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Jexas Department of Health Mission

To protect and promote the health of the people of this state.

Bureau of Emergency Management Mission

To facilitate statewide, regional, and community systems that provide emergency and health care for all individuals.

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Texas EMS

July/August 1997

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A bimonthly publication of TEXAS DEPARTMENT OF HEALTH

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Texas EMS Magazine (ISSN 1063-8202) is published bimonthly by the Texas Department of Health, Bureau of Emergency Management, 1100 W. 49th Street, Austin, Texas 78756-3199. The magazine embodies the mission of the Bureau: to help organizations function professionally as EMS providers, to help individuals perform lifesaving prehospital skills under stressful conditions, and to help the public get into the EMS system when they need it. It takes state and national EMS issues and answers to ECAs, EMTs and paramedics serving in every capacity across

Editor's office: (512) 834-6700, 1100 W. 49th Street, Austin, Texas 78756-3199 or FAX (512) 834-6736. Subscriptions to Texas EMS Magazine are available for \$20

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GENE WEATHERALL, CHIEF OF THE BUREAU OF EMERGENCY MANAGEMENT

Legislation for EMS and trauma funding passes Texas Legislature

he editor of the *Texas EMS Magazine* always picks out the title for this column as we prepare to go to press for each issue, so I don't ever know what it will be until I see the final draft. This time I have suggested a title of "Wish You Could Have Been There." That is how I felt when I was sitting in the gallery of the Texas Senate when they were voting on Senate Bill 102. This is the bill that would generate dollars for EMS and trauma. Senator Judith Zaffarini told the members that this bill would "save lives in Texas." The senator was most complimentary of all of you who work in EMS and trauma in our state. She noted that during the public hearing on this bill that there was tremendous support, not only from people in EMS and trauma and other organizations around the state, but also from many more organizations that want to improve our statewide response.

When the Texas Senate voted and passed SB 102 with a unanimous vote, it became a part of Texas EMS history. This is the first time that comprehensive state funding legislation has passed either body of the Texas Legislature. The bill then went to the House of Representatives where the funding source was changed from a fee tacked on driver's licenses, to a fund surplus at the Advisory Commission on Emergency Commissions. It then went back to the Senate, which approved the amendment. Right now it sits on Governor George Bush's desk waiting for his signature. You do need to know that without the leadership efforts of the members of the Emergency Health Care Advisory Council, this bill would certainly not have been successful. We will keep you updated just as soon as the information is available. Those of you with internet access can check on the progress of this bill through the online services of the Texas Legislature. You will find them at http://www.capitol.state.tx.us/

The issue of having a new certification category called a licensed paramedic also passed the House of Representatives and the Senate and has been signed by the governor. One of the great things about this session was all the feedback we got in our EMS open forum on the internet. To subscribe for this free service, go to our homepage and click on EMS listserv. From there, follow the directions. See you on the net.

Letters

To Texas EMS Magazine: I am writing about the Point of View article in the May/June issue. It was titled "Volunteers May Have Special Rewards Waiting." I just want to say congratulations and thanks to you and Jeannie Bowman, EMT, for an excellent article.

It hit real close to home. My boyfriend had to do CPR on my dad in November, and my dad passed away. My boyfriend's been very hard on himself. This article expresses exactly what I've explained to him: You did your best!

I'm a LVN who works with terminally ill children. I plan on sharing this with my co-workers. It could fit any medical profession.

I'm framing the article and it's going beside my fireman's prayer.

Susan Curtis Leon Junction, TX

To Texas EMS Magazine: On March 3, 1997, the small Texas community of Slocum lost a hero named Don Hilliard. He went out quietly in the service of the community he loved while responding to an emergency call for help.

When the Slocum Fire Department was granted its charter in August of 1977, Don was elected fire chief. During the next 20 years, Don managed to work, raise three children, make constant improve-

ments to the fire department and remain happily married. This is a super-human feat, as many volunteers will attest.

Don remained fire chief throughout these 20 years and saw many changes in his department during that time. Still, he stayed enthusiastic and objective about new programs. So when my office contacted him in 1995 to solicit his support and participation in our first responder program, he soon became a supporter. This new program seemed, to many volunteers, to be both a liability and a financial burden that many were unwilling to discuss. But Don was a force to be reckoned with, and by early 1996, Anderson County had first responders covering the entire county.

On March 3, 1997, at 5:27 a.m., Chief Hilliard answered a first responder call for a patient suffering chest pain. Charles Abernathy, a close friend and fellow firefighter, drove Don to the call. As they pulled up in front of the house, Don slumped over in his seat. Charles quickly assessed Don and started CPR. Upon arrival of our ambulance, ACLS measures were instituted. During this most trying of times, Don would have been proud that his volunteers requested a second ambulance and cared for the patient they had been called for.

The legacy Don has left us was clear to all who knew him, and rec-

ognized almost universally by his friends. He was, at 60 years old, an enthusiastic and innovative force that would tackle any project that benefited our community, no matter how hard. When others saw hard work and long hours, Don saw opportunity and necessity for good things in our community.

We have all been left the responsibility of keeping a clear eye on the future and not talking ourselves out of good projects simply because they mean hard work or risk. Don Hilliard was my friend and he will be missed in Anderson County, but his friends are determined that his legacy will live on.

Randy Gunn Memorial Mother Frances EMS Palestine, Texas

Corrections: The phone number of the National Association of EMS Physicians was misprinted. The correct phone number is (412) 578-3222.

The distance education course for training entry-level EMS professionals was incorrectly identified as being developed by the American College of Emergency Physicians. It was developed by the American College of Prehospital Medicine.

Jack Ward, who works for the Texas Workers Compensation Commission, was inadvertently listed as an EMT.

Texas EMS Magazine apologizes for any confusion.

The Bureau of Emergency Management mourns the passing of these EMS friends

Reymundo R. Villalon, Jr., 37, of Zapata, was killed on January 12, 1997, in Wharton, while assisting a stranded motorist during icy road conditions.

He had been a firefighter and an ECA for Zapata County Fire/EMS Department for 13 years.

Arlene Wyatt, 62, of Spur, died January 15, 1997, of natural

causes. She had been involved with EMS for 16 years. An EMT-Paramedic for six years, she was also certified as an instructor.



By Carol Mason, EMT-P

How professional are you?

n basic EMT classes, we are taught from day one to dress, talk, and act in a professional manner toward our patients. The first lectures we hear are about maintaining the privacy and gaining the trust of our patients. We ask permission before we touch patients or use their first names. When they refuse our offers, we respect their wishes.

In a recent EMS class that I was teaching, I initiated a class discussion on professional behavior. The students posed this question to me: Why don't prehospital health care providers treat their fellow crew members and personnel with the same respect and professionalism they give to their patients? I asked the students for examples. The following scenarios were used by the students:

- 1. Medic A and Medic B call each other names such as "slime ball" and *#@**" for the duration of a 24-hour shift.
- 2. Medic C hugs everyone and constantly touches his/her fellow crew members throughout a shift.
- 3. Medic D tells foul and sexist jokes constantly.
- 4. Medic E makes obscene gestures, cusses constantly, and "hits" on every female/male that he/she meets.
- 5. Medic F watches "dirty" movies for the duration of his/her shift.
- 6. Medic G runs around the station clad only in boxer shorts and a T-shirt between calls.

If these scenarios seem real to you, then we, as EMS providers and crews, have a problem. The problem is that students perceive this type of behavior as how seasoned medics behave toward each other. They mimic this behavior in order to be accepted into the EMS team. Perhaps we should take a closer look at our own behavior and actions while we are on shift. There is a distinct possibility that any poor behavior we may see in our students and probationary members has been learned from us.

I am no exception. During the past few weeks, I took a good look at myself and how I behave toward my crew members. I found that I have a tendency to hug people I've known a long time, and never once have I asked for permission. I tolerate racy and sexist remarks and jokes. I don't particularly care for the practice, but never once have I stepped forward and said I disliked it or thought any of it inappropriate. I found that I needed to change my own behavior.

It has been said that becoming a member of an EMS organization is like joining a family. If this is true, then maybe we need to apply some good ol' family values to our behavior toward each other.

In my family we have strict rules that we live with, such as:

- 1. Never allowing family members to be maligned or called by any name that is disrespectful.
- 2. Always respecting elders; addressing them as "sir" or "ma'am."
- 3. Never lying. My kids have a saying, "To lie is to die." Perhaps they would not actually experience a physical death, but definitely a social death. Trust is an important aspect of family life. Once lost, it is difficult to get back.

- 4. No cheating: not on homework, tests or spouses.
- 5. No stealing. Respect others' property.
- 6. No bad language, or off-color or sexist remarks.
- 7. Always saying "please," "thank you," and "you're welcome."
- 8. No telling of family secrets to strangers.
- 9. Always knocking before entering. Privacy is given to everyone.
- 10. Calling before visiting, and leaving early. And finally,
- 11. What you do in the privacy of your own home does not need to happen outside the home.

You get the gist; I'm sure you can think of even more examples from your own family experiences.

The fact that the students may have noticed a lack of discipline, and a decline in morals and ethics among the EMS ranks bothers me greatly. I hope it bothers you, too. We in the EMS profession have fought long and hard for the professional respect and acceptance of the medical community. We have proven ourselves to be legitimate health care providers. This reputation of being excellent in all aspects is at stake. It is very difficult to change a bad reputation once it has been acquired.

The best way to protect a good reputation is to do preventive maintenance. All EMS providers must maintain high standards, strict discipline, and behave in a manner that is unquestionable and beyond reproach to all people, whether patients, crew members, students or family.

EMS news A compilation of news from around the state and nation



Michael H. McCallum, MD, was recently named chief of emergency service at Hermann Hospital and chair of the department of emergency medicine at the University of Texas-Houston Medical School.

UT-Houston announces new chair of emergency medicine department

Michael H. McCallum, MD, has accepted the chair of the department of emergency medicine at the University of Texas-Houston Medical School. Mc-Callum will also serve as chief of emergency service at Hermann Hospital. McCallum had previously served as staff emergency physician at McKenna Memorial Hospital in New Braunfels, emergency medicine physician and medical director for Austin's Brackenridge Emergency Department, and medical director for STARFlight and City of Austin EMS.

Two new members join the Texas Board of Health

Mario R. Anzaldua, MD, of Mission, and Kent M. Adams of Beaumont were recently appointed to the Texas Board of Health by Governor George W. Bush. Anzaldua is a family physician in private practice in the Rio Grande Valley and oversees the UT San Antonio Family Practice residency training program in McAllen. Adams is a managing partner with Adams, Coffee & Duesler, attorneys at law, and is a member of the State Bar of Texas. The new members' terms run until February 2003. Closing out their terms on the board recently were Ramiro Casso, MD, of McAllen, and Betsy Triplett-Hurt of Odessa.

Prudential's 13-state "Helping Hearts Program" goes national

Prudential Insurance Company of America launched a \$1 million nationwide expansion of its Helping Hearts Program, which helps emergency medical services acquire AEDs. Kicked off in New Jersey in 1994, the expanded program provides matching grants of up to \$2,000 to qualifying volunteer EMS providers in any state to help defray the cost of an AED. To be eligible for a Helping Hearts grant, volunteer EMS must meet state defibrillation training requirements and raise the remainder of the defibrillator cost. Applications are considered on a first-come basis. Those interested in getting an application should contact a Prudential insurance office or download the application from Prudential's web site at http:// www.prudential.com/community.

Mosby announces **IEMS** Communications management changes

Mosby-Year Book, Inc., announced management changes in May. Keith Griffiths, president and publisher, resigned and Bill Metcalf was appointed publisher and general manager. Mosby-Year Book, Inc., is a worldwide publisher of nursing, medical and EMS publications, including Fire-Rescue Magazine.

EMS honored at national memorial service

Twenty-three EMS personnel from 17 states who died in recent years while on duty were recognized at the National EMS Memorial Service on May 24 in Virginia. The National EMS Memorial, a permanent memorial dedicated solely to EMS personnel, includes a "Tree of Life," with brass leaves engraved with the names of those honored, and a National EMS Memorial Book, which con-

Health Fact: Bicycles are associated with more childhood injuries than any other consumer product except the automobile. -National Safe Kids Campaign



tains a picture and brief biography of each individual. For more information about the National EMS Memorial, contact the Virginia Association of Volunteer Rescue Squads at (804) 282-3311.

Texans for Safe Roads supports limitations on bigger trucks

Texans for Safe Roads wrote a letter of support, along with letters signed by 57 U.S. senators and 232 U.S. representatives, urging the Department of Transportation to support current limits on truck size and weight, including the freeze on longer combination vehicles (LCVs), or triple-trailer semi-trucks. In current NAFTA negotiations on North American truck size and weight standards, both Canada and Mexico are advocating expanded use of longer and heavier trucks, including LCVs. For more information regarding Texans for Safe Roads, contact Susan Lilly at (512) 494-0648.

Survey names ETMC Regional Healthcare system in top 100

The East Texas Medical Center Regional Healthcare System, headquartered in Tyler, was rated one of four top-rated healthcare delivery systems operating in Texas in the March edition of *Hospital and Health Networks*. ETMC Tyler, Texas' first Level II trauma center, was granted recertification as a Level II trauma facility in April.

Valley Baptist Medical Center receives trauma designation

Carol Daniels, deputy commissioner for Texas Department of Health, designated Valley Baptist Medical Center in Harlingen as a Level III (General) Trauma Center in April. A Level III trauma center is required to have 24-hour-duty nurses and other staff extensively trained in trauma, and to have

state-of-the-art equipment for treating the trauma patient. Valley Baptist Medical Center is the third Level III trauma center in Texas and the first designated hospital in the Valley.

Texas EMS Magazine goes high tech!

You can now download a *Texas EMS Magazine* subscription form from the web. Just go to http://www.tdh.state.tx.us/hcqs/ems/mag.htm.

From that page, click on Subscription Form and enter the requested information. Submit the information and print off a completed subscription form. Mail the completed form and payment to TDH-EMS, 1100 W. 49th Street, Austin, Texas 78756. You should receive a magazine within four weeks after we receive payment, as your subscription begins as soon as we receive notification of payment.

The Healthy Texans BBS

The Healthy Texans Bulletin Board System (BBS) provides:

Electronic Mail - use this option to send and receive E-mail;

Libraries - extensive collection of public health information; or

Forums (ongoing BBS discussions) - use them to exchange information on various topics.

For a free copy of BBS software and user manuals or to get help accessing the Healthy Texans

BBS contact: Healthy Texans BBS system operator (SYSOP), Aubrey Herzik. Aubrey can be reached at (512) 458-7111 ext. 2791, or via Internet E-Mail: aherzik@dpa.tdh.state.tx.us

Web pages of interest

Scott & White EMS Education has a web page at http://www.sw.org/ed/ems/

Americans with Disabilities Act Document Center http://janweb.icdi. wvu.edu/kinder/ This site reviews and publishes technical assistance documents, and provides links to other Internet sources on disability issues and occupational health and safety issues.

U.S. Maternal and Child Health Bureau's EMSC Web Site http://www.emsc.com/nera Product catalogues and resources on pediatric trauma and injury prevention are listed.

The University of Texas-Houston Health Science Center in Houston news releases http://www.uth.tmc.edu/uth_orgs/pub_affairs/news.html are available to the public.

Citizens for Reliable and Safe Highways (CRASH) http://www.trucksafety.org/Safety organization whose goals are to reduce the number of truck crash deaths and injuries, minimize truck driver fatigue, improve enforcement of truck maintenance and to prevent crashes and road damage caused by heavier and longer trucks. For more information about CRASH, call 1-800-CRASH-12.

Child Passenger Safety Advocacy http://www.trafficsafety.org/cps has state-of-the-art resources and updated information on child passenger safety issues and programs.

The following are free electronic mailing lists:

EMS Educator's Association of Texas electronic mailing list, send an e-mail to listserv@listserv.aol.com with the following (with your name substituted) in the message body:SUBSCRIBE TAEMSE-L FirstName LastName

You will receive a confirmation message shortly. Reply to that message with the following in the message body: OK

Child Passenger Safety Advocacy free electronic mailing list for those concerned with child passenger send a message to: jeffery@wildhack.com.



Texas EMS Conference '97

The 12th Annual Texas EMS Conference

November 23-26, 1997 Austin Convention Center Austin, Texas

REGISTRATION FORM

Note: Make a copy of this form for each additional registration—only one registration per form. Fill in the name exactly like you want your nametag to be printed. (Please type or print the information)

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| Level of Certification | EMT-P Other/T | itle | | | |
| Do you make purchasing decisions for your firm? $\ \ \ \ \ \ \ \ \ \ \ \ \ $ | no | | | | |
| Do you subscribe to Texas EMS Magazine? yes no | | | | | |
| If you are taking a preconference class, check the Preconferen | ce Class Title | | | | |
| Preconference classes | | | | | |
| \$190 Basic Trauma Life Support \$20 Moulage | Cl 1 | | | | |
| \$35 EMS Managing Hazardous Materials \$35 Cadaver Lab (number time preferences 1,2,3) \$50 Basic Cave Rescue \$2,30 \(\text{_11:00} \) 2:30 | Check or money order must accompany registration to be registered at \$80. Registration by fax will be accepted only if you are using a credit card. No refund after 11/1/97—There is a 9% administration fee if a refund is necessary. | | | | |
| \$50 Basic High Angle Rescue \$20 Peer Educational Site Review (No CE) | | | | | |
| \$50 Advanced High Angle Rescue \$10 Emergency Plans Development (No CE) | Conference | Amount | Conference | | |
| Total Preconference Class Fee \$ | Registration Fee | \$ 80 | registration fee\$80 | | |
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Texas EMS Conference '97 Austin, Texas

The 12th Annual Texas EMS Conference

November 23-26, 1997 Austin Convention Center Austin, Texas

> Map of downtown Austin and hotels Page 35

- Choose from more than 100 excellent continuing education workshops over three days
- More than 80 EMS leaders in Texas teach you the latest advances in patient care, plus the basics
- A whole new series of preconference classes from vehicle rescue to a cadaver lab
- Our traditional EMS party moves to Austin's Sixth Street on Tuesday night
- 80,000 square feet of exhibit space with state-of-the-art information and products
- Your chance to network with 2,000 of your EMS friends

Hotels

Hyatt, (Host hotel) \$55/ \$80* (512) 477-1234 Radisson \$55/\$85

(512) 478-9611

Four Seasons \$95/\$105

(512) 478-4500

Omni Hotel \$55/\$75

(512) 476-3700

Sheraton \$55/\$85

(512) 480-8181

Embassy Suites \$95/\$99

(512) 469-9000

For the latest conference info, visit our web site at http://www.tdh.state.tx.us/hcqs/ems/conf97.htm.

* or state per diem (single) or per diem plus \$25 (double) after Sept. 1, 1997.

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Texas EMS Conference '97

The 12th Annual Texas EMS Conference

Mail-in Registration

(before 11/1/97)

..... \$80

On-site Registration \$100 November 23-26, 1997

997 Austin Convention Center Austin, Texas

Sunday, November 23, 1997

1:00 pm - 7:00 pm

Registration in Convertion Center

3:00 pm - 7:00 pm Exhibit Hall Opens with Welcome Reception

Monday, November 24, 1997

7:00 am - 6:00 pm Registration in the Convention Center

8:15 am - 9:30 am Opening Session - Dr. Red Duke

9:45 am - 10:45 am Workshop Breakouts 10:00 am - 6:00 pm Exhibit Hall Open

11:00 am - 12 noon Workshop Breakouts

12 noon - 2:00 pm Lunch in Exhibit Hall

2:00 pm - 3:00 pm Workshop Breakouts

3:15 pm - 4:15 pm Workshop Breakouts

4:30 pm - 5:30 pm Workshop Breakouts

Tuesday, November 25, 1997

7:00 a.m - 5:00 pm Registration in the Convention Center

7:30 am - 8:30 am Early Bird Workshop Breakouts

8:45 am - 9:45 am General Session with Scott Bolleter, EMT-P

10:00 am - 11:15 am Exhibit Hall Open

(closed during Awards Luncheon)

10:00 am - 11:00 am Workshop Breakouts

11:15 am - 1:00 pm Awards Luncheon

Exhibit Hall Open (immediately after

Awards Luncheon)

1:00 pm - 5:00 pm Exhibit Hall Open

2:00 pm - 3:00 pm Workshop Breakouts

3:15 pm - 4:15 pm Workshop Breakouts

4:30 pm - 5:30 pm Workshop Breakouts

5:00 pm Exhibit Hall Closes

Wednesday, November 26, 1997

8:30 am - 9:30 am Workshop Breakouts

9:45 am - 10:45 am Workshop Breakouts

11:00 am - 12 noon Workshop Breakouts

Conference Adjourns

Note on workshops:

1) The workshops during the conference are filled on a firstcome, first-served basis. If a class is filled when you arrive, you may be turned away. Have a second choice in mind.

2) No one will be admitted late. If you arrive 10 minutes after class has started, you will be turned away.

Preconference classes

November 22-23, 1997

Preconference classes are held at the Austin Convention Center or the Hyatt Hotel, or meet at the Hyatt Hotel.

Saturday/Sunday classes 8 am - 5 pm

Basic Trauma Life Support (BTLS) 16-hour class, \$190, Hyatt CE category: Trauma

This popular class teaches the key components in managing a traumatic patient. The class, which is appropriate for both basic and advanced providers, awards 16 hours of CE and is limited to 30 students. Presented in conjunction with Scott and White EMS Education and Austin Community College. For information on class content, call Diane Simpson at (817) 770-0029 or e-mail Jeff Jarvis at jjarvis@bellnet.tamu.edu

EMS Managing Hazardous Materials 16-hour class, \$35, Hyatt

CE category: Medical

Come see how EMS can respond to a hazmat incident in this hazardous materials class designed specifically for EMS responders. 16 hours of CE. Class limited to 50 students. For information on class content, call Louis Berry at (512) 834-6700.

Saturday classes 8 am - 5 pm

Basic High Angle Rescue

8-hour class, \$50*

Austin Fire Tower (Meet at Hyatt)

CE category: Additional

Learn the basics in this popular ropes course at the training tower of the Austin Fire Department. This class fills up fast, so hurry if you're interested. This class awards eight hours of CE and includes all necessary equipment. Strictly limited to 25 students. Lunch and transportation included; meet at the Hyatt parking lot at 7:30 a.m. For more

information on class content, call Rod Dennison at (817) 778-6744 or e-mail him at rdennison@r07.tdh.state.tx.us or call AFD's John Green at (512) 448-8370 or email him at tazcaver@ aol.com

Basic Cave Rescue

8-hour class, \$50*, Whirlpool Cave (*Meet at Hyatt*) **CE category: Additional**

Learn basic cave rescue at Whirlpool Cave, a popular cave in South Austin. The class awards eight hours of CE and includes most necessary equipment. Students need to provide knee pads. Strictly limited to 25 students. Lunch and transportation included; meet at the Hyatt parking lot at 7:30 a.m. For more information on class content, call Rod Dennison at (817) 778-6744 or e-mail him at rdennison@r07.tdh.state.tx.us or call AFD's John Green at (512) 448-8370 or e-mail him at tazcaver@aol.com

Sunday classes

Advanced High Angle Rescue

8-hour class, 8 am - 5 pm, \$50* Austin Cliffs (Meet at Hyatt)

CE category: Additional

If you've had basic high angle, you can take your skills one step further in this advanced course taught by the instructors who teach the basic course. This class offers eight hours of CE and includes all the necessary equipment. Strictly limited to 25 students. Lunch and transportation included; meet at the Hyatt parking lot at 7:30 a.m. For more information on class content, call Rod Dennison at (817) 778-6744 or e-mail him at rdennison@r07.tdh.state.tx.us or call AFD's John Green at (512) 448-8370 or e-mail him at tazcaver@aol.com

Want to take a preconference class? Here are the details.

Preconference workshop details

- 1. Participants
 MUST preregister for
 preconference classes.
 The cut-off date for
 sending your application AND money is October 15, 1997. The
 registration form is on
 page 10 of this issue. Be
 sure to indicate which
 class you're registering
 for on the form.
- 2. Refunds subject to a 9 percent administrative fee unless class is cancelled due to underenrollment. No refunds will be given after November 1, 1997.
- 3. All classes will be at the Hyatt or meet at the Hyatt in downtown Austin. The Hyatt has special hotel rates beginning Friday night.
- 4. Any class that doesn't meet a minimum number will be canceled on October 20, 1997, and full refunds will be issued to those who signed up.

* Lunch and transportation included

For registration information, call (512) 834-6700 or visit our web site at http://www.tdh.state.tx.us/hcqs/ems/conf97.htm.



Other groups' preconference activities

Valsalsa Competition Call TAEMT at (409) 345-6352

Texas Association of Air Medical Services, Sunday at the Hyatt. Contact Jane Wynn or Karen Casper at (214) 956-0707.

EMS Educator's Association of Texas, Sunday at the Hyatt. Contact Jeff Jarvis at (817) 770-0029.

DWI Programs meeting, Saturday and Sunday at the Hyatt. Contact Thelma Lemley at (713) 331-8842.

Activities at no charge: Ride out with Austin EMS Want a chance to ride out with an urban service that answers about 60,000 calls a year? Austin EMS is offering rideouts at no charge during the conference. Different times available. Sign up at the conference registration booth beginning Sunday on a first-come, first-served basis. Bring dark pants and shoes and a white, collared shirt. Call James Shamard at (512) 448-8380 for information.

Tour Brackenridge's Level II Trauma Center See what a Level II Trauma Center has to offer in this tour of Brackenridge's facility. Different times available; no charge for the tour. Sign up at the conference registration booth beginning Sunday on a first-come, first-served basis. Call Mike Berg at (512) 473-9591 or email him at mberg@ onr.com for information.

Preconference classes (continued)

Sunday classes

Basic Vehicle Extrication

8 am - 5 pm, 8-hour class, \$50* Shaw Lane Training Facility (Meet at Hyatt)

CE category: Additional

Learn the basics of vehicle extrication in this hands-on class worth eight hours of CE. You'll learn: how to assess the situation, tool technique and application, and patient packaging. Necessary equipment provided except for turn-outs (structural or non-structural), a helmet and leather gloves; all are required for class participation. Strictly limited to 25 students. Lunch and transportation included; meet at the Hyatt parking lot at 7:30 a.m. For more information on class content, call Rod Dennison at (817) 778-6744 or e-mail him at rdennison@r07.tdh.state.tx.us or call AFD's John Green at (512) 448-8370 or email him at tazcaver@aol.com

Moulage

4-hour class, 12 pm - 4 pm, \$20, Hyatt CE category: Additional

Learn the basic concepts of disaster make-up using simple, easily-purchased materials. Techniques covered include bruising, lacerations, impaled objects, open fractures, burns and penetrating injuries. This class awards four hours of CE. For more information on class content, call Lee Sweeten at (210) 278-7173, or e-mail him at lsweeten@r08uv.tdh. state.tx.us

Cadaver Lab (On the registration form,

number time preferences 1,2,3)

8:30 am - 10:30 am

11:00 am - 1:00 pm

2:30 pm - 4:30 pm

2-hour class, \$35

Austin Convention Center

CE category: Preparatory

This two-hour class, co-sponsored by Scott & White Hospital EMS Educa-

tion, will teach the basics of human anatomy using a cadaver. This class awards two hours of CE. On the registration form, number time preferences 1,2,3; assignments will be made on first-come, first-served basis. No class assignments will be made without payment received. You will receive a confirmation with your class time listed. For more information on class content, contact Diane Simpson at Scott & White at (817) 770-0029 or Jeff Jarvis by e-mail at jjarvis@bellnet.tamu.edu

Educational Site Review (No CE)

8-hour class, 8 am - 5 pm, \$20, Hyatt

This class is designed to prepare you to be a peer program reviewer in the educational site visit process. The class is limited to 50 people and DOES NOT award CE. To be selected as a peer reviewer, you must be a medical director or a paramedic with certification as an EMS instructor, and you must be associated with a program that has undergone a site visit. However, anyone may come to the class. To be considered as a peer reviewer, you must supply a resume or CV at time of class; use of individuals as peer reviewers will be at the sole discretion of the state training coordinator. For information, call Neil Coker or John Rinard at (806) 743-3218, or e-mail Neil at alhnbc@ttuhsc.edu

Emergency Plans Development (No CE)

2 pm - 6 pm

4-hour class, \$10, Hyatt

One of the most difficult tasks assigned to an emergency management planner is to develop plans for health and medical response and recovery actions following a catastrophic disaster. This course will lay the groundwork for developing plans. It does NOT award CE. For information, call Sam Wilson at (512) 834-6700 or e-mail him at swilson@ems.tdh.state.tx.us

^{*} Lunch and transportation included. For registration information, call (512) 834-6700 or visit our web site at http://www.tdh.state.tx.us/hcqs/ems/conf97.htm



Texas EMS Conference '97

The 12th Annual Texas EMS Conference

November 23-26, 1997 Austin Convention Center Austin, Texas

Workshop Listing (Exact times and TDH CE category will be listed in in a later issue)

Educators

Scott Bolleter, More Than Words

Debbie Cason, JRC Site Visit Process

Neil Coker, Implications of Myers-Briggs Personality Types on Education

George W. Hatch, Jr. & Chris Nollette, Increasing Student Involvement in Education

Jeffrey L. Jarvis, The Importance of Written Policies & Procedures

Ernesto M. Rodriguez, Fried Green Paramedics: What Employers Look

for from Recent Graduates

Carl Voskamp, Creating a College-Based, Credit-Hour Paramedic Program

TX-1 DMAT Track

Kathryn R. Allen, PhD, EMT, Is The Scene Safe? A New Twist
Stewart R. Coffman, MD, Crush Injury Syndrome
James T. Honea, EMT-P, Multiple Victim Evacuation By Air
Susan Simmons, EMT-P & Michael Kinchen, EMT-I, Shock Management: Back to the Basics
Jan Virgil, RN, EMT-P, Burns & Wound Care

Nursing Track

Linda Adams, RN, CCRN, CEN, EMT-P, Cardiac Dysrythmias in Trauma Doug Key, We Go Together Jori Klein, RN, DON, Mechanism of Injury Clifann McCarley, RN & Dezra Eichhorn, RN, MSN, Domestic Violence

Airway/Respiratory/Pulmonary/Shock

William C. Daney, MD, FACEP, Shock: Prehospital Considerations

Mark E. Hinson, MA, NREMT-P, Advanced Airway Management & Rapid Sequence Intubation

Josh Neff, NREMT-P, Field Management of the Mechanically Ventilated Patient

David E. Phillips

- 1. Assessment & Treatment of Pulmonary Edema
- 2. Assessment & Treatment of Obstructive Pulmonary Diseases

Edward M. Racht, MD, Respiratory Assessment Robert B. Simonson, DO, Shock: Does It Really Exist?

Cardiac Related/Pharmacology

Patsy Anderson, RN, MSN, What You Should Know About Thrombolytic Agents

Michael D. Berg, NREMT-P, Pharmacology for the New EMT Curriculum

Chris Black, Expanded Roles For EMTs: Nebulizers and Epipens

Neil Coker, Expanded Roles For EMTs: Oral/sublingual Medications (Aspirin, Activated Charcoal, Glucose, Nitroglycerin)

William E. (Gene) Gandy, JD, EMT-P, Recognizing Blood Pressure Medications

| May 23, | 1997 |
|-------------|--------|
| ECA | 8,123 |
| EMT | 26,148 |
| EMT-I | 3,863 |
| EMT-P | 10,909 |
| Total | 49,043 |
| Coordinator | 411 |
| Instructor | 1,935 |
| Examiner | 2,229 |



Workshop Listing (continued)

Robert B. Genzel, MD

- 1. Pre-Cardiac Arrest Care
- 2. Post-Cardiac Arrest Care

Dave Hanson, RN, EMT, Prehospital Assessment and Management of the Cardiac Patient

Alan Mikolaj, EMT-P, The Easy Way To Solve IV Drips

Stephen J. Rahm, EMT-P, Defibrillation...The Vital Link

Alex Stadthagen, NREMT-P, Practical 12-Lead ECG

Ronnie Taylor, Prehospital 12 Lead ECGs: Are They Really Worth It?

Lance Villers, BS, REMT-P, Pearls & Pitfalls In Cardiac Arrest Management

John K. Griswell, MD, Diet and Preservation Management for Cardiac and Diabetic

John K. Griswell, MD, (Part II) Diet and Preservation Management for Cardiac and Diabetic

CISM

Karen Pickard, RN, EMT-P, CISM Outcomes

Edie Barentine, MS, LSW, CISM Disaster Responses: Lessons

Learned from OKC and Arkadelphia

Leonard E. Denny, MSW, LMSW-ACP, On-scene Support Services in CISM: Applications at the Wyman-Gordon Explosion

Chuck Meyer, Chaplain, Death and Dying

Karen L. Yates, RN, EMT-P, Introduction to CISM

Vaughn Donaldson, EMT-P, How Does a Storybook Ending Result in Suicide?

Communicable Diseases/Immunizations

Ann J. Burgardt, MD, New AIDS Tests

Blas A. Meza, RN, EMT-P & Carol Lawrence, RN

- 1. Tuberculosis: The Return Of A Killer Disease
- 2. Airborne Diseases: Can You Really Take Them Home?

David R. Wuertz

- 1. Post HIV Exposure: Chemoprophylaxis
- 2. Immunizations: Pay Me Now or Pay Me Later

Geriatrics/Neonatal & Pediatrics/OB/Other Special Patients

Tom Carrington, RN & David Wilkerson, EMS and the Elderly Patient: An overview

Jerry Ray Baskerville, MD, The Difficult & Violent Person Ann J. Burgardt, MD, Excessive Bleeding in the OB Patient

Deborah R. Burns, BS, EMT-P, The "Ups" in Dealing with Down Syndrome in EMS

Stewart Dodson, Think Child Safety

William E. (Gene) Gandy, JD, EMT-P, Non-traditional Presentations of the Geriatric Patient Jodie Harbert III, EMT-P, More Lizards, Gomers & Grandparents:

Prehospital Management of the Geriatric Patient

Mark M. Reeger & Scott Bolleter, Geri's Kids

Joan E. Shook, MD

- 1. Recognizing the Signs of Child Abuse
- 2. Pediatric Medical Emergencies

Alex Stadthagen, NREMT-P, Neonatal Resuscitation in the Prehospital Environment

Legal

R. Jack Ayers, Jr., JD, REMT-P, Current Developments in Claims Against EMS Providers Richard A. Clinchy, III, PhD, REMT-P & William E. (Gene) Gandy, Mock Trial William E. (Gene) Gandy, JD, EMT-P, The Best Lawyer Repellant:

Documenting Informed Consent

Medical Emergencies

Jeff Rubin, Medical Management of Chemical Contamination

Doug Stevenson, Assessment & Treatment of Asthma

David E. Phillips, Assessment & Management of Seizures

Shawn J. Salter, NREMT-P, Environmental Emergencies

Workshop Listing (continued)

Lance Villers, BS, NREMT-P, Toxicology Principles & Case Studies William C. Daney, MD, FACEP, CNS Emergencies

Trauma

Stewart R. Coffman, MD, The Sterile Bullet: Myth or Mantra (A discussion of ballistics)

Mark E. Hinson, MA, NREMT-P, Head Injury: Drunk or Just Stupid?

Gary F. Purdue, MD, Early Care of the Burn Patient

Michael Alan Schertz, Rodeo Ems Coverage

Scott Remmich, Potential Organ & Tissue Donors

Karen L. Yates, RN, EMT-P, Prehospital Management of Head and Face Trauma

Other Topics

Richard A. Clinchy, III, PhD, REMT-P, The Expanding Role of EMS in Primary Health Care Scott Bolleter

1. The Energy That Makes a Difference

2. Just Another Day in Paradise: A View of Helicopter EMS

Rick Deel, Texas State Search & Rescue System and Texas Task Force 1

John P. Frey, Spaces of Death: Why Rescuers Die in Confined Spaces

Robert B. Genzel, MD, Advanced Concepts for the Veteran Paramedic

Fred Hagedorn, MD, FACEP, Environmental Exposure and Extended EMS Operations

Bonnie Liles, RN, EMT-P, Women in EMS

Gary Mailman, MD, Dive Injuries

Chuck Perkins, MSN, RN, CS, Laboratory Data Analysis for the Prehospital Provider

Mark M. Reger, Look Again: Scene Assessment

Shawn J. Salter, NREMT-P, Technology vs. The Technician

Edward Strout, RN, EMT-P, How EMS Impacts the ER

Barbara L. (Barb) Venable, RN, EMT-I, Do You Dare to Care?

Gary Waites, Personal & Scene Safety

James L. Majorowski

- 1. Patient/Scene Assessment
- 2. Tactical Medicine

David Pearse, EMT-P, Acid-Base Balance for Dummies

Photo Contest Rules

- · Anyone is eligible; no entry fee is required.
- Entries must be received no later than November
 1, 1997. Winners will be announced at the Texas
 EMS Conference, November 23-26, 1997.
- Unmatted prints 8x10 inches or 5x7 inches may be submitted in color or black and white. Fill out the entry form on this page, tape it to the back of your photograph, and mail your entry to: Texas EMS Photo Contest, Texas Department of Health, 1100 W. 49th Street, Austin, Texas 78756-3199.
- The Texas Department of Health will keep all photo entries and will have the right to publish entries in TDH publications. Photographer's name will be printed along with the photo. Ownership of the negative will remain with the photographer.
- One grand prize winner will be chosen and will receive \$100 and a plaque. Two first place winners will be chosen—a color photo category and also a black and white photo category. Each will receive \$75 and a plaque. One second place winner will receive \$50 and a ribbon; one third place will receive \$25 and a ribbon. One honorable mention winner will receive \$15 and a ribbon. Judges will select winning photographs based on artistic composition, originality, visual appeal, and good patient care.

| 1997 | Texas | EMS | Photography | Contest | entry | form |
|------|--------------|------------|--------------------|----------------|-------|------|
|------|--------------|------------|--------------------|----------------|-------|------|

Photographer's

Name _____

Address _____

City _____ State ____ Zip ____

Mail to: EMS Photos, Texas Department of Health 1100 W. 49th Street, Austin, TX 78756-3199.

(work)

Deadline for entering: November 1, 1997

Tape this form to the back of the photo. For more information call Sharon Browder or Jaime Wise at (512) 834-6700.



Phone (home)

Is your EMS service mentioned in Local and Regional EMS News?

It needs to be! Are you planning a fundraiser? A training class? A public education program? Do you have new people on board? Elected new officers?

Send your news to: Texas EMS Magazine Kelly Harrell, Editor Bureau of Emergency Management 1100 West 49th Street Austin, Texas 78756-3199 (512) 834-6700

We welcome letters to the editor on EMS issues, magazine articles or other topics of interest. We print letters to the editor as we have space. September/October issue deadline: July 15, 1997

Idalou EMS teaches kids injury prevention

Sprinkler and Detector, emergency personnel in Idalou, have taken their clowning on the road. Using Local Projects grant funding and donations, the duo bought a used golf cart and attached a sound equipment and a large telephone. They use the cart in safety presentations and parades to promote EMS awareness, fire prevention and proper use of 9-1-1. They have presented safety messages at five area elementary schools, the South Plains Fair, the children's burn unit at University Medical Center in Lubbock, the Progressive Farmer's Farm Safety Camp, Texas A&M Fireman's Training School and other elementary schools. Sprinkler, aka Russ Perkins, and Detector, aka Charlie Brown, serve with Idalou EMS.

ETMC expands service area

East Texas Medical Center Regional Healthcare System has af-

filiated with Nan Travis Memorial Hospital in Jacksonville.
NTMH is a full-service, 148-bed acute care hospital, serving
Cherokee County. ETMC also forged alliances with Gilmer and
Upshur County to reopen the former Gilmer hospital, which closed in 1995.

ed its service in two areas. ETMC EMS assumed the role of official 9-1-1 ambulance provider for the City of Trinity in May and for Delta County in June. As of May, counties in the ETMC EMS regional network included Anderson, Cass, Cherokee, Delta, Ellis, Fannin, Franklin, Gregg, Henderson, Houston, Kaufman, Morris, Navarro, Panola, Rains, Smith, Upshur, Van Zandt and Wood.

ETMC EMS medical director honored by TCEP

William Moore, MD, regional medical director for ETMC EMS, received the 1997 President's Leadership Award from the Texas College of Emergency Physicians at TCEP's state conference in May. The TCEP Leadership Award is presented annually to one Texas physician in recognition of his or her work for the statewide emergency physicians organization.

MedStar serves Texas Motor Speedway

MedStar now provides emergency transportation and emergency medical services for all public

Sprinkler and
Detector regularly
teach a class about
safety and injury
prevention.
Sprinkler and
Detector are Idalou
EMS personnel
Russ Perkins (left)
and Charlie Brown.



areas of Texas Motor Speedway near Fort Worth. Since MedStar will still be responsible for emergency service to the 13 cities it now serves, four additional ambulances will be added to MedStar's fleet on race days in order to meet response time requirements. MedStar is also seeking volunteers to join an emergency medical auxiliary for service on race days. Interested state-certified EMTs should call Wayne Day at (817) 927-4453 for information regarding additional criteria.

Aero Care personnel named to state, national organizations

Several employees of Aero Care in Lubbock have been appointed to state and national organizations. Shirley Scholz, RN, EMT-P, was appointed to the Association of Air Medical Services board as the quality management standards committee chair. Jim Waters, pilot, was appointed to the board of directors for the National EMS Pilot Association, and to the Texas Association of Air Medical Services as chair of the safety committee. Pilot Greg Gust was appointed to Helicopter Association International's EMS committee. Doak Enabnit, EMT-P, executive director of Aero Care, was appointed to the EMS subcommittee of Texas EHCAC.

Copperas Cove makes a "save" with new AED

Copperas Cove FD saved the life of a cardiac arrest victim using an

Cotulla EMS participated in a career day at a local middle school. Pictured are Michael Beyers' English class and EMT Van Van Cleve of Cotulla EMS, located in LaSalle County.



AED recently purchased with a grant from TDH's Local Projects grant program.

Rural/Metro employees honored by Hurst City Council

Rural/Metro ambulance crew members Brian Hatfield and Jeff Hawkins were honored recently by the Hurst City Council for their part in saving Robert "Jack" Hilsabeck after he suffered a cardiac arrest while working out at Bally Total Fitness health club. CPR was initiated by bystanders. Also honored were bystander Jerry Holland, Bally Total Fitness employees Travis Flowers and John Davidson, and Hurst firefighters Austin Prescott, Kirk Caldwell, Wynn Myers and Steve Howe.

New officers elected to the East Texas Council of EMS Coordinators

The East Texas Council of EMS Coordinators elected new officers in March. The president is David R. Pearse; vice president is John Miles; and secretary/treasurer is Don Elbert.

Eight-year-old Apple Springs resident initiates 9-1-1 to help brother

In February, eight-year-old Milam Smith of Apple Springs, near Austin, so impressed Nameless EMS with his calm initiation of 9-1-1 for his ten-vearold brother, Austin, that NEMS honored him and his brother at the Cherry Hollow Spring Fling in April. The boys were named honorary EMTs and honorary members of NEMS. Austin's legs had gotten pinned beneath a 16-foot fishing boat when the boat slipped off its trailer. Milam initiated 9-1-1, calmly gave all pertinent information to 9-1-1 dispatchers, and then used the gate code to allow NEMS access to the accident site. On site, both Austin and Milam were able to answer questions calmly. After Austin was freed, he was transported to Brackenridge Children's Hospital via STAR-Flight. Austin suffered no permanent disability.



Cotulla EMS attends Career Day

Two EMTs from Cotulla EMS participated in a career day at Frank Newman Middle School in Cotulla. They discussed the different jobs in EMS, the types of training required and the details of what happens on a call. The students were then allowed to tour the ambulances and to see the equipment.

Rural/Metro Ambulance in Waco works bus accident

Rural/Metro worked a large passenger bus accident in March on Interstate 35 near Waco. The bus was carrying students from Wisconsin to South Padre Island for spring break vacation. Sixteen individuals were transported and evaluated for injuries at Hillcrest Baptist Hospital in Waco. West Ambulance and several area volunteer fire departments assisted in the call and patient transport. After the call, Rural/Metro do-

nated 20 bag valve masks to Hewitt VFD.

Southern Oaks VFD completes ECA class

Southern Oaks VFD, on Richland Chambers Lake, completed an ECA class in March. Thirteen students from Streetman, Butler and Richland qualified to take the state certification exam. SOVFD is a first responder group for Fairfield EMS. This class was made possible through a grant from TEEX and was coordinated by Sharon Thetford, EMT-P.

Rural Nurse Resource, Inc. recognized by local newspaper

Rural Nurse Resource, Inc. (RNR), a nonprofit school, was recently recognized by the *Plainview Daily Herald* for teaching classes in the areas of nursing, emergency medical services and basic community and youth health-care needs in Dougherty

and Floydada, in the Texas Panhandle. The purpose of RNR is to increase bystander health-care knowledge in these communities and to train a first response team for Dougherty. The nonprofit organization is funded by class fees, grants and donations.

Texline volunteer honored for 25 years of service

In February, Ray Eads was honored at an appreciation banquet for his 25 years of service in the Texline Volunteer Fire and Rescue. Eads, a volunteer firefighter for 25 years, was fire chief for the last 15 years. An EMT for 15 years, he is presently an instructor for EMT classes. Eads has also taught CPR to the freshman class and the sixth grade class, and first aid to the third grade class in Texline. During his tenure, he assisted TVFR in successfully applying for four grants to upgrade equipment. He holds a full-time position with Lindsey Well Service and Drilling.

Take care of the Bear



Some kids get swept up in the excitement of being around Ready Teddy and behave badly. Please remember, the person in the suit can only see approximately two feet in front of them, cannot see anything beside or behind them, and can hear very little. A "bear handler" can help by talking for Ready, helping Ready maneuver and keeping an eye on surrounding children and teens. Please have someone stay with Ready and keep TDH's safety mascot safe.

Pictured are members of Shepherd EMS with TDH's antique ambulance. Both TDH ambulances participated in Shepherd's FunFest.







From left, Texas Representative Pete Patterson; Beverly Lewis, director of Paris/ Lamar County Library; Stewart Dodson, City of Paris EMS; and Texas Senator Bill Ratliff display Think Child Safety articles at the Capitol in February.

City of Eagle Pass FD begins ALS upgrade

Fourteen Eagle Pass FD firefighters recently completed EMT-I training as part of EPFD's plan to upgrade its service to advanced life support. The training was conducted by Tri-County EMS Training and Southwest Texas Junior College. EPFD is now in the process of obtaining equipment and supplies for ALS units.

Mexia FD EMS teach EMT classes for Limestone County

Mexia FD EMS personnel recently completed two EMT classes sponsored by Texas Engineering Extension (TEEX). Both classes were open to all fire depart-

ments in Limestone County to try to increase the number of members in first responder organizations. Class participants came from Mexia, Groesbeck, Coolidge, Kosse, Thorton and Lake Limestone. The classes were coordinated by paramedic Sharon Thetford.

Reggie Cooper, of Marshall Fire/EMS, paramedic student, prepares to give an immunization to Lindsey Hill, age 4. Ready Teddy and Mary Whatle;, Panola College nursing student, look on. Marshall Fire, EMS participated in a child immunization chnic that was held in conjunction with school registration.

Marshall Fire/EMS gives immunizations in area clinic arshall Fire/EMS, along with

Marshall Fire/EMS, along with TDH, paramedic students at Kilgore College and nursing students at Panola College, participated in a child immunization clinic in Marshall during April. Approximately 125 children received immunizations during the clinic, which was held in conjunction with school program registration. Ready Teddy, Sparky, McGruff and Smokey the Bear put in appearances, and Ready Teddy passed out stickers and coloring books to the children.

New educators association formed

A new educators association, the EMS Educator's Association of Texas, recently formed. The association promotes the improvement of EMS education through instructor development and information dissemination. One of the items on which the group





has made progress is the development of competency-based clinical guidelines. They also maintain an electronic mailing list which is used for discussion and information sharing. For information about the association, contact Jeff Jarvis at (817) 770-1590 or at jjarvis@bellnet.tamu. edu; Jeff Hayes at jlhayes@ austin.cc.tx.us; Carl Voskamp at cvoskamp@victoria.cc.tx.us; or Neil Coker at alhnbc@ttuhsc.edu.

Think Child Safety Day celebrated at Capitol

The Texas Legislature celebrated Think Child Safety Day and Texas EMS Week at the Capitol in May. City of Paris EMS, citizens of Paris and TDH representatives were on hand to accept the official declaration of May 20 as Think Child Safety Day. Representative Pete Patterson presented the official proclamation to the Texas House of Representatives and Senator Bill Ratliff presented it to the Texas Senate. The Paris group also promoted Think Child Safety to a group of lawmakers in February.

Shepherd EMS participates in first annual Shepherd FunFest

Shepherd EMS and the TDH ambulance rode in the Founders Day Parade and participated in the First Annual Shepherd FunFest in May. TDH's antique ambulance and SEMS ambulance rode in the parade; TDH's new ambulance and the antique ambulance were included in the display.

Garrison holds barbeque and rummage sale

Garrison Volunteer Fire and EMS held a bake sale and rummage sale in April, and a barbeque in May to raise funds for equipment and training. They had \$400 in sales during the bake sale and rummage sale, and raised \$3,600 in sales and donations during the barbeque. GVF&EMS also held an extrication demonstration at Garrison High School in May to raise DWI awareness in the community.

McGregor and surrounding towns hold disaster drill

A disaster drill, named Twister '97, was held in McGregor in April. The drill included fire, ambulance, police and rescue units from McGregor, Oglesby, Crawford, Moody, Bruceville-

Eddy, Waco-McLennan County Emergency Management, Rural/ Metro Ambulance and Coryell Memorial Hospital EMS. In May, a major storm system spawned tornadoes in that area.

Hamilton County sheriff and ambulance service sign agreement

A cooperative agreement was recently made between Hamilton County Sheriff's Department and Hamilton County Ambulance Service. HCAS will provide EMS personnel to accompany law enforcement officers to scenes where possible injuries could occur, such as drug lab raids, hostage situations and search and seizure situations. EMS crew members were provided vests and radios, and a mobile response kit was created for use in the police vehicles. A recent drill allowed the agencies to become accustomed to each other's techniques.

Dr. Walter Wilkerson, chair of the Texas Board of Health, left, presents Ready Teddy and Pam West with a proclamation designating May 18-24 as Texas EMS Week, and May as Trauma Awareness Month. The Texas Board of Health recognized EMS throughout Texas at its April meeting.





Texas Department of Health EMS Offices

Bureau of Emergency Management 1100 West 49th Street Austin, Texas 78756-3199 (512) 834-6700

Public Health Region 1 Terry Bavousett P.O. Box 968, WTAMU Station Canyon, Texas 79016-0968 (806) 655-7151

> Denny Martin 1109 Kemper Lubbock, Texas 79403 (806) 744-3577

Public Health Regions 2 & 3 Jimmy Dunn 1351 East Bardin Road P. O. Box 181869 Arlington, Texas 76096-1869 (817) 264-4404

Jerry Bradshaw 4309 Jacksboro Hwy, Suite 101 Wichita Falls, Texas 76302 (817) 767-8593

> Andrew Cargile 1290 S. Willis, Suite 100 Abilene, Texas 79605 (915) 690-4410

Public Health Regions 4 & 5 Jim Arnold 1517 W. Front Street Tyler, Texas 75702-7854 (903) 595-3585

Public Health Region 6 C. Wayne Morris 5425 Polk Street, Suite J Houston, Texas 77023 (713) 767-3000

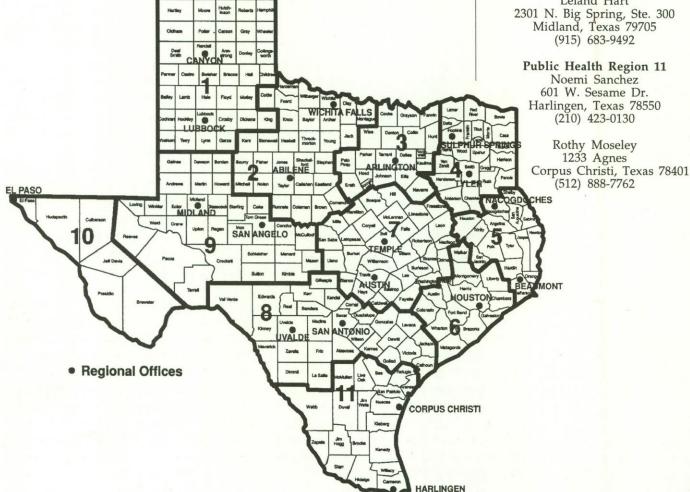
Public Health Region 7 Rod Dennison 2408 S. 37th St. Temple, Texas 76504-7168 (817) 778-6744

Public Health Region 8 Lee Sweeten 1021 Garner Field Road Uvalde, Texas 78801 (210) 278-7173

Steve Hanneman Fernando Posada 7430 Louis Pasteur San Antonio, Texas 78229 (210) 949-2050

Public Health Regions 9 & 10 Tom Cantwell 6070 Gateway East, Suite 401 El Paso, Texas 79905 (915) 774-6200

Leland Hart



By Neil Coker, BS, EMT-P

Frequently asked questions about

EMS Education

Q. I have access to a number of nursing journals which include continuing education articles. Can I use these articles to earn credit toward recertification?

A. Yes, you can. CE articles must be preapproved; must be developed by an approved CE provider; must involve the learner by requiring an active and appropriate response to the materials presented; must provide a test; and must provide a record of completion. CE articles in health care professional journals meet these criteria, including preapproval of the CE provider by national accrediting bodies such as the American Nurses Credentialing Center.

If you decide to obtain credit using an article from another health care profession's journals, you will need to follow all procedures established by the sponsoring CE provider, including registering, submitting the post-tests for scoring and paying all required fees. It is your responsibility to retain a copy of the certificate for your records and to assign the credit to an appropriate category.

Q. Does the time limit to take the certification exam begin on the last day of the classroom portion of a course, or on the day a student completes all course requirements and receives a course completion certificate (CCC)?

A. The time limit to take the certification exam begins when a coordinator signs the course completion certificate (CCC) verifying that ALL requirements have been completed. There are NO limits established by TDH on how long a student may take to complete course requirements. However, coordinators may set course completion time limits for their students.

For example, a coordinator may establish a policy requiring students to complete all clinical and field internship requirements within a given number of days after the course final examination. If the student does not meet this requirement, the coordinator can choose not to issue a CCC. However, once the CCC is signed, the student then has 180 days to complete the certification exam and any retests, regardless of how long he or she took to meet the coordinator's requirements.

Q. I am a course coordinator. Am I supposed to schedule a state practical exam at the end of my courses? Several other coordinators have told me they are just checking their students off on skills throughout the classroom phase of the course.

A. In Texas we do not have a "state" skills exam as part of our EMS personnel certification process. Coordinators verify skills proficiency as part of their courses. When a coordinator signs a CCC, one of the things he or she is attesting to is that the student has demonstrated proficiency in the required skills. Proficiency verification can be done at any time during the course, and ideally should take place several times as a means of developing increasing competence.

Skills proficiency should be verified by persons who are certified EMS examiners. This helps ensure that evaluations are conducted in a consistent, reliable way. Also, the minimum standard for skills proficiency should be the TDH grading criteria. However, as a course coordinator, you may develop standards for your courses which exceed theses minimums as long as your regional EMS office and your students are aware of this.

Neil Coker is the state EMS training coordinator. Call him at (806) 743-3218 or email him at ALHNBC@TTUHSC.EDU



By Linda Reyes

Frequently asked questions about

EMS Standards

Q: Why was I picked for CE audit?

A: We randomly pick participants. The CE rule requires that we randomly audit a statistically valid sampling of CE summary forms. We determined the population size to be the number of EMS certificates issued, which is not more than 15,000 per year. The sample size was taken from the "Table for Determining Sample Size from a Given Population."1 The number of CE summary form audits will be at least 375 per year.

The department may audit the summary form of a specific certificant in response to a complaint, or if there is reason to suspect that a certificant may have falsified CE documentation. The department may also audit any records of the CE provider.

Q: What type of CE documentation will you accept for the CE audit?

A: Documents that record completion, such as course certificates, verification letters written on official letterhead, or notification from the TDH's education program of the number of hours accepted from academic records.

If you are fortunate enough to work for a provider that furnishes CE and a training coordinator who keeps your records, we will accept a letter on official letterhead that includes the above information plus the number of CE hours and content areas, and grades for each CE class.

Ultimately, the burden of proof of CE participation/completion rests solely on the certificant.

Q: I've moved and can't find all of my CE documentation. What should I do?

A: You will need to contact the CE providers and ask for another document of completion.

Q: In 1995, I completed a refresher course where I accrued two hours for every one hour of class time. All I need to send you is a copy of that one course completion certificate, right?

A: Bureau policy allowed the refresher course two-for-one method of gaining CE hours through August 31, 1995, for EMS personnel with a certification expiration date on or before August 31, 1996. Continuing education audits were launched with certificate expiration dates of September 30, 1996, and later. You are unable to use this certificate because your certificate expiration is after August 31, 1996.

Call EMS Standards certification verification phone line at 512/834-6769. Fax number is 512/834-6736.

Our web site is: http://www.tdh. state.tx.us/hcqs/ems/ stndhome.htm.

¹Krijcie, R.V., & Morgan, D.W. Determining sample size for research activities.

Educational and Psychological Measurement, 1970, 30, 607-610.

Initial course completion certificates must include the information below, plus a statement indicating the program was in compliance with EMS rules and the student's successful completion.

| PROGRAM INFO | COORDINATOR/ INSTRUCTOR INFO | STUDENT INFO | | |
|---|---|----------------------------------|--|--|
| Program name TDH approval # Location (City) Date of completion Course level | Coordinator's name SS# or EMS ID# Signature | Student's name SS# or EMS ID# | | |



July/August '99 CE Summary Report Due

If your certification expires in July or August 1999, your CE summary report is due now.

Infection Alert

Virulent new strain of tuberculosis spreads easily

rganisms for any disease canand usually do-mutate, creating new strains of the disease that can become more virulent. This has happened with a new strain of tuberculosis. This strain first appeared in Alabama, then in a large outbreak that spread from Kentucky to Tennessee. High percentages of people exposed to the strain become infected following nothing more than an outdoor exposure. It had always been thought that exposures to tuberculosis required sharing an enclosed space. This apparently is not the case with this strain, which progresses to active disease in a very short period of time. The Centers for Disease Control and

Prevention in Atlanta is currently trying to determine what makes this strain so virulent. This strain is responsive to all of the TB drugs, according to CDC.

The only way to determine exposure to the disease is by regular TB skin testing. An individual is most at risk for developing active tuberculosis during the first two years after exposure to the disease and developing a positive TB skin test. Exposures can occur without your knowledge both on and off the job. Most important to your health and well being is that you receive a chest x-ray and preventative medication. If you are over age 35, the medication can stress your liver, so health departments and physicians will not give preventative medications unless you can document by TB skin test results that this was a recent positive conversion. Consequently, you must have had two or more negative skin tests within the last two years. Individuals who are over the age of 35 and who do not have this documentation will not be treated since there is no way to determine how long a TB skin test has been positive.

New employees should receive TB skin tests prior to starting employment regardless of where they work. If the employee works in public safety, a two-step testing method is rec-

How to prevent the spread of Tuberculosis

It is important to utilize the following guidelines to prevent the spread of tuberculosis:

- 1. Be aware
- 2. Be informed
- 3. Do wear particulate respirator masks (N95, for EMS employees)
- 4. Do report
- 5. Do TB skin test on a regular basis
- 6. Do careful documentation of exposure and test results

ommended. This involves an initial test; if negative, it's repeated again in one month. This method should also be used routinely for new employees age 50 or older, regardless of work site. The immune system becomes weaker as individuals age, so the first test would boost the immune system to recognize any previous exposures to the mycobacterium. If the first test is negative, then a second test should be done. This test should be negative; however, a positive reaction is considered to be a boosted reaction and considered to be an old infection rather than a new one.

TB skin testing programs should offer testing every six or 12 months based on the number of active tuberculosis cases in the area you work. If you are given preventative medication, it is important to take all of the medication as directed. Failure to take medication properly or completely may cause the organism to become resistant to the drugs. Drug-resistant tuberculosis is seen most often in individuals who are also infected with HIV; however, this can occur with anything that affects the immune system.

Report exposures to suspected cases of tuberculosis to your department promptly and obtain a baseline TB skin test at that time. It can take up to two months to determine if that patient had an active disease. If the patient had active disease, then the exposed individual should have a second TB skin test three months after the baseline test. If the baseline test was positive, then that result was not connected to this exposure. If the first test was negative, and the second test was positive of 10mm or more, then it should be considered that the tubercu-

Carol Lawrence is communicable disease coordinator for the Dallas Fire Department—Emergency Medical Services.

losis germ was transmitted to the exposed individual. A chest x-ray should be obtained promptly. If the xray is negative, the employee should be placed on preventative medication for six to nine months. If the patient was negative for active disease, then the employee does not need to obtain a second TB skin test at the threemonth interval and the exposure case can be closed. Individuals who carry the TB germ in their body are not contagious and can not transmit the disease to others. Individuals with active disease, either pulmonary or laryngeal, are contagious and can transmit the disease by the airborne route.

enty-five percent of motor vehicle crashes occur within 25 miles of home. In addition, 60 percent of crashes occur on roads with posted speed limits of 40 mph or less.

| Airborne disease | | | | | |
|------------------|---|--|--|--|--|
| Activity | Examination of the throat; oral or tracheal intubation; suctioning; mouth to mouth | Prevention | Respiratory mask for all; listed activ- ities; AMBU/face shield | | |
| | | Prevention | Respiratory mask | | |
| Location | Member and patient are in the same room, vehicle, ambu- lance, other enclosed space | Prevention | Respiratory mask | | |
| | Condition (Patient) | Activity Examination of the throat; oral or tracheal intubation; suctioning; mouth to mouth Condition (Patient) Rash illness; coughing frequently; high fever; stiff neck; light hurts eyes Location Member and patient are in the same room, vehicle, ambulance, other enclosed | Activity Examination of the throat; oral or tracheal intubation; suctioning; mouth to mouth Condition Rash illness; coughing frequently; high fever; stiff neck; light hurts eyes Location Member and patient are in the same room, vehicle, ambulance, other enclosed Prevention Prevention | | |

- Do not place the particulate respirator mask (white mask) on the patient. Instead, use blue surgical mask for the patient.
- If transporting a patient with a suspect case of tuberculosis, EMS personnel should wear a particulate respirator mask.
- A blue surgical mask may be placed on the patient.
- If feasible, the windows of the vehicle should be kept open.
- The heating and air conditioning system should be set on a non-recirculating cycle.



First Texas CISM Conference



August 2-3, 1997



\$35 Registration Fee

(\$50 after July 26, 1997)

Doubletree Hotel

Austin, Texas



- Featuring Dr. Jeff Mitchell, president of the International Critical Incident Stress Foundation (ICISF)
- Continuing education credits
- Saturday night awards banquet—each CISM team will present an award to the outstanding Mental Health Professional (MHP) and an outstanding peer member.

Partial list of speaker's

- Dr. Jeff Mitchell, president of the International Critical Incident Stress Foundation
- Cindy M. Alexander, president of the CISM Network of Oklahoma
- Dr. Stephen Pierrel, clinical coordinator for the Houston Fire Department and Bluebonnet CISM teams
- Dr. Mike Fitts, Texas' clinical CISM coordinator who responded to the Oklahoma City bombing
- Ed Stauffer, director of the Federation of Fire Chaplains in Clifton, Texas and Board member for the International Critical Incident Stress Foundation, Inc.
- Gene Weatherall, chief, Bureau of Emergency Management, Texas Department of Health

Make check to: Texas Health Foundation

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| Address | | | City | | | | |
| State | Zip | | Phor | ie | | | |
| Circle courses | you have taken: | ☐ Basic CISD | ☐ Adva | anced CISD | Other | | |
| | Please circle a | ll that apply: | EMS Mental Heal | | | nent Nurs Physician | e Chaplain Dispatcher |
| (Credit cards will | | | | Coor | dinator at (512 | 2) 834-6700 d | bor, State CISM or ptabor@ems. |
| Card Holder Card Exp | | | tdh.s confe | tdh.state.tx.us. For more information on the CISM conference, go to http://www.tdh.state.tx.us/hcqs/ems/emshome.htm (click on Emergency Preparedness, then click on CISM.) | | | |
| | | | | | | | |



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Due to construction at 1100 W. 49th St., the August 15 meeting of EHCAC will be at the Sheraton Austin, 500 N. I-35. The hotel is offering \$55 single rates for anyone coming to the meeting; be sure to tell them you're attending the EHCAC meeting. For reservations, call the hotel directly at (512) 480-8181. For other information, call (512) 834-6700, or visit our web site at http://www.tdh.state.tx.us/hcqs/ems/emshome.htm.

EHCAC recap

he Emergency Health Care Advisory Committee met on May 9, 1997, at the Texas Department of Health. All committee members were present except James "Red" Duke, MD, and Joan Shook, MD. Chair Ray Mason noted that both had excused absences.

Bureau Chief's Report Gene Weatherall updated the committee on pending legislation. After questions from Weatherall, the committee decided to meet at noon on Monday, November 24, during Texas EMS Conference '97, at the Austin Convention Center. The next EHCAC meeting will be August 15.

State of EMS in Texas Phil Lockwood gave a presentation on the state of EMS in Texas, showing the difference in the number of firms and certificants between 1986 and 1996. Significantly, in 1994, the number of paramedics passed the number of ECAs in Texas, something that had never occurred. (The report findings will be printed on the back page of the September/October issue of *Texas EMS Magazine*.)

Legislation Billy Sladek reported on several bills, including one to create a Level V trauma facility, which would be a stabilization facility. EHCAC will be involved in writing standards and criteria for that facility. Currently, there are 450 hospitals in Texas; 68 are designated as trauma facilities and 100 more are seeking designation.

Trauma subcommittee Chair Jorie Klein reported that the subcommittee will have a work meeting in July to look at legislative issues and discuss the Open Records Act. A precedent was recently set in California regarding trauma registry data and what can be defined as public information.

EMSC subcommittee In the absence of chair Joan Shook, it was reported that the committee is considering the possibility of outsourcing the Prehospital Pediatric Provider Course to the new educators' association, EMS Educator's Association of Texas.

EMS subcommittee Chair Donovan Butter reported that the subcommittee has two recommendations for rules for the licensed paramedic: 1) completion of a paramedic course; and 2) completion of an associate's degree. The group would also like to make recommendations on the core curriculum.

Public Education and Injury Prevention Task Force Chair Leticia Goodrich's task force divided up the RACs into groups; committee members will send each RAC chair a questionnaire about injury prevention activities, followed by a phone call or visit. The group hopes to get an idea of injury prevention activities in Texas and share them with all the RACs. —Kelly Harrell

Open Forum

An Open Forum on the Level III trauma designation process will be held on July 18, at 9:00 a.m., at the UT Southwestern Medical School, 5323 Harry Hines Boulevard, Dallas, Texas 75235. (Signs to meeting room will be posted inside the hospital.) A Trauma subcommittee meeting be held immediately following.



Member John Holterman, left, and newest EHCAC member Gilbert Perez, RN, EMT-P, of Corpus Christi, attended the EHCAC meeting on May 9.

Galveston EMS looks at using retrograde tracheal intubation

One in an occassional series about what's new in Texas EMS n 1960, a new technique was introduced as a means of removing a tra-

cheostomy tube during laryngectomies in patients with preoperative tracheostomies by using an introduced catheter as a guide for the passage of a standard-size endotracheal tube.

In 1967, this technique was modified when it was applied to patients without a tracheostomy by inserting a large-bore needle through the cricothyroid membrane and running a wire guide through the pharynx and the mouth.³ The endotracheal tube was then placed over the wire guide and advanced into the trachea. Since that time, retrograde tracheal intubation has had very few modifications and has been used in the in-hospital setting as an option for endotracheal tube placement.

To present, retrograde tracheal intubation has been used exclusively in the in-hospital setting and has been in the shadows of surgical cricothyrotomy for prehospital. Advanced airway instruction to students rarely includes retrograde tracheal intubation as an alternative to airway management when difficult intubations arise. The technique itself is easily learned by personnel with no prior experience of its use through class instruction and hands-on training using manne-

quins.⁴ Endotracheal tube placement via retrograde intubation requires minimal experience and can be performed by skilled personnel within a 45-second to 1.5-minute time interval (time required from insertion of needle-over-catheter into cricothyroid membrane to the point at which patient is being ventilated via ET tube) while still maintaining adequate ventilatory support for the patient during the procedure.

Galveston EMS began to explore retrograde intubation in mid-1995 following a retrospective study of out-of-hospital patients in which difficult intubations were encountered. All patients were delivered to emergency room staffs with an endotracheal-tube-secured-airway using direct laryngoscopy or surgical cricothyrotomy, but it was concluded that resuscitative efforts would have been enhanced had airway control been established earlier into resuscitative measures.

Various literature suggested that retrograde intubation would provide out-of-hospital personnel superior airway patency with the probability of a lower incidence of complication or damage than that of its advanced airway counterparts.^{2,4,6} Furthermore, the research suggested that retrograde intubation would be an effective alternative in advanced airway control to EMS personnel for two reasons: it is a

Paramedics John Monahan and Scott Looney work for Galveston EMS. technique that is easily learned through class and hands-on training⁵; and it is relatively inexpensive in regards to equipment cost.⁴ Published articles on retrograde intubation have described the use of this procedure as exclusively taking place in the in-hospital setting. In the one study of retrograde intubation in the out-of-hospital setting, the technique was conducted by a physician/nurse team, but no reference was made to the procedure being performed by EMS personnel in the out-of-hospital environment.²

Galveston EMS personnel began their introduction to retrograde intubation through a three-step process:

1) A two-hour class that covered the anatomical structures of the airway, equipment required and the technique used to properly perform a retrograde intubation.

2) Following class instruction, personnel were required to repeatedly practice outlined steps, using retrograde intubation kits and advanced airway mannequins to strengthen their skills, and to allow for suggestions for the use of this procedure in the field.

3) GEMS personnel were required to take a written exam covering the lectures and handouts. Following successful completion of the written exam, personnel were required to demonstrate competency and efficiency in the performance of retrograde tracheal intubation. Two time-limits were set for analysis of proficiency:

a) The first time allotment was 1.5 minutes. This included a total time for task completion from the time of insertion for the catheter-over-needle device into the cricothyroid membrane to the time that the patient was being ventilated with bag valve mask (BVM) via properly-placed endotracheal tube.

b) The second time allotment of 45 seconds was from the point at which ventilation was halted for wire guide retrieval to the time that the patient was being ventilated with BVM via properly-placed endotracheal tube. Note that ventilation of patient during this procedure can be maintained at any time.

Since the implementation of the retrograde protocol, GEMS personnel have utilized retrograde tracheal intubation one time. Paramedics opted to use the procedure when conventional orotracheal intubation techniques proved unsuccessful in attempting to establish an endotracheal-tube-secured airway for a patient that presented to GEMS paramedics in cardiac arrest. The patient was successfully intubated using the retrograde technique and confirmation was obtained through auscultation, a fogging-in tube, and chest x-ray at the ED.

The program plans to extend to other services in the region in a joint effort to determine the practicality of retrograde tracheal intubation in the out-of-hospital setting. Most recently, University of Texas Medical Branch (Galveston) Life Flight and Paramedic Plus EMS (PPEMS) had a class and hands-on training using mannequins and cadavers.

We believe that retrograde tracheal intubation is a practical technique that can be used by EMS personnel when difficult intubations arise. Retrograde tracheal intubation has been demonstrated in the in-hospital setting to have few complications, to be highly successful, and to let operators successfully complete the procedure with minimal instruction, in addition to little or no prior experience.2,4,6 EMS personnel are presented with unique problems in conditions that are uncontrolled. These conditions set EMS personnel apart from those who work in the controlled environment of the hospital, requiring EMS personnel to determine the practicality and effectiveness of this technique in the out-of-hospital setting.

Health Fact:

Each year, more than 1.2 million unintentional poisonings among children ages 12 and under are reported to United States poison control centers.

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Into the fire

Why EMS should be on the fire scene

(Above) Highland Village Fire Department firefighters help a firefighter who is in trouble.

By Jeff Rubin, EMT-I

PHOTO BY LINDA GHEEN

mergency Medical Services personnel traditionally have played a passive role at fire scenes, hazmat incidents, and rescues ("Bring us a patient when you find one..."). As EMS and the fire service evolve, both may seek to offer new services and expand current roles. This has led not only to greater fire-service involvement in medical functions, but also to EMS providing an important

safety and medical component at fire, rescue and hazmat scenes. EMS roles include responder rehabilitation (rehab), medical monitoring and functioning within a standard incident management system (e.g., Incident Command).

Rehab and medical monitoring

Modern protective clothing for firefighters (turnout gear) provides better protection against flame and radiant heat than ever before. Unfortunately, although a few manufacturers have been addressing heat stress induced by vigorous exertion in turnout gear, improvements in that area generally have been few and far between. Full-body exercise in restrictive, insulating clothing, typified by structural firefighting, prolonged rescue operations or working in chemical-protective clothing, rapidly elevates core body temperature (CBT) and induces fatigue and dehydration. Without rest, rehydration, and cooling, the would-be

rescuer rapidly can become a patient as the synergy of dehydration and hyperthermia saps strength, reduces endurance, increases anxiety and diminishes judgment. This syndrome can continue even after cessation of activity and removal of protective clothing. Effective rehab includes rest, cooling, rehydration and medical monitoring.

Scheduled rest: Delineate specific time intervals, air-bottle changes or other criteria that *require* firefighters to take physical and psychological breaks before they reach failure. This is best accomplished by having fire departments develop standard procedures so that EMS personnel do not have to "nag" firefighters to take breaks.

AGGRESSIVE TARGETED COOLING: Remove turnout coats and remove or take down turnout pants; cool towels or a *cool* breeze applied to the neck, head, torso and upper legs are effective mechanisms to lower CBT. Warm breezes (e.g., a fan blowing hot, humid air) may *increase* CBT, and chilling sprays or drenchings may induce peripheral vasoconstriction and/or shivering (thus raising CBT!).

Prolonged rescue operations rapidly elevate core body temperature (CBT) and induce fatigue and dehydration.

AGGRESSIVE REHYDRATION: A combination of cold (40-50°F) water and dilute isotonic sports drinks is most effective (especially if the subject has *prehydrated*); the longer the incident, the stronger the isotonic.

MEDICAL MONITORING: Firefighters should have vital signs and mental

status checked upon arrival to and before departure from rehab; personnel with elevated vital signs or specific complaints should not be released for assignment without further assess-

10 Concepts for Effective Rehab

Plan! We keep meds and O₂ on our rigs; why not carry towels, a cooler, an ice chest, cups and isotonic drink mix as well? It beats a mad dash for 'em when the call comes in.

Coordinate! Familiarize yourself with your fire department's operational procedures. Know where you fit into the command structure on a scene. Fire department "buy-in" is essential.

Remember why you're there! Think of rehab as emergency prehospital injury prevention: a little early investment pays huge dividends in both physical and fiscal terms.

Help response personnel prepare. Showing up to a fire out of shape, tired and hypohydrated is like signing up for an IV and transport in advance. Encourage your public safety personnel to eat right, stay in shape and stay hydrated!

Rehab = REST. Schedule mandatory physical and mental breaks from action.

Rehab = COOLING. Hyperthermia kills firefighters; take turnout coats and pants off/down during rehab. Cooling the head, neck, torso and upper legs is most effective.

Rehab = *REHYDRATION*. Dehydration promotes hyperthermia (and vice versa); provide water and dilute isotonic drinks (more of the latter for prolonged incidents).

Rehab = MEDICAL MONITORING. Check vital signs (including temperature as needed) and mental status at the very least (it's the law on hazmat scenes!). Document findings even if no further care is provided.

Rehab = NUTRITION & ENERGY. Coffee and pastries don't cut it by themselves; try offering fresh fruit and sandwiches. Work with your local Salvation Army or Red Cross.

Rehab = ATTITUDE! You're providing a service; nothing makes rehab more effective than enthusiastic medics—and nothing drives firefighters (as well as patients) away quicker than rude or indifferent EMS personnel.



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Photo by Paula Guerra



ment and, if necessary, treatment or additional rest. A useful tracking form can be found in a Federal Emergency Management Agency (FEMA) publication on rehab (see references in box). For hazmat scenes, detailed medical monitoring is required for all entry-team members before and after work in chemical-protective suits. This includes vital signs (including temperature), ECG, mental status, general health and body weight (to assess fluid loss).

Firefighters should have vital signs and mental status checked upon arrival to rehab.

Incident Command

On incidents involving large areas, multiple sites, numerous personnel/agencies, and/or multiple patients, it is vital for EMS to be involved in command decision-making. Overhead teams for large wildland fires, such as those run by the Texas Forest Service, may rely on EMS providers to staff

the Medical Unit, a staff position responsible for treatment and transport of sick and injured response personnel. Multi-casualty incidents (MCIs) require coordination of numerous medical and support resources by people well-versed in medical considerations. Effective integration within a large standardized command structure requires training, such as that provided by the National Fire Academy class, *Incident Command System for EMS*.

In order for EMS providers to successfully function on multi-agency scenes, they must develop standard procedures, train their own personnel, and be able to work within a standardized incident management system (e.g., Incident Command). Success means smoother, safer operations for everyone involved.

Jeff Rubin has been with Austin EMS since 1993; he currently is an EMT-I in the Special Operations Section, where he teaches hazmat, rescue and incident command. He holds TDH certifications as an EMT-I, skills examiner and instructor. He has been a volunteer Fire/EMS/Rescue responder with Travis County Fire Control/ESD #4 since 1987.



Texas EMS Conference '97 Austin, Texas

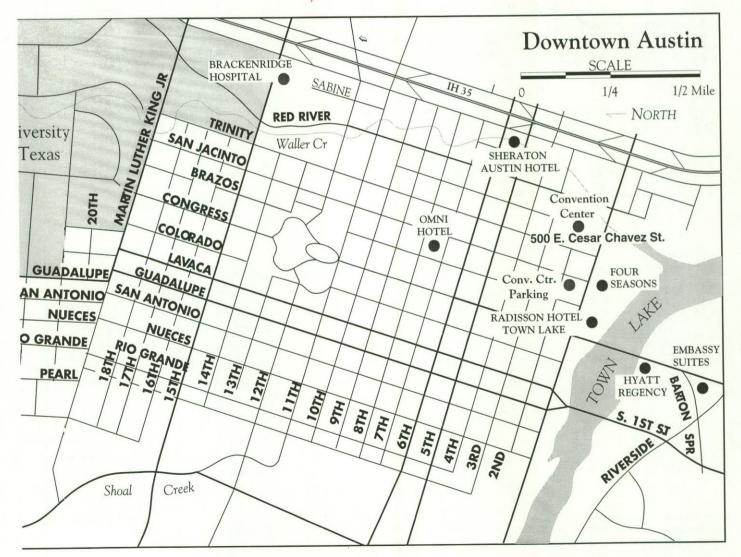


Texas EMS Conference '97 golf tournament



For information about Texas EMS Conference '97 golf tournament, call Brian Dunkle at (512) 280-2692 or e-mail him at b911d@flash.net

Texas EMS Conference '97 Map of Austin, Texas







Recognizing and treating heart failure

By Dan Edwards, EMT-P

ILLUSTRATION PHOTO BY MICHELLE'S PHOTOGRAPHY

CASE HISTORY

The MICU arrives to find the first responders applying oxygen by a nonrebreather mask (NRB) and acquiring vital signs on a 68-year-old female sitting tripod on the edge of a bed. She has labored, shallow, tachypneic respirations with accessory muscle use and poor tidal volume. Jugular veins are distended. As the paramedic auscultates congested large airways in the upper lobes and diminished lower lung sounds with basilar rales, he reports a blood pressure of 180/120 and a radial pulse 132 regular and soft. Pulse oximetry indicates an SaO₂ 85 percent on 100 percent oxygen.

The paramedic suspects pulmonary edema secondary to left heart failure. According to family members, the patient started having difficulty breathing approximately two hours ago, without chest pain, and has progressively worsened. This has never happened before, and she has never had a heart attack. Her hypertension is currently being treated with clonidine (Catapres) and terazosin (Hytrin). Lately she has been short of breath on exertion and has been waking from sleep with shortness of breath that was relieved by sitting up.

The paramedic inserts an IV and

A paramedic with MedStar, Dan Edwards serves the citizens of Tarrant County





interprets a sinus tachycardia without ectopy. Sublingual nitroglycerin is administered under standing orders. The base station physician advises to proceed with the paramedic's request of 60 mg furosemide slow intravenous push (IVP), 2 mg morphine slow IVP, followed by another 2 mg in five minutes, and nitroglycerin sublingually every five minutes. All are titrated to maintain a systolic blood pressure above 110 mm/Hg.

As they settle into the MICU, the patient's legs are dangled off the sides of the stretcher. A BP of 150/90 is taken, and the second dose of morphine and the third NTG SL is given.

En route the SaO₂ slowly rises to 94 percent, respirations are less labored, BP drops to 140/80, and pulse remains 120. The medic continues to coach the patient to breathe deeply, and assures her that things are gradually coming back to normal. The patient is delivered to the ED with a BP 140/90, pulse 116, respirations 26 and still labored, and SaO₂ 95 percent on a nonrebreather mask.

CARDIODYNAMICS

The heart is a four-chambered muscular organ with one purpose: to pump blood to the organs of the body. In normal cardiac function, blood flows freely into the atria and ventricles during diastole, the relaxed state of the heart. The atria and ventricles are filled to relaxed capacity by this free flow of blood. There is enough blood in the ventricles at this phase of the cardiac cycle to maintain an acceptable cardiac output.

The atria contract prior to the ventricles and overfill the ventricles, which is termed **atrial kick**. This point in the cardiac cycle is termed **preload**.

Preload is the volume of blood and pressure in the ventricles prior to the contraction of the ventricles. During free filling and atrial kick, the pulmonic and aortic valves are closed by pulmonic and systemic blood pressure in the vascular system to prevent backflow into the heart.

At the time of ventricular contraction, the pressure required to overcome vascular pressure and open the pulmonic and aortic valves is termed afterload.

The right ventricle pumps blood only to the pulmonary vasculature, but the left ventricle must pump blood to the rest of the body. The pressure needed to achieve the perfusion of the pulmonary circulation is only about 15 mmHg; therefore, the right ventricle does not have a large muscle mass. The left ventricle must pump blood to the rest of the body and therefore the left ventricle has a much stronger and larger muscle mass than the right ventricle. The left ventricle is capable of easily maintaining afterload pressures of 130 mmHg

Objectives

Upon completion of this article, the reader should be able to discuss:

- 1. Normal heart function
- 2. The causes of heart failure
- 3. The signs and symptoms of heart failure
- 4. The treatment of heart failure





without strain and can produce pressures over 300 mmHg for short periods. In normal function, however, the volume of blood pumped by each ventricle is exactly the same. It is of vital importance that the volume of blood pumped by each ventricle remains equal in order to maintain the balance of blood flow and blood pressure to each part of the body.

Cardiac output is dependent on the heart rate and stroke volume. Heart rate is determined by autonomic responses to circulatory requirements. Stroke volume is influenced by preload, force of contraction and afterload.

Preload is affected by the amount of blood filling the ventricles during diastole, the timely and effective contraction of the atria (atrial kick), and the size and compliance of the ventricles.

The **inotropic state** of the ventricles (**force of contraction**) is influenced by many factors. The most direct factor is the Frank-Starling relationship of myocardial stretch to force of contraction. Simply stated, the more a muscle is stretched, the harder it will contract, up to a certain point.

Afterload, the pressure that the contracting ventricle must overcome to open the aortic and pulmonic valves and eject blood into circulation, is directly related to vascular resistance. Vascular resistance is determined by the volume of blood in the large arteries, the degree of vasoconstriction and, if present, aortic stenosis.

that as many as 90 percent of infants will use a baby walker before age 1 and that as many as 50 percent of these children will

sustain a baby walker-

Health Fact: It

has been estimated

—National Safe Kids Campaign

related injury.

PATHOLOGY

Heart Failure: Failure of the heart to eject enough blood to meet the perfusion requirements of the body.

The failure of the heart to meet the circulatory demands of the body can

usually be traced to one primary cause. However, in most cases of chronic heart failure, there will be other diseases that contribute to the reduction in cardiac output.

The left ventricle of the heart is most often primarily involved in diseases of the myocardium due to the afterload demand placed on it.

Causes of left heart failure
Myocardial infarction is the leading cause of both acute and chronic heart failure.

Very small areas of infarction will have little effect on the ability of the ventricle to maintain stroke volume, whereas a large area of infarction can result in an acute failure of the heart to eject a sufficient amount of blood to maintain the blood pressure. Between these two extremes are the moderate-size infarctions that result in chronic heart failure.

Acute severe hypertension can place an afterload on a healthy left ventricle that it cannot overcome. In this event, the healthy myocardium is not able to contract effectively against the overwhelming vascular resistance and blood begins to back up into pulmonary circulation.

Chronic hypertension increases afterload and forces the myocardium to increase its strength by increasing muscle mass (hypertrophy), which decreases the chamber size of the left ventricle. The decreased chamber size requires additional preload pressure to maintain equality of the volume ejected by the right ventricle, and to activate the Frank-Starling relationship. These patients may be symptom-free for long periods until another event places demand on the heart.

Cardiomyopathy is a primary disease of the myocardium that impairs





or weakens the contractile force of the myocardium. It can be thought of as myocardial muscular dystrophy or atrophy.

Causes include infection, metabolic disorders, connective tissue disorders, neuromuscular disorders and toxic damage from drugs and alcohol. Chronic alcohol and drug abuse are the leading causes of cardiomyopathy.

Atrial fibrillation or premature atrial contraction (PAC) reduces the preload. In most patients this compromise is only evident during periods of increased demand on cardiac output, such as exertion. Since both ventricles are affected, hypoxemia is the only ill effect of the reduced cardiac output. In conjunction with other myocardial abnormalities, atrial fibrillation has potential for more serious complications.

Long standing mitral or aortic valve regurgitation reduces the effectiveness of preload and places an increased demand on the heart to contract harder in an effort to maintain cardiac output.

Ventricular hypertrophy results from the increased contractile force, and stroke volume is diminished.

A sudden tearing or **prolapse of a valve** can result in an acute heart failure, particularly if the afterload is high. In a mitral valve prolapse, blood will be ejected back into pulmonary circulation. An aortic valve prolapse will allow ejected blood to backflow into the left ventricle. In either case, very little blood will enter the circulation and pulmonary pressure will increase.

Left heart failure (LHF) versus Right heart failure (RHF)

While pulmonary edema secondary to decreased cardiac output may be treated as LHF, peripheral edema should not be assumed to be secondary to RHF without additional findings. Peripheral edema has many causes. One of the most frequent is LHF. The reduced cardiac output of chronic LHF lowers renal perfusion and vascular resistance. Systemic and renal baroreceptors perceive this reduced cardiac output as hypotension and hypovolemia. This activates the renin-angiotensin-aldosterone system of renal tubule sodium retention. which causes water to follow sodium. thus increasing the volume of blood and intravascular fluid. This compensation is effective because the intravascular volume increase boosts preload and cardiac output.

The disadvantage of this compensation is the movement of fluid and sodium into extravascular space to maintain osmotic equilibrium, leaving low intravascular fluid, to be followed by another cycle of renin-angiotensinaldosterone release. The ongoing sodium and fluid retention overloads interstitial spaces with excessive fluid. By the time fluid retention progresses to peripheral edema, excessive fluid has been displaced into the extravascular space.

Longstanding LHF increases afterload to the right heart and eventually results in RHF. By the time the RHF affects the periphery, the right heart is no longer able to produce the afterload pressures required to cause pulmonary edema. In this case, the right and left heart come back into a state of equal ejection, and the pulmonary symptoms of heart failure recede to weakness on exertion from overall decreased cardiac output.

Primary chronic RHF most of-



ten results from pulmonary hypertension (HTN) related to chronic obstructive pulmonary disease (COPD). COPD typically dehydrates the patient due to breathing, and interstitial fluid is usually not present in sufficient quantity to produce pulmonary edema. However, pulmonary edema in COPD should not be ruled out based on this alone. Chronic RHF will not be encountered as an isolated medical emergency requiring prehospital interventions. There is no need to differentiate between chronic LHF and chronic RHF in the prehospital setting.

Acute RHF may be encountered as a result of a right ventricular MI that presents with ECG changes consistent with right ventricular MI and hypotension secondary to decreased left ventricular preload. Pulmonary embolism may also cause acute RHF.

SIGNS AND SYMPTOMS OF LEFT HEART FAILURE

Weakness on exertion is a common complaint of the patient with decreased cardiac output. Skeletal muscle fatigue is a direct result of the heart's failure to increase output to accommodate the oxygen demands.

Dyspnea is the most common complaint of patients with heart failure. It is a sign that the heart is unable to meet the oxygen requirements of the body. In early stages, the dyspnea is only noticed on exertion. As the failure progresses, less strenuous activity causes the dyspnea. In later stages, the increased work of breathing is obvious even at rest. This increased work is caused by pulmonary interstitial edema, which reduces lung compliance and tidal volume.

Orthopnea, difficulty breathing in the supine position, is often a later sign that follows exertional dyspnea in the course of the disease process. In the supine position, gravitational forces increase blood return to the right heart and the pulmonary circulation. The resulting rise in vascular pressure forces fluid into the pulmonary interstitial and alveolar spaces. The supine position elevates the diaphragm into the lower thoracic cavity, reducing tidal volume and causing edema.

These patients must sleep with their heads and chests elevated to reduce shortness of breath. If their heads slip off the pillow during sleep, they awaken to dyspnea, which is relieved by sitting up with legs lowered. In later stages, these patients may not be able to be supine while asleep or awake.

Paroxysmal nocturnal dyspnea is closely related to orthopnea but is termed *nocturnal* because of the relationship to the decreased respiratory drive of sleep. Decreased respirations allow intrathoracic venous pressure to increase and move fluid into the pulmonary interstitial space. This condition is accompanied by a cough and occasional wheezing of bronchospasm that is more frequent at night due to the reduced adrenergic stimulation of sleep patterns. It is typically more difficult to resolve than orthopnea.

Acute pulmonary edema is an emergency that requires prompt treatment to avoid respiratory failure. In acute pulmonary edema (APE) of chronic LHF, the series of events leading up to the presentation of alveolar edema usually requires several days.

The decreased cardiac output that is the hallmark of LHF is recognized by the vascular and renal system as hypovolemia. The response to hypovolemia is vasoconstriction and fluid retention. Most patients in LHF have some degree of fluid overload as a result of this compensatory response that boosts preload



and maintains cardiac output. This excess fluid, combined with even a slight pulmonary vascular congestion, causes pulmonary interstitial edema.

During an onset of acute pulmonary edema, this interstitial edema reduces lung capacity and increases the work of the respiratory muscles to inflate the lungs. This in turn activates receptors in the lungs to shorten the inspiratory phase and increase the respiratory rate. The resulting decrease in tidal volume fails to inflate the basilar alveoli, which lowers the partial pressure of gases in the base of the lungs.

Also ventilation-perfusion accommodations redirect blood flow to the upper lobes where oxygenation is taking place. At this point, the basilar lobes have interstitial edema, decreased partial pressure of ventilatory gases and vascular congestion. This imperceptible but rapid series of events will culminate in respiratory failure. The redirection of blood flow to the upper lobes and the short respiratory cycle increases intrathoracic venous pressures, which reduce left ventricular preload. An increase in heart rate to compensate for mild hypoxia further reduces the preload and left ventricular output. Pulmonary venous congestion builds because the failing left heart is dependent on the preload for adequate ejection. As the renal and vascular systems recognize the decrease in cardiac output as hypovolemia, adrenergic stimulus and renal enzymes attempt to compensate by vasoconstriction and an increase in the heart rate. Vasoconstriction increases the afterload, impeding ejection of blood from the left ventricle, and heart rate increase further depreciates adequate preload.

Now the impaired left ventricle is pumping against high resistance. Pulmonary pressures continue to rise and fluid rapidly moves into alveoli, which are not being ventilated adequately. As the events continue to escalate, hypoxia, hypercarbia, and autonomic responses add to the problem. At the point of uncompensated hypoxemia, respiratory failure occurs.

Pulmonary venous pressures can be extreme enough to flood alveoli with fluid and red blood cells, producing pink frothy sputum. Frequently an inflammatory response to the edema manifests as bronchospasm and wheezing (cardiac wheezes), which restrict an already compromised ventilatory effort.

As respiratory failure worsens, the patient goes into shock. Blood is shunted to the vital organs, leaving the periphery cool and cyanotic. Diaphoresis is frequently seen. The patient is restless and anxious as adrenergic stimulus increases. All of the patient's concentration is centered on the next breath. Central cyanosis indicates the gravity of hypoxia. The patient may have a feeling of impending doom. As the patient rapidly deteriorates, respiratory failure gives way to respiratory arrest secondary to hypoxia, hypercarbia and fatigue. Finally, the heart arrests secondary to anoxia and acidosis.

ASSESSMENT

Evaluating the patient in respiratory distress and LHF begins with an immediate observation of the patient's respiratory status. A tripod position with labored respirations indicates a patient who is allowing the weight of the diaphragm to improve ventilation and decrease the effort of breathing. Respirations will most often be tachypneic and shallow with the inspiratory phase equal to the expiratory phase. Audible wheezes may lengthen

Health Fact: Sixty percent of all speed-related crashes happen on rural roads.—NHTSA





the expiratory phase.

Respiratory rates that are less than tachypneic with central cyanosis and no verbal or eye contact indicate a patient who is on the verge of respiratory arrest. Audible large airway congestion in an acute presentation indicates that the edema is rapidly progressing. Retractions of the intercostal and clavicular muscles (accessory muscle use) confirm the difficulty of breathing. Skin color, moisture and temperature are observed during a brief pulse check, noting peripheral and/or central cyanosis.

Room air blood oxygen saturation can yield valuable information in determining the extent of edema, as opposed to bronchospasm and mucous congestion. In a patient with bronchospasm, it is difficult to hear edema in the diminished lung sounds. Since bronchospasm and/or mucous alone restrict air exchange above the alveolar level, an increase in oxygen will rapidly elevate oxygen saturation of the blood. In contrast is the alveolar fluid obstruction, which limits the effectiveness of increased oxygen to the functioning alveoli.

Auscultate the lung sounds as vital signs are obtained. Rales, the sound of fluid in the airways, are heard most prominently in the dependent part of the lungs. Rhonchi indicate bronchial congestion by fluid or mucous; wheezes indicate bronchospasm. Interpret the heart rhythm, looking for dysrhythmia. The patient's allergies, current medications, past medical history and last meal, and events leading to the present condition (AMPLE) will substantiate the diagnosis or lead to a suspicion of another cause for the difficulty breathing. Any history of an event or illness that may have caused an adrenergic

response in the patient should be considered as the precipitating factor. Exertion, stress, anxiety and fever are frequently related as predecessors to acute pulmonary edema. Pneumonia is one of the most frequent causes in elderly patients because of the additional tendency for interstitial edema, hypoxia and fever, causing tachycardia.

Accurate and frequently-repeated blood pressure readings are mandatory during the assessment and management of the acute respiratory distress patient. Treatment plans will be dictated by the blood pressure readings.

MEDICATIONS

Most patients who have been diagnosed with left heart failure have three classes of medications in their home: *inotropic agents* treat the cause of heart failure by improving the force of myocardial contraction; *diuretics* treat the effect of heart failure by controlling the tendency for fluid retention; and *antihypertensives* treat the cause and effect of heart failure by reducing afterload and other negative effects of vasoconstriction.

Inotropic agents- The most widely prescribed positive inotropic agent used in the treatment of heart failure is digitalis in the form of digoxin (Lanoxin). Digitalis directly increases the force and velocity of systolic myocardial contraction by increasing the calcium influx into the muscles. Digitalis will not enhance the contraction of healthy muscle. Therefore, it is only indicated for heart failure and atrial dysrhythmia.

Diuretics- Of the medications preferred for controlling edema, furosemide (Lasix) is widely accepted as being safe for long-term therapy.





These loop diuretics are selective in inhibiting the reabsorption of sodium and chloride only in the loop of Henle. Side effects are minimal due to the limited action site. Furosemide is a potassium-wasting diuretic requiring supplements to compensate for the loss.

Bumetanide (Bumex) is very similar to furosemide as a loop diuretic, but it inhibits chloride reabsorption more than sodium. Bumetanide is administered in a 1/40 ratio of bumetanide to furosemide. Other diuretics used frequently, either alone or in varying combinations, are aldosterone antagonist (spironolactone), thiazide compounds (hydrochlorothiazide) and triamterene.

Antihypertensives - A variety of drugs are used to treat the causes and effects of hypertension, and many patients will have more than one medication prescribed. Angiotensinconverting enzyme inhibitors (ACE inhibitors) are effective in management of chronic heart failure (CHF) patients and prolonging their life. The ACE inhibitors are easily recognized by their *pril* ending. Benazepril (Lotensin), captopril (Capoten), enalapril (Vasotec), Monopril, lisinopril (Zestril), and quinapril (Accupril) are consistently used in the treatment of heart failure patients.

TREATMENT

High flow oxygen is the immediate treatment of choice for respiratory distress. It is imperative to increase the oxygen to the alveoli. Encourage the patient to concentrate on breathing deeply to help push the fluid back into the interstitial space. It may be necessary to assist the patient's ventilation with a BVM. With the patient in a sitting position, a BVM with high-

flow oxygen should be sealed tightly to the face and one ventilation synchronized with every third breath. The unresponsive patient may be nasally intubated prior to respiratory arrest. The patient in respiratory arrest should be ventilated and orally intubated according to protocol. Lower extremities should not be elevated.

Pharmacological treatment is aimed at decreasing left ventricular afterload and decreasing right ventricular preload. This is accomplished by the use of direct and indirect vasodilators.

Nitrogylcerin is primarily a venous vasodilator. Venous vasodilation reduces preload on the right heart and reduces both arterial and venous pressures. It is administered sublingually at five minute intervals until a desired reduction in blood pressure is accomplished.

Furosemide decreases arterial responsiveness to norepinephrine, causing a modest decrease in blood pressure. Diuresis begins within five minutes and will relieve the edema in a few hours. Furosemide is administered for pulmonary edema at a dose of 40-80 mg slow IVP over a period of one minute to avoid ototoxicity.

Morphine sulfate decreases the responsiveness of adrenergic receptor sites and reduces the sensitivity of the respiratory center to carbon dioxide. Small doses of morphine calm the patient, vasodilate the vasculature, slightly reduce the heart rate and affect a more stable breathing pattern. Two mg morphine slow IVP followed by 2 mg in 5-10 minutes as needed (PRN) has very little risk of depressing the respiratory drive. Naloxone should be available for adverse reactions.

All of these vasodilators should be given with careful monitoring of the



blood pressure, which should be maintained at a systolic blood pressure of 110-120.

Non-trauma related bronchospasm is a reactive airway disease and should be treated with a *beta* 2 bronchodilator such as albuterol sulfate. Bronchodilation decreases the muscular work of breathing, increases tidal volume, improves ventilation, reduces edema in dependent parts of the lungs and produces a better match between ventilation and perfusion. The small heart rate increase *beta* 2 agents may cause will be offset by a reduction in heart rate through better oxygenation.

Terbutaline sulfate should be avoided due to its systemic response potentiating tachycardia.

Low Diastolic Compliance

LHF due to restrictive cardiomyopathy differs from other causes of LHF. It is a disorder in which preload cannot enter the ventricle, instead of the ventricle being unable to eject the preload. The body compensates well for this problem until hypovolemia reduces the preload pressure.

Since nonhemorrhagic hypovolemia may be subacute in its presentation, pulmonary edema that accompanies a decrease in left ventricular output secondary to low diastolic compliance also may be subacute. It will not rapidly progress due to the lack of interstitial edema. There may be signs of dehydration and progressive difficulty breathing.

Since hypovolemia is usually the cause of the decreased preload, diuresis and venous dilation will only worsen the problem. Rapid hydration risks sudden pulmonary interstitial effusion and is also contraindicated. The treatment of choice is to increase cardiac output by the use of calcium channel blockers which lengthen diastole

and improve left ventricular filling pressures, resulting in increased ejection.

Slow rehydration may then be accomplished. Dehydration should be proven clinically prior to rehydration.

CONCLUSION

Evaluating the patient in severe respiratory distress can be frustrating for the patient, the family and the responders.

Patients in severe respiratory distress typically get worse rapidly as responders arrive and start providing care. Two factors contribute to this. First, the patient had tried to avoid going to the hospital and waited until the condition was obviously out of control before summoning help. Second, the urgency of the situation becomes apparent as responders arrive and their actions confirm the severity of the problem. There is not much we can do about the first factor. However, we do have some control over the second.

If there is one constant in out-of-hospital medicine, it is that anxiety worsens conditions: patient condition, family condition and responder condition. The circle of anxiety is cumulative, and it is an accumulation that the patient in severe distress can not afford to have. Adrenergic responses are productive up to a point, but adrenergic overload increases heart rate, respirations and blood pressure, and interferes with concentration and decision making.

Calm, decisive action in a prompt, unhurried manner is worth more than your med kit and monitor. It calms the patient by allowing him or her to trust that his or her welfare is in competent hands. It allows you to focus your attention on the tasks presented. And it allows latitude in your decision making process.

REFERENCES:

MERCK MANUAL Sixteenth Edition Multiple Contributors

HARRISON'S PRINCIPLES OF INTERNAL MEDICINE Thirteenth Edition Isselbacher, Braunwald, Wilson, Martin, Fauci, and Kasper

DRUG FACTS AND COMPARI-SONS 1988 Edition Lippincott Choose the best answer. Choose only one answer.



- 1. The ventricles are filled during diastole by:
 - a. the atria.
 - b. systolic surge.
 - c. a free flow of blood.
 - d. vasoactivity.
- The volume of blood in the ventricles prior to contraction of the ventricles is called:
 - a. systole.
 - b. preload.
 - c. wedge pressure.
 - d. precordial fill.
- The volume of blood pumped by the left ventricle is normally _____ the volume pumped by the right ventricle.
 - a. greater than
 - b. less than
 - c. equal to
 - d. variable by demand
- 4. The pressure the contracting ventricle must overcome to eject blood into the circulation is:
 - a. afterload.
 - b. ejection fraction.
 - c. inotropic state.
 - d. myocardial force.
- 5. Skeletal muscle contraction:
 - a. prevents backflow of blood into venous circulation.
 - b. slows venous blood return.
 - c. improves venous tone.
 - d. increases venous blood return.

- 6. Intrathoracic venous pressure:
 - a. is elevated during inspiration.
 - b. is normally negative.
 - c. increases the force of contraction.
 - d. decreases as pulmonary edema increases.
- 7. Heart failure is considered to be
 - a. a chronic disorder.
 - b. an acute disorder.
 - c. a disease of the left ventricle only.
 - d. a & b
- 8. The left ventricle is most often involved in heart disease because of:
 - a. afterload demands.
 - b. preload demands.
 - c. pulmonary hypertension.
 - d. atherosclerosis.
- 9. Cardiomyopathy may be caused by:
 - a. hypertension.
 - b. myocardial infarction.
 - c. alcohol abuse.
 - d. any of the above.
- 10. Low diastolic compliance:
 - a. allows excessive preload.
 - b. dilates the ventricle.
 - c. increases afterload.
 - d. restricts preload.



Choose the best answer. Choose only one answer.

- 11. A sudden tearing of the aortic valve:
 - a. backflows blood through the mitral valve.
 - b. increases pulmonary venous pressure.
 - c. reduces pulmonary venous pressure.
 - d. backflows blood through the tricuspid valve.
- 12. Peripheral edema is more often related to:
 - a. LHF than RHF.
 - b. RHF than LHF.
 - c. acute LHF than chronic LHF.
 - d. COPD with RHF.
- 13. Early symptoms of heart failure are:
 - a. weakness on exertion and dyspnea.
 - b. orthopnea and congestion.
 - c. paroxysmal nocturnal dyspnea and nausea.
 - d. all of the above
- 14. Bronchospasm during pulmonary edema occurs because:
 - a. the patient has COPD.
 - b. of an inflammatory response.
 - c. increased intrathoracic pressure.
 - d. all of the above

- 15. The body compensates for chronic LHF by:
 - a. increasing intravascular volume.
 - b. decreasing intravascular volume.
 - slowing the heart rate to allow additional preload.
 - d. ventilation-perfusion accommodations.
- 16. Normal or bradypneic respirations, no verbal response, eye contact, and central cyanosis indicate:
 - a. status post-hyperventilation syndrome.
 - b. hypertensive crisis.
 - c. someone that is really mad and doesn't want to be bothered right now.
 - d. pending respiratory arrest.
- 17. Pneumonia and acute exacerbations of LHF are not likely to coincide.
 - a. True
 - b. False
- 18. Pulmonary edema should always be treated with a diuretic in a patient with intact renal function.
 - a. True
 - b. False





1.5 hours of CE/Cardiovascular

This answer sheet must be postmarked by August 29, 1997. CE Answer Sheet #9 — Recognizing Heart Failure Texas EMS Magazine Name Certification Level _____ Expiration Date Organization _____ Work Phone area code _____City__ Address ____ _____Zip_____Home Phone _______area code State_____ Note: Due to the cost of processing CE, each answer sheet must be accompanied by a check or money order for \$5, made out to UT Southwestern. For TDH CE credit, mail your completed answer sheet with a check or money order for \$5 made out to UT Southwestern to: Debra Cason, RN, MS **EMS Training Coordinator** The University of Texas Southwestern Medical Center 5323 Harry Hines Boulevard Dallas, Texas 75235-8890 You will receive your certificate for 1.5 hours of CE about six weeks after the closing date. A grade of 70 percent is required to receive CE credit. **Answer Form** Check the appropriate box for each question. d. b.□ c. 🗆 $d.\Box$ a.□ b.□ c. 10. a. \square 1. b.□ c. $d.\square$ a. \square c. 🗆 $d.\square$ 11. a.□ b.□ 2. $d.\square$ a. 🗆 b.□ c. $d.\Box$ a.□ b.□ c. \square 12. 3. $d.\Box$ b.□ c. \square a.□ b.□ c. 🗆 $d.\square$ 13. a. 🗆 4. c. $d.\Box$ b.□ $d.\square$ a. 🗆 b.□ a.□ c. \square 14. 5. b.□ c. 🗆 $d.\Box$ c. 🗆 $d.\square$ 15. a. 🗆 a.□ b.□ 6. $d.\Box$ b.□ c. 🗆 a.□ b.□ c. 🗆 $d.\square$ 16. a. 🗆 7. $d.\square$ a. 🗆 b.□ c. a.□ b.□ c. 🗆 $d.\square$ 17. b.□ c. $d.\square$ b. 🗆 $c.\square$ $d.\square$ 18. a. 🗆 a. \square 9.

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EMS Medical Director Award honors a physician who has served as a medical director, on-line or off-line, for an EMS organization.

EMS Administrator Award honors an administrator, researcher, or manager on the local, city, county, regional, or state level who has made a positive contribution to EMS.

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Citizen Award honors a private citizen for heroic lifesaving act or unique advocacy of

Private Provider Award honors a privately-owned commercial organization which assumed a leadership role in EMS by achievement in areas of patient care, public access, medical control, disaster preparedness, public education, and training.

Public Provider Award honors an organization operated by a county, municipality, taxbased hospital, or state or local government agency which assumed a leadership role in EMS by achievement in areas of patient care, public access, medical control, disaster preparedness, public education, and training.

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Nomination should not have more than 3 typewritten pages of background information. You may also include documentation or examples.

Nominations must be postmarked by October 1, 1997.

If you have questions, contact your public health region EMS office or the Bureau of Emergency Management at (512) 834-6700.

We will announce award winners at Texas EMS Conference '97 during the Awards Luncheon on November 25, 1997.

Did you read...

S hould EMS partner with home health? According to a feature article in *Ambulance Industry Journal*, the answer is yes. Among the arguments that Harlan L. Menkin, a medical consultant, makes are: home health care is a rapidly growing segment of Medicare; ambulance providers are already mobile; and that partnership would continue the trend of vertical integration, which is a way for health care providers to enhance the continuity of health care for patients, and to be more competitive.

From Ambulance Industry Journal, "Should EMS partner with home health?," by Harlan L. Menkin, March/April 1997.

he May 1996 ValueJet crash in the Florida Everglades gave rescuers many challenges: a crash site in a swamp located 12 miles from a main road; temperatures above 90 degrees, with rescuers sweltering inside protective clothing; 110 victims; and snakes, alligators and razor-sharp sawgrass. However, the financial impact of the eight-week operation became clear only months after the crash. That's when Dade County found out that neither the National Traffic Safety Board (NTSB) nor the insurance companies would pay the cost of the \$3 million operation. Presently, the county is responsible for the bill.

From *Emergency Medical Services*, "The crash of ValueJet 592," by Nancy Perry, April 1997.

A teen couple is watching a movie. He is chewing tobacco and spitting into a cup. She reaches over for her soft drink, takes a sip and—you guessed it!—tobacco juice. The scenario is part of a "gross humor" advertising campaign aimed at foiling

cigarette makers' pitch to teenagers that using tobacco is cool. In another ad, cannibals are dancing around a caldron. One brings a bowl of what's inside to the chief. He takes a mouthful, spits it out, and says: "I said I wanted a smoked tourist, not a tourist who smoked!" The Arizona campaign is paid for with a 40-cents-a-pack tobacco tax earmarked for anti-tobacco advertising. Arizona is also selling T-shirts through its Smelly Puking Habit Merchandise Center. They say: "Tobacco: tumor-causing, teeth-staining, smelly puking habit." The center has sold 300,000 shirts.

From TDH's News Clips, San Antonio Express-News, "An Arizona ad campaign counters tobacco's allure," April 2, 1997.

B irth defect rates along the border have decreased since 29 babies were born with abnormalities in 1991, but the rate still outpaces the national average, researchers say. Most of the infants suffered from anencephaly, a condition in which babies are born with undeveloped brains. Since the 1991 outbreak, the rate has dropped to about 15 for every 10,000 births in Cameron County, and 13 for every 10,000 births in all 14 counties along the border. The national rate is 10 per 10,000 births. There are about 20 known factors that contribute to the birth defect, including pre-existing conditions in the mother such as diabetes and epilepsy. Researchers believe there might also be a genetic disorder among some Hispanic women. Also being investigated is the possibility of a toxin in a corn harvest, but so far researchers have not been able to point to that as a cause.

From TDH's News Clips, *Houston Chronicle*, "Birth defects decrease along border," by Pauline Arrillaga, April 9, 1997.

The National Traffic Safety Board and the insurance companies are expecting Dade County to pick up the \$3 million tab for the rescue operations of the crashed ValueJet in the Florida Everglades.

According to a panel of experts, hepatitis C, a usually silent, bloodborne liver infection, will triple its annual death rate among Americans to 24,000 by the year 2017.

The FDA has not approved the combination of the appetite suppressants fenfluramine and phentermine, also known as fen-phen. Wyeth-Averst Laboratories, maker of the appetite suppressant fenfluramine, warned doctors against prescribing fenfluramine along with phentermine.

The nasty, lowly cockroach has been found to be the leading cause of severe childhood asthma in the country's poorest urban neighborhoods.

epatitis C, a usually silent, bloodborne liver infection, will triple its annual death rate among Americans to 24,000 by the year 2017, according to a panel of experts. And current treatments are not effective for most patients, the panel reported. Four million Americans are now infected with hepatitis C, with about 30,000 new cases reported annually. About 20 percent of those infected will develop cirrhosis of the liver. Hepatitis C is most commonly spread by needle sharing among IV drug users, although it can be spread through sexual contact since the virus can be present in bodily fluids.

From TDH's News Clips, *The New York Times*, "Hepatitis C deaths may triple in U.S. by 2017, experts warn," March 27, 1997.

simple blood test can help identify healthy people most likely to have a heart attack or stroke years before classic warning signs, a new study says, lending support to a radical new theory about the underlying causes of these killers. The findings indicate that hardened and narrowed arteries, which typically precipitate heart attacks and strokes, are caused by inflammation of the blood vessel walls-the same kind of reaction that triggers redness and swelling when a cut gets infected. Researchers caution that it was too soon to recommend widespread use of the test, which looks for a substance called C-reactive protein, a general indicator of inflammation. The results of this research support the unorthodox notion that inflammation is an even more fundamental cause of hardening of the arteries than is high cholesterol or elevated blood pressure.

From TDH's News Clips, Austin American-Statesman, "New cause found for heart attacks," by Rick Weiss, April 3, 1997.

he death of a Massachusetts woman who took diet drugs has increased scrutiny of an unapproved but widely-used drug cocktail known as fen-phen. Before the woman died, Wyeth-Ayerst Laboratories, maker of the appetite suppressant fenfluramine, warned doctors against prescribing that drug along with another appetite suppressant, phentermine. The FDA has not approved the combination, although it is often prescribed at weight loss centers. Studies show that the drugs taken separately cause primary pulmonary hypertension. But because the drugs were not meant to be taken together, there is no authoritative research to gauge the risk of taking both.

From TDH's News Clips, Houston Chronicle, "Death of woman puts new focus on diet drug," by John Hendren, May 7, 1997.

he nasty, lowly cockroach has been found to be the leading cause of severe childhood asthma in the country's poorest urban neighborhoods, where asthma is the worst. Although asthma is on the rise in cities and suburbs, the inner cities report rates often double those found elsewhere. According to researchers, cockroaches give off proteins, mainly in their saliva and droppings, that trigger strong allergic reactions. In roach-infested apartments, these so-called antigens are most dense in the kitchen, but get tracked into other rooms of the house and ground into rugs and furniture. The study, detailed in the May 8 issue of the New England Journal of Medicine, was conducted on 476 asthmatic children drawn from a larger sample of 1,528 youngsters living in New York City, Baltimore, St. Louis, Chicago, Detroit and Washington, DC.

From TDH's News Clips, Austin American-Statesman, "Roaches cited as top cause of inner-city asthma," by Daniel Q. Haney, May 8, 1997.

Two-year continuing education Emergency Suspensions

The following is a list of EMS personnel with certification expiration dates of 12/98 and 1/99, who have been emergency suspended for failure to comply with the two-year continuing education (CE) reporting requirement mandated in EMS Rule §157.38, Section k.

EMS personnel who are emergency suspended will be promptly reinstated when they complete the required CE hours and submit the completed CE Summary Report form to TDH. The CE Summary Report form will be accepted by mail or by fax at (512) 834-6736, or you can hand carry it to your local public health region office. An official notice of reinstatement will be mailed to EMS personnel who comply with the CE requirement prior to their expiration date.

Though the emergency suspension may extend to the expiration date of the certificate, names will appear in this magazine for only one issue. Providers should require presentation of the original reinstatement document (with water mark) from the employee who has been emergency suspended and claims to be reinstated. No notice of reinstatement will appear in the *Texas EMS Magazine*.

A list of Two-Year Continuing Education Emergency Suspensions is available on internet at: http://www.tdh.state.tx.us/hcqs/ems/certqry1.htm.
This list is comprehensive and routinely updated.

Due to press deadlines, names may appear in the magazine after personnel are reinstated.

Texas Department of Health

Bureau of Emergency Management Emergency Medical Services Rule

§157.38, Section k

(1)- Failure to complete required CE: A certificant who has failed to complete the requirements for the initial two-year CE time period will be granted a 90-day extension period to complete and submit the required CE. Failure to complete and submit the CE requirements within that time frame shall be cause for emergency suspension until CE requirements are met.

| 5945 | BRYAN | ACRED | GARLAND | ECA |
|-------|---------------|-------------|----------------|------------|
| 3327 | REGINALD | ADKINS | HOUSTON | EMT |
| 48692 | IESSE | AGUIRRE | HOUSTON | EMT |
| 44481 | KELLE | AIENA | BEAUMONT | EMT |
| 38325 | STEPHANIE | AKEY | BELTON | EMT |
| 49601 | ERIN | ALDOUS | WYLIE | EMT-P |
| 41907 | STEVEN | ALDRETE | SAN ANTONIO | EMT |
| 16657 | PAUL | ALEXANDER | GRAND PRAIRIE | EMT |
| 43323 | DAVID | ALLEN | PASADENA | EMT-P |
| 55033 | KAY | ALLENSWORTH | | EMT |
| 35370 | RAY | ANCISO | MISSION | ECA |
| 38345 | GARVIN | ANDERSON | CEDAR PARK | EMT |
| 58925 | GEORGE | ANDERSON | HOUSTON | EMT |
| 51841 | IESS | ANDRADE III | SAN MARCOS | EMT |
| 7977 | JAMES | ANDREWS | HUMBLE | EMT-I |
| 12077 | CINDY | ANGELL | BRIDGEPORT | EMT-P |
| 53083 | GEFFREY | ARGAO | HOUSTON | EMT-I |
| 47325 | ARTURO | ARMENTA | IRVING | EMT |
| 1830 | BONNIE | ARMSTRONG | CASTROVILLE | EMT |
| 7811 | IEFF | ATTEBERRY | CORPUS CHRISTI | ECA |
| 54152 | LESLIE | AUSTIN | BAIRD | EMT |
| 37707 | DEBRA | AUSTRIA | THE WOODLANDS | EMT-I |
| 19115 | IOHN | AVARA | HOUSTON | EMT |
| 11590 | IAMES | AYCOCK JR | MART | ECA |
| 53581 | DONALD | BACCO | GRAND PRAIRIE | EMT-P |
| 51879 | BRIAN | BACON | LAKE DALLAS | EMT |
| 18107 | KEVIN | BAGWELL | SEMINOLE | EMT-I |
| 35703 | DONALD | BAIZE | MCGREGOR | ECA |
| 49250 | DOUGLAS | BAKER | GARY | ECA |
| 5578 | IOSEPH | BALLARD | SAN ANTONIO | EMT |
| 24251 | BRANDY | BALOGH | AMARILLO | EMT |
| 14192 | DWIGHT | BANKS IR | FORT WORTH | EMT-I |
| 33225 | BENJAMIN | BANTA | PORTER | EMT-P |
| 39129 | ETHAN | BARBEE | HOUSTON | EMT-I |
| 21803 | MICHAEL | BARBOUR | ALICE | EMT-I |
| 56280 | KEVIN | BARCLIFT | SAN SABA | EMT |
| 2712 | HEATHER | BARKER | DALLAS | EMT |
| 45754 | IIM | BARNES | LAKE JACKSON | ECA |
| 5803 | IAKIE | BARNES IR | WICHITA FALLS | EMT-P |
| 33639 | CHRYSTAL | BATCHELOR | HOUSTON | EMT |
| 30732 | WADE | BAXTER | HOUSTON | EMT |
| 37271 | CHARLES | BAZHAW | MESQUITE | EMT |
| 10789 | JULIE | BEATY | LAMESA | EMT |
| 44663 | SHERRY | BEAUPRE | HOUSTON | EMT-I |
| 27160 | AMY | BEDFORD | MESQUITE | EMT |
| 28054 | CRISELDA | BENARIDES | FALFURRIAS | EMT |
| 27861 | IOE | BENAVIDEZ | BAY CITY | EMT |
| 48786 | CHARLES | BIPPERT | LA GRANGE | ECA |
| 38035 | PAUL | BIVENS | HOUSTON | EMT |
| 45931 | ANA | BLACKFORD | SAN ANTONIO | EMT |
| 56204 | GREGG | BLOCK | COVINA | EMT |
| 40324 | BRIDGETTE | BOEHM | KINGWOOD | EMT |
| 17037 | PAMELA | BOGGS | AUSTIN | EMT |
| 58332 | WESLEY | BORCHARDT | FRISCO | EMT |
| 37777 | MARK | BOTELLO | DALLAS | EMT |
| 3108 | HOLLY | BOUSQUET | KATY | EMT |
| 3167 | KENNETH | BOUSQUET | HOUSTON | EMT-P |
| | | | | |

Correction:

The suspensions list in the May/June issue should **not** have included:

ID# 25257, Johnny Fry, EMT-P, Texas City ID# 1907, Fred Harkins III, EMT-P, Pasadena ID# 7220, Tina Martin, EMT-P, Highlands

| E1010 | PD 11 POL | DOM/DEN - | | | | | | | | |
|---------------|-----------------|-------------------|------------------|---------|-----|-------|----------------|---------------|------------------------|------------|
| | BRANDON | BOWDEN | DALLAS | EMT | 4 | 16691 | ALBERT | COVALESKI JR | AUSTIN | EMT-I |
| 13253 | | BOWEN | HOUSTON | EMT-P | 4 | 13751 | LYNDON | COWAN | HOUSTON | EMT |
| 55373 | CINDY | BOWLES | MOORE | EMT | | | SANDRA | COX | ODONNELL | EMT |
| 30905 | CHANTELL | BOYD | GRANDVIEW | EMT | | | JOHN | CRABB | KARNES CITY | EMT |
| 43356 | JIMMY | BRAMLETT | FORT WORTH | EMT | 3 | 37101 | TOMMY | CRAWFORD | MINEOLA | |
| 1765 | FLORA | BRANDS | POTTSBORO | EMT-P | Ü | 3724 | JAYLENE | CREEL | WEST COLUMBIA | EMT-P |
| 30950 | TAMARA | BRANICKY | CORINTH | ECA | | | GARY | | | EMT |
| 8850 | | BRANTLEY | PASADENA | ECA | | | | CROFT | BAYTOWN | ECA |
| | CURBY | BRANTLEY IR | MULESHOE | EMT-I | | | FORREST | CRUTCHER | GREENVILLE | EMT-P |
| | STEPHANIE | BRASFIELD | | | | | ALAN | CUMMINGS | SAN MARCOS | EMT |
| | | | SLATON | EMT | | | TERRY | CUSTER | BEND | ECA |
| | ANNITA | BREEDEN | NEW WAVERLY | EMT | | | ROGER | CYPERT | LORENZO | EMT |
| | CODY | BREEDING | EAGLE LAKE | ECA | | | RUSSELL | DAMRON | ALLEN | ECA |
| | STEPHEN | BREEDLOVE | ROCKWALL | EMT | 4 | 10714 | DAVID | DAVIDSON | NEDERLAND | EMT |
| 30902 | CHRISTOPHE | | EDEN | EMT | 3 | 31110 | ANTHONY | DAVIS | SEGUIN | EMT |
| 46573 | JEFFREY | BROOKS | PINELAND | EMT | 1 | 3418 | BOBBY | DAVIS | GRANBURY | EMT |
| 16208 | TINA | BROOKS | STRATFORD | EMT | | | HARRY | DAVIS | BRYAN | ECA |
| 57454 | WILLIAM | BROOKS | BAYTOWN | ECA | | | ERNESTO | DE LEON | HARLINGEN | EMT-P |
| 39787 | BRANDON | BROWN | GAUSE | EMT | | | RICHARD | DEEL | HOUSTON | |
| 36120 | CURTIS | BROWN | RICHMOND | EMT | | | NORA | DEES | | EMT-P |
| 26908 | JOHN | BROWN | DENTON | EMT | | | MICHAEL | | LAGUNA PARK | EMT |
| 37713 | LINDA | BROWN | SPUR | EMT | 3 | | | DEGERING | DESOTO | EMT |
| | LOUIS | BROWN | HOUSTON | | 2 | | RITA | DELLO/STRITTO | | EMT-P |
| | VICKIE | BROWN | | EMT | | | JUANITA | DEMUTH | DENISON | EMT-P |
| | ALLEN | | HUNGERFORD | EMT | | | SCOTT | DEVERS | MOORE | EMT-P |
| | | BRUGMAN | SAN SABA | EMT | | | DAVID | DIAMONON | HOUSTON | EMT |
| 18099 | JAMES | BRUMFIELD | KINGSLAND | EMT | | | JAMES | DIEMER | ORANGE | EMT-P |
| 12099 | MARK | BRYAN | AUSTIN | EMT | | | MICHAEL | DIETERT | HOUSTON | EMT-P |
| | JAMES | BURK | TERRELL | EMT | 3 | 2942 | LEIGH | DILLON | TEMPLE | EMT |
| 30645 | TAMI | BURKS | SEMINOLE | EMT | 5 | 0164 | BRENDA | DIXSON | SAN ANTONIO | EMT |
| | DAVID | BURRINGTON | HOUSTON | EMT | 3 | 8306 | ROBERT | DOBBS | MT PLEASANT | ECA |
| | BRIAN | BURTON | LA GRANGE | ECA | 1 | 2014 | DANIEL | DODSON | MONTGOMERY | EMT |
| 37610 | JAMES | BURTON JR | SHALLOWATER | EMT | | 8137 | JARLAND | DONNELL SR | HALLSVILLE | EMT |
| 21742 | JACQUETT | BUTLER | DENISON | EMT-P | 4 | | EMILY | DORNSIFE | HOUSTON | EMT |
| 56114 | MELISSA | BYRNS | JOSHUA | EMT | | 3333 | | DORSEY | STEPHENVILLE | EMT |
| 35577 | EDWARD | CALAHAN | MCALLEN | ECA | | | CARRIE | DOUGLAS | DALLAS | EMT |
| 38869 | MICHAEL | CANTRELL | GRAPEVINE | EMT-P | | | KAREN | DOVE | CEDAR PARK | EMT |
| 8398 | JOHN | CAREY | COLBERT | EMT | | | RODGER | DOVE | | |
| 6825 | KARL | CARMACK | SPRING | EMT | | | SHERRY | DREWS | CLIFFTON | EMT |
| 18918 | JASON | CARPENTER | GARLAND | EMT | | | IOANN | | WEST | ECA |
| 7858 | WILLIAM | CARROLL | HOUSTON | ECA | | | | DUECKER | FREDERICKSBURG | ECA |
| 52069 | ARNOLDO | CASTANEDA | MISSION | EMT | | 2301 | | DUFF JR | CLEVELAND | EMT-P |
| | PAULA | CASTON | SAN ANGELO | | | | RICHARD | DUMAS | HOUSTON | ECA |
| | MIKE | CAVAZOS | | EMT | | | RICK | DUNCAN | COMBINE | EMT |
| 50988 | | | HOUSTON | ECA | | | PAMELA | DUNK | GIDDINGS | EMT |
| | RICHARD | CERNOCH | LA GRANGE | ECA | | 7070 | | DURHAM | ROGERS | EMT |
| 32821 3124 | ANDREW | CHAMBERS | WYOMING | EMT-P | | | JOSE | DURON | CYPRESS | EMT |
| | THORNTON | CHANDLER | HOUSTON | EMT | | | KATIE | DVORAK | PADUCAH | ECA |
| 3296 | BETTY | CHAPMAN | HOUSTON | EMT-I | | | DAVID | EASON | CONROE | EMT |
| 6240 | SCOTTIE | CHAPPELL | DALLAS | EMT | | | AUDREY | ELAM | ROCKWALL | EMT |
| 50392 | TROY | | NEW BRAUNFLES | EMT-I | | | ANDRE | ELDER | HOUSTON | EMT-P |
| 52958 | SHIRLEY | CHEATHAM | BURNET | EMT | 2 | 0761 | PERRY | ELLIOTT | DENISON | EMT-P |
| 34949 | ANTHONY | CHEVALIER | HOUSTON | EMT | 1 | 2217 | MATTHEW | ELLIS | COLLEGE STATION | |
| 23966 | GEORGE | CHILDRESS III | HOUSTON | EMT-P | 4 | 1360 | TRACY | | NEW BRAUNFELS | EMT |
| 15812 | JOHN | CHILDS | MIDLAND | EMT | 38 | 8596 | CHARLOTTE | | BATSON | EMT |
| | MICHAEL | CHILDS | HUMBLE | EMT-P | | | DEANNA | ENLOE | BATSON | EMT |
| 1211 | MATTHEW | CIRIGLIANO | SAN ANTONIO | EMT | | 8067 | | | HUMBLE | EMT |
| | SCOTT | CISNEY | DALLAS | EMT | | | CANO | | PEARSALL | EMT |
| 38092 | KAREN | CLACK | SEGUIN | EMT | | | DOW | EVANS | KEMP | EMT |
| 13124 | BRANDY | CLARK | AUBREY | EMT | | | JASON | EVANS | HAPPY | EMT |
| 46429 | BARRY | CLEMENS | FLORENCE | EMT | | | RANDY | EVANS | KATY | ECA |
| 58089 | JENNIFER | CLEMONDS | HOUSTON | EMT | | | RANDY | FAGAN | BLOOMING GROVE | |
| 4031 | DARREN | COCHRAN | CARROLLTON | EMT | | | CHRIS | FANNING | KIRBYVILLE | |
| | WESLEY | COCKRELL | LAMESA | EMT | -14 | | DAVID | | PIERMONT | ECA |
| 53465 | MICHAEL | COLE | RIVERSIDE | EMT | 3(| | PAUL | | | EMT-P |
| | CELESTE | COLEMAN | HOUSTON | ECA | | | JANICE | | CORPUS CHRISTI | EMT |
| | JEFFREY | COLLIE | N RICHLAND HILLS | | | 3916 | | | THE WOODLANDS | EMT |
| | SUSAN | COLLUMS | HOUSTON | EMT | | | | | KNOX CITY | EMT |
| 6928 | EDGAR | COLTHARP JR | COPPERAS COVE | EMT | | | | | HUMBLE | EMT |
| | ANTHONY | COMBS | DEER PARK | EMT-P | | | KENT JOHN | | BLOOMING GROVE | |
| | VICKI | CONELEY | HOUSTON | EMT EMT | | | | FERRIS | WAYSIDE | EMT |
| | LARRY | CONNELLY | GEORGETOWN | EMT-I | 3, | | CHAD | | WHARTON | EMT |
| | CHARLES | COOK | KNIPPA | ECA ECA | 20 | | | | HOUSTON | EMT-P |
| | LARRY | COOK | LLANO | EMT-I | | | | | HUTCHINS | ECA |
| | MARTHA | COOK | KNIPPA | EMT EMT | | | | | CORPUS CHRISTI | ECA |
| | CRAIG | COOLEY | CANYON | EMT-P | | | DAVID | | SABINAL | EMT |
| 21036 | | CORDELL | PILOT POINT | | | | | | GOLIAD | EMT-P |
| | JENNIFER | CORKILL | KERRVILLE | EMT | 26 | 0206 | BENJAMIN | | BRYAN | EMT-P |
| | CARAN | CORLEY | LUMBERTON | EMT | | | RICKY | | MT PLEASANT | ECA |
| | RANDY | CORNELL | | EMT | | | WAYNE | | MAUD | EMT |
| | TOMMY | | RHOME | EMT | | | JESUS | | EL PASO | EMT |
| | CATHY | CORNTASSEL | BRADY | EMT-I | | | | | WHITNEY | EMT |
| | TANYA | CORREA COSTLEY | EL PASO | EMT | | | | | ORANGE | EMT |
| 35528 | WINDELL | COURSEY IR | DALLAS | EMT | 45 | | | | DALLAS | EMT |
| 00020 | THADELL | COURSE! JR | FREDERICKSBURG | ECA | | 384 | GREGOREY | FRANKLIN | STEPHENVILLE | EMT |

| | TTD 4 07-70 | MADDIDETT | Th (Th | 05/01 | IOVE | HOLLAND | BEEVII I E | EMT |
|------------------------------|--------------------|---------------------------|--------------|--|---------------------|--------------------|--------------------------|------------|
| 54995 MICHAEL | FRASIER | MARBLE FALLS | EMT | 35691 | CHRISTEL | HOLLAND HOLLE | BEEVILLE MARBLE FALLS | EMT |
| 16388 SCOTT | FREELAND | SEABROOK | ECA | 20826 | RICKY | HOMEYER | LA GRANGE | ECA |
| 28185 PETER | FREY | SPRING | EMT-P | 22159 | CATHERINE | HOPKINS | ROCKWALL | EMT |
| 29959 DANIEL | FUENTES | MISSION | EMT-I EMT | 37420 | JACKIE | HORNE | SAM RAYBURN | EMT |
| 10904 JAMES | FULLER | SUMNER PLANO | EMT | 55902 | MARK | HORNSHUH | FAIR OAKS RANCH | |
| 7815 DANYELL 53452 DONALD | FURMAN FURNESS | SHERMAN | EMT-P | 19090 | IOHN | HUDSON | PASADENA | EMT |
| 33304 JOSEPH | GADDY | EULESS | EMT-I | 23422 | KEVIN | HUDSON | BELLS | EMT-P |
| 29358 EARL | GAGE | ORANGE | EMT | 9642 | IOHN | HUGHES | BUNA | ECA |
| 37790 JOE | GALICIA | KRUM | EMT | 10267 | JON | HUGHES | SPRING | EMT |
| 4605 JOSE | GALLARDO | PHARR | EMT | 57357 | SHELLI | HUMPHREY | FAIRBANKS | EMT |
| 49669 GABRIEL | GARCIA | MISSION | EMT | 26812 | BRENDA | HYKEL | WEST | ECA |
| 22825 NEAL | GARCIA | PORT ARTHUR | ECA | 20959 | CARLA | INGRAM | HOUSTON | EMT |
| 53253 FLOYD | GARRETT | CORPUS CHRISTI | ECA | 47358 | DAVID | IVES | ALVIN | ECA |
| 2338 ROY | GARRETT | DENISON | EMT | 27810 | CHARLES | JAMES | DALLAS | EMT-P |
| 19979 DOLORES | GARZA | CASTROVILLE | EMT | 18663 | LISA | JAMES | DUNCANVILLE | EMT |
| 42701 ISRAEL | GARZA | HOUSTON | EMT-I | 34227 | JACK | JANSEN | HOUSTON | EMT |
| 35035 SANDRA | GARZA | SAN ANTONIO | EMT | 19772 | STEPHEN | JASINSKI | HOUSTON | EMT-P |
| 39102 CYNTHIA | GERMANY | LAKE JACKSON | ECA | 13988 | FRANSHESCA | | EAGLE PASS | EMT |
| 20728 GREGORY | GIDEON | CORPUS CHRISTI | EMT-P | 25413 | | JEFFERSON | ANGELTON | EMT |
| 19242 TOD | GILCREASE | CRANDALL | EMT | 7981 | | JENSEN | PLANO | ECA |
| 51670 WILLIAM | GILES JR | CHANDLER | EMT | 8366 | | JERNIGAN | ARLINGTON | EMT EMT |
| 37909 DUNCAN | GILLIES II | PEARLAND | EMT | 7277 | JAMES | JOHNSON | BEDFORD BELLS | EMT |
| 30225 CHARLIE | GIPSON | SAN ANTONIO | EMT | | ROBERT | JOHNSON JOHNSON | HOUSTON | EMT |
| 3811 CHARLES | GIRTON | GALVESTON | EMT | | RONALD CLAUDIA | | NEEDVILLE | EMT |
| 54445 KATHERINE | GISH | HOUSTON | EMT | 27705 | STANLEY | JONES IONES | DALLAS | EMT |
| 57273 ANITA | GITLIN | FRIENDSWOOD | EMT | | TRACIE | IONES | MESQUITE | EMT |
| 22335 MARSHA | GLONA | GIDDINGS | EMT | | STEVEN | JOUETTE | DAYTON | ECA |
| 55899 DAYSON | GOLDSON | DURANGO CORPUS CHRISTI | EMT ECA | | RANDALL | JUENKE | FREDERICKSBURG | ECA |
| 756 DAVID | GOLDSON | | EMT-I | (000) (000) | KENNETH | JURNEY | DUBLIN | EMT |
| 46155 RICHARD | GOMEZ | LAPORTE HOUSTON | EMT | 12072 | | KALLUS | HOLLAND | EMT-I |
| 51164 SERGIO | GOMEZ GONZALES | ROSENBERG | ECA | 5555 | | KELSO | MADISON | EMT |
| 44110 JESSE | GONZALES | SAN ANTONIO | EMT | | LISA | KEVIL | WACO | EMT |
| 43957 RANDA 33457 ROBERT | GONZALES | HOUSTON | ECA | 39248 | | KIBODEAUX JR | | EMT |
| 22518 MARIO | GONZALEZ | LAFERIA | EMT-P | 55101 | | KIMBROUGH | DUNCAN | EMT-P |
| 28681 RICARDO | GONZALEZ | TEXLINE | EMT | 45080 | | KING | HOUSTON | EMT-P |
| 10195 MARCO | GOVEA | MCALLEN | EMT | 12537.000000000 | RUSSELL | KING | BAY CITY | EMT |
| 1804 VERN | GRAHAM | LAND O LAKES | EMT | 2277 | | KISLING | HARKER HEIGHTS | EMT |
| 31319 CHAD | GRAY | LITTLEFIELD | EMT-P | 15777 | MICHAEL | KRECMER | LA GRANGE | ECA |
| 13913 KYLE | GREEN | SAN ANGELO | EMT-P | 1421 | MICHAEL | KUBIS | HOUSTON | EMT-I |
| 51969 JAMES | GREEN JR | PENELOPE | ECA | 9131 | ALAN | KUEHN | INDUSTRY | EMT |
| 47027 SCOTT | GRIGGS | AUSTIN | EMT | 4047 | | KUNZE | HOUSTON | EMT-P |
| 40082 INEZ | GUELKER | BUFFALO GAP | EMT | 39367 | | KYLE | PARIS | EMT |
| 31587 DONNIE | GUIDRY | GROVES | ECA | 52703 | | LA MOTT | HOUSTON | EMT |
| 58029 CHRISTIAN | GUZMAN | MIAMI | EMT | 19041 | | LANDON | DUNCANVILLE | EMT |
| 22908 DAWN | GUZMAN | PLANO | EMT | 6940 | | LANE | KRUM | EMT |
| 49921 DAVID | HAHNE | HOUSTON | EMT | 49048 | | LANE | RED OAK | EMT EMT |
| 39996 THOMAS | HAIGWOOD | HOUSTON | ECA | 100000000000000000000000000000000000000 | RONALD | LARSON JR LATIN | KINGWOOD HOUSTON | EMT |
| 16851 ALAN | HAISLER | BURLINGTON | EMT | 9900 | | LATTIN | HOUSTON | EMT |
| 14531 JOHN | HARE | BRYAN | EMT | 37434 52024 | | LAWS III | DRIFTWOOD | EMT |
| 10118 PAUL | HARMON | SEGUIN | EMT EMT | | DAVID | LAWSON | LEWISVILLE | EMT |
| 1293 MARIE | HARPER | HUNTSVILLE | EMT-I | | ANTHONY | LE | HOUSTON | EMT |
| 55602 AMANDA | HARRELL HARRELL | HOUSTON SAN SABA | ECA ECA | 3/4/4 | JAMES | LEBOW | SAN SABA | ECA |
| 41582 RHONDA 19390 DENISE | HARRISON | COPPERAS COVE | EMT | | LESA | LEBOW | SAN SABA | ECA |
| 19533 TAMARA | HARRISON | NEW BRAUNFELS | EMT | | MARK | LEE | RICHARDSON | EMT-P |
| 47416 PAMELA | HARROFF | FLORESVILLE | ECA | 15145 | SHAWNALY | | LEANDER | ECA |
| 29090 JAMES | HART | AMARILLO | EMT | | MARVIN | LEIHARDT | WEIMAR | EMT |
| 13010 CHARLES | HAWKINS | DICKINSON | EMT | | KATHRYN | LEMLEY | CORINTH | EMT |
| 47024 MICHAEL | HAYDON | PLANO | EMT | | LINDA | LESLIE | LIVINGSTON | EMT-P |
| 28704 JAMES | HAYES - | KAUFMAN | EMT | | SHAWN | LEVERIDGE | FORT WORTH | EMT-P |
| 3578 GREGORY | HAYNES | RICHARDSON | ECA | | STEVEN | LEVERING | RICHMOND | EMT-I |
| 7339 JOSEPH | HAYS II | HOUSTON | EMT | Contraction of the Contract of | JAMES | LINDSEY | LA PORTE | EMT |
| 6621 JERRY | HEALY | HUNTSVILLE | EMT | | KRISTI | LOBRECHT | FT WORTH | EMT |
| 50360 REBECCA | HEATON | HOUSTON | EMT | | TIM | LOCK | LUBBOCK | EMT |
| 27026 JOHNE | HEIDT | AUSTIN | EMT | | KELLY | LONG | GRANBURY | EMT EMT |
| 19219 STACEY | HELMER | MADISONVILLE | EMT | | MARIO SEVERIANO | LOPEZ LOPEZ JR | AUSTIN SAN ANTONIO | EMT |
| 58171 DENISE | HENLEY | HUNTSVILLE | EMT_P | | SEVERIANO KELLEY | LOVELACE | GARLAND | EMT |
| 36649 RUBEN | HERNANDEZ | SAN ANTONIO KATY | EMT-P EMT | | STEVEN | LOVING | INGLESIDE | EMT-I |
| 6463 KIMBERLY | HERRING | KATY | EMT | | JOSE | LUGO | EL PASO | EMT-P |
| 6075 HOLLY 50950 DEBBY | HILL HILLIARD | PFLUGERVILLE | ECA | |) MALCOLM | LUIAN | BEEVILLE | EMT |
| 38373 KRISTI | HILLIARD | BEAUMONT | EMT | 2883 | RICHARD | LUJAN | SAN ANTONIO | EMT-I |
| 56895 RICHARD | HILLIER JR | HOUSTON | ECA | 5304 | MANUEL | LUNA | DUNCANVILLE | EMT |
| 5203 FREDERICK | | TRENTON | EMT | | 2 SAM | LUND | HOUSTON | EMT-P |
| 35253 RAUL | HINOJOSA | EAGLE PASS | EMT | | 4 SCOTT | MACDONALD | FT WORTH | EMT-P |
| 24183 JUSTIN | HODGES | GRANBURY | EMT | | MICHAEL | MACGILLIS | MONTGOMERY | EMT |
| 44156 JAMES | HOFFMAN | LORENA | ECA | | 6 WILLIAM | MACON | GORDONVILLE | EMT-P |
| 15759 MAX | HOLDER | MT VERNON | EMT-P | | 7 ANASTASIC | | AMARILLO | EMT |
| 32611 LESLIE | HOLECEK | ELM MOTT | ECA | 509 | 9 JEANNIE | MALLICK | HOUSTON | EMT-I |
| | | | | 7 | | Taura EN | IS Magazine July / Au | much 1007 |

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|-------|------------------|-----------------|-----------------------|-------|-----|-------|----------------|------------------|----------------|------------|
| | JAMES | MALONE | HEMPHILL | EMT | 3 | 34284 | RANDALL | NOVISKIE | HOUSTON | EMT |
| 55139 | DENNIS | MANESS | COLBERT | EMT-P | 5 | 55476 | ERNESTO | OCHOA | SAN MARCOS | EMT |
| 46788 | MARITIA | MARBURGER | WHARTON | EMT | | 6616 | KRISTOPHER | OGI ESBY | THE WOODLANDS | EMT |
| 52016 | UNICE | MARINO | WALLER | EMT | | | VAN | OHARROW | WOLFFORTH | |
| 44245 | | MARKWARDT | DALLAS | EMT | | | FRED | | | EMT |
| | MITCHELL | MARTIN | | | | | | OLNEY | AUSTIN | EMT |
| 44564 | | | WILLIS | EMT | | | RICHARD | ONEAL | ORANGE | EMT-P |
| | | MARTIN | DALLAS | EMT-P | | | BILLY | ORRICK | DALLAS | EMT |
| 6690 | | MARTIN | HUFFMAN | EMT-P | | | MABLE | ORTIZ | ALICE | EMT |
| 33427 | | MARVIN II | GARLAND | ECA | 4 | 4739 | EDWARD | OSBORN | DANBURY | EMT |
| 15957 | WENDY | MAXFIELD | IRVING | EMT | | | MICHAEL | OTOOLE | AUSTIN | EMT |
| 37034 | BRIAN | MAY | KOUNTZE | ECA | | | SAMUEL | PADDOCK | DENISON | |
| 58115 | | ER MC CAFFERTY | FORT WORTH | EMT | | | WILLIAM | | | EMT |
| | IOHN | | | | | | | PALACIOS JR | HOUSTON | ECA |
| | | MC MAHON | SAN ANGELO | EMT | | | QUOCDAI | PARK | HOUSTON | EMT |
| 24049 | ROBERT | MCCAFFERTY | AMARILLO | ECA | | 3614 | BRUCE | PARKES | SAN ANTONIO | EMT-P |
| 29269 | CHRISTOPHI | ER MCCAIN | BREHHAM | EMT | 1 | 7216 | JASON | PARKS | HOUSTON | EMT |
| 21322 | THOMAS | MCCALLUM | MESQUITE | EMT | 5 | | EDDIE | PARROTT | HOUSTON | EMT |
| 45218 | KYLE | MCCARTY | FT WORTH | EMT-P | | | CHAD | PARSLEY | SWEETWATER | |
| | ANDREW | MCCLANAHAN | | ECA | | | DENNIS | | | EMT |
| | HOWARD | | | | | | | PATE | TEAGUE | ECA |
| | | | CARMICHAELS | EMT | | | DENNIS | PATSCHKE | LINCOLN | EMT |
| 15765 | BOBBY | MCCOY JR | WAKE VILLAGE | ECA | | | HANOCH | PATT | HOUSTON | EMT |
| 30940 | CLARENCE | MCCURLEY | VIDOR | EMT-P | 53 | 3824 | GERALD | PATTERSON | SPRING | EMT |
| 28133 | PAULA | MCDONALD | HURST | EMT-P | | | KELLY | PEARCE | LEDBETTER | EMT |
| | KELLEE | MCELWRATH | LEWISVILLE | EMT-P | _ | | CONFESORA | DEDEZ | | |
| | TRACEE | MCGEE | CLEBURNE | EMT-P | 4 | | MARCOS | | HOUSTON | EMT |
| | MARVIN | | | | | | | PEREZ | HOUSTON | EMT |
| | | MCGEHEE | HAPPY | EMT | | | RUBEN | PEREZ | PORTLAND | EMT |
| 35523 | | MCGRATH | LEWISVILLE | EMT-P | | | KENNETH | PERKINS | NAVASOTA | EMT-P |
| | JACOB | MCKINLEY | FORNEY | EMT | 54 | 4759 | CYNTHIA | PETIT | RICHARDSON | EMT |
| 11552 | ALLEN | MCKINNEY | PORTER | EMT | | | BEVERLY | PHILLIPS | HOUSTON | |
| | KEVIN | MCMAINS | AUSTIN | EMT | | | THOMAS | | | EMT |
| | JERRY | MCNEIL | | | | | | PHILLIPS | PASADENA | ECA |
| | | | HAPPY | EMT | | | AMANDA | PIERCE | HUFFMAN | EMT |
| | RAUL | MEDINA | MCALLEN | EMT | | | DAVID | PIERCE | ATHENS | EMT |
| | DOROTHY | MEDLOCK | FLORENCE | EMT-I | 2 | 1495 | MICHAEL | PIERCE | BARTLETT | EMT |
| 32962 | KARAN | MERENDA | CHINA SPRINGS | EMT | 40 | 0973 | GARELD | PIERSALL | FOLLETT | EMT |
| 6853 | MICHAEL | MERRIOTT | LAKE JACKSON | ECA | | | AMANDA | PISKAC | HOUSTON | EMT |
| | STEVE | MILLER | HOUSTON | EMT | | | BRIAN | | | |
| | TROY | MILLS | | | | | | PLEASANT | TYLER | EMT |
| | | | KRUM | EMT | | | GILBERT | PLUMLEE | ROWLETT | ECA |
| | RONALD | MINK | SWEETWATER | EMT-I | 45 | 5124 | MARK | POLLARD | DUNCANVILLE | EMT |
| | MARK | MIRACLE | LUBBOCK | EMT | 30 | 0434 | NANCY | PORTERFIELD | SHERTZ | EMT |
| 18349 | MICHAEL | MITCHELL | JACKSBORO | EMT | 49 | 9387 | CYNTHIA | POWELL | VIDOR | EMT-I |
| 34252 | TIMOTHY | MIZE | HOUSTON | EMT | | | NORMA | PRADO | DONNA | |
| | DAVID | MOFFITT | SANTE FE | EMT | | | RONALD | | | EMT |
| | ALFONSO | MOLINAR | | | | | | PRAY | KINGSVILLE | EMT-I |
| | | | PRESIDIO | EMT | | | PHYLLIS | PRINTUP | KILLEEN | EMT |
| | HERIBERTO | MONTALVO JR | WESLACO | EMT-I | | | SCOTT | PRUIETT | ROANOAK | EMT |
| | KATHERINE | MONTENEGRO | HOUSTON | EMT-I | 23 | 3531 | ROBERT | PRYOR | WACO | EMT |
| 56493 | DANETTE | MOORE | LUBBOCK | EMT-I | 12 | 2338 | MISTY | PYEATT | VAN ALSTYNE | EMT-P |
| 50975 | EVERETT | MOORE | AUSTIN | ECA | 3.5 | 5374 | GREGORY | PYRON | BAYTOWN | EMT-I |
| 2826 | JUDI | MOORE | MT BELVIEU | ECA | 4 | 4907 | CARMON | QUICK | STAFFORD | |
| | MITCHELL | MOORE | ARLINGTON | EMT | | | DAVID | QUINN | | EMT |
| | STEVEN | MOORE | CONROE | EMT | | | | | LOCKHART | EMT |
| 13732 | CHARLYN | | | | | | ELIZABETH | QUINTERO | EL PASO | EMT-P |
| 47930 | | MORGAN | DAYTON | ECA | | | RYAN | RAMIREZ | NEDERLAND | EMT |
| | ED | MORGAN | HOUSTON | ECA | | | BOBBY | RAMPY SR | MAGNOLIA | EMT-I |
| | GARY | MORGAN | STINNETT | EMT | 14 | 4207 | MAX | RATHEAL | LORENZO | EMT |
| | KENNETH | MOSER | ALVARADO | EMT-P | 46 | 6704 | KIMBERLEY | REED | FT SAM HOUSTON | FMT |
| 3594 | CHRISTOPHE | ER MOWREY | SAN ANGELO | EMT-P | 45 | 5725 | SAM | REED | BEAUMONT | ECA |
| 4861 | FARRIZ | MUHAMMAD | HOUSTON | EMT | | | TAMARA | REED | AMARILLO | EMT-I |
| 55423 | JIMMY | MULDNER | BLOOMING GROVE | | | | DONALD | | | |
| 18080 | DEBORAH | MULLER | KATY | ECA | | | CORTNEY | REEVES RENFRO | MT ENTERPRISE | EMT-P |
| | STEPHEN | | | | | | | | PFLUGERVILLE | EMT-I |
| | LARRY | MULLINS | ARLINGTON | EMT | 51 | 1100 | LINDA | REYES | AUSTIN | ECA |
| 00009 | MARKI | MUNDAY | PERRYTON | EMT-P | 36 | 0905 | CHRISTOPHE | | LEAGUE CITY | EMT |
| | MARK | MUNOZ | LA PORTE | ECA | | | STACY | RICHARDSON | TYLER | EMT-I |
| | EVELYN | MURFF | HICO | ECA | | | ROBERT | RIDGEWAY | BAYTOWN | EMT |
| 56165 | ALVARO | MURILLO | HOUSTON | EMT | 58 | 8276 | ERIKA | RINKER | BRYAN | EMT |
| 48123 | THOMAS | MURPHY | PORT ARTHUR | ECA | Ç | 9959 | CARLOS | RIVERA | CORPUS CHRISTI | EMT |
| | CHARLES | MUSACHIA | HOUSTON | EMT | | | LILLIAN | | | |
| | SARAH | MYATT | DENTON | | | | RAYMOND | RIVERA | HOUSTON | EMT |
| | DAVID | | | EMT | | | | RIZO | AUSTIN | ECA |
| | | NAQUIN | LA PORTE | ECA | | | JASON | ROBERTS | HOUSTON | EMT |
| | CARL | NAUMANN | IRVING | EMT | | | LARRY | ROBERTS | VERNON | ECA |
| | SERGIO | NAVA | EL PASO | EMT | 26 | 6502 | TARA | ROBERTS | PARIS | EMT |
| 49118 | ELISA | NEAL | PEARSALL | EMT | | | WAYNE | ROCCAFORTE | POR TARTHUR | ECA |
| 52005 | ELIZABETH | NEAL | CEDAR PARK | EMT | | | DANNY | ROCK | WILMER | EMT |
| | GLEN | NEELY | SAN ANTONIO | EMT | | | ARTURO | RODRIGUEZ | | |
| | DONDI | NELSEN | TEXARKANA | | | | | | LOS FRESNOS | EMT-P |
| | JIMMY | | | EMT | | | ARTURO | RODRIGUEZ | LITTLEFIELD | EMT |
| | | NELSON | MIDLAND | EMT-P | | | PILAR | RODRIGUEZ | PHARR | ECA |
| 27054 | | NELSON | ROCKDALE | EMT | | | ROBERT | ROEBUCK | SILSBEE | EMT |
| | RANDALL | NEW | MORTON | EMT | 34 | 4337 | DONALD | ROGERS | CROSBY | ECA |
| | KATIE | NICHOLS | NEW LONDON | ECA | | | MARY | ROGERS | RISING STAR | EMT |
| | SHARON | NICHOLS | KERRVILLE | EMT | | | RICHARD | RONE | LAPORTE | ECA |
| | DANIEL | NIETO | WEBSTER | EMT | | | COLLETTE | ROOT | SAN ANTONIO | |
| | JAMES | NOBLES | FRANKLIN | EMT | | | JEFFREY | ROSETTA | | EMT |
| | CLYDE | NOKES | AMARILLO | ECA | | | BOBBY | | BEAUMONT | EMT-I |
| | ROGER | NOLES | ROCKDALE | | | | GLORIA | ROSS | DALLAS | EMT-P |
| | OLA | . TOLLO | ROCKDALE | EMT | 1/ | 555 | GLOIGA | ROSS | POTEET | EMT |

| | | Aug of Table | | | | | | |
|-----------------|-------------|----------------------|-------|-------|------------------|-----------------|-----------------------|------------|
| 7271 RICKY | ROSS | BEASLEY | EMT | 11215 | TRACY | TAYLOR | HOUSTON | EMT |
| | | | | | | | | |
| 16786 SHERYL | ROSS | HOUSTON | EMT | | VICTOR | THANE JR | CORPUS CHRISTI | ECA |
| 51798 JOHN | ROWELL | SANTA FE | EMT | 23296 | | THOMAS | HOUSTON | EMT |
| 56729 BRUCE | ROWLEY | LOMETA | ECA | 53552 | PETER | THOMAS | CEDAR HILL | EMT |
| 15385 WILLIAM | RUCKMAN | HEREFORD | EMT | | RODNEY | THOMAS | HOUSTON | EMT-I |
| | | | | | SHERA | THOMAS | LUBBOCK | EMT |
| 5146 JOSE | RUIZ | HOUSTON | EMT | 7155 | | | | |
| 46267 ROBERTO | RUIZ | MATHIS | EMT-P | | DAVID | THOMPSON | GARLAND | EMT |
| 14327 MARY | RUSSELL | SILSBEE | EMT | 5962 | REYNOLDS | THOMPSON | SHEPHERD | EMT |
| 29056 JAMES | RUTHERFORD | CANYON LAKES | EMT | 32920 | BOBBY | THORNTON | HOUSTON | EMT |
| | | | | | WILLIAM | THORNTON | LOTT | EMT |
| 13919 ROBERTO | SALDIVAR JR | BROWNSVILLE | EMT | | | | | |
| 23871 DANIELLE | SAMPEY | HOUSTON | EMT | 19901 | JOY | THORP | BARTLETT | EMT |
| 4460 MIGUEL | SAN | BUNA | EMT | 10615 | GARY | TISE | EAGLE LAKE | ECA |
| 56351 RICKEY | SANDERSON | BROOKELAND | EMT | 21220 | JENNIFER | TOLER | ARLINGTON | EMT-P |
| | SCHAFFNER | WICHITA FALLS | EMT | | KELLY | TOMBLIN | HAPPY | EMT |
| 40763 SHANNON | | | | | | | | |
| 10046 EUGENE | SCHIFANI | HOUSTON | EMT | 57417 | | TORRES | ATHENS | EMT |
| 34554 VERA | SCHOPPE | SOMERVILLE | EMT | 57418 | JUSTIN | TORRES | ATHENS | EMT |
| 20104 LARRY | SCHULTZ | SAN ANTONIO | EMT-P | 41923 | MARTIN | TOVAR | EL PASO | EMT |
| 23123 STEVE | SCHWARTZ | HOUSTON | EMT | 21424 | TIMOTHY | TUCKER | NEW CANEY | EMT |
| | | BLOOMING GROVE | | 10462 | TROY | TUCKER | EUSTACE | EMT |
| 36264 DONNY | SCOTT | | | | | | | |
| 54002 ANDREW | SEBBY | DALLAS | EMT | 34619 | | TURNAGE | FORT WORTH | EMT-P |
| 7521 KENLEY | SEMIEN | HOUSTON | EMT | 31570 | AIMEE | TURNER | GLENN HEIGHTS | EMT |
| 36859 CYNTHIA | SHACKELFORD | SPRING | EMT | 37673 | CARL | TURNEY | WHITE SETTLEMENT | EMT |
| 31594 ANDREA | SHADDIX | OMAHA | EMT | | CRAIG | TUSA | WACO | EMT-P |
| | | | EMT | 48900 | | UNDERWOOD | PFLUGERVILLE | ECA |
| 10357 EDWARD | SHANE | HOUSTON | | | | | | |
| 37963 DANIEL | SHARP | HOUSTON | EMT | 40277 | ANN | URICH | DENTON | EMT |
| 52445 MELVIN | SHELLY | TRINITY | EMT | 48991 | GUADALUPE | VALDEZ | WESLACO | EMT |
| 56888 ALICIA | SHELTON | SAN SABA | EMT | 58047 | SHEILA | VAUX | BEDFORD | EMT |
| 17228 DALE | SHERRILL | KEENE | EMT-I | 19540 | | VELA JR | AUSTIN | EMT |
| | | | | | | | | ECA |
| 11517 JAMES | SHIPLET | WHITEWRIGHT | EMT-P | 4667 | | VELASQUEZ | HOUSTON | |
| 29548 TONA | SHIPLET | WHITEWRIGHT | EMT | 43930 | LETICIA | VERA | PREMONT | EMT |
| 17992 YREVA | SHIREY | AMARILLO | EMT | 42832 | SUSAN | VESELKA | HOUSTON | EMT |
| 16184 DARRELL | SHOCKEY | HOUSTON | EMT | 53630 | VERNON | VESSELL | BRYAN | EMT |
| | | | EMT-I | | LOUIS | VICKERS | CORPUS CHRISTI | ECA |
| 31382 CONNIE | SHUMATE | CANUTILLO | | | | | | |
| 44838 DESMOND | SILGUERO | HOUSTON | ECA | | DANIEL | VILLARREAL | BROWNSVILLE | ECA |
| 50971 MICHELLE | SILVA | GIDDINGS | EMT | 10953 | JOE | VILLARREAL | AMARILLO | EMT |
| 25436 EDMUND | SIMCIK | PASADENA | ECA | 45177 | TONI | WADSWORTH | REDOAK | EMT-P |
| 43727 WILLIAM | SIMMONS | BRIDGE CITY | ECA | | COURTNEY | WAGGONER | SAN MARCOS | EMT |
| | | | | | DANA | WAGNER | MAGNOLIA | EMT-P |
| 35986 HENDLEY | SIMPSON | COLLEGE STATION | | | | | | |
| 48081 FRANK | SLATER | SHERMAN | EMT | | LUCIOUS | WAGNER | DALLAS | ECA |
| 14835 MARY | SMART | BREMOND | ECA | 21369 | RANDEE | WAGSTAFF | HITCHCOCK | EMT |
| 39476 CONNIE | SMITH | GEORGETOWN | EMT | 3677 | DIONNE | WAKE | MESQUITE | EMT |
| 37729 JENNIFER | SMITH | DICKINSON | EMT | | TINA | WALDREP | FRED | EMT |
| | | | | | | | | EMT |
| 52132 KIMBERLY | SMITH | BONWIER | EMT-I | 128 | THOMAS | WALSH | BAY CITY | |
| 17802 LELAND | SMITH | SPICEWOOD | ECA | 22449 | ROBERT | WALSH JR | HOUSTON | ECA |
| 4224 SONIA | SMITH | HUMBLE | EMT-I | 15397 | GLENDA | WALTERS | CHINA | EMT |
| 44836 PHILIP | SNIDER | EULESS | EMT | | MIKE | WANORECK | ROCKDALE | EMT |
| | | | | | MARCIA | WARNER | KINGWOOD | EMT |
| 14907 DAVID | SOTUYO | MCALLEN | ECA | | | | | |
| 31336 JAMES | SOUKUP | HOUSTON | EMT-P | 46595 | | WARREN | BRADY | EMT |
| 51153 RONALD | SPANGENBERG | WIMBERLEY | EMT | 24331 | TAMI | WARREN | ABILENE | EMT |
| 17475 DARELL | SPEIRER | HOUSTON | EMT | 8647 | JASON | WASHA | CORPUS CHRISTI | EMT-I |
| 54523 RAYMOND | SPRAGUE | MIDLAND | EMT-P | 16888 | | WEBB | BLOOMING GROVE | EMT |
| | | | | 37996 | | WEBB | BLOOMING GROVE | |
| 39316 WYATT | SPURGIN | DENISONIGHT | EMT-P | | | | | |
| 40445 TAYLOR | SQUIRES | SAN ANTONIO | EMT | | JOHN | WEIGE | BOERNE | EMT-P |
| 56111 DONALD | SROUFE | BARTLETT | EMT | 11125 | GUY | WELLS | PEARLAND | EMT-P |
| 18946 JEFFREY | STACY | LA PORTE | ECA | 10408 | MICHAEL | WELLS | PASADENA | EMT |
| 15412 DENNIS | STANFORD | W COLUMBIA | EMT | | KENNETH | WESSELS | COPPERAS COVE | EMT |
| | | SOUR LAKE | EMT-I | | DAWSON | WEST | ARLINGTON | EMT |
| 42657 ANITA | STARKIE | | | | | | SAN ANTONIO | EMT |
| 18699 CINDY | STARR | ROCKDALE | EMT | | JEFFREY | WICKER | | |
| 23650 CATHLEEN | STEENO | ARLINGTON | EMT-P | | RONALD | WILBURN | MT BELVIEU | ECA |
| 2920 ELEANOR | STEPHENSON | SEAGOVILLE | EMT | 49396 | | WILHELM | HEREFORD | EMT-I |
| 41197 JAMES | STEVENS | EDGEWOOD | EMT | 5849 | ROGER | WILLIAMS | HOUSTON | EMT |
| 39304 GARY | STEVENSON | HOUSTON | EMT-P | | SANDRA | WILLIAMS | HUMBLE | EMT-P |
| | | | EMT | | SHIRLEY | WILLIAMS | MARATHON | ECA |
| 20261 CLARA | STEWART | BROWNWOOD | | | | | | |
| 14345 JOANNA | STEWART | HOUSTON | EMT | | JAMES | WILLIS | GARDEN CITY | EMT |
| 16161 GARY | STILES | GOLIAD | EMT-I | 47730 | MILTON | WILLMANN | SPRING BRANCH | EMT |
| 52592 WILLIAM | STOGNER | HEWITT | EMT | 37705 | JOSEPH | WILSON | GARLAND | EMT |
| 4327 STEVEN | STOHL | GRAND PRAIRIE | ECA | | MICHAEL | WINNETT | CALERA | EMT |
| 30685 CHRISTINA | | AUSTIN | ECA | | SHANNON | WITT | LEVELLAND | EMT |
| | | | | | | WOLFE | HOUSTON | EMT |
| 32940 ALVIN | STROTHER | SILSBEE | EMT | | JOHNNY | | | |
| 37324 GEORGE | STROUD | GARLAND | EMT-P | 7279 | | WOLFE | WOODVILLE | EMT |
| 37480 BETTY | STROUP | LAGO VISTA | EMT | 38684 | DARREN | WOMACK | MAGNOLIA | EMT |
| 37852 JODY | SUMNERS | ROANOKE | EMT | 11756 | JAMES | WOOD | HEMPHILL | EMT |
| 18381 PHILLIP | SWILLEY | MCALLEN | EMT | | RICHARD | WOOLRIDGE | BEDFORD | ECA |
| | | | EMT-I | | JAMES | YBARBO | CALL | ECA |
| 42507 JERRY | SYKES | HILLSBORO | | | | | | |
| 58321 CARLOS | TABOADA | GARLAND | EMT | | CURTIS | YOUNG | FT WORTH | EMT-P |
| 14152 EDWARD | TAMEZ | PASADENA | ECA | | DANIEL | YOUNG | SAN ANTONIO | EMT |
| 6309 ANTHONY | TANNER | TEMPLE | EMT | 31372 | SCOTT | YOUNG | HOUSTON | EMT |
| 53168 HOLLY | TAYLOR | PENSACOLA | EMT | | LLOYD | ZMEKO | ROUND ROCK | EMT |
| | | | | | RAMYRA | ZUMWALT | HARWOOD | EMT |
| 11231 JAMES | TAYLOR | HOUSTON | EMT | 1000/ | MILIM | LOWINALI | IMMYOOD | TIALL |
| 24578 JANIE | TAYLOR | WACO | ECA | | | | | |
| | TAMEOD | DI ANIO | EMT | | | | | |
| 49989 RHONDA | TAYLOR | PLANO | LIVII | | | | | |

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ANY MITIGATING FACTORS,
OR A CERTIFICANT'S
DISCIPLINARY HISTORY.
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THE LEVEL OF SANCTIONS
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PARTICULAR ACT OF
MISCONDUCT.

FOR INFORMATION, CONTACT THE BUREAU'S CHIEF INVESTIGATOR, VIC DWYER, AT (512) 834-6700.

* These listings are New this issue. Denials and revocations will be printed in three consecutive issues. Suspensions and probated suspensions will be printed until suspension or probation expires.

Disciplinary Actions

Ashmore, Lee Fran, Lufkin, Texas. Two years probation of EMT-Paramedic certification through August 31, 1998. EMS Rule 157.51 (2)(A), failure to follow EMS standards of care in the management of a patient.

Boone, Christopher K., Houston, Texas. Decertification of EMT certification. EMS Rule 157.51 (b)(9), misrepresentation of current level of certification, and (12), materially alters any department EMS certificate, or uses and/or possesses any such certificate.

Boyd, David A., Granbury, Texas. Three years probation of EMT certification through August 9, 1999. EMS Rule 157.51(a)(1), imminent danger to the public health or safety.

* Callahan, Ronald G., Palacios, Texas. Twelve months probation through March 14, 1998. EMS Rule 157.51 (2)(A) and (B)(old rules), failure to follow EMS standards of care in the management of a patient.

Christian, Aaron Louis, Beaumont, Texas. Two years probation of EMT certification through October 19, 1997. EMS Rules 157.44(b)(1) and (c), and 157.53, felony conviction and misdemeanor convictions.

Corbeil, Louis Adrein, Brownsville, Texas. Five years probation of EMT-Intermediate certification through May 3, 2000. EMS Rule 157.44 (b)(1) and (c), and 157.53, felony conviction.

* Culberson County EMS, Van Horn, Texas. Twelve months probation through April 2, 1998, plus an administrative penalty of \$625. EMS Rule 157.11 (b)(1), operating vehicle without provider license.

Curry, Elizabeth Anne, Athens, Texas. Twelve months probation of EMT-Paramedic certification by reciprocity through January 29, 1998. EMS Rules 157.44, 157.51(b) and (c) and 157.53, misdemeanor conviction.

Dement, Scott Wayne, Bellville, Texas. Suspension of EMT certification through January 31, 1998. EMS Rule 157.44 and 157.51 (b)(16), misdemeanor conviction while certified.

Ewald, Douglas Scott, Dallas, Texas. Suspension of EMT certification through August 1, 1997. EMS Rule 157.51(b)(26), falsification of an application for certification or recertification.

Garcia, Julian Javier, Weslaco, Texas. Twenty-four months probation of EMT certification through March 24, 1999. EMS Rules 157.44, 157.51(b) and (c) and 157.53, felony conviction.

Garlington, John Mac, Port Aransas, Texas. Eighteen months probation of EMT-Intermediate certification through July 29, 1998. EMS Rules 157.44, 157.51(b)(16) and (c) and 157.53, misdemeanor conviction.

Gatewood, Tae H., Houston, Texas. Emergency Suspension of EMT-Intermediate certification. EMS Rule 157.51 (a)(1)(A), imminent danger to public health or safety.

Goins, David, Lufkin, Texas. Three years probation of EMT-Intermediate certification until July 31, 1999. EMS Rule 157.51 (2)(A), failure to follow EMS standards of care in the management of patient.

Harris, Kevin Lynn, Alamo, Texas. Decertification of EMT-Intermediate certification. EMS Rules 157.44 and 157.51 (b)(16), felony conviction while certified.

Hathaway, Kenneth Aurther, Gonzales, Texas. Twelve months probation of EMT certification through July 12, 1997. EMS Rules 157.44(c), 157.51(b) and (c), and 157.53, misdemeanor conviction.

Hinton, Tony Ray, Odessa, Texas. Six months probation of EMT-Paramedic certification through September 27, 1997. EMS Rules 157.44, 157.51(b)(16) and (c), and 157.53, misdemeanor conviction while certified.

Hull Daisetta Volunteer Ambulance Service, Hull, Texas. Twelve months probation with conditions of provider license through January 11, 1998. EMS Rule 157.19 (c)(1)(U), violates any rule or standard that would jeopardize the health or safety of a patient or that has a potential negative effect on the health or safety of a patient.

Keener, Regina, Bivins, Texas. Suspension of EMT certification through July 31, 1997. EMS Rules 157.44 and 157.51(b)(16), misdemeanor conviction while holding current EMS certification.

Kelly, John P., Houston, Texas. Eight months probation of EMT-Paramedic certification through August 5, 1997. EMS Rule 157.51 (2)(A) and (B), failure to follow EMS standards of care in the management of a patient.

King, Julie Ann, Sour Lake, Texas. Twenty-four months probation of EMT-Intermediate certification through April 18, 1998. EMS Rule 157.51(2)(A), failure to follow EMS standards in patient management.

King, Robert A., Alvin, Texas. One year probation of EMT-Paramedic certification through August 6, 1997. EMS Rule 157.51(2)(A)(B), failure to follow EMS standards of care in the management of a patient.

Licon, David, El Paso, Texas. Twelve months suspension of EMT certification through July 5, 1997. EMS Rule 157.51(2)(V), obtaining benefits not entitled through fraud or misrep-

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resentation while in the course and scope of employment as an EMS certificant.

Mason, Ronald Alan, Tyler, Texas. Twenty-four months probation of EMT-Paramedic recertification through January 11, 1998. EMS Rules 157.44(c), 157.53 and 157.51(b)(16), misdemeanor conviction while currently certified.

Massegee, Tommy Doyle, Grand Prairie, Texas. Four years probation of EMS certification through March 12, 1999. EMS Rule 157.44 (b)(1) and (c), and 157.53, felony conviction.

Moore, Douglas Scott, Gilmer, Texas. Eighteen months probation of EMT certification through October 9, 1997. EMS Rules 157.44(b)(1) and (c), and 157.53, misdemeanor convictions.

Nelson, Michael Wade, Wylie, Texas. Twelve months probation of EMT certification through November 7, 1997. EMS Rules 157.44, 157.51(b) and (c) and 157.53, misdemeanor conviction.

Patterson, Carrie Ann, Caldwell, Texas. Sixteen months probation of EMT certification through May 23, 1998. EMS Rules 157.44, 157.51 (b) and (c) and 157.53, misdemeanor convictions.

* Pearson, Michael Ray, Huffman, Texas. Twenty-four months probation of EMT-Intermediate recertification through April 15, 1999. EMS Rule 157.44, 157.51 (b)(16) and (c) and 157.53, misdemeanor conviction while certified.

Pylant, Curtis Dwain, Amarillo, Texas. Six months probation of EMT certification through July 29, 1997. EMS Rules 157.44, 157.51(b) and (c) and 157.53, convicted by military justice.

Ramos, Vincent Web, Killeen, Texas. Twelve months probation of EMT certification through July 12, 1997. EMS Rules 157.44(c), 157.51(b) and (c), and 157.53, misdemeanor conviction.

Rifanburg, Frances H., Groveton, Texas. Decertification of EMT-Intermediate certification. EMS Rule 157.51 (b)(22), obtains...any benefit to which not otherwise entitled by...fraud or misrepresentation while in the course of duties as an EMS certificant.

Robinson, Stephen Myrl, Midland, Texas. One year probation of EMT-Paramedic certification through September 17, 1997. EMS Rules 157.44(b)(1) and (c) and 157.53, misdemeanor conviction

Salazar, Luis, El Paso, Texas. Three months suspension of EMT-Paramedic certification starting July 5, 1996 through October 5, 1996. Additional nine months probation ending July 5, 1997. EMS Rule 157.51(b)(1) and (20), intentional falsification of patient records.

Santa Fe Fire/Rescue, Santa Fe, Texas. Administrative penalty of \$250.00 toward provider license. EMS Chapter 773 of Health & Safety Code, failure to have two certified personnel on emergency vehicle when in service.

Sartor, Brian Lee, Denison, Texas. Decertification of EMT-Paramedic certification. EMS Rule 157.44, 157.51 (b)(16) and 157.51 (b)(26), misdemeanor conviction while certified and falsification of application.

Sexton, Derek Jason, Maxwell, Texas. Twenty-four months probation of EMT certification through December 2, 1998. EMS Rules 157.44(c), 157.51(b) and (c) and 157.53, felony conviction.

Skelton, Richard Lee, McGregor, Texas. Three years probation of ECA certification through January 24, 2000. EMS Rules 157.44, 157.51(b) and (c) and 157.53, felony convictions.

Smith, Christopher A., Arlington, Texas. Eighteen months probation of EMT-Paramedic certification through February 6, 1998. EMS Rules 157.44, 157.51(b) and (c) and 157.53, misdemeanor conviction.

State Care/Metro One Ambulance, Houston, Texas. Administrative penalty of \$1,750. EMS Rule 157.11 (1)(A), failure to staff BLS vehicle, when in service, with at least two emergency care attendants who have active status certification.

Stiles, Jeffrey Scott, Dallas, Texas. Twelve months probation of EMT certification through September 17, 1997. EMS Rules 157.44(c), 157.51(b) and (c) and 157.53, felony conviction and misdemeanor convictions.

Terry, Samuel R., Gainesville, Texas. Twelve months probation of EMT-Intermediate certification until March 14, 1998. EMS Rule 157.51 (b)(1), failure to follow the EMS standards of care in the management of a patient.

Weinheimer, Rex Joseph, Stonewall, Texas. Four years probation of Emergency Care Attendant certification through September 30, 1999. EMS Rule 157.44(b)(1) and (c), and 157.53, misdemeanor convictions.

Wells, John Michael, Sweetwater, Texas. Twelve months probation of EMT certification through March 24, 1998. EMS Rules 157.44, 157.51(b) and (c) and 157.53, misdemeanor conviction.

Wind, Caron, Nederland, Texas. Administrative penalty of \$250. EMS Rule 157.61 (d)(14), failure to arrange for and supervise verification of skills proficiency of each student by a state certified skills examiner.

Wind, Jon Todd, Nederland, Texas. Twelve months suspension of EMS Examiner certification through March 5, 1998. EMS Rule 157.63 (e)(1), failure to conduct skills proficiency verification in an objective manner according to the criteria and standards established by the department for each skill examined.

day in the U.S., 115
persons will die in
motor vehicle crashes,
71 will be murdered,
11 will die in fires,
and two will die from
bicycle crashes. —National Safe Kids Campaign



Meetings and Advertisements

Calendar

July 18-19, 1997. Coordinator Upgrade Class. Amarillo College Dept. of Paramedicine. Registration information and cost of the course can be obtained by calling Mike Lindsley, 806/655-7151.

July 25-26, 1997. BTLS Course. Baylor Medical Center at Grapevine. \$150. 817/329-2815.

July 26, 1997. National Registry Review Course. Garland, TX. Best Western Hotel. Contact Metroplex Medical Training at 972/270-0857 or 800/583-0097.

August 2-3, 1997. PHTLS Course. Metrocrest Medical Services of Dallas. \$160. 972/484-1158.

August 21-24, 1997. Rural Wilderness EMS Conference. Cloudcroft, New Mexico. Contact Otero County EMS Council at 505/682-3084.

August 23-27, 1997. Fire Rescue International '97. Dallas, Texas.703/273-0911.

September 7 - 12, 1997. Executive Leadership. EMS Leadership Academy, Junction, TX, Texas Tech Center. Continuing education certificate upon completion. For information and registration 806/743-3218, or e-mail to emscrb@ttuhsc.edu.

September 19, 1997. CareFlite Emergency Update. For more information contact Robin Beardsley 817/882-4000 or 800/772-5840.

September 21 - 27, 1997. National Farm Safety Week, NSC, Pat Pulte, 630/775-2022.

October 1-4, 1997. NAEMT Outlook '97. Sponsored by National Association of Emergency Medical Technicians. Reno, Nevada. Call for brochure and registration 800/34NAEMT.

October 5-11, 1997. **National Fire Prevention Week**, National Fire Protection Association, 800/344-3555, Texas Commission on Fire Protection, Lydia Fluitt, 512/918-7100.

October 19-25, 1997. National School Bus Safety Week. 703/644-0700, National School Bus Transportation Association.

Meetings and advertisements deadlines and information

Deadline: Six weeks in advance. After the pages of this magazine have completely gone through editorial, design and layout, then it goes to the printshop to get printed, then to our mailing service to get mailed out. Add a few days to get through the U.S. mail system. Please send in your calendar items six weeks in advance to make the next issue.

Cost: Calendar items are run at no charge. Calendar items run in the meeting 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 Health, 1100 West 49th Street, Austin, TX 78756-3199. Call 512/834-6700 if you have a question about the calendar section.

November 23, 1997. Air Medical Preconference Workshop. Employ bench marking techniques to improve operational performance. Contact Jane Wynn or Karen Casper at 214/956-0707.

December 3, 1997. National Drunk and Drugged Driving Prevention Month, 3D Month, NSC, Laura Wilkinson, 202/293-2270 ext. 945.

May-December, 1997. Roco Rescue Courses. Rescue techniques. Instructor courses. Refresher programs. Confined space and structural rescue courses. For registration contact Roco at 800/647-7672.

Jobs

Paramedics: The City of Beeville has three vacancies for paramedics. Contact Gabriel Aleman, EMS Director, 400 N. Washington, TX 78102 or call 512/358-4400 or fax 512/358-7522.+

Instructor: Bachelor's degree, EMT-paramedic, 3 years EMS related experience and 3 years community college experience required. Nine month contract position with Angelina College, Lufkin, TX. For application and complete job description contact Patricia McKenzie at 409/639-1301.+

Communications Specialist: Plano, TX. Multiple openings. Public safety communications specialist-dispatching EMS calls, taking 9-1-1 emergency and nonemergency calls. 1 year experience. Type 40wpm. \$2,085, extra \$60/mo if EMT & EMD certified. Also public safety recruit will take 9-1-1 calls to be dispatched to police & fire. Type 40wpm, data entry knowledge, 1 year exp. in customer service. \$1,875, extra \$60/mo if EMT & EMD certified. Benefits. Call 972/461-7298 to apply.+

EMS Professionals: Saudi Arabia. Experience in EMS service development and management with experience as an instructor at EMT levels with instructor certification and 3 years field experience as a paramedic in a high volume urban system. Letters of reference. Current paramedic certification. Base salary is generally tax free, 20% post differential. Housing is paid by project. Moving allowance/other benefits. Personnel must be willing to serve in Saudi Arabia without families being located there. Send resume to John A. LaCasse, Eng. Sc. D., REDCRES Project Director, Medical Care Dev., 11 Parkwood Dr., Augusta ME 04330.+

EMT-B, EMT-I and Paramedics: Qualified applicants in the Houston and Fort Bend area. Excellent benefits. Salary commensurate with qualifications. Send resume to Prime Care Ambulance Service, Human Resources, 2600 Southwest Freeway, Ste 1025, Houston, TX 77098 or fax 713/521-1496 or call 713/521-1426.+

Paramedics: Dallas/Houston area. Full-time and part-time positions. Needed for general transfer service in a growing system. Benefits available for full-time. Call 800/405-5077.+

Paramedics and EMTs: Seeking highly motivated employees. Must be certified in Texas and have a good driving record. We offer a pleasant work environment, plus an excellent benefits package including dental and vision. Interested candidates are invited to submit a resume or write for an application packet: American Medical Response, 2603 Inwood Road, Dallas, TX 75235 or call 214/353-7610.+

BLS Instructor: Company rep needed for public relations, CPR instruction and customer service for the Houston/Galveston area. Send resume to Metroplex Medical Training, 2429 E Hwy 80, #101, Mesquite, TX 75150. Other positions open in San Antonio, Corpus Christi, and Wichita Falls area.+

Dispatcher: Seeking highly motivated employees. Must be certified in Texas and have a good driving record. We offer a pleasant work environment, plus an excellent benefits package including dental and vision. Interested candidates are invited to submit a resume or write for an application packet: American Medical Response, 2603 Inwood Road, Dallas, TX 75235 or call 214/353-7610.+

Clinical Supervisor: Directs quality improvement, assists medical director, coordinates training and continuing education. For a complete job description contact Rebecca Sutton, City of Beaumont, Human Resources at 409/880-3104.+

EMT-P: Junior crew member on an EMS unit. One year exp. on ALS unit. For a complete job description contact Rebecca Sutton, City of Beaumont, Human Resources at 409/880-3104.+

Materials Management Tech: Seeking highly motivated employees. Must have a good driving record. We offer a pleasant work environment, plus an excellent benefits package including dental and vision. Interested candidates are invited to submit a resume or write for an application packet: American Medical Response, 2603 Inwood Road, Dallas, TX 75235 or call 214/353-7610.+

Mechanic: Seeking highly motivated employees. Must be certified in Texas and have a good driving record. We offer a pleasant work environment, plus an excellent benefits package including dental and vision. Interested candidates are invited to submit a resume or write for an application packet: American Medical Response, 2603 Inwood Road, Dallas, TX 75235 or call 214/353-7610.+

BLS Instructor/Company Rep: San Antonio and Wichita Falls areas. Functions to include instructing BLS courses and marketing. Send resume to Metroplex Medical Training Services, 2429 E. Hwy 80, #101, Mesquite, TX 75150.+

Region Field Training Officer: Abilene area. This position includes overseeing all marketing, BLS instruction and equipment rentals for the far West Texas Region. Send resume to Metroplex Medical Training Services, 2429 E. Hwy 80, #101, Mesquite, TX 75150.+

Faculty Instructor: UT Health Science Center in San Antonio, Dept. of Emergency Medical Technology. Full-time and will include classroom and clinical instruction of EMT students. Bachelor's degree in health or related field. Send resumes to: Charles Garoni, Dept. of EMT, 4201 Medical Dr., Ste. 250, San Antonio, TX 78229.+

Public Health Technician: Job opening at Texas Department of Health-El Paso. Salary \$1,961 to \$2,236 per month—depends on qualifications. College degree required, EMS experience may be used to substit .e for this requirement. Contact

Meetings and Advertisements

Tom Cantwell at 915/774-6220.*

Paramedic: Llano County EMS. County coverage of 9-1-1 calls. MICU service. Hospital-based service. Excellent benefits. Send resume to Kelly Oestreich, Llano County EMS, 200 W. Ollie St., Llano, TX 78643 or call 915/247-3088.*

Paramedics: Life Line Universal Transport, Inc., a progressive private ambulance service, is looking for qualified TDH-certified paramedics for a Houston location. Full and part-time positions. ACLS, BTLS required. Excellent pay plus bonus plans. Send resume to Life Line Universal Transport, Inc., Human Resources, 11115 Mills Rd., Bldg. A, Ste. 111, Cypress, TX 77429. Phone 281/970-2273 or fax 281/970-1726.*

Paramedic and EMT: MedStar, Fort Worth. Full-time and part-time. Must have 6 months experience and be 21 years old. 9-1-1 and non-emergency. Send resume to Annette Hawkins, 3010 S. Grove, Fort Worth, TX 76104, for information call 817/927-4455 or fax 817/927-4493.*

Administrator: To manage MICU EMS system. Applicant should possess experience in ACLS, BTLS, EMS instructor/coordinator. College degree preferred but experience may be substituted. Mail resume and salary requirements to: Chariman, AAEMC, PO Box 1420, Angleton, TX 77516-1420.*

Instructor: Full-time temporary positons for '97-98 associate degree program. Requires associate degree and TDH certification as EMT-P/Instructor. Prefer TDH coordinator. Call North Harris College, Houston 281/591-3534 or 443-5438 for more information.*

Paramedic/EMT-I/EMT-Basic: Full-time and part-time postions. Applicants must be currently certified by the Texas Department of Health, and have a clean driving record. Applicants must be over 21 years old. Salary and benefits packages are competitive. Contact Falls County EMS, General Manager, PO Box 111, Marlin, TX 76661 or call 817/803-3745.*

Firefighter/Paramedic: Kerrville, \$1,911/month. Certified firefighter/paramedic. City pays 80% of family health insurance. Apply to City of Kerrville, Personnel Dept., 800 Junction Hwy, Kerrville, TX 78028 or fax 210/792-3850. Call 210/257-8000 for more information.*

EMT or EMT-P: A major contract security company in Houston is currently accepting applications for the postion of EMT. The openings are located in the Southwest area of Houston. Applicants must have a current certification to be considered. You may apply in person at 480 N. Sam Houston Parkway E, Ste. 217, Houston, TX, fax resume to 281/999-9949 or call 281/999-9945.*

EMT Instructor/Program Director: Bachelor's degree, with emphasis in education preferred. Experience as an EMT-Paramedic instructor required. Texas certified coordinator. 512/886-1134.*

EMT-P/Certified Peace Officer: City of Andrews in West Texas. Serves a population of 14,500. 1,500 square miles. About 650-700 runs annually. Seeking trained public safety officer. Excellentsalary and benefits. Salary range \$25,000 to \$29,000, depending on qualifications. Contact Police Chief Bud Jones or police secretary, Kathy Garlin at 915/523-5675. Open until filled.*

for Sale

For Sale: 1992 model Laerdal 3000 ATS semi automatic defibrillator w/semi-automatic and manual mode cartridges. 3 rechargeable batteries w/charger and many extras. \$3,000 or best offer. Contact the City of Clute EMS 409/9653.+

For Sale: 1978 Chev Type II ambulance with light bar 69,000 miles. Contact Danny Grimes 409/396-6403 after 6:30pm.+

For Sale: 1990 ambulance Ford Econoline 350 XL, diesel, class III, 6 new tires, 57,715 miles. Volunteer service dissolved. Contact Melton Murff, Mayor, PO Box 533, Hico, TX 76457 or call 817/796-4620.+

For Sale: CPR manikins, new and used. CPR supplies, airways, manikin face shields, face pieces, parts. Manikin maintenance cleaning and repairs. Rental manikins available. Contact: Ron Zaring, Manikin Repair Center, Houston, 281/484-8382 or FAX 281/922-4429.+

For Sale: 2-1990 Ford Type II XL ambulances; 1-1996 Ford Type I XLT ambulance; 1-1996 Wheelchair Van Dodge B-350; 2-Life Pack 5s; 1-Life Pack 10 (new); 3-Nonin Pulse Ox; 3-portable Univent ventilators (new); new and used ambulance supplies. For information call Charles or P.Z. Mani at 210/614-7823 or FAX requests to 210/692-1715.+

For Sale: Lifepak 5, with carrying case. Batteries not included. Good condition. \$1,500. Call 409/345-2390.+

For Sale: Alternator repair to your ambulance or fire apparatus. Terry Slayton, Superior Fleet Service, 800/451-3901.+

Ambulance Billing: Private ambulance service EMS/volunteer service, let us do your billing for you. Electronic billing for Medicare, Medicaid and private insurance. For more information please call L&M Billing Service 210/276-4186.+

Wanted: Type II ambulance for training only—to be donated to community college for educational purposes. College will offer tax credit and publicity to your organization. Please call David Pearse at 903/753-2642.*

For Sale: 1983 Ford F350 Type III by First Response, 460 V8, lights, siren, O₂cyl., 37k miles, good condition. Call Pat Peavler, Sweeney Fire

and Rescue for information. 409/548-2072.*

For Sale: Firefighter entrance exam or paramedic exam study guide. Pass your exam the first time. Written for Texas firefighters and paramedics only. To order your copy for \$19.99, call toll free 888/296-4420.*

Ambulance Remounts: Q.V.M. certified remount shop, chassis in stock. Professional Ambulance Sales & Service, Kennedale, TX 800/561-6070.*

CPR manikin: For rental use, please contact 512/446-6701 or 800/583-0097.+

Manikin Repair Center: CPR supplies, rentals, manikin maintenance, sales. Ron Zaring 281/ 484-8382.*

National Registry Exam Review: ACLS review or PPPC courses for EMS and fire personnel. Call for group information: Metroplex Medical Training Services 800/583-0097 or 972/270-0857.*

1997 Texas EMS Photography Contest

It is time to start taking photos for the 1997 Texas EMS Photo Contest. Educational settings, emergency scenes, safety training, rescue situations—take EMS photos and enter them! The grand prize winner will receive \$100 and a plaque. Two first place winners will receive \$75 and a plaque. One second place winner will receive \$50 and a ribbon, one third place will receive \$25 and a ribbon. One honorable mention winner will receive a ribbon and \$15. All photos will be displayed at Texas EMS Conference '97.

+ This listing is new to this issue.

* Last issue to run (If you want your ad to run again please call 512/834-6748.)

Placing an ad? Moving? Renewing your subscription?

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*, 1100 West 49th, Austin, TX 78756-3199. Ads will run in two issues and then be removed.

Moving? Let us know your new address—the post office may not forward this magazine to your new address. Use the subscription form in this magazine to change your address, just mark the change of address box and mail it to us or fax your new address to 512/834-6736. We don't want you to miss an issue!

Renewing your subscription? Use the subscription form in this magazine to renew your subscription and mark the renewal box.



Profile: Eastland Memorial Hospital EMS



Eastland Memorial
Hospital EMS works
closely with area first
responders. Pictured, from
left, are Richard Bird,
EMT-P/EMS supervisor;
Tommy Johnson, EMT-P;
Steve McCaslin, EMT-P;
Scott Brinkley, EMT-I;
Mike Chapman, EMT-I;
and Kenath Boyd, EMT-I.

Name of Service: Eastland Memorial Hospital - Emergency Medical Services

Areas of service: EMH-EMS serves the City of Eastland (pop. 3,800) and its surrounding rural area (pop. 5,500) which includes part of I-20, two rural communities, and half of Lake Leon, just north of the city. The City of Eastland is located on I-20 between Fort Worth and Abilene.

Bureau of Emergency Management Texas Department of Health 1100 West 49th Street Austin, Texas 78756-3199

Periodical Rate Paid At Austin, Texas Number of personnel: EMH-EMS has seven full-time personnel, including three paramedics and three intermediates. EMH-EMS has two MICU-capable ambulances, but only one is staffed on a 24-hour basis.

Years in service: EMH-EMS has been in service since 1989 when Eastland Memorial Hospital took over the ambulance service from a private provider.

Number of calls: EMH-EMS ran 996 calls for the fiscal year of 1996.

Favorite EMS activity: All of EMH-EMS personnel are certified CPR instructors and give CPR classes on a monthly basis. EMH-EMS does monthly CE classes for Eastland County and the surrounding area. EMH-EMS has three certified instructors and two certified examiners.

Current projects: Because some of the areas that EMH-EMS responds to are anywhere from 10-20 minutes from the nearest ambulance service or hospital, EMH-EMS is assisting rural fire departments with first responder programs. An ECA course is scheduled for the latter part of this year, with personnel from EMH-EMS instructing. Our goal is to help these departments become BLS first responders so in the event that help is needed in a rural area, patients are given care faster, and EMS personnel are able to be better prepared when they arrive on scene.