals who work the front lines. The Centers for Disease Control and Prevention (CDC) has a new website that provides facts and recommendations for health care workers (including EMS) concerning influenza and vaccinations. According to "Influenza Vaccination Information for Health Care Workers," fewer than half of health care workers report getting an annual flu vaccine. The CDC recommends that all heath care workers get the vaccine not only to protect family members but patients as well, especially those who are frail or vulnerable. The website provides additional information about the anticipated flu season and the current vaccine. For more info, go to www.flu.gov/professional/hospital/hcworkers vaccine. html.

Tips may help make funding request a success

Has your area suffered a devastating event that might qualify you for extraordinary emergency funding? The Extraordinary Emergency Fund 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 success in requesting 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 there will be a degradation in the service you currently provide to your community if the request is not fulfilled. Degradation of service is considered a change in the status of the EMS/trauma or emergency services within a community causing a lowering of the level of service provided to the community or area.
- 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 is outdated and cannot be fixed.
- Extraordinary Emergency Funding is not available for equipment upgrades or enhancement of services. Please contact our office or your local EMS regional staff about the annual Local Projects Grant for nonemergency funding opportunities.

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.

FEMA offers course on planning for children in disasters



The Federal Emergency Management Agency (FEMA) recently released a new independent study course called Planning for the Needs of Children in Disasters. This course targets local and state emergency managers and planners; however, other individuals or groups that are directly involved with meeting the needs of children may also benefit. Upon completion of the course, students will receive a FEMA certificate in addition to .40 continuing education units. Go to http:// bit.ly/a3tdW5 for more information.

Designation coordinator joins DSHS

OEMS/TS has a new designation coordinator, Elizabeth Stevenson. She will be working on both trauma and stroke designations. An RN for years and an EMT-Basic, Stevenson most recently taught EMT-Basic and Nurse Aide

Training programs in Burnet Consolidated ISD. She has held nursing positions at Seton Highland Lakes, Hermann Hospital, Highland Lakes Medical Center and UTMB-Galveston.





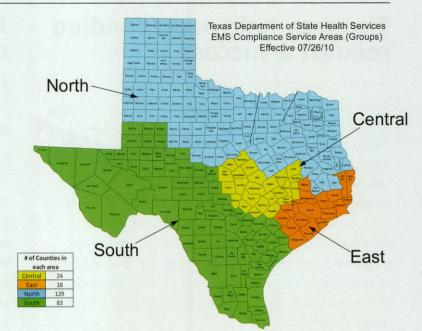
Elizabeth Stevenson

EMS regional office map on web

Wondering about where your local DSHS EMS office is? A newly-drawn map is on our website, along with all the contact information for each office: www.dshs.state.tx.us/ emstraumasystems/regions. shtm. Contact information for EMS service area offices is also listed on page 4 of this magazine.

Convictions in ambulance fraud bring prison sentences

Two ambulance providers were recently sentenced to prison terms for health care fraud involving transport of dialysis patients. In Dallas, the owner/ operator of Royal Ambulance, Inc., and First Choice EMS, Muhammed Nasiru Usman, was found guilty in May of fraud by asking that employees omit certain facts when documenting transports for reimbursement to dialysis clinics, such as whether the patients walked to the ambulance. Operations manager Shawn Outen, of Aubrey, and manager David McNac, of Dallas, pleaded guilty. In McAllen, former Hidalgo County Commissioner Guadalupe Garces Jr. and his wife, Araceli Garces, were found guilty in August of submitting fraudulent claims in connection with ambulance transport to dialysis clinics. Director of **Operations Rodney Ramos also** pleaded guilty. As a reminder, falsifying a patient run report is a clear DSHS rule violation and can lead to disciplinary action, including revocation of any EMS certification or license.



CDC warns of risks associated with glucose monitoring



Reports of hepatitis B virus (HBV) infection outbreaks linked to diabetes care have been increasing in the last ten to 15 years, according to the Centers for Disease Control and Prevention (CDC). The agency is warning health care providers about the risks of transmitting (HBV) and other bloodborne pathogens during fingerstick procedures for blood sampling. More information is available at several websites:

- www.cdc.gov/injectionsafety/blood-glucosemonitoring.html
- www.cdc.gov/hepatitis/Settings/ GlucoseMonitoring.htm
- www.fda.gov/MedicalDevices/Safety/ AlertsandNotices/ucm224025.htm

Need a refresher? Think recertification



Q: *I* want to take a refresher course to renew my certification. Where do I find one? **A:** The phrase *refresher course* is widely

used in EMS. However, Texas education programs do not recognize the term *refresher*; look instead for a *recertification* course. These courses may be offered by a DSHS-approved initial EMS education program. A list of DSHS-approved initial education programs can be found on our website under "Forms and Resources." Please contact a program in your area to see if they offer a recertification course. DSHS does not publish a list of individual courses.

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Texas EMS Conference 2010

November 21–24 Austin Convention Center Exhibit Hall open November 21–23

You kept asking for it, and now we can finally give you what you want . . . Texas EMS Conference comes back to Austin for 2010, just in time for our 25th anniversary! We are always looking for ways to improve the conference experience, and this year's tweaks should create a great experience for everyone.

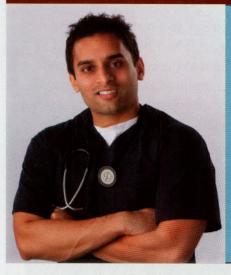
The first thing we did was shift the exhibit hall hours back to include Tuesday. The latest innovations in emergency medicine will be yours to explore Sunday from 2 to 7 pm, Monday from 11 am to 6 pm and Tuesday from 8 to 11 am. As always, we will bring the best faculty from Texas and around the country for one-hour lectures and two-hour, hands-on workshops that cover a wide variety of topics and issues. And we will have ample space and easy access through the exhibit hall for the buffet lunch on Monday. The Austin Convention Center, right in the heart of downtown, and six near-by hotels will make your stay both comfortable and convenient.

Texas EMS Conference remains one of the most affordable choices for your continuing education dollar. Our low registration rate includes access to 15 hours of continuing education credit, a tote bag, a 25th anniversary lapel pin, coffee and snack breaks, a buffet lunch and the Awards Luncheon.

Six downtown hotels have offered special room rates for conference attendees and exhibitors. The Hilton Austin, directly across the street from the convention center, will be our host hotel. Also across the street are the Residence Inn and Courtyard Marriott. The Hampton Inn and Radisson are just a couple of blocks away, or treat yourself to one of Austin's most luxurious hotels, the Four Seasons. You can also find rooms at great rates at the Hilton Garden Inn and Omni Austin Downtown.

See you in Austin!

2010 Texas EMS Conference Keynote Address



DR. SUDIP BOSE Monday November 22, 2010 8:15 - 9:30 am Austin Convention Center

The Battle Continues...

During Operation Iraqi Freedom, Dr. Bose served as a physician on the front lines of combat, providing emergency care for thousands of soldiers and Iraqis during the peak of insurgencies, often while under fire. He recently became medical director for Odessa Fire Department.



Other meetings happening during the conference

Saturday, November 20

GETAC committee meetings, 9:00 am to 5:30 pm, Hilton Austin RAC Chairs meeting, 6:30 to 8:00 pm, Hilton Austin

Sunday, November 21

TTCF meeting, 8:00 am to 1 pm, Courtyard Marriott Downtown GETAC committee meetings, 9:00 am to 5:30 pm, Hilton Austin SFFMA EMS Board meeting, 2:00 to 4:00 pm, Convention Center

Valsalva Bowl Semifinals, 7:00 pm, Hilton Ausin

Monday, November 22

EMS World Innovation Awards, 12:15 to 12:45 pm, Convention Center luncheon stage

Valsalva Bowl Championship, 12:45 pm, Convention Center luncheon stage

Trauma Registry Vendor Demo/Q&A, two-hour sessions, 8:00 am to 5:00 pm, Convention Center

ACS Trauma Systems Assessment Review, 11:00 am to 12:00 pm, Hilton Ausin

DEA Rules for EMS, 1:30 to 3:30 pm, Hilton Austin

- New GETAC Committee Member Orientation, 2:00 to 4:00 pm, Hilton Ausin
- Travel Update for GETAC members, 4:30 to 5:30 pm, Hilton Ausin

GETAC meeting, 6:00 to 9:00 pm, Hilton Austin

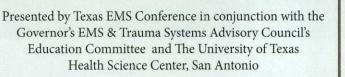
Texas EMS Research Poster Session

Monday, November 22, 2010 Austin Convention Center 4:30 pm - 5:30 pm

You are cordially invited to participate in the 1st Annual EMS Research Forum.

Join your prehospital provider colleagues as they present current research on prehospital issues and practices.

The poster presentations will highlight basic and clinical research by and for the prehospital provider, and will be a great opportunity to see firsthand the research behind the protocols.



Governor's EMS and Trauma Advisory Council (GETAC)

Meeting Notification Hilton Austin 500 East 4th Street Austin, Texas 78701

Saturday, November 20, 2010

9:00 am - 10:30 am Air Medical Committee
10:30 am - 12:00 pm Pediatrics Committee
1:00 pm - 2:30 pm Disaster/Emergency Committee
2:30 pm - 4:00 pm Stroke Committee
4:00 pm - 5:30 pm Cardiac Care Committee

Sunday, November 21, 2010

9:00 am - 10:30 am Education Preparedness Committee
10:30 am - 12:00 pm Trauma Systems Committee
1:00 pm - 2:30 pm Medical Directors Committee
2:30 pm - 4:00 pm EMS Committee
4:00 pm - 5:30 pm Injury Prevention Committee

Monday, November 22, 2010

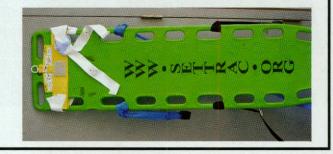
11:00 am – 12:00 pm ACS Trauma Systems Assessment Review

2:00 pm – 4:00 pm New Committee Member Orientation 4:30 pm – 5:30 pm Travel Update (GETAC Council)

6:00 pm – Governor's EMS and Trauma Advisory Council

Equipment exchange in exhibit hall

Have equipment you want to return to someone? Missing a backboard? Bring your orphan equipment to the conference! We'll be hosting an equipment exchange in the exhibit hall. For information, contact Watson Kohankie at rwk3i@yahoo.com. Check the conference program for the booth location.



Conference At-A-Glance

Saturday, November 20

7:00 am - 6:00 pm Exhibitor registration 3:00 pm - 6:00 pm Attendee registration

Sunday, November 21

7:00 am	-	7:00 pm	Registration in Convention Center
2:00 pm	-	7:00 pm	Exhibit Hall opens
4:00 pm	-	6:00 pm	Welcome Reception

Monday, November 22

7:00 am - 6:00 pm	Registration in Convention Center
8:15 am - 9:30 am	Opening Session in Convention Center Ballroom D
9:45 am - 10:45 am	Workshop Breakouts
11:00 am - 6:00 pm	Exhibit Hall open
11:00 am - Noon	Workshop Breakouts
11:30 am - 1:00 pm	Lunch
1:30 pm - 2:30 pm	Workshop Breakouts
2:45 pm - 3:45 pm	Workshop Breakouts
4:00 pm - 5:00 pm	Workshop Breakouts

Tuesday, November 23

7:00 am - 3:00 pm	Registration in Convention Cente
7:30 am - 8:30 am	Workshop Breakouts
8:00 am - 11:00 am	Exhibit Hall open
8:45 am - 9:45 am	Workshop Breakouts
10:00 am - 11:00 am	Workshop Breakouts
11:15 am	Exhibit Hall closes
11:45 am - 1:30 pm	Awards Luncheon
2:00 pm - 3:00 pm	Workshop Breakouts
	Workshop Breakouts
4:30 pm - 5:30 pm	Workshop Breakouts

Wednesday, November 24 8:30 am - 9:30 am Workshop Breakouts 9:45 am - 10:45 am Workshop Breakouts

11:00 am - Noon

Closing Session Conference adjourns

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

Photographer's name	
Employed by	
Address	
City	State Zip
Phone (HM)	/ (WK)/
E-mail address _	
I	Mail to: Texas Department of State Health Services Office of EMS/Trauma Systems MC 1876 PO Box 149347 Austin, TX 78714-9347
Dea	dline for entering: November 10, 2010
	Tape this form to the back of the photo.
Brief explana	tion of scene:

Photo Contest Rules

- · Winning categories and prizes: Grand Prize winner-\$250 First Place-\$175 Second Place-\$100 Third Place-\$75 Honorable Mention-\$50
- Deadline: Entries must be received no later than November 10, 2010. 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, Office of EMS/Trauma Systems MC 1876, PO Box 149347, Austin, TX 78714-9347
- · 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 texasemsphotos@gmail.com.
- · Submission grants permission for Texas EMS Magazine or Texas EMS Conference to use the photo in promotional materials. Photos will be identified with credit to the photographer.
- Anyone is eligible; no entry fee is required.
- . Photographs should show good patient care.
- The ownership of the negative will remain with the photographer.

Schedule

Monday

Keynote Session: 8:15-9:30 Ballroom D Sudip Bose, MD, FACEP, FAAEM The Battle Continues... CE: CRO

Room	9:45-10:45am	11:00am-noon	1:30–2:30pm	2:45-3:45pm	4:00-5:00pm
Ballroom D	"What in the world is a CCEMT-P? I thought all paramedics were critical care paramedics." Ericson CRO	EMS Termination of Resuscitation: Best Practices for a Difficult Task Goodloe <i>Prep</i> or <i>Pt. Assessment</i>	The Big Picture in the Big Service Hines <i>CRO</i>	If I Had to Go to Court: Guidelines for Good Documentation Clarke CRO	Injuries Caused by Seatbelts Bouvier Trauma
Ballroom E	Positional Asphyxia, An In-Custody Death Phenomenon Batty <i>Medical</i>	Managing the Pediatric Cardiac Arrest Dunn <i>Pediatric</i>	Gun Shot Wounds: When the Big Easy, Isn't So Easy! Bouvier Trauma	Acute Abdominal Pain Dunn <i>Medical</i>	EMS at Mass Gatherings Genzel Prep or Trauma
Ballroom F	Galleleo and the Top Seven Things That Have Changed EMS in This Decade (And What's to Come!) Lundy CRO	Keeping Your Wheels on the Road: Preventing Emergency Vehicle Rollovers Bradley Spec Cons	Patient Assessment: How to Talk <i>With</i> and Not <i>To</i> Your Patient Lundy Pt. Assessment	Lethal Exposures: Carbon Monoxide and Cyanide McEvoy Spec Cons	You Can't Make a Touchdown Without Good Blocking (A Good EMT Will Always Save a Paramedic's @#\$) Yovanovitch Pt. Assessment
Ballroom G	EMS-Based Community Health Program: Preventing the 9-1-1 Call Beeson / Zavadsky CRO	'No, <i>you</i> take him!" Working Together to Serve the Mental Health Consumer Bayani Spec Cons	Prehospital Emergency Brain-Attack Care in the Era of Comprehensive Stroke Centers Janardhan Spec Cons	Fairytales, Myths and the Science of Resuscitation Beeson / Hayes <i>Medical</i>	Sudden Death in the Young Davis Pt. Assessment or Medical
13AB Research Track	ТВА	EMS Research: What is it? Why do we need it? How to get started. Wampler Prep	Research for Rednecks: Get This Project Started, Right Now Wampler <i>Prep</i>	I Know How to Read a Book—How Do I Read a Medical Journal Article? Wampler Prep	ТВА
15 Educator Track	Intergrating the New Education Standards: Using Interactive, Media- Enhanced Solutions in the Classroom Hernandez Prep	Interactive Electronic Solutions in the Classroom that Incorporate the EMS Education Standards—A Student's Perspective Hernandez Prep	Use of Human Patient Simulation in Field Training Programs Parrigin <i>Prep</i>	How Do We Make Our Students Caring, Competent and Compassionate While Still Passing the Test? Creech CRO	Why Won't They <i>Learn</i> How to Connect with Difficult Sudents Duckworth Spec Cons
16AB	Social Media: Thanks for Sharing McFarlane Spec Cons	More Than Just a Nosebleed Williams Medical	Sick or Not Sick? Phillips Pt. Assessment	Teen Suicide McFarlane Pedi	Precious Cargo: Kids in Transport McNeill Pedi
17AB	What's the Reason for the Seizin'? Neurological Emergencies in EMS Mayfield Medical	Little Bug, Big Bite! Infectious Disease and EMS Yates / Etheridge <i>Medical</i>	Creating a Culture of Civility: Challenges, Chaos and Recommendations Dush Spec Cons	Rx for Tragedy: The Rise of Prescription Drug Abuse Yates <i>Medical</i>	Pulmonary Edema or Pneumonia: A Classic Prehospital Diagnosis Kanarian <i>CRO</i>
18AB	All Bleeding Stops Eventually: Understanding Tourniquets and Hemostatic Agents Torrey <i>Medical</i>	"Starfish": Making a Difference Through Customer Service Excellence Caruso Spec Cons	Bad to the Bone: A Review of Intraosseous Infusion Devices Torrey <i>Medical</i>	When Your Patient Reaches the Breaking Point Ebright <i>Trauma</i>	How to Drop Dead in the Middle of Nowhere and Live to Tell about It Dunn <i>CRO</i>
18CD	I Feel the Need for Speed Stafford / Ingram Trauma	ТВА	Up the River Without a Protocol: Managing the Special Needs Patient When Protocols Won't Help Upchurch / Beeson / Hayes / McDonald Spec Cons	Advanced Airway Management: How Do I Prepare? Weinzapfel Airway	Resuscitation Science: Top Five Papers for the Street Navarro / Fowler Airway and/or Medical
19AB TCF Nursing Track	Gangs: A Family Affair Odom Spec Cons	Medical Experiences in Haiti Wheeler Trauma	Military Medicine Torres CRO	Early Care of the Pediatric Burn Patient Hunt Trauma or Pedi	Non-Report Sexual Assault Examination Program Camp Spec Cons

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1-hour lectures subject to change

Schedule

Tuesday

Room	7:30-8:30am	8:45–9:45am	10:00–11:00am	2:00-3:00pm	3:15-4:15pm	4:30–5:30pm
Ballroom D	Managing Firefighter Injuries Bouvier Trauma	Narcotics 101: Rules, Regulation and Reality Griffin Prep	CPAP for Dummies: So Easy, Even a Caveman Could Do It! Grayson / Saffer Airway or Medical	What You Don't Know Might Hurt Them Page Medical	Not Just a Short Adult: Management Priorities for the Pediatric Patient Clarke Pedi or Prep	Common Pediatric
Ballroom E	Critical Calls Take Critical Thinking Mittelman Trauma	How Does That Thing Work? A Look at Children with Special Health Care Needs Mittelman Pedi	Putting People Skills Back at the Top of the Bucket List Creech <i>CRO</i>	MRSA: Let's Spread It Around Bowman <i>Medical</i>	Redesigning EMS: Everything We Know Is Wrong Grayson / Saffer <i>Prep</i> or <i>Spec Cons</i>	Pediatric Trauma Smith Pedi
Ballroom F	Mistakes Happen in EMS But Why? Campa Spec Cons	Seizing the Moment with Infants, Children and Adolescents Mozley / Wessendorff Pt. Assessment	Warning: Suicide Can Kill You! Clarke <i>CRO</i>	Seven Dwarfs of Toxicology Phillips Pt. Assessment	EMS Documentation: Convict the Child Abuser St. Claire Pedi	Hands on Assessment—the Lost Art Mabbitt Pt. Assessment
Ballroom G	EMS Capnography 2010—Where are we? Goodloe Airway	How Vital Are Vital Signs? Page Pt. Assessment	Whole Lotta Shakin' Goin' On: Understanding Seizures Page Medical	Losing Control: A Story of Narcotic Diversion Griffin / Hemphill Prep	Advanced Practice Paramedics: The Future is Here Beeson / Elder <i>CRO</i>	"Safely Non- transport a Patient": The NALTE Concept Fowler / Beeson Pt. Assessment
12AB	What Do You Know About Sepsis? Mayfield <i>Medical</i>	Major Bleeding Control Options (Dispelling Some Myths) Weinzapfel Trauma	Hot Lap Assessment: A 360 Degree Approach D. Williams <i>Pt. Assessment</i>	I'll Give You a Double Blind! Basics of Health Care Research and Why It Is Important to EMS Mayfield CRO	The Silent Majority: Geriatrics in the New Millennium Duckworth <i>Medical</i>	Excited Delirium: How EMS Can Save Lives Turner Medical or Spec Cons
13AB Administrator Track	Building a Patient- Centered Culture Johnson <i>Prep</i>	Improving Patient Care through Provider Safety Wait <i>CRO</i>	Patient-Focused Deployment Shamard / Rodriguez CRO	Leading with Love and Respect Rodriguez CRO	Improving Patient Care For Real Brockman CRO	Ambulance Safety Concepts Wait CRO
15 Educator Track	ТВА	Constructing the Multiple-Choice Exam Navarro CRO	"Why are you so mean to me?" The Challenge of Working With and Motivating the Millennium Generation Ericson <i>Prep</i> or <i>CRO</i>	"I don't want to be in a group, what happened to just getting it on my own?" Creech CRO	Writing the Self Study for CoA Accreditation and Site Visit Cason / Hatch <i>CRO</i>	Writing the Self Study for CoA Accreditation and Site Visit Cason / Hatch CRO
16AB	Plain as the Nose on Your Face: Overview of Intranasal Medications and Uses in the EMS World Jones Spec Cons	The Silent Epidemic Traumatic Brain Injury Whitener Trauma	Oxymoron: Our Love- Hate Relationship with Oxygen McEvoy <i>Medical</i>	Little Nasty Things Smallpox or Chickenpox? Whitener Medical	Elderly Trauma Muhr Trauma or Medical	The Science Behind the AHA Guidelines, 2010 Navarro <i>Medical</i>
17AB	DAPEMS: Difficult Airway Prehospital Emergency Management Squad Duckworth Airway	Apparent Life Threatening Events in Infants (ALTE) McFarlane <i>Pedi</i>	Tie 'Em Down or Put 'Em Down: Chemical vs. Physical Restraint Cosentino Medical or Pt. Assessment	When the Bough Breaks Ebright Pedi ot Trauma	An Eagle, a Legal Beagle, and an Aggie Ogilvie / Isaacs / Wait <i>Prep</i>	Tactical Combat Casualty Care for EMS Seeber Trauma
18AB	Use of Force by the EMS Provider Turner Spec Cons	The Miracle of Life Almost Ebright <i>Pt. Assessment</i> or <i>Medical</i>	Do Eustress Gaytan Prep	Naturally Sweet: Children with Diabetes Mellitus Scadden Pedi	Organized Chaos: Four Patients and a Medic Dush <i>Pt. Assessment</i> or <i>Trauma</i>	Painted Fire: Mentoring in EMS Scadden <i>Prep</i>

Tuesday schedule continued on next page

Schedule

Tuesday cont.

Room	7:30-8:30am	8:45-9:45am	10:00-11:00am	2:00-3:00pm	3:15-4:15pm	4:30–5:30pm
18CD Disaster Track	Rise of the Superbugs: MRSA, C. diff and Others Garcia <i>Medical</i>	Glowing in the Dark: Recognition and Management of Radiation Injuries Garcia Medical	Populations with Special Needs in a Disaster Whitener CRO	TBA	Ten Minutes, Five Miles of Track, a Deadly Commute Whitener CRO	Unbiased Quality Assurance for Small and Large EMS Agencies Mayfield <i>CRO</i>
19AB SFFMA Track	Fire Rehab Walsh Pt. Assessment	Journey from Volunteer to EMS Transport Smith <i>Prep</i>	"I'm an EMT, I can help!" Richardson <i>Prep</i>	Tactical EMS: "Care under Fire" Carroll Trauma or Spec Cons	EMS Grief Norris Spec Cons	EMS Role in HazMat Incidents Wallace Spec Cons

Wednesday

Room	8:30–9:30am	9:45–10:45am	11:00am-Noon
Ballroom D	The Sedate Debate: An Overview of Procedural Sedation in the Field Ratcliff <i>Prep</i> or <i>Spec Cons</i>	Developing Prehospital Pediatric Trauma Guidelines When Evidence Is Limited Shah / Sirbaugh <i>Pedi</i> or <i>Trauma</i>	The Last Lesson: Put Your Heart Into It Grayson Prep
Ballroom F	"Say What?" Communicating with Patients and Partners Scadden <i>Pt. Assessment</i>	Envenomations Seeber Medical	
Ballroom G	Drowning: A State of the Science Update Navarro <i>Pedi</i>	"Ow, Ow, Ow!" Pediatric Sports Injuries Scadden Pedi	

Key to CE

Airway = Airway

CRO = Clinical Related Operation

Medical = Medical

Pedi = Pediatric

Pt. Assessment = Patient Assessment

Prep = Preparatory

Trauma = Trauma

Spec Cons = Special Considerations

Would you like to experience EMS in the Austin area? Austin-Travis County EMS is the exclusive 9-1-1 provider

serving the Austin and Travis County areas. To schedule a ride-along, visit the ATCEMS booth in the exhibit hall. Be

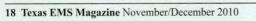
Just a reminder...

Like we have the last few years, we're relying on you to bring printed copies of classroom handouts to Texas EMS Conference. Paper copies of handouts will not be provided at the conference. Instead, we're posting electronic versions on our website (www.dshs.state.tx.us/ emstraumasystems/10conference.shtm). Before leaving for the conference, visit the website, download the handouts for any classes you might want to attend, and print them. We do this to save paper and continue to keep conference costs low. The handouts will remain available on our website for several months after the conference as well. If you have any questions, please email Adrienne Kitchen at adrienne.kitchen@dshs.state.tx.us, or call her at (512) 834-6700, ext. 2380.

Look for the flier

Arriving at the conference on Saturday or Sunday? Ask your hotel concierge to give vou a Texas EMS Conference flier that has maps showing you where to go to register in the convention center and where the preconference and GETAC meetings are being held.

EMS Ride-Alongs



2-hour workshops subject to change

Schedule

Monday

Room	9:45–11:45am	1 00–3:00pm	3:30-5:30pm
4ABC	Emergency Prehospital Ultrasound McManus / Manifold Trauma	Emergency Prehospital Ultrasound McManus / Manifold Trauma	Emergency Prehospital Ultrasound McManus / Manifold Trauma
5ABC	Stethoscopy for Dummies Page Prep	Stethoscopy for Dummies Page Prep	Stethoscopy for Dummies Page Prep
6B	How to Be Productive in a Stressful World Olatunde Prep	How to Be Productive in a Stressful World Olatunde Prep	How to Be Productive in a Stressful World Olatunde Prep
10AB	Anatomical Perspectives of a 12-Lead ECG Roles <i>Medical</i>	Anatomical Perspectives of a 12-Lead ECG Roles <i>Medical</i>	ТВА
9AB	TASER: Personal Interaction and Exposure to the Leading ECD Turner <i>Pt. Assessment</i>	TASER: Personal Ir teraction and Exposure to the Leading ECD Turner <i>Pt. Assessment</i>	TASER: Personal Interaction and Exposure to the Leading ECD Turner <i>Pt. Assessment</i>
9C	Wilderness Medicine and Wound Care Mittelman / Mittelman Trauma and/or Spec Cons	Wilderness Medicine and Wound Care Mittelman / Mittelman Trauma and/or Spec Cons	Wilderness Medicine and Wound Care Mittelman / Mittelman Trauma and/or Spec Cons
8ABC	Airway Anatomy Bolleter Airway	Airway Anatomy Bolleter Airway	тва
11AB Level 4	Bandaging Basics Cardenas / White Prep and/or Trauma	Bandaging Basics Cardenas / White <i>Prep</i> and/or <i>Trauma</i>	Bandaging Basics Cardenas / White Prep and/or Trauma
14 <i>Level 4</i>	Pediatric ALS: All the Procedures You're Afraid Of, Plus the Ones That Actually Work Grayson / Saffer / Scadden <i>Pedi</i>	Pediatric ALS: All the Procedures You're Afraid Of, Plus the Ones That Actually Work Grayson / Saffer / Scadden Pedi	Pediatric ALS: All the Procedures You're Afraid Of, Plus the Ones That Actually Work Grayson / Saffer / Scadden Pedi

Cash prizes at Texas Valsalva Bowl 2010!

Another conference, another chance to win big! Sign your team up for the 2010 Valsalva Bowl. In case you forgot, or never heard of it, the Valsalva Bowl is a fast-paced quiz show featuring teams of three medics competing in a contest of speed, luck and medical knowledge. The semi-inals will be held on Sunday night and the finals will be held on Monday during the buffet lunch. Each winning team member receives \$100, a giant trophy and, of course, bragging rights! Each runner-up team member will receive \$50.

The teams (made up of ECA, EMT-B, EMT-I, EMT-P or LP, RN, MD, DO, whatever) compete against each other and the clock to correctly answer questions from EMS practice. The questions will vary in difficulty—60 percent basic level, 30 percent ALS and 10 percent trivia—so all levels are welcome, even student teams. Each team member will hit a buzzer to answer, but they better be fast or the other team may beat them to the buzzer. A large scoreboard with a countdown timer keeps track of the game. And the questions and answers are up on a screen for everyone to see!

The competition preliminaries will take place on Sunday night, November 21, at the Hilton Austin at 7:00 p.m. The finals will be at 12:45 p.m. on Monday, November 22, on the luncheon stage.

We will take the first 16 teams of three to sign up. Even if you don't get in, come to the event as some teams may lose their nerve once they see the competition. Competitors are HIGHLY encouraged to wear matching uniforms, shirts or whatever to show your team spirit!

The emcee and all-around amusing guy is Bob Page, native Texan and winner of the Valsalva Bowl in 1992. Don't delay! Send your team information today to James Shiplet at JShiplet@collin.edu.



The Missouri team took home top honors at last year's Valsalva Bowl, but this year it's all about the Texas pride!

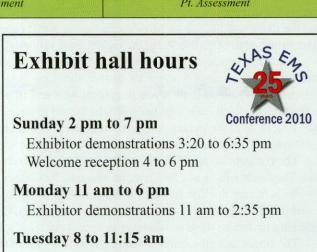
Schedule

Tuesday

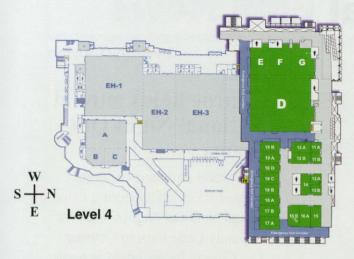
Room	7:30–9:30am	9:45–11:45am	2:00-4:00pm
4ABC	Disaster Drill Moulage	Disaster Drill Moulage	Disaster Drill Moulage
	Thompson / Wall	Thompson / Wall	Thompson / Wall
	<i>Prep</i> and/or <i>Spec Cons</i>	Prep and/or Spec Cons	Prep and/or Spec Cons
5ABC	What Do I Do Now? Revisiting the Basics of	What Do I Do Now? Revisiting the Basics of	What Do I Do Now? Revisiting the Basics of
	Patient Assessment	Patient Assessment	Patient Assessment
	Langford	Langford	Langford
	Pt. Assessment	Pt. Assessment	Pt. Assessment
6A	Radiation Emergencies for EMS Responders	Radiation Emergencies for EMS Responders	Radiation Emergencies for EMS Responders
	Alverson	Alverson	Alverson
	Prep	Prep	Prep
6B	"I Want A New Drug!" Street and Club Drugs	"I Want A New Drug!" Street and Club Drugs	"I Want A New Drug!" Street and Club Drugs
	Yates	Yates	Yates
	Medical	Medical	Medical
10AB	Moulage for Small to Large Scale Scenarios:	Moulage for Small to Large Scale Scenarios:	Moulage for Small to Large Scale Scenarios:
	Making it Real!	Making it Real!	Making it Real!
	Gehrig / Gehrig	Gehrig / Gehrig	Gehrig / Gehrig
	Pt. Assessment	Pt. Assessment	Pt. Assessment
9AB	Two Rescuers, One Rope, No Problem	Two Rescuers, One Rope, No Problem	Two Rescuers, One Rope, No Problem
	Green	Green	Green
	CRO	CRO	CRO
9C	Emergency Care for Children with Special	Emergency Care for Children with Special	Emergency Care for Children with Special
	Health Care Needs	Health Care Needs	Health Care Needs
	Gilchrest / Pointer / Snow	Gilchrest / Pointer / Snow	Gilchrest / Pointer / Snow
	Pedi and/or Spec Cons	Pedi and/or Spec Cons	<i>Pedi</i> and/or <i>Spec Cons</i>
8ABC	Guts and Gore: Heart and Lung Lab	Guts and Gore: Heart and Lung Lab	Guts and Gore: Heart and Lung Lab
	Kern/ Camp	Kern/ Camp	Kern/ Camp
	Airway	Airway	Airway
11AB Level 4	Advanced Agents and Devices for Prehospital External Hemorrhage Control McManus / Manifold <i>Trauma</i>	Advanced Agents and Devices for Prehospital External Hemorrhage Control McManus / Manifold <i>Trauma</i>	Advanced Agents and Devices for Prehospital External Hemorrhage Control McManus / Manifold <i>Trauma</i>
14 Level 4	Ventricular Assist Device (VAD) Wolfe Pt. Assessment	Ventricular Assist Device (VAD) Wolfe Pt. Assessment	Ventricular Assist Device (VAD) Wolfe Pt. Assessment

Sign up for two-hour workshops starting at 7:00 Sunday morning!

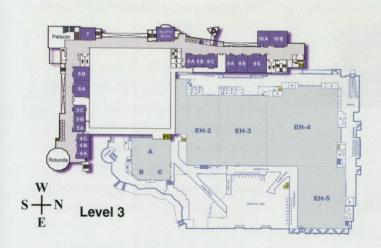
Our two-hour workshops that emphasize intense, handson experiences in a small group are better than ever. Here's the important part: Because attendance is limited, you MUST sign up in advance and get a ticket to be admitted. Once the tickets for that workshop are gone, no more will be issued. Check out the schedules for Monday and Tuesday and pick your favorites before you get to registration. One ticket per person will be given; first-come-first-served for all workshops. Sign-up for the workshops at conference registration beginning at 7:00 am on Sunday, November 21.

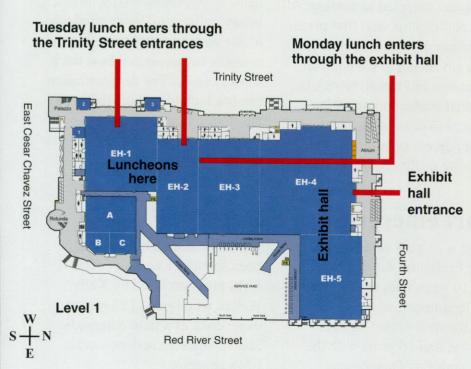


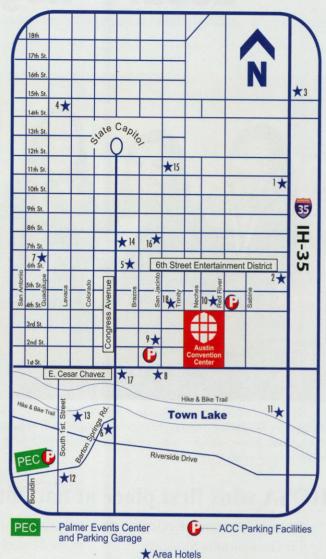
Austin Convention Center and downtown Austin



Lecture and workshops are on the third and fourth levels







Conference hotels highlighted yellow

- 1. Sheraton Austin Hotel
- 2. Hilton Garden Inn Austin Downtown
- 3. Double Tree Club Hotel
- 4. Double Tree Guest Suites
- 5. Driskill Hotel
- 6. Embassy Suites Austin Downtown
- 7. Extended Stay America Downtown
- 8. Four Seasons Hotel Austin
- 9. Hampton Inn & Suites Austin-Downtown

10. Hilton Austin

- 11. Holiday Inn Austin Town Lake
- 12. Homestead Suites
- 13. Hyatt Regency Austin
- 14. Intercontinental Stephen F. Austin
- 15. La Quinta Inn Austin Capitol
- 16. Omni Hotel Austin Downtown
- 17. Radisson Hotel & Suites
- 18. Courtyard and Residence Inn

by Kathy Clayton



Students at Alvin Community College recently took honors at the national Health Occupations Students of America (HOSA) competition. Rubi Vega was a finalist in medical photography, Azalia Almaguer was a finalist in nursing, and Brandy Long and Garrick Alvarez won first place in the EMT category.

HOSA wins first place at national competition

Alvin Community College Health Occupations Students of America (HOSA) members Garrick Alvarez and Brandy Long, both of Alvin, won first place in the EMT category at the national competition in Orlando, Florida. ACC HOSA students Rubi Vega, of Alvin, and Azalia Almaguer, of Pearland, were also finalists in other categories at the competition. Vega competed in medical photography and Almaguer competed in nursing. All of the participants won first place in their categories at the state level before advancing to the national competition in Florida. HOSA is a national student organization dedicated to promoting health care industry career opportunities and enhancing quality health care.

Conroe holds annual National Night Out events

Parents and their children learned about safety during Conroe's annual National Night Out event in Candy Cane Park in October. The Conroe Independent School District's K-9, Snap, manned the CISD police booth while one of her handlers, Cpl. John McPhillips, passed out take-home fingerprinting kits and pencils.

"This is one big block party," Conroe Police Chief Philip Dupuis said. "This is a great time for neighbors to introduce themselves to one another." In a city as large as Conroe, Dupuis said, neighbors rarely have a chance to get together, but the national event gives them that opportunity.

The Conroe Fire Department made an appearance with its fire safety trailer. Children toured the inside with a firefighter, as a smoke machine demonstrated how thick smoke can be. The demonstration can teach children how to get on the floor while trying to escape a fire, said Lt. Neil Radford, Conroe's deputy fire marshal.

40 new EMT students start emergency training

Lone Star College-Montgomery Emergency Services Program opened its doors to 40 new fire cadets and 40 new EMT students this fall. The Emergency Services Program is under the leadership of Director David Griffin, a 16-year veteran and career firefighter. Griffin has spent 10 years with the Houston Fire Department, where he holds the rank of an Engineer Operator, and 16 years with the Little York Fire Department, where the last eight years has been spent as Fire Chief. The EMS program is led by Kelly Weller, who brings 12 years of experience as a field paramedic and 10 years' experience as an EMS educator.



MedStar's Mounted Team gave a Texas-style welcome to Senior Assistant Chief Ambulance Officer K.L. Shum and the Planning Superintendent Johnson Lo of the Hong Kong Fire Services Department at MedStar EMS's Fort Worth campus. Photo by Bob Strickland, deployment manager, MedStar.

MedStar EMS welcomes guests from Hong Kong

EMS calls happen in Fort Worth, Texas, and they happen half the world away in Hong Kcng, China. Fortunately, help is just a phone call away. In Texas, we dial 9-1-1. The Hong Kong Chinese dial 9-9-9. Either way, an ambulance and medicallytrained personnel are ready to help those in need.

In October emergency medical professionals from Hong Kong visited MedStar EMS in Fort Worth to discuss innovations and strategies MedStar uses in the United States. The Hong Kong Fire Services Department was represented by Senior Assistant Chief Ambulance Officer K.L. Shum and Planning Superintendent Johnson Lo.

As the delegates arrived at the MedStar campus, they were greeted by the MedStar Bike Patrol and Mounted Team on horseback and in full western uniform. During the visit, the MedStar senior leadership team presented information on a highperformance EMS system; use of the deployment monitor and system status management; medical oversight, training and continuing education structure; and operations, supply and fleet maintenance.

Mr. Shum and Mr. Lo focused a great deal of attention on MedStar's Deployment Monitor System, which allows system status controllers to post ambulances dynamically based on forecasted call volume data-mapped in real-time. Based on their observations and the response time improvements MedStar has achieved using this technology, Shum and Lo plan to urge several elected officials in Hong Kong to visit MedStar personally to see the potential benefits to the Hong Kong Fire and Ambulance Service firsthand.

Recognizing 20 years of community service

In September, business leaders, politicians, former patients and DSHS EMS representatives were on hand to celebrate 20 years of community service by San Antonio AirLIFE.

"Quality. Safety. Community Service. Over the past two decades, those initial goals have proven themselves time and time again," stated Graham Reeve, President and CEO of Baptist Health System.

The service was established on September 1, 1990, with the primary mission of transporting cardiac patients to Baptist Health System hospitals. This was a shortlived concept once word got out that a helicopter EMS agency was operating in the San Antonio area. The requests quickly expanded to include on-scene trauma transports, and San Antonio AirLIFE was born.

AirLife began operations on January 1, 1991, utilizing a single Bell 412 helicopter based at Baptist Medical Center. A total of seven patients were flown that first month. As of September 1, 2010, AirLIFE has flown more than 42,000 patients and logged more than 46,000 flight hours.

Have a human interest story for Texas EMS Magazine? Email Kelly Harrell at kelly. harrell@dshs.state.tx.us



The new Bulverde-Spring Branch emergency services building opened in October. The 18,000 squarefoot station has three ambulance bays and a fourth bay for a fire apparatus, classrooms, a library, a anatomy lab, sleeping quarters, crew kitchen—even a separate treatment room with a bed for walk-ins located just off the ambulance bays.

Bulverde-Spring opens new EMS station

A crowd of about 100 gathered in the bright sunlight in October as the flags were raised at a new limestone building perched on a hilltop above Comal County. Then at 11:07 a.m., radios toned for an informational announcement: The Bulverde-Spring Branch emergency services building was officially open. After three years of dreaming and building, Bulverde-Spring Branch EMS had a new home.

The 18,000 square-foot station has three ambulance bays and a fourth bay for a fire apparatus. The building, which was designed with input from service personnel, features state-of-the-art facilities for everything EMS: classrooms, a library, an anatomy lab, sleeping quarters, crew kitchen—even a separate treatment room with a bed for walk-ins located just off the ambulance bays. A separate entrance allows medics to strip down and shower to avoid contaminating the building after a call. Crew members sleep in eight small bedrooms along the hallway next to the kitchen. A separate bedroom for the on-duty captain is near the entrance of the facility. The tiled anatomy lab features high-end ventilation and equipment that will accommodate fresh cadaver labs, EMS Director Mechelle Salmon told the crowd that the building was a collaboration between developers, EMS and the community and the finished product was even better than they had imagined it would be. The 63-member service has three stations to respond to 216 square miles in Comal County.

San Antonio AirLIFE awards dinner

San Antonio AirLIFE hosted its first annual "Leaders in Emergency Care" recognition dinner in August at a Riverwalk hotel. The dinner was held in conjunction with AirLIFE's Emergency Care Clinical Conference.

KSAT news reporter Jennifer Dodd was the emcee for the celebration, and more than 150 people attended. "The purpose of this event was to take the opportunity for AirLIFE employees to recognize others in the region who work hard at ensuring the best care is given to their patients," said AirLIFE president and CEO Robert W. Hilliard.

All of those recognized were chosen by AirLIFE flight nurses, flight paramedics, and flight communicators based on interactions they had experienced with hospitals, EMS agencies and individuals in emergency medicine. All facilities and agencies in the DSHS Trauma Service Area "P" were included.

Those recognized during the event were: Rural Healthcare Facility, Uvalde Memorial Hospital; Urban Healthcare Facility, Laredo Medical Center; Urban/Suburban EMS, Seguin FD/EMS; Rural EMS, LaVernia EMS; Hospital Person, Maria Mallen, Fort Duncan Regional Medical Center; Fire/EMS Person, Cindy Martin, Bandera EMS; Telecommunicator, David Schmidt, Seguin Police Department; "Partner for Life", James Mazzucca, UTHSCSA School of Medicine.

Denton Regional Medical Center celebrates designation

Denton Regional Medical Center recently became the first designated trauma center in Denton County, and the hospital celebrated with a special event in August. DSHS granted the medical center a Level III Trauma Center designation August 1, 2010.

"Having a trauma center in Denton County means that our residents have immediate access to advanced medical care, saving valuable travel time that would have been used for transport to Dallas or Fort Worth," said Dr. Jason West, trauma medical director. Prior to its designation, patients who suffered injuries such as brain trauma had

Partnership provides auto CPR devices

A partnership between Schertz EMS and Northeast Methodist Hospital will result in the addition of eight automatic CPR devices for use by first responders The devices likely will make Schertz EMS the first ground unit department in the area to have them, said Schertz EMS Director Dudley Wait.

The devices perform cardiopulmonary resuscitation on a patient more efficiently than people, do not tire, and also monitor the patient's condition. The machines also make it safer for EMS crews riding in the back of an ambulance who otherwise would be performing CPR without restraints such as seat belts, and could be injured themselves.

Northeast Methodist will spend \$90,000 to purchase six automatic CPR devices (five for Schertz EMS and one for the hospital) and Schertz EMS will purchase three machines. Schertz City Council approved a \$45,000 loan from the Water Department enterprise fund to the EMS enterprise fund to facilitate the partnership. to travel more than 30 miles for treatment.

Trauma surgeons, specialist physicians, nurses and other hospital staff received special training so that the hospital could follow the guidelines set by the DSHS designation process and provide service 24 hours a day.

Caleb O'Rear, CEO of Denton Regional, estimates that Denton Regional treats 40 to 50 trauma injuries each month. He also added that hospital staff welcomed the new program, and that part of the Denton Regional team now includes trauma surgeons from Parkland Memorial Hospital in Dallas.

Denton Regional is also an accredited Level II Chest Pain Center, a designation it received in 2008 from the Society of Chest Pain Centers, a nonprofit organization that seeks to improve the care of patients with acute coronary syndrome.

The designation celebration centered on a Safety Round-Up event held in August. It featured a bicycle rodeo with free helmets for the first 200 attendees, a tour of a fire truck to promote fire safety, and groups offering information about disaster preparedness, car seat and automobile safety.



Schertz EMS and Northeast Medical Center are partnering on the purchase of eight automatic CPR devices. The goal is to improve overall care of cardiac arrest victims in the Schertz area.

Wait said the eight automatic CPR devices will be placed in a supervisor vehicle, one in each of four ambulances in service and one for each reserve ambulance.

Wait and Northeast Methodist Hospital CEO Mark Bernard appeared before the city council to talk about the growing ties between Schertz EMS and Northeast Methodist. They said the two entities have worked to improve overall health care and have challenged each other in ways that made both operate better. Northeast Methodist Hospital CEO Mark Bernard later said the hospital wanted to do more than just purchase one for their emergency department. He said the hospital wanted to enter into a partnership with Schertz EMS to improve the overall care of cardiac arrest victims in our entire service area.

"We have about 500 transports by EMS each month and anything we can to do help make them more effective improves health care for everyone," Bernard added.

Two in Texas EMS win national awards

Two in Texas EMS did their state proud in September as they were honored by national groups. Ernesto "Ernie" Rodriguez, LP, earned the 2010 National EMS Executive of the Year Award from the National EMS Management Association and Lisa Camp, LP, was named Paramedic of the Year by the National Association of EMTs. Both awards were presented during EMS Expo in Dallas, which is co-hosted by NAEMT.

Rodriguez, director and chief of Austin-Travis County EMS, was honored for excellence in managing and leading an EMS service. He was hired in March of 2006 as deputy director and went on to take the helm of ATCEMS two years later. Under Rodriguez' leadership, ATCEMS' shift structure was altered to improve



Ernesto Rodriguez

morale and reduce fatigue and the training program was revamped. After the changes were implemented, responders began to consistently meet response time goals, turnover dropped to two percent per year, and the rate of on-the-job injuries fell. In addition, Rodriguez championed a new electronic patient care record system, eliminating the storage of



State EMS Director Maxie Bishop was on hand at EMS Expo to offer congretulations to Lisa Camp, LP, who was named NAEMT Paramedic of the Year and Ernesto Rodriguez, LP, who was named 2010 National EMS Executive of the Year.

paper medical records.

Rodriguez started his career as a volunteer firefighter in Kingsville and then moved on to become a firefighter/ paramedic in Corpus Christi before becoming assistant EMS director at DSHS. He was with MedStar in Fort Worth before taking the position in Austin.

Camp, assistant chief of La Porte EMS and EMS chief for Friendswood Volunteer Department, was honored for demonstrating excellence in the performance of emergency medical services. Camp was instrumental in setting up use of induced hypothermia protocols and worked with her medical director to train paramedics on how to prep patients in the field for the cath lab. She also participated in disaster conferences and drills, and deployed to New Orleans for several weeks after Hurricane Katrina.

Camp has been a paramedic for 30 years. In addition to La Porte and Friendswood, she is a member of TX-3 DMAT. Camp's other awards include 2008 EMS Educator, Greater



Lisa Camp

Houston EMS; 2007 Public Education, Greater Houston EMS; 2007 EMS Administrator, Greater Houston EMS; 2007 Houston Astros Hometown Hero; 2007 Volunteer EMS Provider Award (Friendswood), DSHS; 2002 EMS Administrator, DSHS; and 2001 Volunteer EMS Provider Award (Friendswood), DSHS. – Kelly Harrell

A day in the life: EMS Certification



These are the faces of EMS certification, the people who make sure applications are entered, deficiency letters and renewal notices sent, phone calls answered – you name it! Back, from left, Mattie Mendoza (a new EMT), Linda Lebo, Peggy Clanton, John Binder, Bernadine Lyons and Tambra Rogers. Front row, from left, Sylvia Ochoa, Rachel Ximenez, Terri Phillips and Victoria Myles.

Ever wonder what happens to your EMS applications for individual certification or licensure when you apply online or send in a piece of paper? Sure, in four to six weeks, you get a certificate that you can take to work, but how does it get done? The answer is that a handful of people — that's three full-time staff and two parttime - work every day to process the thousands of applications. Plus answer the thousands of emails and phone calls DSHS receives each month. Others work on troubleshooting problems with applications or the system, audits, deficiency letters and other certification activities ...

Here's how it happens: Applications are received each day through the mail and by electronic notification. Regardless of whether the original application was mailed in or sent in online, each application must be entered in to the Regulatory Automation System, known as RAS. (If all goes well, soon the electronic applications may arrive already in the system, but that depends on getting the new automation system up and running.) That means every name, every address, every phone number has to be typed in manually. In addition, each score sent by the National Registry must also be manually entered into the DSHS computer system. Certifications are printed twice a week.

In between, there are calls and

emails to be answered, renewal notices to send, instructor exams to grade, deficiency letters to be sent, DPS checks to do on renewals and FBI checks on initials and reciprocity candidates, and audits to clear. It makes for a busy time all the time for the hardworking certification staff. – *Kelly Harrell*

By the numbers In August 2010, DSHS EMS staff:

Sent out 1530 certificates and ID cards Received 3497 phones calls about certification Entered 2405 applications into RAS Received 276 paper applications by mail Received 520 initial applications through Texas Online Received 598 renewal applications through Texas Online Processed 86 coordinator/instructor applications Processed 39 reciprocity applications Sent 386 deficiency letters Answered 560 questions by email Made 1109 DPS checks Processed 216 DPS criminal history "hits" Cleared 26 audits Filled 49 requests for duplicate wallet ID cards

MAXIE'S
 CHALLENGE

Join State EMS Director Maxie Bishop as he works on getting healthier – he has agreed to let Texas EMS Magazine chronicle every step of the way.

There's no disguising the fact that State EMS Director Maxie Bishop is a big guy. At six-foot, five inches and about 280 pounds, he easily towers over most people. But in the last few years, he's been getting bigger in a way that he doesn't like so much – around his waistline. But now he's going to do something about it, and he wants to challenge the entire Texas EMS community to join him in getting more active and eating healthier food.

Over the next year, Maxie is going to go public with his challenge by charting his progress – and maybe back-sliding – in each issue of Texas EMS Magazine. He'll tell you what he's doing to increase his activity and healthy food intake, and what some of his challenges are. To make it even harder, he's starting this on November 1, just in time for the holiday season.

Want to join Maxie? Do a Facebook search for "Maxie's Challenge" and join the Facebook group. (DSHS employees are not allowed to access Facebook from work computers, so updates will be made only after hours.)



Don't be surprised if you see State EMS Director out for a stroll or in the weight room. He's vowing to get healthier by incorporating exercise and better nutrition – one baby step at time. "Even if it's just a walk around that block, that's better than sitting still," Bishop says.

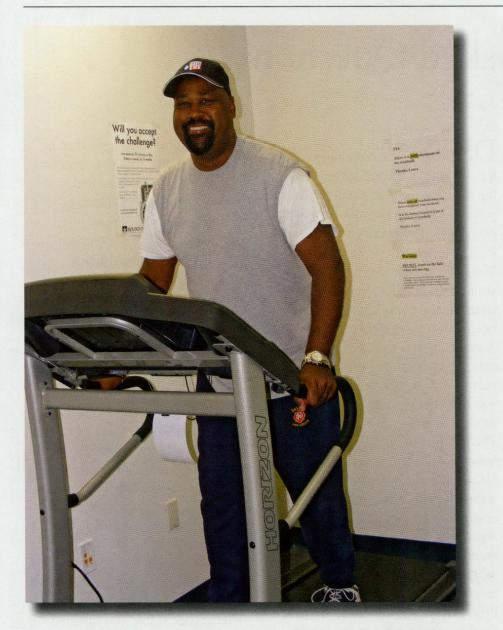
Or just check each issue of Texas EMS Magazine to see how the big guy gets healthy. – *Kelly Harrell*

EMS Magazine: What motivated you to start a fitness program?

MB: My waistline, for one. The older I get, the harder it is to stay a healthy weight and squeeze in time for exercise. But it's not just me. First responders, like the rest of the nation, are struggling with putting on weight. That's partly because we all have a tendency to love this profession, which causes us to work too many hours and ignore our bodies. Some in emergency response have to work several jobs to support families. It's hard to fit in good, nutritious food and time for exercise when we stay so busy. But it's so important.

EMS Magazine: *What are your goals?*

MB: My overall goals are to eat better and become more active. I would like to lose weight, of course, but that's not going to be my focus. My focus is



making time for myself to take care of me, which is going to lead me to better health and more energy. I hope that results in a healthier Maxie and prevents medical problems.

EMS Magazine: *How are you going to do it?*

MB: I will start with baby steps. My first baby step is to get off the sofa and find time to get outside and get some exercise, even if it's only walking around the block. I want to work up to 30 minutes, five days a week. I'm going to eat smaller, more frequent meals and pay attention to what I'm eating. That sounds silly, but I find myself eating past when I'm full not because I'm still hungry but because it tastes good. I'm going to start with getting outside or going to the gym in my neighborhood in the evenings when I get home from work. My first activity is going to be just going out my front door and around the block.

I'm going to bring my lunch and healthy snacks to work, and mostly stay away from the vending machines and fast food joints. I'm not going to give up the things I love, I'm just not going to love them so often.

EMS Magazine: Why do you think it's so important for first responders to stay healthy?

MB: We spend so much of our careers taking care of others that it's easy to neglect ourselves. But if we're going

to continue to help people, we need to keep a healthy weight and keep active. I'm doing it because I want to do it for myself, but I also want to encourage others in EMS. We can decrease injuries and diseases like diabetes. It's funny that we see the consequences of disease all the time, but we think it won't happen to us. I want to be on the side of the gurney – not laying on it.

EMS Magazine: What are going to be some of your challenges?

MB: Someone brings food to share at the office all the time, especially before conference when all those staffers are stressed out. I have a weakness for anything chocolate, pound cake and the Supreme Nachos from FreeBirds. I could eat mixed nuts by the pound. I could go on and on. I'm not giving these foods up, but I won't eat them as often and I'll eat smaller portions. And I promise not to bake my prize pound cake as often!

EMS Magazine: *Why start it* before *the holidays*?

MB: That's going to be the most challenging part of it. Like most people, this is my favorite part of the year for eating. And we tend not to exercise as much because we are busy with the holidays. I'm starting with the hardest part of the year because if I can make it through that, I can keep it going.

EMS Magazine: *Doesn't this public challenge make you just a little nervous?*

MB: I realize there will be some times when I will slip, but that's okay. I'm human just like everyone else. There's a Chinese proverb that says "It's not how many times you fall that matters, it's how many times you get up that matters." I will have good weeks and bad weeks – the goal is to make this a way of life, not a diet. But ... I will have a lot of eyes on me throughout the year, beginning at the conference. *That's* a little nerve-wracking.

Frequently Asked Questions

By Mattie Mendoza and Phil Lockwood

Q Two days ago I submitted my EMT recertification application electronically. When will I receive notification of approval and my new wallet card?

DSHS: The application processing time for all EMS certification applications is four to six weeks. Applications submitted electronically are typically processed a few days faster, as they cut out mail time to our office. You can check your status at our website, but the status will not be updated until after the application has been processed, which will be approximately four to six weeks from the date you submitted it. You can check your certification status on our website at www.dshs.state.tx.us/ emstraumasystems/NewCert.shtm. If you have further questions about an EMS certification application, contact the EMS Certification Office at (512) 834-6700. But please note, EMS Certification staff will not be able to verify receipt of your application until after the application has been processed, which is approximately four to six weeks from the date you submitted the application.

Q I just completed the continuing education hours required to renew my EMT-Basic certification. I am going to submit my recertification application and fee, but it's now a few days past my expiration date. Should I take any additional steps since I will submit the renewal application late?

DSHS: Yes. You must submit the recertification application, pay the required fee plus a late fee, and you must have your skills tested and get a Skills Proficiency form signed by a Texas-certified Coordinator. You have up to one year following your expiration date to submit the recertification application, but the late fee increases if you are more than 90 days past your expiration date. If you are more than one year past your expiration date, you must begin a new certification process as an Initial applicant. The list of continuing education hours and content areas required for recertification are on our website at www.dshs.state.tx.us/ emstraumasystems/continuinged. shtm. You can view and submit the recertification application at www. dshs.state.tx.us/emstraumasystems/ recertinfo.shtm. The Skills Proficiency form can also be found on our website at www.dshs.state. tx.us/emstraumasystems/ lsProficiencyFormforLateRenewal. pdf. For more information about certification and certification renewal information, contact the EMS Certification Office at (512) 834-6700.

Q I am an EMT-Paramedic, and I would like to be a Texascertified Instructor. What Instructor courses are approved for this certification?

DSHS: According to Texas Administrative Code Section §157.44 and Instructor Policy P09-a, the following instructor training programs are approved by the department for EMS Instructor certification: (1) the National Association of EMS Educators (NAEMSE); (2) the Texas Commission of Fire Protection; (3) the United States Military Instructor Training Course; (4) PERCOM; and (5) Health Web CE. Effective January 1, 2010, the department will approve other methods of teaching instructor courses only if they are based on the Department of Transportation's/ National Highway Traffic Safety Administration (NHTSA) current instructor curriculum. DSHS offers an approved instructor course during the annual Texas EMS Conference. The 2010 Texas EMS Conference will be held in Austin November 19 to November 24. You can find information about the Texas EMS Conference on our website at www. dshs.state.tx.us/emstraumasystems/ 10conference.shtm. You can also find the Initial Instructor application on our website at www.dshs.state. tx.us/emstraumasystems/instructor. shtm. If you have any questions concerning the Initial Instructor application process, contact the EMS Certification Office at (512) 834-6700 or visit our website at www. dshs.state.tx.us/emstraumasystems.

Q I recently attended a FEMA Incident Command System (ICS) 200 training. I would like to use that toward my Texas EMT recertification continuing education credit. Can I use that course for CE credit, and how many hours is it worth?

Frequently Asked Questions

DSHS: Because it is a Federal (FEMA) course, you can use the ICS classes toward meeting your Texas EMS recertification continuing education credit requirements. An official breakdown of the content areas is not available for those classes, so the assignment of hours is up to attendee's discretion, but the course can be counted for hourfor-hour credit. Meaning, if the ICS course is an eight-hour course, you can use it for eight hours of CE credit. Please remember to keep all Course Completion Certificates you receive for CE courses, as you must submit them if you are selected for a CE audit. For more information on Texas EMS recertification requirements, including continuing education, go to www.dshs. state.tx.us/emstraumasystems/ recertinfo.shtm. Or if you have further questions regarding EMS certification or recertification, call the EMS Certification Office at (512) 834-6700.

Wasn't there once a rule that required anyone who taught in an EMS course to hold Instructor certification? And what about the rule that you have to be an Instructor for a certain number of years before you can become a Coordinator, is that still current?

DSHS: Yes and yes. *But* the specific requirement that a person hold Instructor certification to teach at *any* capacity in an EMS class is no longer in effect. Currently, a content expert may serve as a guest lecturer in an EMS course as

long as the Coordinator establishes that individual's educational competence and medical content expertise (through the self-study/ site-visit process). Although the course Coordinator is responsible for ensuring that such a lecturer is a competent instructor, that competency may be proven in a number of ways other than through EMS Instructor certification.

The requirements for becoming a Coordinator are still based on becoming an Instructor first. Many of the rule-mandated responsibilities of the EMS Instructor are critical capabilities for Coordinators. Those who regularly instruct or may otherwise be considered for advancement into the training Coordinator position should be reasonably able to obtain Instructor certification. Depending on the course level, Coordinators must have at least two consecutive years of certification as an Instructor to qualify for Coordinator certification.

Q I am a paramedic who works in an EMS medical director's office. I've had several calls regarding AEDs from public schools, businesses and other lay organizations/personnel in our service area. Most of them know they're supposed to notify the local EMS department when they purchase or use an AED, but they are unclear about who should provide medical consultation. They often want to know if they must have a contract for physician medical direction before they can use their AED.

DSHS: The law (Health

& Safety Code, Chapter 779) specifically calls for notification of the local EMS when a group purchases and/or uses an AED. A prescription is required for the purchase of all models of AEDs except for the Phillips On-Site/Home model. Physician involvement in a training program is required by the statute, but regulations require only that use "shall be in accordance with the guidelines established as nationally recognized standards and in accordance with manufacturer's operating procedures." No contract for medical direction is required by law or rule, but we recommend that lay users seek medical consultation regarding AED use and maintenance from a knowledgeable source, including from a local EMS medical director's office.

Q What are some good sources for information on AED use and maintenance?

DSHS: In addition to your local EMS medical director's office, there's a short list. We recommend the American Heart Association, American Red Cross, Sudden Cardiac Arrest (SCA) Foundation, and Federal Occupational Health (FOH). The FOH site addresses guidelines such as AED selection, placement, legal issues, after-use follow up, responder group training and coordination, maintenance and other important areas. The SCA Foundation has a good comparison of AEDs on the market. The American Heart Association is a key organization in the development of CPR/AED standards.

The EMS Experience Saluting those with 20 years or more in EMS Edward M. Brando, Jr., EMT-P



Edward M. Brando, Jr., EMT-P, is a regional director for East Texas Medical Center EMS.

What was your first day on the job in EMS?

I started as a member of a local volunteer First Aid and Rescue Squad in Matawan, New Jersey (now Aberdeen, NJ), and my first call was a sled accident. A few kids were sledding on an icy street and one went off course and into a fire hydrant head first. He had a laceration to his forehead and a concussion. That was in November 1969.

Which services have you worked for over the years?

I started with Matawan Township First Aid and Rescue Squad in New Jersey (1969–1971). The name was changed to South Matawan Township First Aid and Rescue Squad shortly after a split between two squads with the same name. I followed my family down to Louisiana after my dad was transferred, and I worked for Bossier-Shreveport Ambulance in Bossier City, Louisiana. That name was eventually changed to Ambulance Service Co. Inc. of Northwest Louisiana. I stayed there from 1971 to 1974 and got my EMT certification during that time. I moved to Mississippi and was the department head of the Aberdeen-Monroe County Hospital EMS in Aberdeen from 1974 to 1981. I went from there to Acadian Ambulance Service, where I got my paramedic certification. Acadian gave me my first experience as a flight medic, catching some flights on Air Med between 1981 and 1984. I then came to East Texas and have been with East Texas Medical Center EMS (ETMC/EMS) from 1984 until ncw. I worked on an ambulance in 1984 and 1985, then as a flight medic on Air-1 until 1992 when I was promoted to my current position as regional director.

Why did you get into EMS?

When I was in Matawan I was interested in first aid and took the American Red Cross Standard and Advanced First Aid Courses. I got my Instructor certification and helped teach courses at the local squad house. The regular members asked if I would be interested in becoming a cadet and go on calls. I was the first cadet that signed up, and my career in EMS was off and running.

I signed up in August 1969 and we trained, attended drills, and then were approved to go on calls. I was still in high school, had a part time job, and volunteered in my off time. It was a couple of months before my first call, and that was the sledding accident in November. When I turned 19, I was the first cadet to become a regular member with full privileges. I really liked helping people, and when my family moved to Louisiana, I saw an opportunity to work on an ambulance full time. I applied for the job and got it. I stayed with it, and this is really all I've ever done (with the exception of a few part time jobs to supplement my income from time to time). I went through the courses from Standard First Aid to Paramedic and also have several of the optional courses such as ACLS, ITLS, PEPP, BDLS, ADLS, and so on. I have all my NIMS requirements, and I have taken the Ambulance Strike Team Leader Course.

I have also taken courses in emergency management, and I went to A&M Fire School for several years. In addition to my EMS certifications, I am a Level 2 Fire Instructor. I was a volunteer firefighter for Carthage V.F.D. from 1985 to 2006 and retired after 21 years of service.

How has the field changed since you've been in it?

It is as different as night and day. When I started we tied dressings with cravats, and I think I still know how to take a triangular bandage and make an ankle hitch for a Thomas traction splint. I started in a 1969 Oldsmobile high-top ambulance conversion, went to a 1972 Pontiac Catalina station wagon with a stretcher and a first aid kit in it, then back to a high top-conversion and finally Type II and then Type III units. Even when I got my paramedic certification, I never thought we would actually be doing 12-lead ECGs in the field, managing patient care records on a computer, sending a transmission for STEMI and things like that. All the changes in ECG machines, defibrillators, all the different models in the Lifepaks, and of course the old Data Scope series. I once saw a doctor use wet saline gauze pads because there wasn't any paddle gel available (we called it "paddle snot"). Now we have AEDs everywhere

and anyone can use them—that is amazing. Even the changes in textbooks for EMTs and paramedics are amazing, and a big change from the old Caroline and Gazzanaga textbooks and Dubin's Rapid Interpretation of EKGs. New medics have so much to learn and so much to keep up with especially compared to the early years when no one have even thought of a QA/QI department. We used to read each other's patient care records to see if we needed to improve on anything; there wasn't anything like HIPPA even though we didn't talk outside about what we read.

I remember the old E&J Resuscitators with the 50 percent oxygen and room air mix and using oxygen to power the portable suction, and now we have portable ventilators. I never thought I would be using drugs to put a patient "to sleep" for an RSI procedure. Technology has enabled us to bring high-quality emergency care to the patients instead of simply rushing them to the hospital after minimal care. Oximeters, the non-invasive blood pressure monitors, glucometers that are small, compact and give results in seconds, the growing list of medications on the unit from then until now. the list is really endless. When I talk about putting a triangular bandage on a foot and using it as an ankle hitch and then creating tension by inserting a dowel or metal rod and twisting it to get traction, it amazes the ones who are coming out of school now.

Is there a particular moment or call that stands out?

A lot of calls or moments still stand out and always will. One was a head-on collision in Louisiana with 11 total victims, seven of them fatalities. Ten people were in a Ford Thunderbird, and they hit a pickup truck that had only one occupant. There were no skid marks, and the two vehicles hit each other so perfectly that when I looked at the picture in the newspaper the next day, I couldn't tell where the front of one vehicle met the other-it looked like one long vehicle with a trunk at each end. That happened back in the mid 1970s and is still the worst accident I have ever responded to. The Smith County Courthouse shootings, the stand-off where a constable was killed and a deputy shot, the Terrell Church bus accident, and the Carthage Cup hostage shooting and resulting stand-off where a gunman was in the building for almost 13 hours before he surrendered were also high-stress incidents that I responded to.

When then-Governor Edwin Edwards was running for re-election in Louisiana, I



Brando was department head of the Aberdeen-Monroe County Hospital EMS in Aberdeen, Mississippi, from 1974 to 1981.

> Brando as a flight medic on ETMC/EMS Air 1 circa !985.

was assigned to him for a day, and my unit was taken out of service for the entire time he was in a small town near where I was stationed. I had to be wherever he was, and I just followed him around the area. A deputy was with me and another was stationed at the unit with my partner in case I needed one of the bags or a stretcher. He thanked me for being "his paramedic" and shook my hand.

Single-patient calls can be memorable as well, such as the one where a teenage girl was accidentally shot in the chest with a shotgun and we flew her to Tyler. She invited the flight crew to her high school graduation four years later and also to her wedding about two years after that. I could probably fill several pages recalling calls, especially the ones involving children; many had happy endings and some didn't.

And who can forget Hurricane Katrina? I stayed in New Orleans and Gretna for three days, mostly at I-10 at the Causeway. It was the hardest I ever worked, I ruined a couple of uniforms, I got shot at, I ate out of a bag, I was guarded in some areas by SWAT while we treated patients, I triaged hundreds of patients, and I would do it again in a heartbeat.

What has been your favorite part of your career in EMS?

I look back at the methods we call "primitive" from when I started treating patients, and I love being able to be a part of shaping EMS from what it was then to what it is now. I did whatever I could to help and made the best use of my training, knowledge and skills to do my best when taking care of my patients. Now my job is mostly administrative-I am regional director of seven stations in five counties, and I have the entire system when I am on-call. I enjoy guiding the workforce, and I still take care of patients by assisting my crews or responding if I am closer. I enjoy teaching occasionally, and in the past have taught EMT, Intermediate, and paramedic courses. I still have my certifications, all my extras, and I keep up with all of the continuing education required, just like the personnel on the units. I enjoy the state deployments and being a Strike Team Leader. And just when I say "I've seen it all," someone with a little imagination and/or inventiveness comes up with something that makes me admit, "Hadn't seen that."

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Intraosseous Infusion

By Kenneth Navarro, LP



CE illustration photo by William J. Gibbs Jr.

Objectives

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

- 1. Describe the anatomy and physiology of the skeletal system relating to intraosseous infusion.
- 2. List the indications and contraindications of intraosseous infusion.
- 3. List the complications of intraosseous infusion.

EMS personnel generally accept that gaining vascular access is a vital task in the resuscitation of critically ill or injured patients (American Heart Association, 2002; American College of Surgeons, 1997). Intraosseous (IO) infusion is a proven and reliable alternative when traditional IV access is not available. This CE module will review the history, anatomy, technique and clinical application of intraosseous infusion.

In the prehospital world, the phrase vascular access more often than not refers to peripheral intravenous (IV) insertion. However, gaining vascular access through this route can be very challenging, especially in the pediatric population. For example, in one study of 66 pediatric cardiac arrest patients, emergency department personnel required more than 10 minutes to gain IV access in almost one-fourth of the cases, and personnel were never able to gain IV access in six percent of them (Rosetti, Thompson, Aprahamian, Darin, and Mateer, 1984).

IO infusion provides a safe and effective route for the administration of medications and fluids to critically ill patients, both adult and pediatric. Health care providers often gain vascular access much sooner when using the intraosseous route than with traditional IV access in pediatric cardiac arrests (Glaeser, Losek, Nelson, Bonadio, Smith, Walsh-Kelly, and Hennes, 1988; Kanter, Zimmerman, Strauss, and Stoeckel, 1986; Brunette and Fischer ,1988). In a small prehospital study, paramedics successfully established IO access in 94 percent of their pediatric cardiac arrests, taking less than one minute in three-fourths of the patients (Seigler, Tecklenburg, and Shealy, 1989). Compared to umbilical vein catheterization, IO insertion provides more rapid vascular access (Abe, Blum, Yamamotc, 2000).

History of intraosseous infusion

Physicians have initiated IO infusions since the early 1920s, often using the sternum for blood transfusion (Drinker, Drinker, and Lund, 1922). In the 1940s, researchers demonstrated safe and effective IO access using the marrow cavity of the long bones (Tocantins and O'Neill, 1941). In 1942, another researcher proved that fluid delivered by the IO route circulated in essentially the same time interval as fluid delivered by the IV route (Papper, 1942). During the 1940s and 1950s, physicians extensively used the IO route in children for the administration of blood and antibiotics (Rosetti, Thompson, Miller, Mateer, and Aprahamian, 1985).

The late 1950s saw the widespread availability of plastic, disposable IV catheters and the IO route fell out of popularity (Rosetti, Thompson, Miller, Mateer, and Aprahamian, 1985). By the mid 1980s, published reports surfaced that seemed to indicate a significant difficulty level in establishing IV access in critically ill children triggering a renewed interest in the procedure (Rosetti, Thompson, Aprahamian, Darin, and Mateer, 1984).

Some theorized, however that prehospital personnel could not become proficient at this rediscovered procedure. Many researchers have now put those concerns to rest by confirming success rates for paramedics and flight nurses that range from 76 to 94 percent (Fiser, 1990; Seigler, Tecklenburg, and Shealy, 1989; Glaeser, Hellmich, Szewczuga, Losek, and Smith, 1993; Smith, Keseg, Manley, and Standeford, 1988; Miner, Corneli, Bolte, Lehnhof, and Clawson, 1989). Success rates remain high even when paramedics attempt IO insertion during transport (Fuchs, LaCovey, and Paris, 1991). Medics could also maintain proficiency over a five-year period with minimal training (Glaeser, Hellmich, Szewczuga, Losek, and Smith, 1993).

Today, many experts consider intraosseous infusion as a standard of care for treating critically ill or injured patients both pediatric and adult. The American Heart Association, through its Pediatric Advanced Life Support and the Advanced Cardiac Life Support programs encourage intraosseous infusion as an alternative route when traditional vascular access is unsuccessful or delayed (American Heart Association, 2005a; American Heart Association, 2005b).

Anatomy and physiology

Bone is one of the supporting connective tissues found within the body. Bone is composed of two layers; a dense, compact outer layer and a spongy inner layer. Bone marrow, fat tissue, nerves, and blood vessels occupy the meshwork formed by the spongy inner layer and the internal cavity (Martini, Bartholomew, and Bledsoe, 2002.). Developing blood cells make up the red bone marrow present in the long bones of children. The IO route uses the bone marrow cavity as a "non-collapsible vein." Medics inject fluids and medications into the cavity, where they drain into a central channel and exit the bone via nutrient or emissary veins entering the systemic venous system.

Indications and contraindications

Medics should consider IO infusion for patients in need of medication or fluids when conventional IV access is difficult or unsuccessful. The American Heart Association recommends that medics attempt IO access as a first choice for pediatric cardiac arrest unless a traditional IV is already in place (American Heart Association, 2005a). The literature also supports the use of IO infusion in the treatment of pediatric trauma (Guy, Haley, and Zuspan, 1993). IO infusion is also feasible for use in the treatment of profound shock, status epilepticus, overwhelming sepsis, severe dehydration and major burns (Banerjee, Singhi, Singh, and Singh, 1994; Hurren and Dunn, 1995; Goldstein, Doody, and Briggs, 1990;6:1995 7).

Historically, the American Heart Association recommended that IO infusion be reserved for patients less than six years of age (American Heart Association, 1994). Support for this age cutoff stems from the fact that by age five, fat-rich yellow marrow replaces red marrow (Fiser, 1990), which reduces IV fluid absorption (Hurren and Dunn, 1995). Although the success rate is usually higher in children under the age of six, the American Heart Association considers IO access as a reasonable alternative in all patients when alternative access is difficult or delayed (American Heart Association, 2005a).

The only absolute contraindication for IO infusion is a fracture of the bone near the access site (Miner, Corneli, Bolte, Lehnhof, and Clawson, 1989). Many experts also add osteomyelitis, bony lesions, osteoporosis and osteogenesis imperfecta to this list; however, the incidence of these conditions in the pediatric population is probably very low (Fiser, 1990).





Procedure

Successful access is possible with a variety of needles, including butterfly needles (Daga, Gosavi, and Verma, 1999). However, many experts recommend the use of needles specifically designed for IO insertion, such as the straight-Jamshidi-type needle. Some of these needles have handles that allow more controlled pressure during insertion. Jamshidi needles also have a shorter shaft than other models, which makes placement easier and reduces the chances of accidental dislodgement. The Jamshidi also allows the medic to adjust the device for depth, which helps to provide greater stability on the leg.

A common site for IO infusion is the proximal tibia (American College of Surgeons, 1997; McSwain Jr., Frame, and Patura, 1999; American Heart Association, 2002). The choice of whether to use the right or left leg is up to the individual medic and may be dictated by the circumstances under which the insertion will take place.

Once the needle is inserted, medics should confirm proper placement. Indicators of correct placement include (American Heart Association, 2002)

- A sudden decrease in resistance felt during insertion
- A needle capable of standing upright on its own
- The ability to aspirate marrow from the bone cavity, although this does not always happen
- Free-flowing initial saline bolus without evidence of infiltration into the tissues of the leg

Some instructors advocate testing marrow (if obtained) with a glucometer as a method of determining the blood glucose level of the patient. Unfortunately, glucometers are not calibrated for marrow samples and the accuracy of any obtained reading is questionable. Researchers observed significant differences in glucose values when comparing marrow samples to venous sample (Hurren, 2000).

Almost every drug that is used in the emergency management of adults or children

can be administered by IO infusion (American Heart Association, 2002). IO administered fluids and medications such as epinephrine, sodium bicarbonate, 50 percent dextrose, calcium chloride, adenosine and lidocaine all have blood concentration levels and peak effects comparable to the IV route (Orlowski, Porembka, Gallagher, Lockrem, and VanLente, 1990; Driggers, Johnson, Steiner, Jewell, Swedberg, and Goller, 1991; Friedman, 1996; Neal and McKinley, 1994). There is, however, little evidence to support the notion that any medication administered through an intraosseous line to a cardiac arrest victim improves outcome (Seigler, 1997).

In some cases, gravity may be insufficient to allow a smooth flow of fluid through an IO line. Even macro- or trauma-tubing produces unpredictable medullary flow (Voelckel, Lurie, McKnite, Zielinski, Lindstrom, Peterson, Wenzel, and Lindner, 2001). Putting the IV bag under pressure dramatically increases the flow rate (Shoor, Berryhill, and Benumof, 1979).

Complications

Complications resulting from IO insertion are rare and are usually outweighed by the benefits of immediate vascular access in the seriously ill or injured child. The most common complication is extravasation, or leaking of fluid into the tissues of the leg (Simmons, Johnson, Perkin, and van Stralen, 1994). This can happen when medics make more than one attempt in the same bone or from excessive movement of the needle during insertion, which in turn, enlarges the hole in the bone. Extravasation during the administration of caustic medications, such as dopamine, could result in destruction of surrounding tissue and muscle. More commonly however, extravasation leads to a condition known as compartment syndrome. where the leaking fluid collects in the spaces between the muscles of the leg. When this happens, blood flow beyond the leak becomes impaired, resulting in loss of the limb. Compartment syndrome can occur with as little as a 35cc fluid leak in a small infant (Ribeiro, Price, and Knapp Jr., 1993).

Osteomyelitis, an inflammation of the



bone caused by bacteria, is a rare complication that occurs in less than 0.6 percent of cases (Rosetti, Thompson, Aprahamian, Darin, and Mateer, 1984). Osteomyelitis occurs more frequently when the patient has a pre-existing bacteremia, when hypotonic solutions are used, or when the IO is left in place for long periods of time (Rosetti, Thompson, Miller, Mateer, and Aprahamian, 1985). For this reason, emergency department personnel will probably remove IO lines after establishing patent IV access. Other rare complications include fracture at the insertion site, fat emboli, cellulitis and local abscess (Vidal, Kissoon, and Gayle, 1993; Orlowski, Julius, Petras, Porembka, and Gallagher, 1989; Christensen, Vernon, Banner Jr., and Dean, 1991).

Physicians have long warned that damage to the growth plate was a significant concern with IO placement. This warning is not supported in the literature. Animal studies fail to demonstrate changes in growth plate cell structure or shape, nor other growth abnormalities with IO insertion (Spivey, Lathers, Malone, Unger, Bhat, McNamara, Schoffstall, and Tumer, 1985; Spivey, Unger, McNamara, LaManna, Ho, and Lathers, 1987; Woodall, Pender, Pollack, Miller, Tubbs, and Andrew, 1992; Dedrick, Mase, Ranger, and Burney, 1992; Brickman, Rega, Schoofield, Harkins, Weisbrode, and Reynolds, 1996). In the 1940s, two small studies found no significant tibial abnormalities at six months (Arbeiter and Greenguard, 1944) and two years following IO infusion (Heinild, Sondergaard, and Tudvad, 1945). More recently, one researcher followed ten patients radiographically for up to 20 months after IO insertion and found no difference in bone length between the IO leg and the non-IO leg (Fiser, Walker, Seibert, McCarthy, and Fiser, 1997). Another researcher evaluated 23 children for two and a-half years after an IO infusion and found no long-term effects on tibial growth (Claudet, Baunin, Laporte-Turpin, Marcoux, Grouteau, and Cahuzac, 2003).

Case Study

Normally, CE case studies highlight the

way the treatment protocols and guidelines are supposed to work. Instead, this case will demonstrate the consequences of *not* providing the standards of care.

Emergency department personnel at a small community hospital treated a sevenmonth-old male for gastroenteritis. Following oral rehydration, the physician discharged the child home. After an initial improvement, the child's symptoms worsened and the family brought the child back to the same hospital.

By this time, the child was comatose with decerebrate posturing and was in shock. The physician intubated and placed the child on a ventilator. The staff was unable to gain timely peripheral IV access and ultimately established an IO infusion. During fluid expansion, the ED physician made multiple, unsuccessful central line attempts. Lab and x-ray results confirmed metabolic acidosis, hypernatremia, pulmonary edema, and renal insufficiency.

The local EMS system transferred the patient to a children's hospital over 200 miles away. The child arrived there about 12 hours after the coma began. The IO leg was cyanotic, firm to the touch, and the capillary refill time was delayed. The ED pediatrician established a central line and removed the IO needle.

Compartment syndrome was present in the leg and the emergency physician performed a fasciotomy of all leg compartments. Within 48 hours, the limb became ischemic. Angiography revealed an occlusive blood clot in the popliteal artery. Surgeons quickly performed a thrombectomy and reestablished circulation to the lower leg. Four days later, after a period of improvement, the ischemic process returned prompting a second thrombectomy, which was unsuccessful. Caregivers attempted thrombolysis, which was also unsuccessful. On the tenth day, surgeons performed a belowknee amputation. The child recovered fully from the original shock.

No one knows for sure where the extravasation began that ultimately led to the compartment syndrome. It is possible that the physician in the community hospital never placed the IO needle correctly. It is also possible that the needle became dislodged during transport. It is clear however, that



the original caregivers administered enough fluid through the line to allow compartment syndrome to develop quickly. It is also clear that the amputation would not have been necessary with more vigilant monitoring of the line.

Summary

Intraosseous infusion is a safe and reliable alternative to traditional vascular access techniques. The medullary cavity acts as a "non-collapsible vein" for fluid and medication administration. Medics can administer almost all prehospital medications via the IO route. Complications are rare but can quickly produce devastating consequences. Careful monitoring of the insertion site and the extremity can provide early warning of serious complications.

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Intraosseous Infusion Quiz

1. Name the layer of bone that creates the marrow cavity, which is used for intraosseous infusion.

- A. Periosteum
- B. Spongy layer
- C. Compact layer
- D. Epiphyseal discs

2. Fluids and medications injected into the tibial medullary cavity exit the bone and enter the

- A. Lymphatic system
- B. Central venous system
- C. Systemic arterial system
- D. Systemic venous system

3. The most common complication of IO infusion is

A. Fat emboli

B. Extravasation

C. Osteomyelitis

D. Fracture at the insertion site

4. The bone marrow found in the long bones of children is primarily composed of

- A. Fat cells
- B. Thrombocytes
- C. Adipose tissue
- D. Developing blood cells

5. Which of the following unique characteristics makes the Jamshiditype needle ideal for intraosseous infusion?

> A. Sterile to reduce infection B. Affordable for widespread use

C. Adjustable depth for greater stability

D. Multiple sizes for greater patient variety

- 6. By five years of age, red bone
- marrow is replaced with A. Bilirubin
 - B. Erythropoietin
 - C. Interstitial fluid
 - D. Yellow bone marrow

7. The first intraosseous attempt should be made

- A. In the left leg
- B. In the right leg
- C. It makes no difference

8. The only absolute contraindication for intraosseous infusion universally recognized by experts is

A. Bursitis

B. Osteoporosis

- C. Osteogenesis imperfecta
- D. Fracture of the bone near the access site

9. If your IV will not flow well on a bag with macro tubing and gravity alone, which of the following steps should be taken next to improve flow?

A. Change the tubing to a micro set

B. Elevate the bag to increase gravity

C. Raise the child's leg above the level of the heart

D. Wrap the bag with a blood pressure cuff and inflate

10. What type of problem would result from extravasation of dopamine from an intraosseous line?

- A. Septicemia
- B. Tissue necrosis
- C. Thrombocytopenia
- D. Adult Respiratory Distress Syndrome

August GETAC meeting motions

The Governor's EMS and Trauma Advisory Council (GETAC) met on Friday, August 20, 2010, in Austin. Following are the motions put forward after the chair, staff, standing committees and other groups reported on their most recent activities. Once approved, draft minutes from the meeting will be posted at www.dshs. state.tx.us/emstraumasystems/governor. shtm.

Action items

A motion was made by Donald Phillips, DO, and seconded by Jodie Harbert, LP, to request GETAC adopt the POLST initiative position statement to be used as a resource document for legislative support. After further discussion, the motion was withdrawn by Donald Phillips, DO. A draft resolution will be prepared as a resource document for the council to review at the next scheduled meeting in November.

A motion was made by Ronald Stewart, MD, and seconded by Marti VanRavenswaay to request GETAC offer official support of the red light camera program as an injuryprevention tool. This support would be based on data provided by the Department of Public Safety. A friendly amendment by Vance Riley asked that DSHS prepare a position statement to support of the use of red light cameras as an injury prevention tool. The motion passed unanimously.

A motion was made by Donald Phillips, DO, and seconded by Pete Wolf, EMT-P, to request GETAC offer official support of the legislative efforts by the MADD organization for sobriety check points in Texas. A friendly amendment by Vance Riley asked that DSHS to prepare a position statement regarding the legislative efforts to support sobriety check points in Texas. The motion passed unanimously.

A motion was made by Donald Phillips, DO, and seconded by Randy Loflin, MD, to support the position paper for the CARES foundation. The motion passed unanimously.

This answer sheet must be postmarked by December 20, 2010 CE Answer Sheet Texas EMS Magazine Intraosseous Infusion CE: Preparatory										
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In the 71 years since the Yankees slugger Lou Gehrig declared himself "the luckiest man on the face of the earth," despite dying from a disease that would soon bear his name, he has stood as America's leading icon of athletic valor struck down by random, inexplicable fate.

A peer-reviewed paper to be published in August in a leading journal of neuropathology, however, suggests that the demise of athletes, like Gehrig, and soldiers given a diagnosis of

amyotrophic lateral sclerosis, commonly known as Lou Gehrig's disease, might have been catalyzed by injuries only now becoming understood: concussions and other brain trauma.

Although the paper does not discuss Gehrig specifically, its authors in interviews acknowledged the clear implication: Lou Gehrig might not have had Lou Gehrig's disease.

People are being misdiagnosed clinically while they're alive as having A.L.S. when in fact they have a different motorneuron disease.

Doctors at the Veterans Affairs Medical Center in Bedford, Mass., and the Boston University School of Medicine, the primary researchers of brain damage among deceased National Football League players, said that markings in the spinal cords of two players and one boxer who also received a diagnosis of A.L.S. indicated that those men did not have A.L.S. They had a different fatal disease, doctors said, caused by concussionlike trauma, that erodes the central nervous system in similar ways.

The finding could prompt a redirection in the study of motor degeneration in athletes and military veterans being given diagnoses of A.L.S. at rates considerably higher than normal, said several experts in A.L.S. who had seen early versions of the paper. Patients with significant histories of brain trauma could be considered for different types of treatment in the future, perhaps leading toward new pathways for a cure.

"Most A.L.S. patients don't go to autopsy there's no need to look at your brain and spinal cord," said Dr. Brian Crum, an assistant professor of neurology at the Mayo Clinic in Rochester, Minn. "But a disease can look like A.L.S., it can look like Alzheimer's, and it's not when you look at the actual tissue. This is something that needs to be paid attention to." The finding's relevance to Gehrig is less clear. But the Yankees legend had a welldocumented history of significant concussions on the baseball field, and perhaps others sustained as a battering-ram football halfback in high school and at Columbia University. Given that, it's possible that Gehrig's renowned commitment to playing through injuries like concussions, which resulted in his legendary streak of playing in 2,130 consecutive games over 14 years, could have led to his condition.

"Here he is, the face of his disease, and he may have had a different disease as a result of his athletic experience," said Dr. Ann McKee, the director of the neuropathology laboratory for the New England Veterans Administration Medical Centers and the lead neuropathologist on the study. The cause of his disease will most likely never be determined because his remains were cremated, and now lie in Kensico Cemetery in Valhalla, N.Y.

More significantly, both doctors said, the finding solidifies a long-suspected connection between A.L.S.-like motor disease and head trauma experienced in collision sports and combat.

"People are being misdiagnosed clinically while they're alive as having A.L.S. when in fact they have a different motor-neuron disease," Dr. Stern said. He added, "Scientists will be able to get at a faster understanding of the disease in general, and therefore effective treatments, by knowing more about who's at risk and who's not."

According to the A.L.S. Association, up to 30,000 people in the United States currently have A.L.S., an incurably fatal disease among primarily 40- to 70-year-old men that results in the swift and steady atrophy of all voluntary muscle control. Gehrig was its first prominent victim, dying two years after his 1939 diagnosis; some others, like the British physicist Stephen Hawking, now 68, can live for decades with fully functioning brains inside bodies that have wasted away.

The new finding could be double-edged for organizations fighting A.L.S.: it sheds some light on possible causes and research avenues, but also suggests that Gehrig might not have had it. Gehrig's association with the disease has been an important tool for research fundraising. His reconizable face and name make the disease more personal.

A link between professional football and A.L.S. follows recent discoveries of on-field brain

trauma leading to dementia and other cognitive decline in some N.F.L. veterans. Dr. McKee and her group identified 14 former N.F.L. players since 1960 as having been given diagnoses of A.L.S., a total about eight times higher than what would be expected among men in the United States of similar ages.

Recent epidemiological studies have suggested that brain trauma in sports can be a risk factor for A.L.S.; for example, a 2005 paper found that Italian professional soccer players had developed the disease at rates about six times higher than normal. Studies have also linked service in the United States military to higher risk for A.L.S., possibly because of battlefield collisions and blast injuries.

The study, to be published in the Journal of Neuropathology & Experimental Neurology, represents the first firm pathological indications that brain trauma results in motor-neuron degeneration, and that the resulting disease (at least in the three men studied) is actually not A.L.S. It is a different disorder with different markings, specifically a pattern of two proteins in the spinal cord that compromise nerve function.

Dr. McKee said that because she has never seen that protein pattern in A.L.S. victims without significant histories of brain trauma, she and her team were confident the three athletes did not have A.L.S., but a disorder that erodes its victims' nervous system in similar ways.

The consensus among experts is that brain trauma is almost certainly not solely responsible for diseases like this. Those afflicted probably have genetic factors leading to susceptibility, with concussions serving as catalyst. In that regard, some doctors said, years from now athletes could be tested for the gene that leaves them vulnerable, not unlike how some today check for sickle-cell trait.

From *The New York Times*, Study Says Brain Trauma Can Mimic A.L.S., by Alan Schwarz, August 17, 2010.

Our bodies have an amazing capacity to freak us out. Maybe it's a twitch that you're sure means multiple sclerosis. Or a little mark that must be cancer. You could Google symptoms for days, but most twitches, bumps and pops are actually harmless. Here's when to see a doctor—and when to just relax.

Skin tags

These floppy little nodules, which are

usually flesh-toned but occasionally darker, typically develop in spots where skin rubs against skin or clothing, like under the arms, around the neck, under the breasts or even on the eyelids.

It's not entirely clear why some people are more prone to them than others, although they may run in families. The good news is, they're virtually never cancerous and can be easily removed by a dermatologist.

See your doctor if. . . you find a growth that is hard, rough, or darker or redder than flesh-toned. It could be a wart, a form of keratosis or possibly skin cancer.

Red skin spots

Those little, round, bright-red spots and bumps on your skin (more common if your complexion is fair and you're over 40) are likely superficial blood vessels that haven't been reabsorbed into the skin.

You could Google symptoms for days, but most twitches, bumps and pops are actually harmless.

"It's normal," says Dr. David Bank, M.D., director of the Center for Dermatology, Cosmetic, and Laser Surgery in Mt. Kisco, New York. "The body naturally makes new blood vessels and takes others away. But as we age, more blood vessels are made than absorbed, and that's when we get these little red spots." Technically, they're known as cherry hemangiomas or angiomas, and they're nothing to worry about, Bank confirms.

See your doctor if . . . you want to have them removed (a dermatologist can do this with laser treatments). But if you find a spot that's asymmetrical; is changing in size, shape, or color; begins itching or bleeding; or looks totally different from any other spot on your body, consult a dermatologist to make sure it's not cancerous.

Hand tremors

Shaky hands (especially after age 40) can be a family quirk. They can also be a sign that your blood sugar's dipping and you need a snack with some protein. But very often they're simply a symptom of stress or anxiety, says Dr. Jill Grimes, M.D., a family practitioner in Austin, Texas.

This kind of shaking can get more pronounced if you're also drinking or eating anything containing caffeine, or if you're taking medication that contains stimulants (such as cold remedies or appetite suppressants) or some types of medications for attention deficit disorder or thyroid disease.



• You



Benign tremors usually go away on their own once you've eaten or cut back on the stimulants, or when your stress has subsided.

See your doctor if. . . your tremors persist. She may prescribe a beta-blocker, a type of blocd pressure medication that can steady your hands by blocking the stress response. Shaking that affects only one hand, especially when you're not using it, could point to something more worrying, like Parkinson's disease. Shaky hands accompanied by weight loss, a racing heart and a change in bowel habits often signal an overactive thyroid.

Eye floaters

Inside your eyeball is a gel-like substance made up of water, collagen and hyaluronic acid. Occasionally, especially as we age, pieces of collagen clump together, casting shadows on the retina that show up as dots, squiggly lines or other odd shapes in your vision.

"A floater can be annoying, but it's harmless," says Elliott Myrowitz, O.D., M.P.H., chief of optometric services at the Wilmer Eye Institute and an assistant professor at the Johns Hopkins School of Medicine in Baltimore.

See your doctor if. . . a floater appears with light flashes, or if it blurs or distorts your vision, which can mean that the gel in the eyeball is tugging on the retina. If the retina rips a bit as the gel tugs on it, Myrowitz says, "that could lead to a detached retina. The sooner such a rip is discovered, the easier it is to repair."

Eyelid twitches

Blame it on stress, fatigue, too much time spent staring at your computer, excess caffeine—even alcohol. Alone or in combination, any of these can provoke muscle spasms in the upper or lower lids.

Twitches usually stop on their own, but if they're really bothersome, try warm compresses to relax the muscles, or artificial tears (because dry eye can also lead to twitching), Myrowitz says. Switching to decaf couldn't hurt, either.

See your doctor if . . . you have a twitch that lasts more than a few weeks, which may be a sign that the eye's surface or membrane is irritated. In rare cases, twitches may completely close your eyes or come with twitching in your mouth, too, in which case you should see your doctor to rule out a neurologic condition.

Easy bruising

Some of us are just naturally prone to black-andblue marks. But consider, too, how much aspirin, ibuprofen or other NSAIDs you're taking. They inhibit blood clotting, which can make people bruise more easily, Bank says. Another culprit: Father Time. Collagen protects our blood vessels from breaking and bleeding into the skin, which is what a bruise is. "But by the time we reach our 40s and 50s, age and sun damage have weakened this shock absorber, so it takes less impact to get a bruise," Bank explains.

See your doctor if... unexplained bruises appear suddenly, which may be an early sign of a blood disorder such as leukemia (cancer of the blood-forming tissues).

Popping joints

"Sounds by themselves shouldn't be a problem," says Dr. Nathan Wei, M.D., director of The Arthritis Treatment Center in Frederick, Maryland. If you're in your 30s or 40s, most of the snapping and popping you may hear is likely the sound of ligaments or tendons sliding across the joints. Even noisy knees and ankles are typically the result of wear and tear on the cartilage and soft tissues.

If the noises irk you, Wei recommends that you stretch regularly and, if osteoarthritis runs in your family, ask your doctor about glucosamine and chondroitin supplements to slow the deterioration of your cartilage.

See your doctor if... you have redness, swelling, pain or reduced mobility along with popping joints; these can be signs of a ligament or tendon injury. Osteoarthritis could also be to blame, especially if you have a family history of it or if you're a runner who averages more than 30 miles a week: Research suggests this puts you at increased risk. If you're over 50, popping alone may be a sign of osteoarthritis.

Heart palpitations

Much of the time, occasional, fleeting palpitations are just a side effect of medication: Antihistamines, decongestants, antidepressants and thyroid medicines all can set your heart aflutter. So can stress and anxiety, especially if you're self-medicating with alcohol, cigarettes or caffeine.

"Often, it's not so much the stress than what you're taking to cope with the stress," Grimes notes.

See your doctor if . . . you have any unusual heart symptoms, including palpitations.

"If you're having brand-new palpitations or experiencing them in patterns you've never noticed before—especially along with other symptoms, like shortness of breath with exertion—they could be signs of heart-valve disease or arrhythmias," Grimes says. "But the vast majority of the time they're nothing to worry about." From Health.com, Scary symptoms that are (really!) no big deal, by Norine Dworkin-McDaniel. October 7, 2010.

When Dr. Rachel Zahn saw a link to an Internet site offering \$99 genetic testing—usually it costs \$499—she figured, "Why not?" and sent away for the test.

Now she's thinking-Why?

Zahn is having, if not buyer's remorse, at least some very strong doubts about the wisdom of her decision to get genetic testing. "I did it out of curiosity," she says.

"But then I wondered if I'd leapt into it too quickly. It made me wonder if there was a downside I hadn't considered."

Her first doubts crept in when, shortly after she ordered the test, Walgreen's postponed its plans to sell personal genetic test kits after the Food and Drug Administration intervened, warning consumers to be skeptical about the tests, which aren't approved by the FDA.

"The test arrived, and it sat on my counter for a very long time. But then I said . . . 'I'm going to do this,' "Zahn says.

Before choosing to do genetic testing on your own through an online service ask yourself a few questions.

After sending in her saliva test, Zahn had another wave of doubt when she found out that last week the FDA sent letters to five genetic testing companies, warning that they must submit their at-home genetic tests for review or discuss with officials why their products do not require FDA approval. In its letter to 23andMe, the testing service Zahn used, the FDA said it wants to prevent customers from being "misled by incorrect test results or unsupported clinical interpretations."

Also last week, 23andMe announced it recently had determined that "a number of 23andMe customer samples were incorrectly processed" by their contracted lab. Adam Isserlis, a publicist for 23andMe, told CNN no one from the company would be able to comment for this report.

Many services have sprouted up offering to use genetics to improve your health. In his book, "Outsmart Your Genes," Dr. Brandon Colby advocates for extensive genetic testing to help prevent disease.

"A lot of studies show that genetically tailored prevention can fight a lot of diseases now, like cancer and heart disease," he says.

Before choosing to do genetic testing on your own through an online service, here are some questions experts say you should ask yourself:

1. Do I want genetic testing because I'm worried about a rare disease?

Let's say, for example, you're thinking about having a baby, and some relatives have cystic fibrosis. While you might choose to do genetic testing online without the assistance of a health professional, if the results are positive, only a professional, such as a doctor or genetic counselor, could help you determine the risk of passing on the disease to your child.

"At the very least, before you do online testing, you should identify a genetic counselor in your area who could help you interpret the results," says Ellen Matloff, director of the Department of Genetics at the Yale Cancer Center.

2. Do I want genetic testing because I'm worried about something common?

Some online services offer tests for one particular gene to see if you're likely to have a heart attack. Geneticists say the results of that test will be of limited value since your likelihood of having a heart attack isn't determined by any one gene. A large number of genes—many of which haven't been identified yet—plus non-genetic factors such as diet and lifestyle, determine whether you'll have a heart attack.

3. What will I do if I have negative results?

Matloff says she's concerned people will take a negative result to mean there's no chance they could get a certain disease or pass it along to their children, when that's often not the case. For example, 23andMe indicates it doesn't test for every possible mutation in the cystic fibrosis gene.

"You could be told you're not at a high risk for cystic fibrosis when actually you are," Matloff says.

For more common diseases, a negative result doesn't mean you're in the clear, because so many genes and other factors come into play, geneticists say.

"If you don't have the one gene they're testing for, you might say to yourself, 'Oh, my risk is low. I'm not concerned,'" says Mark Bouzyk, director of Emory University's Biomarker Service Center.

From CNN.com, Should you test your genes? by Elizabeth Cohen, October 7, 2010.



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FYI

Final enforcement actions and court orders shall continue to be posted in Texas EMS Magazine for a minimum of one year or until the end of any probationary term or period of deferment, whichever is longer. This policy mirrors TAC, Title 1, Part 1, Chapter 1, Subchapter X, §1.552, Posting Final Enforcement Actions.

If a complaint has been self-reported, i.e., an individual or organization reported the violation to DSHS before DSHS became aware of it and that act was taken into consideration by the Enforcement Review Committee, then the magazine shall denote that the violation was self-reported by printing the phrase 'self-reported' at the end of the entry.

DSHS encourages individuals and organizations to self-report rule violations to DSHS. When the case is reviewed by the Enforcement Review Committee, the fact that an individual or organization self-reported a violation can be seen as a mitigating circumstance.

A1 First Response EMS, Inc., San Antonio, TX. September 20, 2010, assessed a \$8,200.00 administrative penalty for violating EMS Rules \$157.11(m)(1), 157.11(m)(4), 157.16(d)(14) and HSC \$773.050(a) related to failing to staff an EMS ambulance vehicle deemed to be in-service and/or response ready with appropriate and/or current certified personnel.

Acute Care EMS, Inc., Houston, TX. March 31, 2010, assessed a \$500.00 administrative penalty for violating EMS Rules \$157.11(d)(1), 157.11(i)(3)(A) and 157.11(l)(1) related to failing to have EMS ambulance vehicle(s) adequately equipped and supplied at all times.

Aguilar, Jaime, Mission, TX. January 18, 2010, revocation pursuant to the Texas Occupations Code (TOC) 53.021(b) related to a Federal felony conviction

for possession with intent to distribute marijuana.

Alonzo, Julian Jr., Houston, TX. July 3, 2010, denial of renewal application for violating EMS Rules §157.36(c)(2), 157.36(c)(14) and 157.36(c)(9) related to pleading guilty and receiving deferred adjudication for felony-deadly conduct and conduct that jeopardizes or has the potential to jeopardize the health or safety of any person.

Angele, James W., Vidor, TX. May 8, 2010, twenty-four (24) month probated suspension for violating EMS Rules §157.36(c)(2) and 157.36(c)(3) related to a felony conviction on or about August 24, 2007, for a controlled substance.

Ashford, Scott, Houston, TX. March 21, 2010, reprimanded for violating EMS Rules §157.36(b)(7), 157.36(b)(26) and 157.36(b)(28) related to performing advanced level and/or invasive treatment on a patient without medical direction or supervision.

Ashton, Benjamin, Midland, TX. June 18, 2010, denial of certification pursuant to EMS Rule §157.36(c)(9) related to a felony deferred adjudication for prescription fraud on or about September 28, 2006.

Auto City Finance Inc. d/b/a Ultra Care, Houston, TX. February 2, 2010, assessed a \$3,800.00 administrative penalty, for violating EMS Rules \$157.11(1)(1), 157.11(1)(3) and 157.16(d)(14) and HSC \$773.050.(a) related to failing to staff an EMS ambulance vehicle deemed to be in-service and/or response ready with appropriately and/or currently certified personnel.

Bailey County EMS, Muleshoe, TX. August 10, 2010, assessed a \$4,000.00 administrative penalty for violating EMS Rules \$157.11(m)(1), 157.11(m)(4), 157.16(d)(14) and HSC \$773.050.(a) related to failing to staff an EMS ambulance vehicle deemed to be in-service and/or response ready with appropriate and/or current certified personnel.

Barber, David W., San Antonio, TX. June 26, 2010, revocation for violating EMS Rules §157.36(b)(2), 157.36(b)(14), 157.36(b)(18), 157.36(b)(19), 157.36(b)(27), 157.36(b)(28) and 157.36(b)(29) related to misappropriation of controlled substances from an EMS employer. **Blackwell EMS**, Blackwell, TX. July 3, 2010, reprimanded for violating EMS Rules §157.11(1)(15) (C)(iv), 157.16(d)(1) and 157.16(d)(19) related to transporting patients without a medical director and delegation of authority for EMS personnel to provide care at the advanced level.

Booker, Jeff M., Salado, TX. February 2, 2010, reprimanded for violating EMS Rules §157.36(b)(2), 157.36(b)(26) and 157.36(b)(28) related to failing to properly assess a patient.

Borroel, Agustin, Elsa, TX. September 21, 2010, reprimanded for violating EMS Rules§157.36(b)(2), 157.36(b)(15), 157.36(b)(22), 157.36(b)(23) and157.36(b)(28) related to pleading guilty to a misdemeanor conviction for DWI and failing to notify the Department within 30 days of said conviction, a felony deferred adjudication for possession of a controlled substance, and failure to disclose criminal history on a Department renewal application.

Boswell, David A., Round Rock, TX. April 29, 2008, placed on a forty-eight (48) month probated suspension for violating EMS Rules §157.36(b)(1), 157.36(b)(2), 157.36(b)(26) and 157.36(b)(28) related to engaging in any activity that betrays the public trust and confidence in EMS. Brant, Stan P., Graham, TX. June 26, 2010, revocation of EMS Instructor Certification for violating EMS Rules §157.44(e)(1), 157.44(e)(6), 157.44(e)(13) and 157.44(i)(2)(G) related to failing to provide supervision and oversight for assigned courses and giving CPR cards to students without any instruction and/or skills test.

Byers, Danny, Springlake, TX. June 26, 2010, reprimanded for violating EMS Rules §157.36(b)(3), 157.36(b)(4), 157.36(b)(26) and 157.36(b)(28) related to failing to submit a timely, complete and/or accurate patient care report to hospital staff.

Camp County EMS, Inc., Pittsburg, TX. November 25, 2009, reprimanded for violating EMS Rules §157.11(d)(1), 157.11(i)(3)(A) and 157.11(l)(1) related to failing to have EMS ambulance vehicles adequately equipped and supplied at all times.

Cogdill, Daniel, Cleburne, TX. September 14, 2010, reprimanded for violating EMS Rules §157.36(b)(2), 157.36(b)(26) and

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157.36(b)(28) related to patient care and conduct that jeopardizes or has the potential to jeopardize the health or safety of any person.

Coon, Ryan C., Seabrook, TX. July 3, 2010, revocation for violating EMS Rules §157.36(b)(2), 157.36(b)(14), 157.36(b)(19), 157.36(b)(27),157.36(b) (28) and 157.37(a) related to receiving a misdemeanor deferred adjudication for possession of a controlled substance and misappropriation of a controlled substance while on duty.

Culpepper, Ronald K., Houston, TX. February 28, 2010, six (6) month probated suspension for violating EMS Rules §157.36(b)(2), 157.36(b)(22), 157.36(b)(26), 157.36(b)(27) and 157.36(b)(28) related to a positive drug screen for marijuana.

Darrouzett EMS, Darrouzett, TX. July 29, 2010, assessed a \$3,500.00 administrative penalty for violating EMS Rules §157.11(d)(1), 157.11(j)(2)(A) and 157.11(m)(1) related to failing to have EMS ambulance vehicle(s) adequately equipped and supplied at all times.

Davis, Jessie J., San Antonio, TX. April 17, 2007, six (6) month suspension followed by a forty-two (42) month probated suspension through April 16, 2011, for violating EMS Rule §157.36.

Denver City EMS, Denver City, TX. February 2, 2010, assessed a \$500.00 administrative penalty for violating EMS Rules §157.11(d)(1), 157.11(i)(11)(A) and 157.11(m)(1) related to failing to have EMS ambulance vehicle(s) adequately equipped and supplied at all times.

Earth EMS, Earth, TX. April 13, 2010, assessed a \$300.00 administrative penalty for violating EMS Rules \$157.11(1)(1), 157.11(1)(3), 157.16(d)(14) and HSC \$773.050.(a) related to failing to staff an EMS ambulance vehicle deemed to be in-service and/or response ready with appropriately and/or currently certified personnel.

East TX Medical Center EMS, Tyler, TX. May 24, 2010, assessed a \$3,500.00 administrative penalty for violating EMS Rules §157.11(1)(3), 157.11(1)(5), 157.11(1)(13) and 157.16(d)(14), related to utilizing an EMT-Basic to perform advanced levels skills and/or assessments. Elite Medical Transport of Texas, LLC d/b/a Elite Medical Transport, El Paso, TX. November 25, 2009, assessed a \$1,875.00 administrative penalty for violating EMS Rules §157.11(d)(1), 157.11(i)(3)(A) and 157.11(l)(1) related to failing to have EMS ambulance vehicles adequately equipped and supplied at all times.

Fleet Ambulance Service, Inc., Del Rio, TX. July 17, 2010, assessed a \$13,800.00 administrative penalty for violating EMS Rules §157.11(d)(1), 157.11(d)(19), 157.11(j)(1), 157.11(m)(1), 157.11(m)(4), 157.11(m)(11), 157.11(l)(1), 157.16(d)(14) and HSC §773.050.(a) related to failing to staff an EMS ambulance vehicle deemed to be in-service and/or response ready with appropriate and/or current certified personnel and failing to have EMS ambulance vehicle(s) adequately equipped and supplied at all times.

Flores, Arthur R., Texas City, TX. June 18, 2010, revocation for violating EMS Rules §157.36(b)(2), 157.36(b)(26), 157.36(b)(28) and 157.36(b)(29) related to a felony deferred adjudication for injury to a child on or about May 5, 2006.

Fuentes, Nathan, Cibolo, TX. June 26, 2010, revocation for violating EMS Rules §157.36(b)(2), 157.36(b)(21), 157.36(b)(26), 157.36(b)(28) and 157.36(b)(29) related to inappropriate sexual contact with a child younger than 17 years of age.

Fuller, Phillip P., Saginaw, TX. July 3, 2010, six (6) month probated suspension for violating EMS Rules §157.36(b)(14), 157.36(b)(18), 157.36(b)(28) and 157.36(b)(29) related to misappropriating funds from an EMS employer using a company credit card resulting in a misdemeanor deferred adjudication for theft of stolen property on or about April 14, 2008.

Garland Fire Department, Garland, TX. February 28, 2010, reprimanded for violating EMS Rules §157.11(d)(1), 157.11(j)(3)(A) and 157.11(m)(1) related to failing to have EMS ambulance vehicle(s) adequately equipped and supplied at all times.

Gemini Ambulance, Inc., San Antonio, TX. November 25, 2009, reprimanded for violating EMS Rules §157.11(d)(1), 157.11(i)(3)(A) and 157.11(l)(1) related to failing to have EMS ambulance vehicles adequately equipped and supplied at all times.

Gonzales, Joe B., San Antonio, TX. December 15, 2009, reprimanded for violating EMS Rules §157.36(b)(3), 157.36(b)(26) and 157.36(b)(28) related to failing to assess and/or failing to document a patient assessment on a patient care report.

Gonzales, Mark A., San Antonio, TX. April 17, 2007, six (6) month suspension followed by a forty-two (42) month probated suspension for violating EMS Rule §157.36.

Gonzales, Paul E., San Antonio, TX. October 28, 2009, six (6) month suspension followed by a twelve (12) month probated suspension for violating EMS Rules §157.36(b)(2), 157.36(b)(19), 157.36(b)(26) and 157.36(b)(28) related to a positive drug screen for marijuana.

Goodall, Joe D., Hurst, TX. May 22, 2009, twenty-four (24) month suspension for violating EMS Rules §157.36(b)(2), 157.36(b)(19), 157.36(b)(26), 157.36(b)(27) and 157.36(b)(28) related to a positive drug screen for methamphetamine and for multiple violations of a protective order. **Guidry, Kevin A.**, Groves, TX. June 26, 2010, revocation for violating EMS Rules §157.36(b)(2), 157.36(b)(26), 157.36(b)(28) and 157.36(b)(29) related to inappropriate sexual contact with a child younger than 17 years of age.

Henderson, James M., San Angelo, TX. March 31, 2010, reprimanded for violating EMS Rules 157.43(m)(3)(B), 157.43(m)(3)(E), 157.43(m)(3)(F) and 157.43(m)(3)(T) related to failing to verify skills on a Skills Proficiency form. Isaacs, Eric S., San Marcos, TX. July 3, 2010, revocation for violating EMS Rules 157.36(b)(2), 157.36(b)(21), 157.36(b)(25), 157.36(b)(28) and 157.36(b)(29) related to receiving two (2)

misdemeanor deferred adjudications and a conviction for possession of marijuana and failing to provide information to the Department.

Kelly, Matthew J., Georgetown, TX. September 15, 2009, 24-month probated suspension for violating EMS Rules §157.36(b)(14), 157.36(b)(18), 157.36(b)(19), 157.36(b)(27) and 157.36(b)(28) related to misappropriating narcotics from an employer and/or patient. Leigh, Angie D., Arlington, TX. March 23, 2010, twelve (12) month probated suspension for violating EMS Rules §157.36(b)(2), 157.36(b)(19), 157.36(b)(26), 157.36(b)(27) and 157.36(b)(28) related to a positive drug

screen for a controlled substance. **Lloyd, Melody E.,** Austin, TX. February 21, 2009, three (3) year probated suspension, for violating EMS Rules §157.36(b)(2), 157.36(b)(15), 157.36(b)(19), 157.36(c)(3), 157.36(c)(5) and 157.36(c)(9) related to fraudulently attempting to obtain a prescription of a controlled substance by using deception and/or fraud.

Loftin, Robert, Burleson, TX. September 2, 2010, reprimanded for violating EMS Rules §157.36(b)(2), 157.36(b)(26) and 157.36(b)(28) related to pleading guilty to a misdemeanor conviction for DWI.

Loftin, Sharon K., Santo, TX. October 24, 2007, EMT-Paramedic certification placed on a forty-eight (48) month probated suspension for violating EMS Rule §157.36.

Marino, John P., Dallas, TX. November 25, 2009, revocation, pursuant to the Texas Occupations Code (TOC) 53.021(b), related to a felony conviction for fraudulent possession of a controlled substance. Martin, Thain A., Mason, TX. September 2, 2010, reprimanded for violating EMS Rules §157.36(b)(4), 157.36(b)(18) and157.36(b)(28) related to submission of falsified patient care reports to the program director of an EMT-Paramedic program. Masters, Tony J., Magnolia, TX. June 26, 2010, revocation for violating EMS Rules §157.36(b)(2), 157.36(b)(26), 157.36(b)(28), 157.36(c)(2) and 157.36(c)(9) related to a felony deferred adjudication for possession of child pornography on or about January 6, 2009. McClanahan, John, Fort Worth, TX. June 26, 2010, revocation for violating EMS Rules §157.36(b)(2), 157.36(b)(19), 157.36(b)(21) 157.36(b)(25), 157.36(b)(28) and 157.36(b)(29) related to a felony deferred adjudication for possession of a controlled substance and failure to respond to Department request for information. Med Center EMS, Houston, TX. February 16, 2010, assessed a \$9,000.00

administrative penalty for violating EMS Rules §157.11(d)(1), 157.11(i)(3)(A) and 157.11(l)(1) related to failing to have EMS ambulance vehicle(s) adequately equipped and supplied at all times.

Mercy EMS, LLC d/b/a Mercy EMS, Highland Village, TX. January 4, 2010, revocation of provider license for violating EMS Rules §157.11(d)(1), 157.11(g),157.11(1)(1), 157.11(d)(1), 157.11(l)(15)(C)(ii),(157.11(q), 157.16(d)(1), 157.16(d)(12), 157.16(d)(14) and 157.11(d)(18) related to failing to have EMS ambulance vehicles adequately equipped, supplied and staffed, and for failing to notify DSHS of business address changes.

Miller, Mark L., Baytown, TX. August 25, 2009, 24-month probated suspension for violating te EMS Rules §157.36(b)(14), 157.36(b)(18), 157.36(b)(29), and 157.36(b)(28) related to misappropriating narcotics from a medical director.

Miller, Mollie M., Point Blank, TX. June 26, 2010, twenty-four (24) month probated suspension for violating EMS Rules §157.36(b)(2), 157.36(b)(26), 157.36(b)(27) and 157.36(b)(28) related to misappropriation of controlled substances from an EMS employer.

Ortega, David, Harker Heights, TX. August 23, 2009, revocation pursuant to the Texas Occupations Code (TOC) 53.021(b), related to a felony conviction for driving while intoxicated.

Paragon Ambulance Services, Inc., Hempstead, TX. September, 21, 2010, assessed a \$1,000.00 administrative penalty for violating EMS Rules \$157.11(i)(2), 157.11(j)(1)(A), 157.11(j)(7)(A) and 157.11(m)(1) related to failing to have EMS ambulance vehicle(s) adequately equipped and supplied at all times.

Patriot Express LLC, San Antonio, TX. September, 21, 2010, assessed a \$1,500.00 administrative penalty for violating HSC §773.050(a) and EMS Rules §157.11(d)(1), 157.11(j)(5)(A), 157.11(m)(1), 157.11(m)(4) and 157.16(d)(14) related to failing to staff an EMS ambulance vehicle deemed to be in-service and/or response ready with appropriate and/or current

certified personnel.

Perez, Brian T., Saraland, AL. June

13, 2010, twelve (12) month probated suspension for violating EMS Rules §157.36(b)(2), 157.36(b)(26), 157.36(b)(27) and 157.36(b)(28) related to a positive drug screen for a controlled substance.

Phoenix Medical Services, Rhome, TX. February 28, 2010, reprimanded for violating EMS Rules §157.11(d)(1), 157.11(i)(3)(A) and 157.11(l)(1), related to failing to have EMS ambulance vehicle(s) adequately equipped and supplied at all times.

Pitts, Stephanie K., Silsbee, TX. July 29, 2010, reprimanded for violating EMS Rule §157.43(m)(3)(K) related to demonstrating a lack of supervision of personnel instructing courses for which a coordinator is responsible.

Potter, Jason S., Allen, TX. September 2, 2010, reprimanded for violating EMS Rules §157.36(b)(13) and157.36(b)(28) related to staffing an EMS vehicle with an expired EMS issued license and/or certificate.

Ralls Volunteer Ambulance Service, Ralls, TX. November 25, 2009, reprimanded for violating EMS Rules §157.11(d)(1), 157.11(i)(3)(A) and 157.11(l)(1) related to failing to have EMS ambulance vehicles adequately equipped and supplied at all times.

Reed, Darla M., Houston, TX. May 24, 2010, six (6) month probated suspension for violating EMS Rules §157.36(b)(26) and 157.36(b)(28) related to failing to properly assess a patient and/or delaying transport and/or medical care.

Richards, William L., Fort Worth, TX. May 8, 2010, reprimanded for violating EMS Rules §157.36(b)(13) and 157.36(b)(28) related to staffing an EMS vehicle and responding to EMS calls and/ or transporting patient with an expired certification.

Rowlett Fire Department, Rowlett, TX. July 3, 2010, reprimanded for violating EMS Rules §157.11(m)(1), 157.11(m)(4), 157.16(d)(14) and HSC §773.050.(a) related to failing to staff an EMS ambulance vehicle deemed to be in-service and/or response ready with appropriate and/or current certified personnel.

Sachse Fire Department, City of, Sachse, TX. September 21, 2010, reprimanded for violating EMS Rules §157.16(d)(14), 157.11(m)(1), 157.11(m)(4) and the HSC §773.050(a) related to failing to staff an EMS ambulance vehicle deemed to be in-service and/or response ready with appropriate and/or current certified personnel.

Salinas, Francis A., Edinburg, TX. February 9, 2010, twelve (12) month probated suspension for violating EMS Rules §157.36(b)(19), 157.36(b)(27) and 157.36(b)(28) related to a positive drug screen for a controlled substance.

Scar De Los Santos d/b/a Express Care Ambulance Service, San Antonio, TX. July 17, 2010, assessed a \$6,100.00 administrative penalty for violating EMS Rules §157.11(d)(1), 157.11(d)(19), 157.11(i)(3)(A), 157.11(l)(1), 157.11(l)(2), 157.11(1)(3) 157.11(m)(1), 157.11(m)(4), 157.16(d)(14) and HSC §773.050.(a) related to failing to staff an EMS ambulance vehicle deemed to be in-service and/or response ready with appropriate and/or current certified personnel and failing to have EMS ambulance vehicle(s) adequately equipped and supplied at all times. Scott, Marcus D., Killeen, TX. October 28, 2009, eighteen (18) month suspension for violating EMS Rules §157.36(b)(2), 157.36(b)(26), 157.36(b)(27) and

157.36(b)(28) related to testing positive for alcohol while on duty.

Solsbery, Clinton W., Fort Worth, TX. May 22, 2009, twenty-four (24) month probated suspension for violating EMS Rules §157.36(b)(2), 157.36(b)(19), 157.36(b)(26), 157.36(b)(27) and 157.36(b)(28) related to a positive drug screen for opiates.

Southeast Ambulance Services, Inc., Houston, TX. December 15, 2009, assessed a \$16,600.00 administrative penalty for violating EMS Rules \$157.11(1)(1), 157.11(1)(3), 157.16(d)(14), and HSC \$773.050.(a) related to failing to staff an EMS ambulance vehicle deemed to be in-service and/or response ready with appropriately and/or currently certified personnel.

Steele, Edwin J., Weatherford, TX. July 12, 2010, twelve (12) month probated suspension for violating EMS Rules §157.36(b)(2), 157.36(b)(26), 157.36(b)(27) and 157.36(b)(28) related to a positive drug screen for controlled substances. Taylor, Michael S., Mesquite, TX. July 3, 2010, revocation for violating EMS Rules §157.36(b)(2), 157.36(b)(23), 157.36(b)(26), 157.36(b)(28) and 157.36(b)(29) related to receiving two (2) misdemeanor deferred adjudications for criminal mischief, a misdemeanor conviction for DWI, and a felony deferred adjudication for arson.

Timpson Volunteer Ambualnce Service, Inc., Timpson, TX. July 29, 2010, reprimanded for violating EMS Rules §157.11(1)(1), 157.11(1)(3), 157.16(d)(14) and HSC §773.050.(a) related to failing to staff an EMS ambulance vehicle deemed to be in-service and/or response ready with appropriate and/or current certified personnel.

Traylor, James, Conroe, TX. September 21, 2010, reprimanded for violating EMS Rules §157.36(b)(2), 157.36(b)(15), 157.36(b)(25) and157.36(b)(28) related to receiving three (3) misdemeanor deferred adjudications for burglary of a motor vehicle, a misdemeanor purchasing alcohol for a minor, a misdemeanor possession of a controlled substance and failure to disclose criminal history on a Department renewal application.

Trinity EMS, McAllen, TX. April 28, 2010, assessed a \$1,500.00 administrative penalty for violating EMS Rules §157.11(d)(1), 157.11(i)(3)(A) and 157.11(l)(1) related to failing to have EMS ambulance vehicle(s) adequately equipped and supplied at all times.

Waldvogel, Jason S., Dallas, TX. June 26, 2010, twelve (12) month probated suspension for violating EMS Rules §157.36(c)(2) and 157.36(c)(9) related to a felony deferred adjudication for a controlled substance on or about March 9, 2009.

Waskom Volunteer Fire Department/ EMS, Waskom, TX. November 25, 2009, reprimanded for violating EMS Rules §157.16(c)and 157.16(d)(19) related to failing to have EMS ambulance vehicles adequately equipped and supplied at all times.

Watson, Robert L., Roanoke, TX. May 13, 2010, reprimanded for violating EMS Rules §157.36(b)(7), 157.36(b)(26), 157.36(b)(28) and HSC §773.041(b) related to allowing a lower level EMS person perform advanced level and/or invasive treatment on a patient without medical direction or supervision.

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).

Weisel, Charles A., Silsbee, TX. July 25, 2010, twenty-four (24) month probated suspension for violating EMS Rules §157.36(b)(14), 157.36(b)(18), 157.36(b)(19), 157.36(b)(26) 157.36(b)(27), 157.36(b)(28) and 157.36(b)(29) related to misappropriation of medications and controlled substances from an EMS employer.

Williams A. Ambulance d/b/a STAT Care EMS, Beaumont, TX. January 18, 2010, reprimanded for violating EMS Rules §157.11(d)(1), 157.11(i)(3)(A). 157.11(l)(1), 157.11(l)(3) and 157.16(d)(14) and HSC §773.050.(a) related to failing to staff an EMS ambulance vehicle deemed to be in-service and/or response ready with appropriately and/or currently certified personnel and failing to have EMS ambulance vehicles adequately equipped and supplied at all times.

Wise, Henry J., Orange, TX. December 13, 2007, thirty-six (36) month probated suspension for violating EMS Rules §157.36(b)(2), (26), (27) and (28) related to engaging in any activity that betrays the public trust and confidence in EMS. Wolsch, Jayel L., Abilene, TX. August 2, 2009, 18-month suspension for violating EMS Rules §157.36(b)(2), 157.36(b)(26), 157.36(b)(27) and 157.36(b)(28) related to delaying proper patient care and jeopardizing the health or safety of a person.

Zajicek, Beverly J., Ganado, TX. May 9, 2008, placed on a forty-eight (48) month probated suspension for violating EMS Rules §157.36(b)(2), 157.36(b)(14), 157.36(b)(18) and 157.36(b)(28) related to engaging in any activity that betrays the public trust and confidence in EMS.

Meetings & Notices

Jobs

Open Paramedic Position: SouthernCross Ambulance is currently looking for full and part-time Paramedics and EMTs for all areas. Must be Texas certified and have a clean driving record. If interested please contact Korrin Asebedo at (830) 629-2920 or email kasebedu@ scatx.us. Visit our website at southerncrossambulance.com. + **Director of Clinical Services:** NorthStar EMS is seeking an individual to oversee all clinical related operations (3 operational service areas / 20+ ambulance units / 100+ field clinicians). Preferred qualifications include current Texas Paramedic licensure, minimum 3 years experience as supervisor and EMS educator, Texas RN license, critical care/specialty care highly beneficial. For more information please contact Pam Bond at (281) 548-7772. Submit resumes and letters of interest to

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 to get mailed out.

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, MC0285, PO Box 149347, Austin, TX 78714-9347. Call 512/834-6700 if you have a question about the meetings and notices section. Executive Director, NorthStar EMS, 2022 Humble Place Dr., Humble, TX. 77338 or fax to (281) 540-6669. *

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Miscellaneous

Audio Visual Training Materials: The Texas Commission on Fire provides materials for fire protection professionals, as well as EMS professionals. Topics include Airway Management, Spinal Injuries, Triage and more. They can be borrowed for free by any Texas resident. Visit the TCFP library website for more information at www.tcfp.state.tx.us/ library.asp +

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information about exams or to register, please contact Stacey Elliott at (979) 458-2998 or email at Stacey.Elliott@ teexmail.tamu.edu. +

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Meetings & Notices

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Enter the EMS photo contest - deadline November 10. For more info go to /www.dshs. state.tx.us/emstraumasystems/ photocontest.pdf

Perkins continued from page 7

another hospital; trauma facilities must now accept trauma transfers."

Perkins received her Outstanding Women in Texas Government award at a luncheon at the University of Texas on September 15. A cadre of friends and family was there to support her. "It was a packed house," says Vicki Cowling, staff-services officer for Regulatory Services. "Lots of us from Regulatory were there, and many people from the statewide trauma community." Members of the DSHS executive team were proud to be in attendance, but the proudest people there were Perkins' best friend from North Carolina and 17 family members from Texas, Montana, Nevada, Massachusetts and California.

"I was amazed at the number of people who came and was overwhelmed by the outpouring of love and good wishes," says Perkins. "I'm honored and humbled, and I want everyone to understand that I didn't do anything alone. The success of the EMS/Trauma System is the result of an inspiring staff and wonderful nurses, doctors, EMS personnel, hospital administrators and so many others who volunteered to do the right thing for trauma patients. Their passion and dedication astonishes me."

Unique among all states, Texas also has four military facilities actively participating in our trauma system. "They saw caring for civilian trauma as a way to not only help their communities, but to train their staff to take care of wounded soldiers," says Perkins. "They've taken the principles of the Texas system to Iraq and Afghanistan, and our troops are receiving faster and improved care because of it. This is a truly wonderful legacy for Texas."

"It's wonderful to see Kathy honored as an outstanding woman in Texas government," says Luanne Southern, DSHS deputy commissioner. "She is so deserving of this recognition. Her contributions to our state have made a significant difference in the lives of literally thousands of people."

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Placing an ad? To place an ad or list a meeting date in this section, write the ad (keep the words to a minimum, please) and fax to: Texas EMS Magazine, 512/834-6736 or send to Texas EMS Magazine, MC0285, PO Box 149347, Austin, TX 78714-9347. Ads will run in two issues and then be removed. Texas EMS Magazine reserves the right to refuse any ad.

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EMS Profile by Santos Elizondo, EMS Instructor

EMS Profile: San Angelo Fire Department

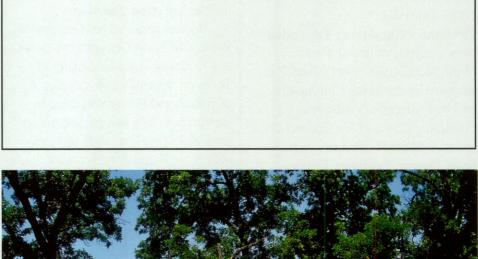
About us: On June 15, 1979, the City of San Angelo took over EMS from a private ambulance service that had been providing EMS coverage since 1969. Prior to that, EMS service was provided by a local funeral home. Currently, the San Angelo Fire Department (SAFD) provides EMS service for more than 107,000 citizens residing within Tom Green County, which consists of approximately 1500 square miles. SAFD also provides service to Mathis Field Regional Airport. In 2009 the San Angelo Fire Department responded to more than 10,000 fire and EMS calls.

Personnel and equipment: SAFD has eight fire stations located throughout the city and is staffed by 139 EMT-Paramedics, 16 EMT- Intermediates and seven EMT- Basics. We are a fire-based EMS system with 12 ambulances, seven engines, two airport rescue fire fighting trucks, one ladder truck and one rescue truck.

Training: The San Angelo Fire Department currently manages its own recruit academy. The academy trains and certifies qualified applicants for employment with the City of San Angelo. The academy lasts approximately 12 months and takes recruits through the Texas Commission of Fire Protection Basic Fire Fighter course as well as National Registry EMT-B and EMT-I certifications. The San Angelo Fire Department has also partnered with Howard College to



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provide NREMT-P certification.

Ambulances: At this time the San Angelo Fire Department ambulance fleet consists of five first-out ambulances and seven second-out ambulances. All ambulances are Frazer Type I, equipped with Zoll Eseries defibrillators and Stryker electric-powered cots. All SAFD ambulances are categorized as BLS/MICU.

Activities: The San Angelo Fire Department is frequently active in

community projects. The Training Division participates annually with Shannon Medical Center's Asthma Camp. This week-long camp allows children to participate in outdoor activities at Lake Nasworthy. SAFD firefighters also assist the San Angelo Fire Marshall's office during Fire Prevention week in our local schools. We are also grateful to the visitors and citizens of San Angelo who donate to MDA during the department's annual Fill the Boot Campaign.