CE article: Diabetic emergencies earns you 1.5 hours of CE on page 38

Texas EMS

Magazine

Order materials early

EMS Week

May 18-24, 1997

New air bag safety recommendations Page 10

Serving Texas Emergency Care Professionals | Texas Department of Health | March/April 1997

On the border: Medics staff clinics in Mexico Page 26

Do you know the signs of child abuse? Page 32

Order these free materials for your community education programs.

Mail or Fax order form to:

Bureau of Emergency Management
Texas Department of Health
1100 West 49th Street
Austin, TX 78756
or Fax to (512) 834-6736

Shipping information:

Organization _____

Shipping Address _____

City/State/Zip _____

Telephone _____

Contact _____

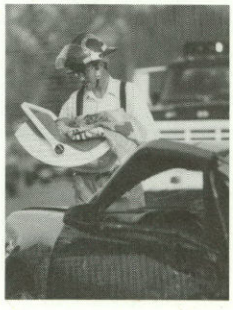
Amount ordered	Description
_____	*(Updated)* **"Ready Teddy" coloring book.** Twelve pages of injury prevention and EMS awareness tips by the Texas EMS mascot. English-(4-61), Spanish-(4-61A)
_____	**"When Minutes Count—A Citizen's Guide to Medical Emergencies" brochure.** A foldout first aid guide, 1988. Can be personalized by the EMS service. (EMS-014)
_____	**"Don't Guess, Call EMS" brochure.** A reprint of a Department of Transportation brochure updated with Texas photos and logo. Back panel listing of Public Health Region offices and a "for more information call" box. (EMS-013)
_____	**"EMS Lifesavers—Career Information" brochure.** Gives types of jobs, paid and volunteer, in various settings and salary ranges. (EMS-007)
_____	**"EMS questions and Answers About Citizen participation" brochure.** Answers questions about how to call, what to do, how the community can help EMS. (EMS-008)
_____	**"EMS—A System to Save a Life" brochure.** A 1970s title with a 1990s text, it has public health region office info and "for more information call" box. Explains BLS and ALS. (EMS-012)
_____	*(Updated)* **"I'm an EMS Friend" sticker.** Ready Teddy in a 2-½ inch 2-color sticker.
_____	Send information on borrowing the **Ready Teddy EMS Mascot suit**, available from Austin or the regional offices. Kids love him! And they learn to stay safe.
_____	Send a sample of all public information and education materials—**a PIE pack**.

Contents

Features

Management

Departments



ABOUT THE COVER:
A Paris firefighter holds a baby in a car seat after an MVC. Photo by Gary Lawson, *Paris News*

Texas 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.

Editorial Review Board

James Atkins, MD
Southwest Medical School, Dallas

Richard Best, MEd, EMT-P
Metrocrest Medical Services, Dallas

Bryan Bledsoe, DO
Baylor Medical Center, Waxahachie

Scott Bolleter, EMT-P
San Antonio AirLife, San Antonio

Debbie Bradford, MSHP, RRT
Texas Department of Health, Austin

Neil Coker, EMT-P
Texas Tech University Health Science Center, Lubbock

Rod Dennison, EMT-P
Texas Department of Health, Temple

Gene Gandy, EMT-P, Attorney at Law, Tyler Junior College, Tyler

Don J. Gordon, MD, PhD
The University of Texas Health Science Center-San Antonio

Mark Huckaby, EMT-P
Texas Department of Health Austin

Dr. J. Charles Hinds, EMT-P
Cypress Creek EMS, Houston

Jeffrey L. Jarvis, MS, EMT-P
Scott and White Hospital, Temple

Loretta Jordan, MS, EMT-P
El Paso EMS, El Paso

Doug Key, NREMTP
MedStar, Fort Worth

James McGraw, MN, CCRN, CEN
Harris Methodist Hospital, Fort Worth

Jim Moshinskie, PhD, EMT-P
Scott & White Hospital, Temple

David Rives, MS, EMT-P
Texas Department of Health, Houston

Virginia Scott, RN, MSN
Ben Taub General Hospital, Houston

Pauline VanMeurs, BA, EMT-P
Austin Community College, Austin

Tom Ward, MD
Plano EMS, Plano

Sherrie Wilson
Dallas Fire Department, Dallas

Jim Zukowski, EdD
Texas Department of Health, Austin

Contributors: Norman Atha, J. Nile Barnes, Dean Baswell, Hallie Booth, Scott Brinkley, Andrew Cargile, Neil Coker, Michael Cooper, Erin Endom, Rhonda Evanchak, Renee Faulkner, Donna George, Ralph Hendricks, Mark Huckaby, Jeffrey Jarvis, James Karl, Carol Lawrence, Phil Lockwood, Tim Magness, Rothy Moseley, Jim Moshinskie, Eric Osterhout, J. P. Price, Diane Smith, Peter Snell, Lee Sweeten, Gene Weatherall

Texas EMS Magazine

March/April 1997 Vol. 18 No. 2

A bimonthly publication of

TEXAS DEPARTMENT OF HEALTH

WALTER D. WILKERSON, JR, MD
Chair, Texas Board of Health

PATTI J. PATTERSON, MD
Commissioner of Health

CAROL S. DANIELS
Deputy Commissioner for Programs

ROY L. HOGAN
Deputy Commissioner for Administration

RANDY WASHINGTON
Deputy Commissioner for Health Care Financing

RON P. MANSOLO
Associate Commissioner for Health Care Quality and Standards

BUREAU OF EMERGENCY MANAGEMENT

GENE WEATHERALL, CHIEF

KATHY PERKINS, ASSISTANT CHIEF-ADMINISTRATION

PAM WEST, ASSISTANT CHIEF-OPERATIONS

TEAM LEADERS

KELLY HARRELL — PHIL LOCKWOOD
HAROLD BROADBENT — BILLY SLADEK
MIKE POLK — JOE STONE

Texas EMS Magazine

KELLY D. HARRELL — Editor
PENNY WORKMAN — Associate Editor
JAN M. BRIZENDINE — Art Director
STEPHANIA COLEMAN — Editorial Assistant

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 Texas.

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

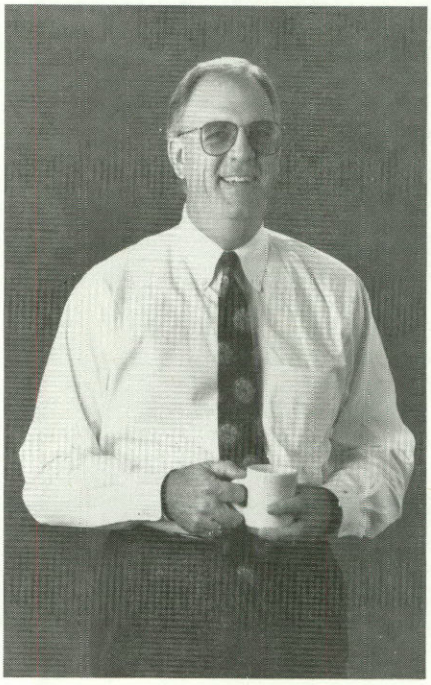
Subscriptions to *Texas EMS Magazine* are available for $20 for two years. Sample copies on request. As provided in Chapter 773, the Emergency Medical Services Act, subscriptions are free to licensed provider firms and course coordinators. To order a subscription or to request a change of address in a current subscription, write to *Texas EMS Magazine* at the address above or call (512) 834-6700 or FAX (512) 834-6736.

We will accept telephone and mail queries about articles and news items. Manuscript and photograph guidelines available upon request. Materials will be returned if requested.

Periodical Postage paid at Austin, Texas. POSTMASTER: Send address changes to *Texas EMS Magazine*, 1100 W. 49th Street, Austin, Texas 78756-3199.

EMS Rule 157.38 emergency suspends anyone who hasn't completed continuing education requirements

Emergency suspensions result of CE rule



Gene Weatherall, Chief of the Bureau of Emergency Management

The Texas EMS community owes a large pat on the back and thanks to three distinguished members of the Emergency Health Care Advisory Committee. Mr. Ray Mason, Dr. Ron Redus, and Dr. James "Red" Duke recently traveled to Austin to testify before the Senate Finance Committee regarding funding the trauma program. To the best of my knowledge, this is the first time we have had members of our advisory council testify before the Texas legislature regarding funding. They all did an excellent job of explaining the need for trauma funding to the Senate Finance Committee.

Dr. Redus took the responsibility of serving as chair of an EHCAC subcommittee to work on securing funding for trauma development in our state. Mr. Mason, chair of EHCAC, and Dr. Duke worked with Dr. Redus on this project. When you see these people, please take a minute to thank them for their effors. They are truly dedicated to helping develop a statewide system of efficient prehospital care. They freely give their time and travel at their own expense to represent the statewide EMS community before the legislature. Thanks, guys.

Immediately following the current legislative session, the Emergency Health Care Advisory Commitee will begin working to implement any legislative changes that may result from this session. As we have stated in the past, we will only open the rules up for changes following each legislative session. Should any of you have suggestions for rule changes, now is the time to let us or a member of EHCAC know about it.

If you read this magazine from back to front, you probably noticed that there are an additional six pages of legal actions in this issue. These new emergency suspensions are individuals who have not completed their biennial continuing educations requirements as required by EMS Rule 157.38. This rule does not give us any choice except issuing an emergency suspension for everyone who hasn't completed the continuing education requirements. Certification of these individuals will be reinstated as soon as they complete a two-year continuing education summary form. If you or any of your friends are on this list, you can fax the information to us at (512) 834-6736. For more information, go to the EMS Standards web site at: http://www.tdh.state.tx.us/hcqs/ems/STNDHOME.HTM

TEXAS EMS CERTIFICATIONS AS OF JANUARY 30, 1997

ECA	8,612
EMT	27,005
EMT-I	3,854
EMT-P	10,821
TOTAL	50,292
COORDINATOR	403
INSTRUCTOR	1,856
EXAMINER	2,092

Letters

To *Texas EMS Magazine*: I wish to make a few comments about the *Texas EMS Magazine.*

For years I have saved all the issues so that I would have all of the certification regulations at my fingertips. But I always hoped I would never have to decipher those regulations. Recent issues have contained features entitled "EMS Education" and "EMS Standards." Both provide very practical and helpful explanations about recertification and other related subjects. I hope you will continue these. These articles have prevented me from having to "attack" the regulations mentioned above.

Your CE articles are very valuable for many of us and they are all generally well-written. I have found they even require one to think a bit and not just find the answer in the article. They are even interesting to read when one has passed the CE deadline. For the benefit of those who are sincerely interested in the subject matter, have you considered publishing the answers to the test questions in the succeeding issue? Some of the questions can be tricky!

I have been a subscriber to your magazine since my first certification in 1987, when you sent me a subscription opportunity. One of the most important aspects has been the very low cost of the subscription. This is important to many (particularly rural volunteers) EMS personnel. Through the years the magazine has grown. I hope the increasing size does not portend a higher subscription rate.

I wish to register my vote in favor of an EMS license plate. I think many would reply positively to such an opportunity although I doubt you'll get much of a written response to your survey.

Peter A. Barton
Houston, Texas

To *Texas EMS Magazine*: In your January/February issue on page 5, second column, it mentions an additional level of certification for EMS personnel. This level is supposed to be a Licensed Paramedic. Could you send me any information you have pertaining to this proposed licensing?

What I'm looking for is, if it is passed, what will the required college level courses be, and the required CEUs be after obtaining the license? Will a person still have to test every four years? Also, send names of any colleges or universities in the Dallas/Fort Worth area that will offer such training programs.

I understand that this is a considerable amount of information to ask for. However, I have to start somewhere and where else but where I heard about the program first. Thank you for your assistance and I look forward to your reply.

Thomas Lee Mendenhall
Cedar Hill

Reply: *You are way ahead of us. In the last issue of the magazine, Gene Weatherall was merely bringing folks up to date on the legislation the department would like to see passed on behalf of EMS and in doing so, he mentioned a fifth level of certification—the licensed paramedic. The specifics, such as those you are asking about, will be worked out only if such a bill were to pass. Keep watching the magazine and checking with your regional EMS staff person. As developments occur, we'll let everyone know.*

Pam West
Assistant Bureau Chief
Bureau of Emergency Management

To Texas EMS Magazine:

Top Ten Signs You Attended **the Wrong EMS Conference**

10. The weather was sunny and warm.
9. You were afraid of the clowns.
8. Instead of Billy Bob's you ended up at Tejano Rodeo.
7. You won an award for most patches on your uniform.
6. The host hotel was the I-35 Days Inn.
5. You attended a pre-conference workshop on how to dance the Macarena.
4. The vendors were all loopy on diesel fumes.
3. Instead of the Valsalva Bowl you won the Tidy Bowl.
2. The exhibit hall was open on Wednesday.

And, the number one sign you attended the wrong EMS Conference... You're meeting there again next year.

Michael Sabala*, EMT-P*
Corpus Christi Fire Dept. EMS

It's all worthwhile

"I'm gonna quit,"
To my partner I said,
As we left the hospital,
Our patient was dead.

He said to me
"Give it all up?
You're gonna run,
Like a beaten pup?"

"I don't think so,
Cause I got a hunch
You love this job
so very much."

I said, "But a twenty-year-old
Had a wreck today,
It just isn't fair
That he dies this way."

My partner said
As he looked at me,
"But if you don't do
This job you see,

What would have happened
When that old woman slipped?
She fell on the ice
And she broke her hip.

And what of the child
Who was struck on his bike,
A true friend you've made,
YOU he likes.

And the code we had
A few months ago,
That man made it.
On with his life he goes.

He was saved from death,
And now wearing a smile,
And that's what makes it
All worthwhile."

I looked at him
With a tear in my eye
And I said, "Thanks,
My partner is wise."

—Dean Baswell, EMT-I

What kind of person

What kind of person would jump from rest
To give their all; to give their best,

To go out in the cold night's rain;
And lend a hand to one in pain,

To leave the end of a Dallas game;
And hurry down some county lane,

To see the hurt; to dry the tears;
And with a calm voice, calm the fears.
To deal with the agony in a family's eyes;
As they sadly watch while a love one dies,

What kind of person would do these things?
Does it take angels, with halos and wings?

No, just regular people; a Billy, Martha, Johnny or Sue.
No angels, just normal, ordinary people, like me; like you.

—Lee Sweeten, EMT-P

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

***Walter Smith**, 48, of New Braunfels, died on November 29, 1996, of a heart attack. Smith, an EMT, had served in the New Braunfels Fire Department for 20 years.*

***Charles Lee "Chuck" Collins**, 62, died on August 21, 1996, in San Leon. He had been involved in emergency response for 38 years. He served with the Houston Fire Department for 23 years, was Chief of the Clear Lake VFD for 10 years and, most recently, was the administrator of the Clear Lake Emergency Medical Corps for five years. Memorial contributions may be made to: Houston Hospice, 1905 Holcombe Blvd., Houston, Texas 77030.*

***Ruben Lopez**, 41, died in the line of duty on December 4, 1996. He was a District Chief for the Houston FD. Lopez was attempting to rescue Mary Ida Kennedy, 41, who also died in the fire.*

***Hershel Sharp**, 77, died on December 14, 1996, in Bryan. Sharp had retired as Battalion Chief of Dallas FD as well as Chief of Garland FD and Chief of Lubbock FD. He was the division head for Texas A&M Fire Protection Training Division.*

By Eric A. Osterhout, EMT/Firefighter

The Ride

A transfer teaches another side of patient care

If you ride an ambulance or fight fires long enough, certain calls, certain scenes, and sometimes certain people stand out clearly. They're etched into your memory, returning to visit when the nights are dark and the call volume is low. It doesn't have to be a particularly gory scene or a multiple-casualty incident. Sometimes it can just be the spirit of a single person that leaves an indelible mark upon your soul. One such memory that comes to visit me sometimes late at night is a woman I transported when I was working transfer.

I remember this call clearly because it was a call where as an EMT you feel pretty helpless. Not much to do—just load em'up and roll. Move 'em from point A to point B. But this one was different. She was a terminal patient being transferred from home to a hospice. This particular hospice only accepted patients with less than six weeks to live. Usually when we would take a call like this one, the patient would be unconscious and quiet, drugged to ease the pain. But this one was different.

She was different because she had a fast-growing cancer that had spread rapidly throughout her body. It was so fast-spreading that her prognosis was death in less than six weeks. She was the first terminal patient I had ever taken to a hospice who was coherent. Even under the medications she had been given to ease the pain she was still lucid. It was also the first time I had really smelled death. I had been around victims who had died at the scene and even been around some who had died on the unit, but never had I been exposed to the odor of a terminal patient being eaten up with cancer. That smell of death is an odor that I'll always remember.

There is not a whole lot to do on a run like that. Or so I had thought. Monitor vital signs and make the patient comfortable. Hold their hand, and in this case, talk to them. I had never talked with a terminal patient before. I was uncomfortable and she could tell. She put me at ease by telling me she wasn't scared. She had lived a good life and the pain would be over soon, and she knew there was a better place in the after-life. I was glad she couldn't see the tears in my eyes or feel the lump in my throat in the darkened ambulance. She was my mother's age and it made me think of my mother and how glad I was that all my family was healthy. Then the patient asked me if I believed in God. I told her I did and she told me that she was a born again Christian. I told her I was a Lutheran and she laughed ever so slightly saying she doubted heaven was divided up into denominations. I laughed too, feeling the tension ease. We talked about her life, where she was from, where she had lived, about her husband and children, even her pets. She asked about me and my family, and asked why I did this job. She told me how hard my job must be. I agreed that sometimes it can be tough. Of course, I didn't want to admit to her just how tough this run was for me.

She slowly drifted off into quiet sleep and was I was left alone with my thoughts. I learned that I am not helpless on calls like that. Sometimes just listening and holding someone's hand can do more than any of the other skills we are trained to do.

Get ready for EMS Week

May 18-24, 1997

Have you started planning for National/Texas EMS Week, May 18-24? The week that honors those in EMS is a perfect way to tell people in your community about what you do. It's also a perfect opportunity to bring the message of safety to your community. If you have questions or comments about EMS Week, or simply want some help in planning some activities, call us at (512) 834-6700.

Here are a few things that might help you plan:

The American College of Emergency Physicians is once again sending out planning packets for EMS Week. The theme of this year is "EMS: Making a Difference for Life." We will mail out the packets in April to every EMS provider and first responder group. Packets can also be ordered directly from ACEP by calling (800) 798-1822, then pressing 6 for publications when prompted by automated voice mail.

We will add our own Texas EMS Week information to those packets. In Texas, we'll focus on the new recommendations for child safety in automobiles with air bags: "Air bags mean kids in back." For a preview of the new guidelines, see page 10.

The packets we mail will have press releases, radio spots, sample resolutions and ideas for EMS Week activities.

Newly-revised Ready Teddy coloring books and stickers are now available. Please use the order form on page 2 of this issue to order coloring books and other materials you'll need for EMS Week activities. And remember, order early!

For a copy of ideas for EMS Week activities from other areas in Texas that ran in last year's *Texas EMS Magazine*, call Stephania Coleman at (512) 834-6700.

Ready Teddy talks about Emergency Medical Services and injury prevention

Play it safe, kids. Remember, you can prevent many injuries by being careful and observing safety rules.

Stock No. 4-61 **Texas Department of Health**

Air Bags

New recommendations for air bags put kids in the back seat

As new federal regulations take effect, air bags will become more common. But how much do you know about air bag safety? In certain instances, air bags can cause serious injury or death for smaller adults or children. This danger occurs in the brief instant when the air bag is in the process of inflating. During Texas EMS Week, think about focusing on educating your community about new occupant safety recommendations. Look in the May/June issue of *Texas EMS Magazine* and in your National/Texas EMS Week packet for more information.

Crash statistics show that children are safer if they are restrained in the rear seat.

- Never put an infant who is in a rear-facing child safety seat in the front seat of a vehicle with a passenger air bag (except in a pick-up truck that has a cutoff switch for the air bag, and then only if the air bag is turned off).

- If possible, all other small children should also be secured in a rear seat. This includes children in forward-facing child safety seats and children who are too large for a child safety seat. If the front seat is used for these non-infant children, the seat must be moved back as far as possible and the child must be properly restrained, sitting back in the seat and not leaning forward.

- Larger children, typically those over 12 years old, may ride in the front seat if they are properly restrained. But they too are safer if they ride in a rear seat.

Every car occupant should be buckled up or properly restrained in a child safety seat.

- Always secure infants and small children in child safety seats that are proper for the size and age of the child, and that are properly secured to the vehicle. Check both the owner's manual for your vehicle and the instructions for your child safety seat for proper use information.

- All other children who are too large for a child safety seat should be properly buckled up, using the vehicle's safety belts. Never allow children to slide the shoulder harness behind them.

- Every adult should also be properly buckled up.

- Move front seats back as far as practical, while still maintaining comfortable driver control, and sit as far back as possible from the air bag.

Texas EMS Conference '97
November 23-26, 1997

Don't miss

Texas EMS Conference '97

November 23-26, 1997

Austin Convention Center
Austin, Texas

Look for registration information and a listing of preconference classes (November 22-23) in the May/June issue of *Texas EMS Magazine*.

Conference hotels

Hyatt (Host hotel) (512) 477-1234	$55/$80*
Radisson (512) 478-9611	$55/$85
Four Seasons (512) 478-4500	$95/$105
Omni Hotel (512) 476-3700	$55/$75
Sheraton (512) 480-8181	$55/$85
Embassy Suites (512) 469-9000	$95/$99

Rates listed are single/double.

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

- Choose from more than 100 excellent continuing education workshops over three days
- More than 80 EMS leaders in Texas teach 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

Look for more information in the May/June issue of *Texas EMS Magazine*. If you have questions call us at (512) 834-6700 or email us at kharrell@ems.tdh.state.tx.us

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

News briefs

A compilation of news from around the state and nation

ACEP acquires new EMS manager

Rick Murray has joined the American College of Emergency Physicians as the new EMS manager. Murray brings over 21 years of EMS experience to ACEP, having worked as a field EMT and EMT-Paramedic for five years, with Texas Department of Health EMS for eight years, as the EMS coordinator with Arlington FD for seven years, as director of quality assurance and training for Life Star Ambulance in Arlington for one and a half years and as director of paramedic training with Huguley Memorial Medical Center in Fort Worth for three years.

Air Medical Alliance appoints new vice president

Air Medical Alliance has appointed Eric Griffiths as vice president of sales and marketing. Griffiths had previously been vice president marketing and product development for an air ambulance company.

Tragedy hits Alabama, Indiana in December

Two CareLine Alabama medics were killed on December 19 when their ambulance was struck by a freight train while they were returning from a backup call. The accident was witnessed by the lead ambulance crew, who was transporting the patient. In Indiana, five people were killed and two injured during a December 21 call. Lagrange County paramedics responded to a motor vehicle crash and transported a seriously injured patient. At the patient's request, his brother was called to meet them at the hospital. En route to the hospital, the ambulance was involved in a head-on collision, killing the drivers of both vehicles, the patient, and a paramedic in the back, and seriously injuring two other medics. The brother was killed in a motor vehicle crash on the way to the hospital.

LBJ General Hospital receives Level III trauma designation

In December, Lyndon B. Johnson General Hospital in Houston became the first Texas hospital designated as a General (Level III) Trauma Facility. The designation, awarded by the American College of Surgeons and the Texas Department of Health, is for community hospitals and will probably become the most common designation level for urban hospitals within three years.

Web sites

EMS Leadership Academy web site
This site includes the EMSLA mission, history, course descriptions, prerequisites, schedules and registration phone numbers and email addresses. http://members.aol.com/emsla/index.htm

Want to see some rescue pictures?
Check out http://www.onscene.com/Gallery.htm to see some pictures that have been submitted to *Rescue* as part of their photo contest. To submitted photos to the *Rescue* photo contest, contact http://www.rescuenet.com/fun/photo_contest/index.html

Rules and regulations information
This site contains helpful federal government resources including rules and regulations. http://www.legal.gsa.gov/

By Jeffery L. Jarvis, MS, EMT-P and
J. Nile Barnes, BS, EMT-P

The New EMT-Basic Curriculum

In 1994, the National Highway and Traffic Safety Administration, through a contract with The Center for Emergency Medicine, released a revised EMT-Basic National Standard Curriculum. This curriculum has several obvious differences from the last revision. This curriculum was recently implemented in Texas and we will begin seeing EMTs who have been trained with this curriculum; therefore, it is important to understand where this document came from and what it contains.

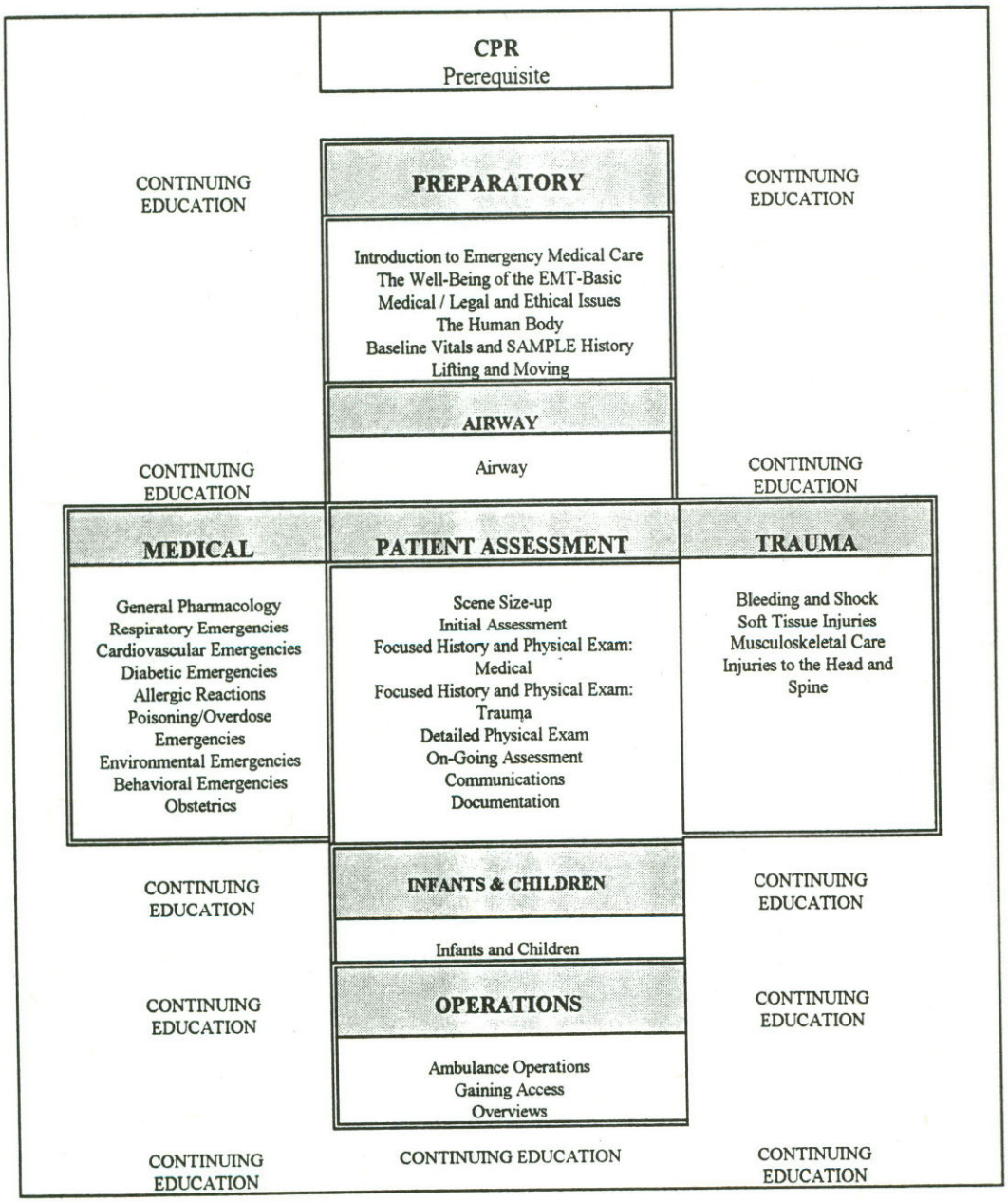
This curriculum revision began in 1990 with a consensus workshop hosted by NHTSA. The intent of this meeting was to outline the future of EMS education. Specifically, it was to make recommendations about the direction of future revisions and the priority for each. This group recommended that the EMT-Ambulance be revised first (they also recommended the name be changed to EMT-Basic). The First Responder would then be revised using the same model as the Basic, followed by the Paramedic and Intermediate curricula.

The consensus group also recommended that the Basic curriculum be assessment-based, and last no more than 110 hours, should include AEDs, and should include only those interventions that made a critical difference in the outcome of patients. The determination of whether an intervention would be included or not was to be based on peer-reviewed research. Unfortunately, there was insufficient published research with which to make these decisions. Therefore, subject matter experts were used through the Medical Oversight Group.

The request for proposal was initially awarded to the Samaritan Health Group out of Phoenix. For a variety of reasons, the development was then subcontracted to The Center for Emergency Medicine. This group, led by Walt Stoy, PhD, EMT-P, developed drafts of the curriculum and, in conjunction with the Curriculum Design Group and the Medical Oversight Group, revised them. The curriculum was piloted in Pittsburgh, Pennsylvania, and Ekalaka, Montana. The final curriculum was then introduced to the EMS community at a series of Roll-Outs throughout the nation. Each state then went about the business of implementing the curriculum.

As the consensus group recommended, the EMT-Basic curriculum uses an assessment-based approach to education. This is compared to the diagnostic-based approach of the 1984 EMT-Ambulance curriculum. The concept behind a diagnostic-based approach is to do a complete assessment, gathering all necessary information and determining the cause for patient's illness or injury. Only after this determination had been made did treatment begin. An assessment-based approach has the medic performing an assessment and immediately making interventions based on the findings of that assessment. One of the strengths of this approach is that treatment of life-threatening conditions begins immediately.

EMT-BASIC: NATIONAL STANDARD CURRICULUM DIAGRAM OF EDUCATIONAL MODEL



The new curriculum includes all of the interventions of the 1984 curriculum except for syrup of ipecac. It also adds new ones: specifically, AEDs, auto-injector epi-pens, nitroglycerin, PASG, and inhaled and nebulized bronchodilators. The development team also made CPR a prerequisite for EMT; however, many programs still incorporate this into the EMT-Basic course. Additionally, the curriculum addresses patient assessment differently. What most medics trained under the old curriculum will notice is the different names for the assessment components. The EMT-B curriculum doesn't discuss primary or secondary surveys. Rather, it breaks assessment into several components: initial assessment, focused history and physical exam, detailed physical exam and ongoing assessment.

The developers of the curriculum also considered including IVs. However, they decided that the benefits were limited and the time necessary to learn the skill could best be spent on other subjects. Another controversial intervention considered was endotracheal intubation. There was a limited amount of research that indicated EMTs could be trained to intubate effectively on humans or mannequins. This intervention also clearly made a difference in the outcome of patients. While these benefits suggested that intubation be included as a mandatory part of the curriculum, there was much concern about the practical feasibility of implementing this training across the nation. Therefore, as a compromise, an optional intubation module was included as an appendix to the national curriculum. Texas has not adopted the intubation module as a standard part of the EMT-B curriculum.

The First Responder National Standard Curriculum was also developed through the Center for Emergency Medicine. This curriculum also ad-

hered to the assessment-based approach of the EMT-B, but was limited in the interventions. It was the starting point for the Texas ECA curriculum. The Texas ECA curriculum expands on the First Responder curriculum by adding oxygen therapy, spinal immobilization, bandaging and splinting and mechanical aids to ventilation; however, it does not include AEDs, PASG, epi-pens, nitroglycerin, aspirin or bronchodilators.

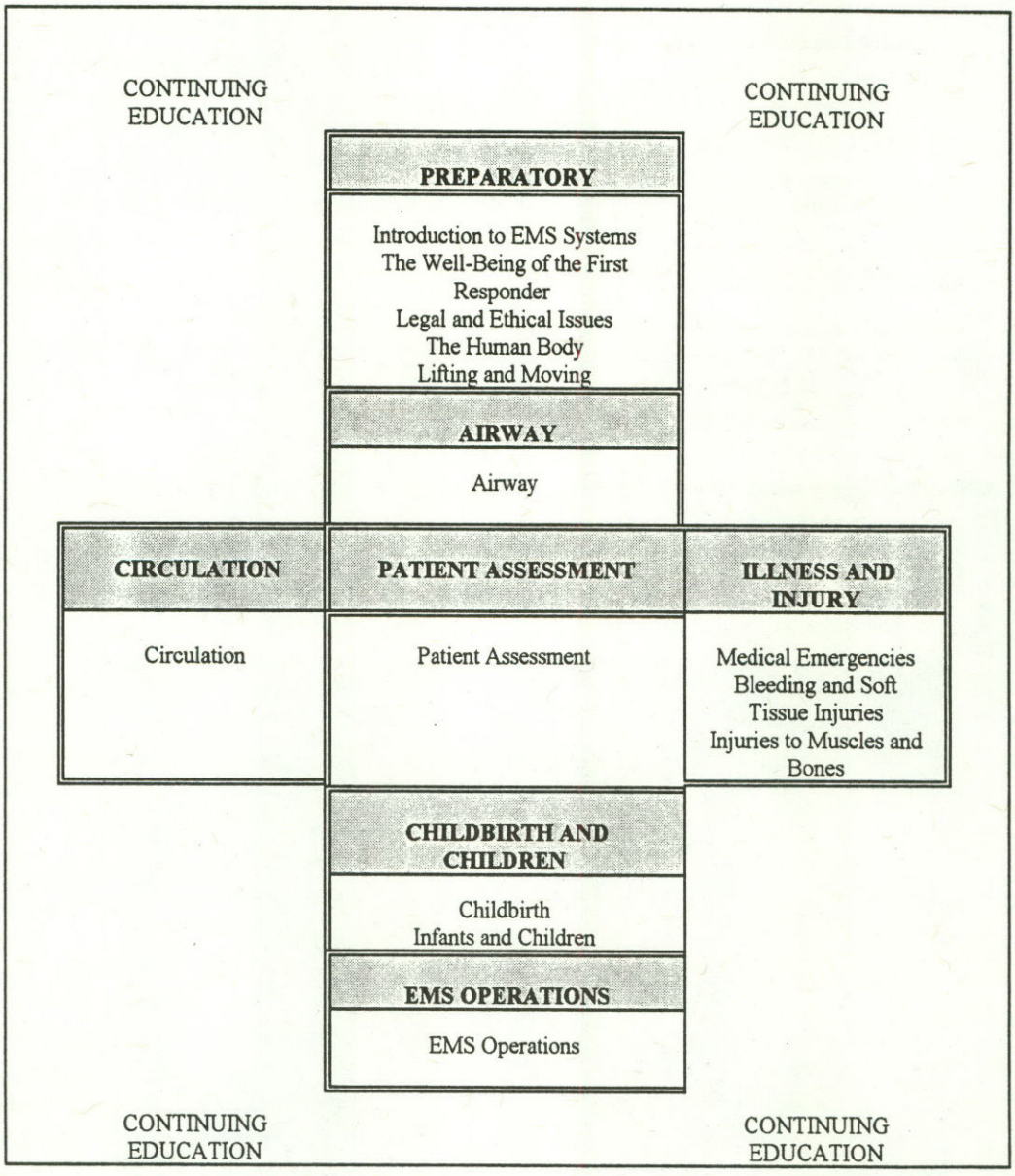
Both the ECA and EMT-Basic are designed to be initial education in EMS, but neither are designed to be the only education and training for EMS personnel. Both are built to be surrounded by continuing education. These curricula represent a bare bones starting point and educational enrichment is encouraged.

Texas is requiring all EMT-B and ECA courses starting after September 1, 1996, to be taught according to the new curricula. Also, all advanced programs beginning after that date must teach and test the new skills. Currently-certified EMTs will not be required to take a transition course; however, they will be required to test on the new material if they recertify after September 1, 1997. Everyone recertifying between September 1, 1996, and September 1, 1997, will have the option of taking either the new or old exams.

This is an exciting time to be involved in EMS. There are many changes sweeping not just EMS, but all of health care. These changes will have a profound impact on the future of our profession. The revision of the Basic curriculum is just the beginning. The Center for Emergency Medicine is currently involved in a major revision of the Paramedic and Intermediate curricula. The drafts of these documents outline a much more intensive, detailed and thorough approach to advanced level education. Everyone with an interest in EMS and EMS education should review and comment on these revisions.

Take a look at the latest drafts on the world-wide web at http://www.pitt.edu/~paramed

FIRST RESPONDER: NATIONAL STANDARD CURRICULUM
DIAGRAM OF EDUCATIONAL MODEL



Local and Regional EMS News

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.

Timpson Volunteer Ambulance Service brings cheer to area family

Timpson Volunteer Ambulance Service teamed up with the Timpson City Marshal's office to bring some holiday cheer to an area family that had recently suffered multiple tragedies. TVAS was called to the home on November 30 for a non-breathing three-month-old infant, who was unable to be resuscitated. Two days later, the pregnant aunt of the infant was killed in a three-vehicle motor vehicle crash. TVAS and the Timpson City Marshal's Office bought food and gifts for the infant's parents and their three-year-old child.

Bishop teams with Coastal Bend EMS

Coastal Bend EMS began service in the Bishop community near Kingsville last November. After being without its own ambulance service for months, the community and the local volunteer firefighters combined resources to raise the funding and find housing for the new service's ambulance and first responder unit.

Nacogdoches County EMS honors employees

Nacogdoches County EMS honored Perry Grimes, EMT-I, as Employee of the Year and Julie Wright as Volunteer of the Year. The awards were presented to Grimes and Wright by F. Bently, a Nacogdoches Memorial Hospital board member.

Computer-based training program wins international recognition

"The Birth Disks," a computer-based training program

Timpson Volunteer Ambulance Service and Timpson City Marshal's office combined efforts to assist an area family after they had suffered the loss of a child and a pregnant relative. People involved in the effort were, from left, Joyce Moore, City Marshal James Moore, EMT Billy Hailey, Paramedic Betty Crump, EMT-I Jill Hailey, EMT-I Jeri Covington, Paramedic Sharon Stewart, Mrs. Martinez and child, EMT John Raines, Paramedic/Nurse Tim Magness, EMT Sam Grabowski and Deputy City Marshal E. B. Coan.

designed by Jim Moshinskie, PhD, received the first place award in instructional technology at the international conference of the American Society of Training and Development. The program was recognized for its incorporation of animation, graphics, sound and learner response sections that prepare paramedics to handle emergency childbirth. Moshinskie is an EMS coordinator for the EMS Education Program at Hill College in Hillsboro and an assistant professor at Baylor University.

Eastland FD and Eastland Hospital EMS host extrication class

Eastland Fire Department and Eastland Hospital EMS held an extrication class in November.

Members of Eastland Fire Department and Eastland Hospital EMS practiced different patient extrication skills during an extrication class. The class was sponsored by Eastland FD and Eastland Hospital EMS.

Students learned patient spinal immobilization and treatment, and practiced several extrication skills, including use of the "Jaws of Life" and other tools.

From the left, F. Bently, Nacogdoches Memorial Hospital board member, presents the Employee of the Year award to Perry Grimes, EMT-I, and Volunteer of the Year award to Julie Wright.

Aransas County EMS presents awards, sees chain of survival at work

Aransas County EMS presented Lifesaver awards to several ACEMS members, area first responders, a telecommunication specialist and a citizen for their actions during a cardiac arrest call. Aransas County EMS responded to the sudden cardiac arrest of a 58-year-old man last August. His wife, who had taken a CPR class at Aransas County EMS two weeks earlier, began CPR and called the 9-1-1 system. Area first responders arrived and assisted with the call until the ACEMS MICU could arrive. ACEMS initiated advanced life support while transporting. One month later, the man left the hospital.

Local and Regional EMS News

Nameless EMS hosts town meeting to educate community about EMS

Nameless EMS in northwest Travis County hosted a town meeting in Cherry Hollow about "EMS - Past, Present and Future." The guest speaker was Ed Racht, MD, medical director of Austin/Travis County EMS. Nameless EMS plans to hold semi-annual town meetings on EMS-related subjects to educate county residents.

Nameless EMS in northwest Travis County hosted a town meeting featuring guest speaker Ed Racht, MD, medical director of Austin/Travis County EMS. Pictured, from left, are NEMS Director Beverly Bottorff-Patton, EMT; NEMS Training Officer Lynne Ragsdale, EMT; Ed Racht, MD; Kim Reid, EMT; and D. W. Patton, EMT.

EMS Leadership Academy announces scholarships

The EMS Leadership Academy in Junction announced that scholarships have been awarded to Kerrville Fire Department, 1996 TDH EMS Public Provider of the Year; Groom VEMS, 1996 TDH EMS Volunteer Provider of the Year; and Amarillo Medical Services, 1996 TDH Private Provider of the Year. Texas Ambulance Association sponsored the Public Provider of the Year scholarship and Texas Association of EMTs sponsored the Private Provider of the Year and the Volunteer Provider of the Year scholarships. Each scholarship allows the recipient organization to send one person to a Basic Supervision and Leadership course at the Texas Tech University Center in Junction. The leadership academy is designed to provide management/leadership education and networking for EMS managers and supervisors, and is based on a process of education that includes education about supervisory practices, and operational and executive leadership skills. Courses encourage high levels of active participation and group work and include course projects. For more information about the EMS Leadership Academy, contact Chris Black with Texas Tech University at (806) 743-3218 or Ernie Rodriguez with MedStar at (817) 927-4455.

Clear Lake Emergency Medical Corps celebrates 24 years of service

Clear Lake Emergency Medical Corps, a volunteer service in southeast Harris County, will celebrate 24 years of service in May. CLEMC also recently renovated their station, installed a new dispatch center and trained a telecommunication specialist for Medical Priorities Dispatch Systems EMD certification, which allowed the service to assume dispatch services from Clear Lake FD in June 1996. CLEMC also participated in several community events during 1996, including the K'ona Triathalon, Texas Coastal Bike Cruise, the Seabrook Music Festival and school fairs.

El Paso medics share knowledge, training with border medics

El Paso EMS, in conjunction with Texas Tech University

Local and Regional EMS News

Edwards County EMS personnel work to extricate a victim during a MCI exercise. The exercise tested their new MCI plan, which called for assistance from other EMS agencies if needed.

Health Science Center Emergency Medicine Program, received grant funding from Health Education Training Centers Alliance of Texas to deliver bilingual EMS training for Juarez EMTs and paramedics. Two BTLS classes, two PPPC courses, an adaptation of the DOT EMT Instructor course and one BTLS Instructor course were presented to Juarez EMS crews during the summer of 1996, with pertinent texts translated into Spanish. In November, the Director of Juarez "Proteccion Civil," who governs police, fire, EMS and disaster response, presented an award to El Paso EMS and Texas Tech University for their assistance in raising the education and skill levels of Juarez EMS.

Manvel VEMS sponsored a Santa Party for children in their community. Pictured are Ready Teddy, Santa Claus and Manvel children in front of Santa's sleigh—a fire truck.

Edwards County EMS stages MCI exercise

Edwards County EMS conducted a Multiple Casualty Incident exercise in October to test their new MCI plan. The incident involved a two-vehicle crash along a local highway. All EMS personnel were called, and local law enforcement provided traffic control along the highway. After initial assessment of the 12 victims, it was determined that ALS agencies were needed and their response was requested. Following the transport of all victims, all participants returned to the EMS building to review videotapes of the exercise. Assisting as transporting agencies were Frio Canyon EMS, Kerr

Local and Regional EMS News

County EMS and San Antonio AirLife.

Manvel VEMS elects new officers

Manvel VEMS elected new officers in December 1996. Elected were Jimmie DelBello, director; Chris DelBello, assistant director; Debbie Tripp, secretary; and Maureen DelBello, treasurer. The service also held two Christmas parties in December, one for the employees and the other for the community. Santa Claus and Ready Teddy were on hand to pass out candy and coloring books, and children took a tour of Santa's sleigh—a fire truck—and the ambulance.

Hoechst Celanese becomes HALO-Flight Angel

Hoechst Celanese Corpus Christi Technical Center donated $40,000 to HALO-Flight Air Ambulance Service in September. When the Hoechst Celanese Technical Center won the 1995 corporate award for excellence in site performance in several environmental, health and safety areas, the employees received bonuses for their efforts. The employees of the Corpus Christi center voted to donate those funds to HALO-Flight, a non-profit organization which serves South Texas.

Twin involved in motor vehicle crash, twin sister responds

Debra Dennis, EMT-P, RN, and a member of Possum Kingdom East VEMS, was involved in a motor vehicle crash near Possum Kingdom last November. Diane Smith, her identical twin and an EMT-P, RN, with PKEVEMS, and Carl Smith, her brother-in-law and an EMT-I with PKEVEMS, assisted Graford VEMS in responding. Graford VEMS transported Dennis, who had cuts, bruises, a broken hand and two broken legs, to Palo Pinto General Hospital in Mineral Wells. A fund has been set up by PKEVEMS to assist with medical expenses for Debra at: First National Bank of Graford, 200 North Main, Graford, Texas 76449. Diane Smith and Debra Dennis are presently instructing an EMT course in Possum Kingdom.

Harris County Emergency Corps receives Presidential recognition

Harris County Emergency Corps received recognition from President Bill Clinton, who wrote in a letter, "Because of the efforts of dedicated emergency medical personnel who, like you, place the well-being of their neighbors above their own, our nation is a better place in which to live." HCEC serves 250 square miles in north Harris

Debra Dennis, an EMT-P, RN, with Possum Kingdom East VEMS, right, was injured in a motor vehicle crash near Possum Kingdom in November 1996. Her identical twin, Diane Smith, also an EMT-P, RN, was on the responding crew.

County with a population of approximately 250,000.

Bellmead FD makes first call a save with new AED

Bellmead FD received an AED in September 1996, and the first call resulted in a save. BFD's first call after receiving the AED was for a man down in WalMart. After defibrillation, the man was transported to Hillcrest Baptist Medical Center in Waco for treatment. Funding for the AED was provided by Prudential's Helping Hearts program, with a 50 percent match in funding from Hillcrest Baptist Medical Center.

Local and Regional EMS News

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) 695-7170

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

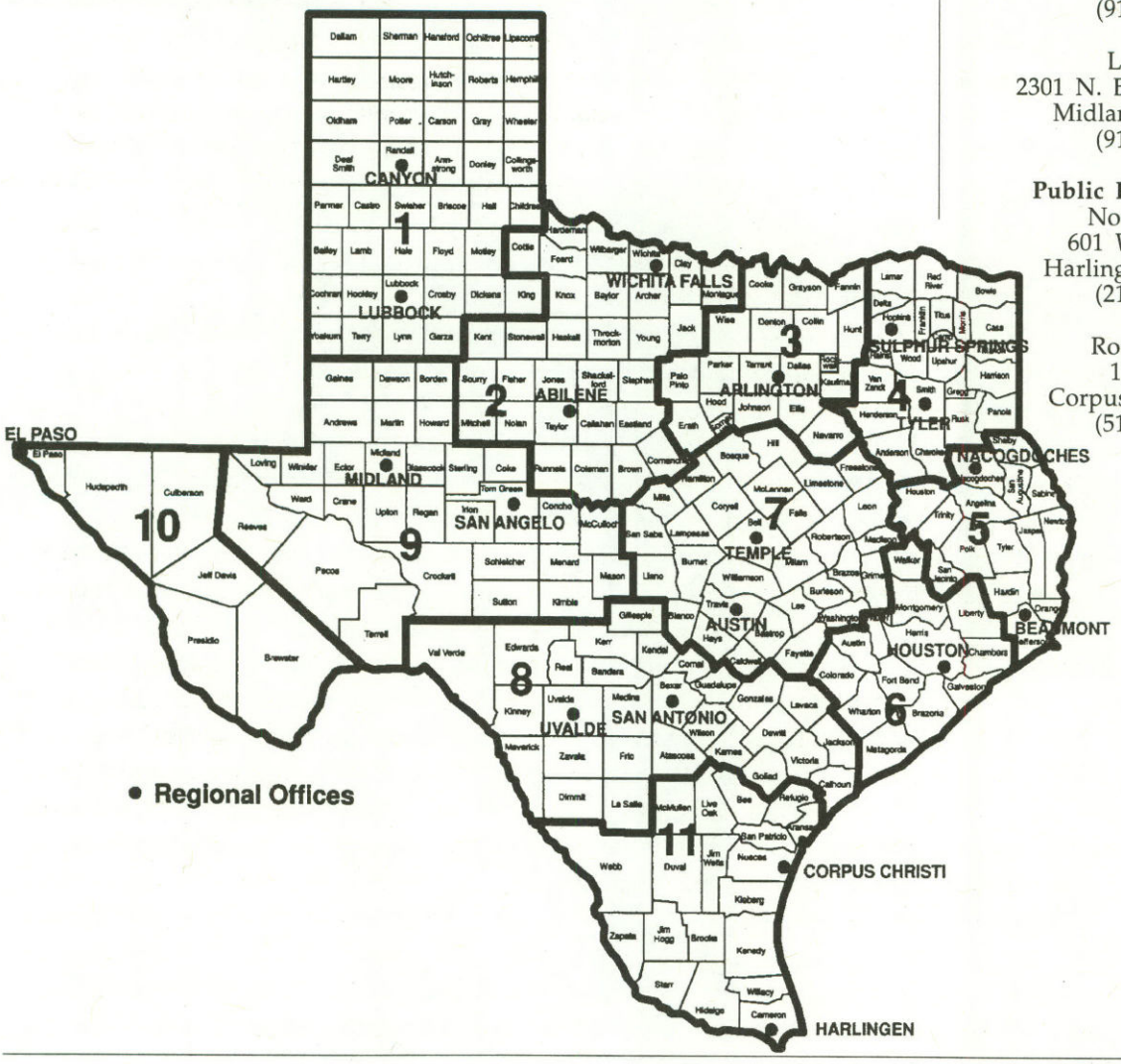
Steve Hanneman
Fernando Posada
7430 Louis Pasteur
San Antonio, Texas 78229
(210) 949-2050

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

Leland Hart
2301 N. Big Spring, Ste. 300
Midland, Texas 79705
(915) 683-9492

Public Health Region 11
Noemi Sanchez
601 W. Sesame Dr.
Harlingen, Texas 78550
(210) 423-0130

Rothy Moseley
1233 Agnes
Corpus Christi, Texas 78401
(512) 888-7762



By
Neil Coker, BS,
EMT-P

Frequently asked questions about
EMS Education

Q. *I'm a coordinator who was unable to attend a new EMT Curriculum RollOut. What can I do?*

A. To re-establish your eligibility to coordinate courses, follow this process:

1. Complete the computerized version of the RollOut available through your regional EMS office.

2. Review the new curriculum and write a paper describing the changes which have been made and your plans for implementing those changes. The regional EMS staff can provide you with specifics on the format.

3. Meet with your regional EMS staff to discuss your paper and your plans for converting to the new curriculum.

Q. *Can I earn CE on a topic more than once during a two-year reporting cycle?*

A. Yes, instruction in a ***topic***—such as EKG interpretation—can be repeated. However, the ***content*** cannot be exactly the same. For example, courses such as BLS, PHTLS, ACLS or PALS cannot be used more than once in the two-year cycle since the curricula are standardized and participants would simply be repeating material.

The intent is to prevent individuals near the end of their certification periods from attending multiple PHTLS or ACLS course back-to-back just to accumulate hours. At the same time, as much flexibility as possible is retained to allow additional instruction in areas where improvement is needed or special interests have developed.

Q. *I'm part of the group that can earn 50 percent of its CE under the "new" rule and 50 percent under the "old" rule. I've attended a refresher course to satisfy the structured CE requirement and have enough total hours. However, all of the hours were earned during the second two years. Will I be suspended?*

A. No. You have satisfied all of the requirements *this time.* Persons renewing between September 1, 1996, and September 1, 1998, report all of their CE at the time of recertification. CE earned at any time during those four years will apply as long as at least 50 percent of it satisfies the requirements in the new rule.

After you recertify, you will be functioning entirely under the new rule. After two years, you will be asked to report CE. If you have not met the requirements, your certification will be subject to emergency suspension. In other words, next time around, don't procrastinate.

Q. *I've met my CE requirements for the two-year reporting cycle except for one hour of thoracoabdominal trauma. What is going to happen to my certification?*

A. The original CE rule included a large number of very specific categories. The rule later was revised to require hours in only five structured categories: preparatory, trauma, cardiovascular, medical emergencies, and special patients. There also is an "additional" category for activities which do not fall into one of the five structured categories. As long as you have meet the minimums for your level of certification in each of these categories and have earned the necessary total hours, you have satisfied the requirements.

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

By
Phil Lockwood

Frequently asked questions about
EMS Standards

Q: I heard that you have a home page on the web. What is your internet address?

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

EMS Standards homepage contains information about our five major program areas of responsibility:

- EMS personnel certification
- Development and maintenance of EMS standards, rules and procedures
- Management of EMS data and records
- Evaluation of criminal history and disciplinary actions
- Coordination and assistance of EMS investigations and disciplinary actions

The site includes information about rules, current procedures and current forms (downloadable). Find out who has answers to your questions. Some of the areas are still undergoing construction and we plan to continually update. We encourage everyone to visit our web site for the latest information on everything you wanted to know about EMS certification. Your comments and suggestions are welcome. Send them to: emscert@ems.tdh.state.tx.us

Q: I am interested in obtaining information on EMS providers in my local area. Can you give me a listing?

A: The Texas Open Records Act allows TDH to provide information about EMS providers to any requestor. There is a charge for this service. The listing contains name of EMS provider, address, phone number, name of administrator; number, type and level of vehicles; region number; expiration date; and level of care. The available formats are as follows:

Alphabetical listing for the state	$11
Regional listing for the state	$11
Alphabetical listing by county	$15
Alphabetical listing for one region	$5
Database or text file on diskette	$15

or download the text file from our web site, free of charge at: http://www.tdh.state.tx.us/hcqs/ems/stdrecor.htm

We encourage you to contact Sharon Browder by phone or internet with questions or other open records requests: sbrowder@ems.tdh.state.tx.us or (512) 834-6700.

Q: I have misplaced my EMS exam grade sheet. How can I get it replaced?

A: Send your written request with $5 to:

Budget #2A284-015
Texas Department of Health
P O Box 149200
Austin, TX 78714-9200

Duplicate grades are available for $5 each report. Requests should include your Social Security number or EMS ID number and test date (month and year). You may also send your request via the internet to: sbrowder@ems.tdh.state.tx.us

Call EMS Standards at (512) 834-6700 or send your questions electronically to EMSCert@ems.tdh.state.tx.us

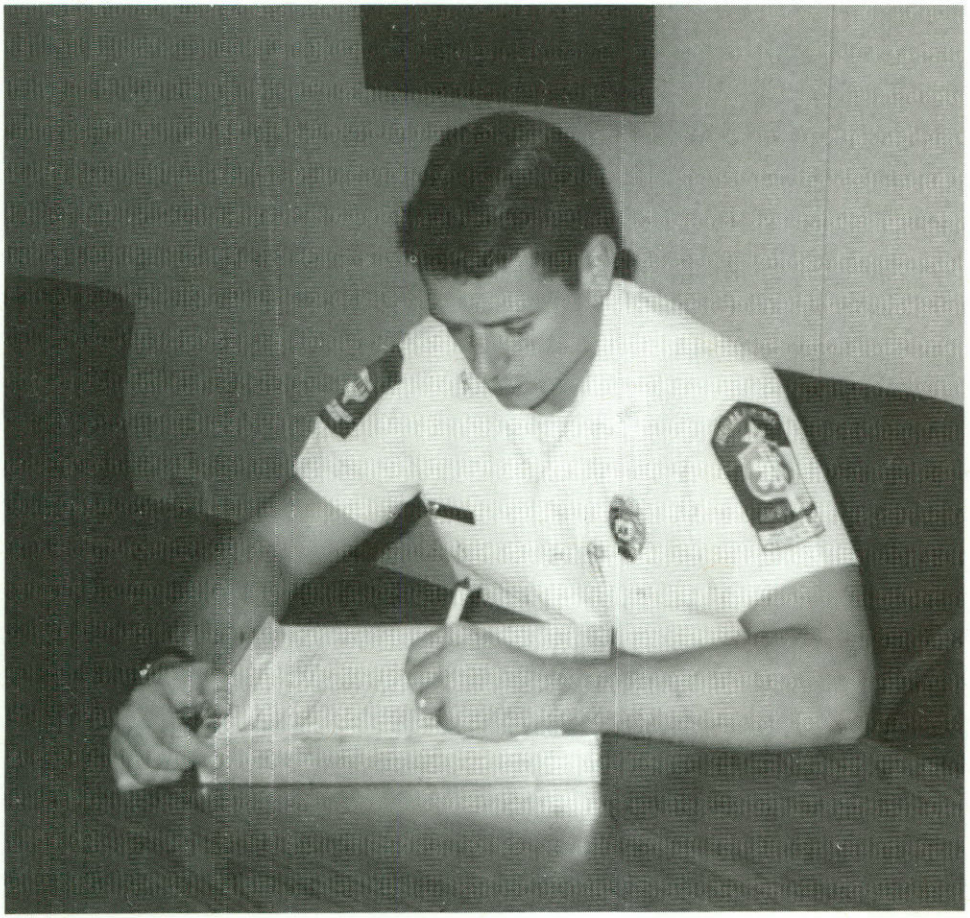


Photo by Lisa Wenschlag

Patient care reports

What you don't write down could hurt you later

The patient care report (PCR), or "run sheet" as many of us call it, is one of the most vital parts of the EMS call. The PCR is your written account of your response to the needs of the particular patient. Therefore, the PCR should incorporate all aspects of the call:

- Response information
- Patient demographics
- History, examination findings, treatments, and patient responses

Your report not only provides the receiving facility with information about the patient's condition, it is frequently used by others to gather a variety of information. Your medical control and quality management teams review the PCR to monitor protocol compliance; evaluate the needs of the patient, system and community; monitor trends; provide continuity of care; prepare patient education and prevention materials; and aid research. Administrators gather data to ensure response methods are efficient, review equipment needs, and monitor cost-effectiveness. They may also use the PCR to prepare for accreditation, watch consumer use, complete billing, and assess operational needs and policies.

The PCR also provides a risk management method: a way to monitor safety trends, liability issues, asset protection and at-risk personnel and patients. This is important because risk management protects you. Outside of your department, others may review the PCR—insurance companies, attorneys, and law enforcement and fire protection agencies. The PCR is a legal document guided by state law. Because it is patient information, it is considered confidential and must be treated accordingly.

What's in a PCR? The PCR is your account of the EMS calls. Because of

this, it should contain aspects of the call from start to finish. Remember what we were told in school: "If you didn't write it down, it didn't happen." It still holds true. All documentation should be in a standard format using standard terminology and abbreviations, and contain realistic and pertinent information. This information must be accurate and relevant.

Call Response: Areas should be provided to include call date and times, call number, responding units and personnel identification, other responding agencies, adverse response conditions, mileage and any response conditions specific to your system.

Situational Overview: In this area you should document the nature of the call, situation found, first responder information, scene description, accident layout, mechanism of injury, etc.

Medical findings: The format of your PCR is not as important as the need that it be standardized, easy to follow, understood by everyone and contain the vital information. This information includes the medical, medication and family history; the chief complaint; subjective and objective findings; problem descriptions; and vital signs. It is crucial this information be accurate and detailed. "Found adult patient complaining of chest discomfort" is not a detailed statement. A better statement:

"Following an intense verbal confrontation with bystander this 52 YO (year old) ♀ (female) c/o (complains of) sudden onset heavy, dull pain located deep in the midsternal chest area. Pain radiated through the upper left chest across shoulder and into the upper half of her left arm. The pain lasted ≈ (approximately) 30 minutes PTA (prior to arrival) of EMS and has had Ø (no) relief with rest according to the patient. She rates this 8 on a scale of 1 to 10. Patient was found sitting and clutching her chest upon EMS arrival."

Your treatment descriptions should also be just as detailed. Remember: write it down. Be sure to note what you did, why you did it, how you did it, the time you did it, and the result. Document all patient responses to treatment. Did the patient improve? Was there no change? Did the patient worsen? Document vital signs according to your local protocols. A good rule of thumb is to document all vital signs every 5 to 15 minutes.

The final area of the PCR contains the elements of **call termination** such as patient disposition and receiving facility signature. Additional information is often included to fit the needs of your system. Among these are indicators for personnel exposures, a request for report auditing, communications and contact with the receiving facility. There are other components included with the PCR. These include patient consent and refusals. If you are in a culturally diverse location, you may want this form to be bilingual.

Also, ECG strips may be attached directly to the PCR. However, it is very important that the strip does not get lost. Include the patient's name, run number, date and time on each strip attached. Your system may have additional attachments such as charge sheets for supplies and equipment used, and trauma flowcharts.

The key to successful documentation is accuracy, ease of completion, and standardized format and terminology.

Remember what we were told in school: "If you didn't write it down, it didn't happen."

TDH's Mark Huckaby provides technical support on EMS system development including the TDH's ambulance program. Call Mark at (512) 834-6700.

A look south at the road into Big Bend National Park gives a glimpse of the wilderness that lay ahead for the group of medical volunteers.

On the border

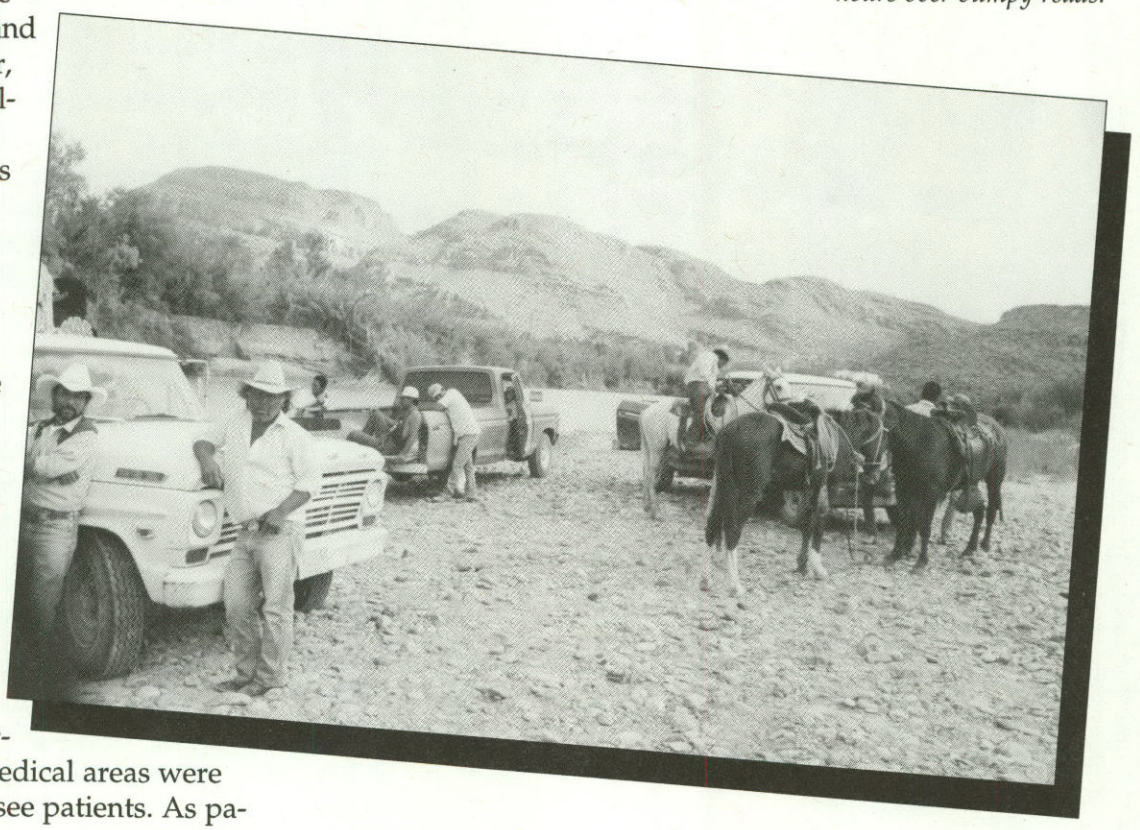
Medic gets hands-on experience at Mexican clinic

Several months ago Dr. Ottis Layne, ER Director, Sid Peterson Hospital, in Kerrville, asked my wife Lorrie and me if we would like to join him and a group of others on a trip into Mexico to set up clinics in three small communities across from Big Bend National Park. Twice each year for the last ten years, Dr. Layne has taken a team of medical personnel to the same three villages. Lorrie and I thought it would be a good opportunity to get away from the routine and allow us to get involved in direct patient care. Not knowing what to expect, I packed enough gear to meet any challenge. Lorrie, being more level-headed, took only one suitcase. We left Uvalde around 10 am on October 2, 1996, and after a drive of almost 350 miles, we arrived at the Rio Grande Village campsite in Big Bend National Park. As we began to set up the tents, the wind that had been blowing steadily all afternoon seemed to increase to gale force. It soon became apparent that the small tent stakes we had were not going to hold. Luckily, I just happened to have packed some larger ones for just such an emergency. By then, Pauline Erekson, EMT, Edwards County EMS, had prepared our evening meal: BBQ with all the trimmings. After dinner, we spent the evening renewing old friendships and making new acquaintances. All to-

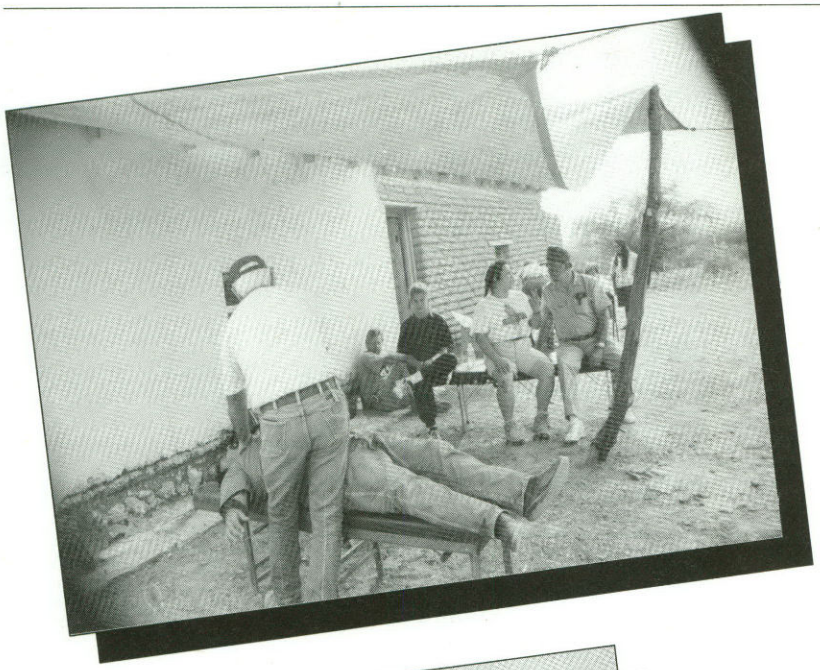
gether there were 27 in our party. There were two medical doctors, a medical student, a dentist, three dental students, a dental assistant, two chiropractors, a respiratory technician, a respiratory therapist, two paramedics, three EMTs, two ministers, a nurse's aide and several LVNs and RNs.

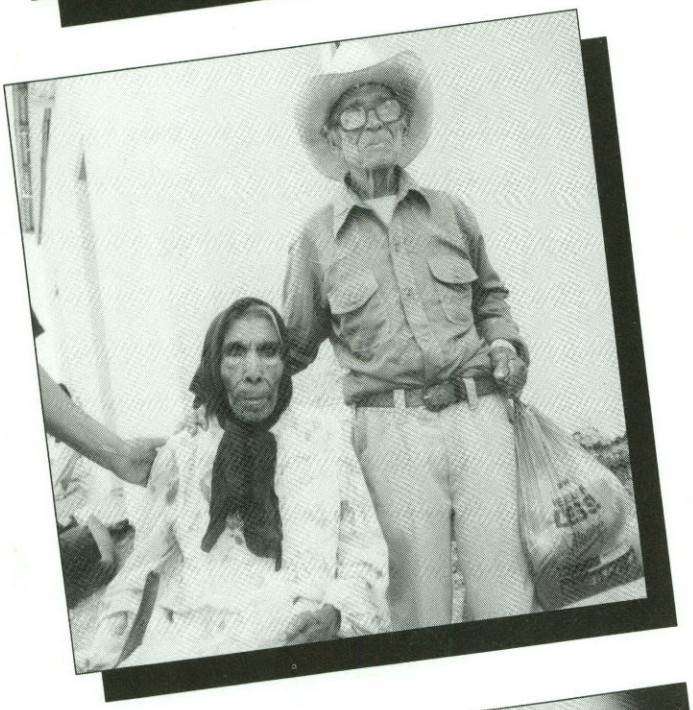
After a semi-sleepless night of listening to the wild burros and coyotes during lulls in the wind, we got up and began to pack our gear for the trip across the river. By 9 am, we had moved most of the supplies and equipment to the river crossing that led to Boquillas, Mexico. It took several trips in the small, flat-bottomed boat to ferry all of the people and gear across. On the other side of the Rio Grande, a fairly large group of people, many on horseback, had gathered to watch the procession. Finally we loaded everything onto the four pickup trucks waiting to carry us to Jaboncillos, our first stop. After stopping briefly to inform the military of our plans, we headed south over a gravel road that by our standards could only be considered fit for a four-wheel-drive vehicle. Two hours and only thirty miles later, we arrived at Jaboncillos, where a small group of children was playing soccer on a barren field. We unloaded all of the supplies and equipment in front of a small church that was to be used for our clinic. Within minutes, the reception area, complete with medical records, was set up. The two chiropractors hung a tarp from the side of the building for shade. The laboratory, pharmacy, dental, and medical areas were set up and ready to see patients. As patients came through the reception area, they were given small packages containing toothpaste, shampoo, soap and other items. Each child who came was also given a Ready Teddy coloring book (Spanish version) and a Ready Teddy sticker. One of the things that impressed me most was even though there was no running water and limited electricity (solar-panel-powered), the residents, and especially the children, were very clean and dressed neatly. The children, although a little shy, were polite. The older ones seemed to enjoy looking after the younger members of the village.

Before we left our base camp that morning, Dr. Layne had asked Lorrie and me, along with Kerrville FD paramedic Lem Biggs, to work in the pharmacy, which consisted of four large footlockers filled with donated drugs ranging from vitamins to antibiotics and drugs for hypertension. Each locker contained trays clearly marked as to the purpose of the medications. When the doctors finished with the



It took several trips to get the 27 people and their gear ferried across the river in a small, flat-bottomed boat. Once in Mexico, the Americans were greeted by people waiting to take them to the first clinic. The 30-mile journey took two hours over bumpy roads.





patients, they would tell us what medication was needed. We would find the right medication and fill the prescription. Standard issue was vitamins for all family members.

Seventy-two patients later, we were through for the first day. A hearty meal of carne guisada, rice, beans and homemade tortillas awaited us at a local resident's house. By then it was time to gather up the tents and sleeping bags and get ready for bed.

The next morning, after coffee and tacos, we loaded up and headed to Los Norias, fifteen miles back toward the Rio Grande. Here the process was repeated. After completing the day's work, there was a little time to walk around and enjoy the area. A group of kids practiced a dance routine near the school while another group sat on their horses and watched. We were shown the processing area for candelia, a spiny, cactus-like plant harvested for its wax. I couldn't get over the sight of the Sierra Del Carmen Mountain towering above Los Norias, which had to rise at least four thousand feet off the desert floor. The flat topped mesa appeared to be several miles in length. According to one of the residents, the climate was totally different on the mesa with growths of pines and lush grasses. Lorrie and I talked about walking from the village to the mountain base until we discovered it was over eight miles away! One of the more interesting things at the village was the air strip that at one

(Photos at left) At top, in the village of Jaboncillos, chiropractors set up under tarps while the rest of the group saw patients in the small church that had been converted to a clinic for the day.

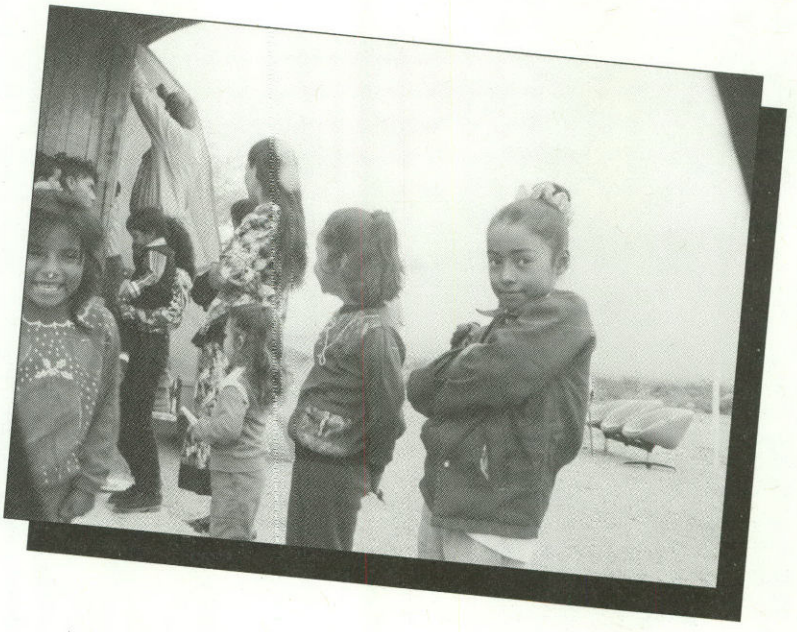
Middle, one of the older couples at Jaboncillos walked about a mile to the clinic. The woman claimed to be in her early 80s, but her husband put her closer to 90.

Bottom, kids who came to the clinics were given a Spanish version of the Ready Teddy coloring book and a Ready Teddy sticker.

time had been used for drug smuggling—until the residents had cut several deep ditches across it.

That night, several of us gathered around to sit and talk while many of the others attended a special church service. Lem Biggs played the harmonica and Dr. Layne played the autoharp.

Early the next morning we broke camp, loaded everything and headed back to Boquillas, our final stop of the trip. The building normally used for the clinic in Boquillas had been taken over by the military. Even though they had evacuated it for the day, we decided to use the small government clinic located near the center of the village. While we unloaded and set up the clinic equipment and supplies, all of our camp gear was ferried back across the river and taken to our base camp in Rio Grande Village. The turnout in Boquillas was lighter than that of the previous two villages, probably due to the small government clinic located there. It only took a few moments to notice the difference between the residents of Boquillas as compared to the other villages. While not as commercialized as many of the other border towns, there was the distinct influence of the tourist trade from across the river. There were children peddling necklaces and bracelets, and several vendors sat along the road with different selections of fossils and rocks. After finishing with the patients, we headed to the Rio Grande



(Photos at right) At top, the line outside the Los Norias clinic formed quickly once the medics arrived. Villagers waited patiently to see medical personnel.

Middle, the medics found the children at the clinics neatly dressed and polite. All patients received vitamins along with any needed medications.

Bottom, the view of the main street of Boquillas shows a quiet, rural village in the desert. Many homes and buildings in the three towns relied on solar power.

The following people were on the trip: Pauline Erekson, EMT, Edwards County EMS, Rocksprings; Ronnie Erekson, EMT, Edwards County EMS, Rocksprings; Curtis Allerkamp, minister, Fredericksburg; Sara Allerkamp, RN, minister, Fredericksburg; Heneco Vesa, Rocksprings; Terry Argna, Comfort; Esther Sanchez, LVN, Kerrville; Josie Rodriguez, RN, San Antonio; Maria Molina, nurse's aide, Kerrville; Ray Moore, DC (chiropractor) Round Rock; Anna Carri, dental assistant, San Antonio; Madelyn Gambrel, dental student, San Antonio; Joey Boyle, dental student, San Antonio; Juan Flores, pastor, Center Point; Charles Burg, MD, Fredericksburg; David Hardison, DC/physical therapist, Fredicksburg; Anna Maria Lozano, respiratory therapist, Kerrville; Sylvia Zavala, Kerrville; Alma Quintero, RN, San Antonio; Cyndi Taylor, respiratory tech, Ingram; Ottis Layne, MD, Fredericksburg; Dan Garcia, DDS, San Antonio; Lem Biggs, EMT-Paramedic, Kerrville; Lorrie Sweeten, EMT, Uvalde; Lee Sweeten EMT-Paramedic, Uvalde; Jason Peet, medical student, San Antonio; Elizabeth Peet, dental assistant, San Antonio.

where we were ferried across.

Since none of the villages had running water, the first thing we did after arriving at the base camp was to make a dash for the pay showers at the camp store. After a long much-needed shower, Lorrie and I decided to head on back to Uvalde. It looked like it might rain and that, along with the fact that I really didn't want to sleep on the ground another night, helped persuade me that we should at least travel part way and find a motel with a decent bed.

On the way home we talked about the trip and how our initial response was to feel sympathy for the residents of the villages we visited. However, when we recalled the happy looks on the kids' faces, the politeness and respect for others and their property and the slower pace of life without all the techno-wizardry, instead of sympathy we began to feel envious. That envy has carried over after returning back to work.

What did I like best about the trip? It is hard to answer. There were so many things: the chance to work more closely with direct patient care; the making of new friends; the scenery; seeing another society; and not hearing any industrial noise. Will I go back? You bet. Plans are already being made for the first week in April. Maybe this time I won't pack as much—but then again you never know what kind of an emergency might arise.

Anyone or any organization that would like to donate supplies and/or equipment for this project should contact Dr. Ottis Layne at (210) 896-4000.

Top, paramedic Lee Sweeten, left, EMT Lorrie Sweeten and paramedic/firefighter Lem Biggs were part of the team that made the trip to Mexico. Lee says he's already planning to go on another trip.

Bottom, after three days, the group loaded up and headed back across the Rio Grande. Looking into the camera, from left, is EMT Lorrie Sweeten and EMT Ronnie Erekson.

By Starr L. Eaddy, EMT

Women face barriers in AIDS treatment

Wow! It was great meeting so many of you at the Texas EMS Conference. I appreciate the great response to the EMS research project.

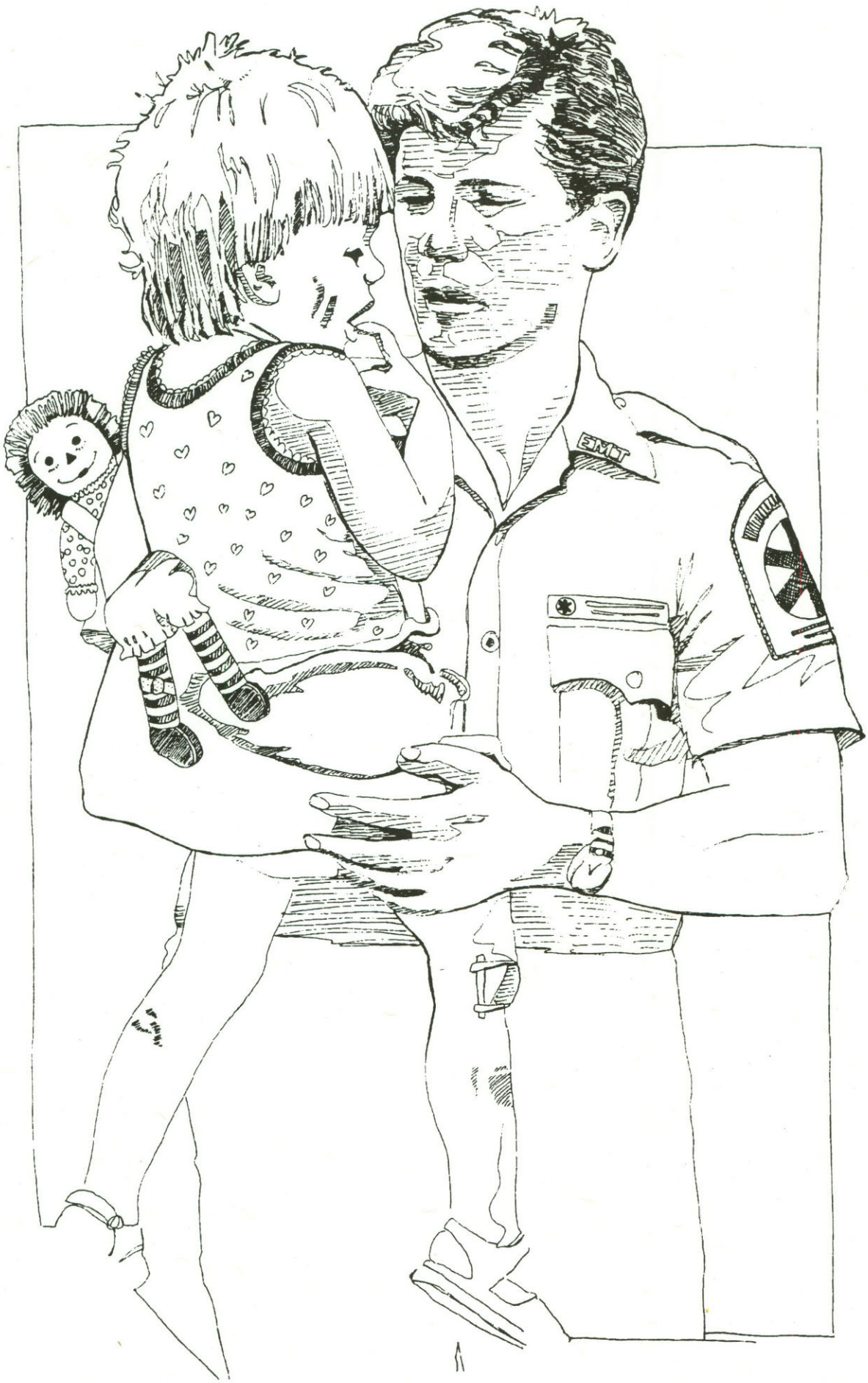
I imagine the folks who participated in the survey want to know what it was really about. Now that all of the surveys have been returned, I can tell you. The survey was designed to examine the relationship between a personality characteristic called sensation-seeking and its interaction with a measure of burnout in emergency medical personnel, i.e., EMTs, paramedics, firefighters, etc.

Basically, I want to know if medics scored higher in sensation-seeking (the need for varied, intense and novel experiences and the willingness to take social and physical risks for the sake of such experiences) than non-medics. I also want to know if sensation-seeking has anything to do with burnout. I am still analyzing the data; look for an update in the next edition.

Women and AIDS I decided not to do research on AIDS even though I write this column and work with people living with AIDS (PLWAs). The thesis process is so labor intensive that I wanted something other than AIDS to focus on. I do spend a great deal of time working on various aspects of the AIDS epidemic; for example, I sit on a planning committee for a conference that will discuss treatment options for women with HIV. I am amazed at the number of the barriers to care women face. Most of the women I work with deal with shame, guilt and fear that their diagnosis will be discovered. Several women refuse to access care because they do not want to go to an agency that says AIDS on the door. Many women fear they are totally alone with this disease. They get no support at a time when they need it the most. A woman may be expected to be aware that her partner engaged in behavior that put her at risk, and may feel she is subtly held responsible if her partner had other partners without her knowledge. Added to this are the sexist attitudes women are forced to combat if they do access care. Health care providers who are knowledgeable about HIV are rarely expert in the unique manifestations of the disease in women. Many of the opportunistic infections that herald a significant decline in immune function in men almost never occur in women. There are several gynecological manifestations of HIV that obviously never occur in men. Something as simple as a recurrent yeast infection that persists despite treatment could be a clue to the presence of HIV. Misdiagnosis can waste months or years of valuable treatment time.

Issues like the ones above are very hard to deal with, especially if other interests are not pursued.

EMT Starr Eaddy conducted an AIDS research survey at Texas EMS Conference '96.


EMT

By Erin E. Endom, MD

Pediatric injuries

Do you know what signs to look for in child abuse?

Have you ever been on a call with pediatric injuries where something just didn't seem right? Did you suspect child abuse but were unsure of the signs? Chapter 261 of the Health and Safety Code requires that health care workers report suspected child abuse to a local law enforcement agency or the Texas Department of Protective and Regulatory Services (800-252-5400).

April is National Child Abuse Prevention Month. Erin Endom, MD, of Baylor College of Medicine, has written a list of signs to look for in recognizing abuse.

Identification of the physically abused child

Suspicious factors in the history of how an injury occurred:

• History that is inconsistent with the severity of the child's condition; that is, a story that doesn't make sense in light of the child's injuries. For example, a caretaker may say that a child fell off a couch, resulting in a broken leg and a skull fracture. Falling off a couch doesn't produce enough force to cause these kinds of injuries.

• History that changes over time and with repetition: the EMT may hear one story, the emergency center nurse a different one, the physician yet another. Alternately, different family members may give different accounts of what happened: the mother says the child was burned while being bathed in the bathtub, while the aunt says it happened in the sink. The parents may seem reluctant to explain what happened, or may not give any history at all: "I don't know how it happened. She was just suddenly hurt."

The parent may make a partial confession: "I hit him but not that hard," or may admit frankly that injury was inflicted.

• History inconsistent with child's developmental age: a 4-month-old climbs out of his crib and falls, or turns on the hot-water tap by himself—in other words, the child is just not developmentally mature enough to perform these actions.

• Delay in seeking medical care is particularly suspicious: in an estimated 30 percent of abuse cases, care is delayed 24 hours, and 30 percent more delay 1-4 days.

• History of prior abuse or repeated injuries in the past; abuse of other children in the family; "hospital shopping"—going to different doctors or emergency rooms with different injuries to avoid the staff of one ER getting to know them and becoming suspicious.

• Injury attributed to actions of

siblings: "His brother hit him with a toy." This may be a cover story, or it may be true and related to sibling rivalry, inadequate supervision, or violence in the home; either way, the situation may warrant investigation.

• The parent may make a partial confession: "I hit him but not that hard," or may admit frankly that injury was inflicted.

Drip and splash marks, seen when hot liquid is spilled, are absent in immersion burns. Palms and soles may not appear burned even though they were under the water, because the skin is thicker there and burns more slowly.

Injuries considered to be consistent with or suspicious of child abuse:

• Multiple injuries—or more than one type of injury, such as bruises, burns and/or fractures—present at the same time, especially in different stages of healing, imply more than one episode of trauma.

• Injuries to lips and teeth of infants. This area is frequently injured in toddlers due to falls, but in an infant too young to toddle, injury here may be associated with a blow to the mouth, or with forced feeding or "bottle-jamming."

• Any trauma to the genitals without a clear and convincing history. "Straddle injuries" due to falling on open cupboard doors, the crossbar of a bicycle, etc. are fairly frequent in preadolescent girls, who can usually tell what happened. Injury to the genitals with a vague or unclear history like "she sat down on a toy," especially in a child too young to talk, should raise suspicion of sexual abuse.

• Suspicious bruising patterns. Accidental bruising tends to occur on the forehead and extremities, especially knees and elbows. Central bruising—to the buttocks, torso, genitals, inner thighs, cheeks, ears, neck—is suggestive of abuse. Sometimes actual hand prints or oval finger marks are visible, caused by the child being slapped, pinched, grabbed or shaken.

• Bite marks look like circular or oval-shaped bruises: they may be clear in the center, or may show small broken blood vessels. Adult bite marks measure at least 3 centimeters between the canine teeth, which differentiates them from bites by other children. A forensic dentist can match bite marks with the teeth of the abuser, and fresh bites can be swabbed for the assailant's saliva for identification with blood type and even DNA matching.

• Loop marks are seen after a blow with a doubled-up wire or electric cord; an electric cord leaves characteristic double-tract marks.

• Belt marks leave a long broad band of bruising, often ending in a horseshoe-shaped mark caused by the buckle.

• Rope burns are usually seen on the neck, around the wrists or on the ankles; gag marks cause bruising at the corners of the mouth.

• Multiple bruises at different stages of healing imply more than one episode of trauma. Fresh bruises progress through several recognizable stages of healing: swollen and red or reddish-blue the first day, then changing from dark purple-blue to greenish, then yellowish-brown, and disappearing within 1-3 weeks. Although the rate at which bruises heal is variable, this progression allows relative dating of injuries and provides evidence of repeated episodes of injury.

Suspicious burns

• Cigarette burns are circular, about one centimeter in diameter, with a thick, heaped-up edge. A skin infection called impetigo can look very similar to cigarette burns, but impetigo involves only superficial skin layers, while inflicted cigarette burns are usually deeper (third-degree).

• Brands occur when a hot object such as a radiator grill, a clothes or curling iron, or a cigarette lighter is pressed against the skin. The burn is of the same depth throughout, and the outlines of the hot object are clearly visible on the skin.

• Immersion burns occur when a child is forcibly dunked into water or another hot liquid; usually found on the buttocks or legs, or in a stocking or glove distribution on the feet or hands. Again, these burns are of uniform depth, with a sharp boundary between burned and normal skin. Drip and splash marks, seen when hot liquid is spilled, are absent in immersion burns. Palms and soles may not appear burned even though they were under the water, because the skin is thicker there and burns more slowly. Other areas that may escape burning even though under the water include the protected skin folds where knees and hips are flexed, and also any skin in contact with the bottom of the tub, which is cooler than the surrounding water.

Conclusion

Again, be suspicious of an injury that is inconsistent with the history given by the caretaker. This point cannot be stressed too highly. Does the story make sense in light of the child's injuries? Do the child's injuries make sense in light of the story you're hearing?

Health and Safety Code

SUBTITLE E. **PROTECTION OF THE CHILD**

CHAPTER 261. **INVESTIGATION OF REPORT OF CHILD ABUSE OR NEGLECT**

SUBCHAPTER B. **REPORT OF ABUSE OR NEGLECT IMMUNITIES**

(b) If a professional has cause to believe that a child has been or may be abused or neglected, the professional shall make a report not later than the 48th hour after the hour the professional first suspects that the child has been or may be abused or neglected. In this subsection, "professional" means an individual who is licensed or certified by the state or who is an employee of a facility licensed, certified, or operated by the state, and who, in the normal course of official duties or duties for which a license or certification is required, has direct contact with children. The term includes teachers, nurses, doctors and day-care employees. (**Ed. note**: A recent legal opinion includes EMS in this list.)

SEC. 261.103. **REPORT MADE TO APPROPRIATE AGENCY**

A report shall be made to:

(1) any local or state law enforcement agency;
(2) the department (Texas Department of Protection and Regulatory Services)
(3) the state agency that operates, licenses, certifies, or registers the facility in which the alleged abuse or neglect occurred; or
(4) the agency designated by the court to be responsible for the protection of children.

Erin E. Endom, M.D. is an Assistant Professor of Emergency Pediatrics at Baylor College of Medicine in Houston, Texas. She is interested in the problem of child abuse and has lectured on this subject to medical students, physicians in training, and national audiences.

Hepatitis is a disease or condition marked by inflamation of the liver. —Webster's Ninth New Collegiate Dictionary, Merriam-Webster Inc. 1990, pp. 565.

Hepatitis: *Concern for the emergency responder*

Hepatitis, a concern for emergency response personnel, can have many causes: drugs, other diseases, alcohol and viruses. Viral hepatitis is the only type that need be of concern to individuals providing patient care in the prehospital setting.

Two main types of viral hepatitis have been identified. These types are determined by the means of transmission: foodborne or bloodborne. Foodborne means that the main means of transmission is the consumption of contaminated food or water. This means of transmission is also called fecal-oral because the organisms are excreted in the stools. Failure to use adequate handwashing will transmit those organisms to food items prepared by the ill individual. Bloodborne means the disease is transmitted by needlesticks, human bites, blood to non-intact skin and blood to mucus membranes.

Hepatitis A and E are foodborne: hepatitis E is currently not found in this country, unless it is brought in by a world traveler. Hepatitis B, C, D, and now a new one G, are all bloodborne diseases. There is very limited information on G, and no recommendations from the CDC. Current information seems to indicate that G is somewhat like hepatitis C.

Hepatitis B - Hepatitis B is much easier to catch than hepatitis C. This is because there is a high titer (amount) of B virus circulating in body fluids, especially the blood. Also, the virus can live for up to a week in dried blood on an environmental surface and still cause infection if there is a portal of entry (cut, lesion) into the body. With an incubation period of 45 to 180 days, it has a slow onset, with symptoms of fatigue, sometimes jaundice, joint pain, nausea, fever, upper right quadrant pain, dark urine and clay stools; occasionally there are no symptoms at all.

The course of the disease is different for individuals depending on age and general health. Elderly individuals or those with additional medical problems usually experience more symptoms. Usually the disease resolves over a period of several months, but a marker will usually exist on the hepatitis profile. Some individuals may not resolve the disease but become chronic carriers. This is especially true in children under age 5 who get the disease. Chronic carriers may not be aware that they have the disease and have no symptoms, but they are capable of transmitting the disease to others.

High risk populations are individuals from other countries, especially Asia, Africa and others where the disease is endemic, IV drug users, individuals with multiple sex partners, physically handicapped individuals, dialysis patients and individuals who are HIV-infected.

Emergency response personnel should complete the hepatitis B vaccine series prior to beginning any patient care activities. A post-test is recommended to ensure that the vac-

cine was effective. A titer should be ten or better to be considered effective. The vaccine will also protect against hepatitis D. You must have hepatitis B in order to contract hepatitis D (Delta).

If you have not had the hepatitis B vaccine and you sustain a significant occupational exposure, prophylaxis with HBIG (hepatitis B immune globulin) and beginning the vaccine series will usually prevent the disease. Having the disease will also confer immunity.

Hepatitis C - Hepatitis C is a much larger problem. This type of hepatitis was originally called non-A non-B. It is caused by a group of viruses, and having had the disease does not provide immunity. It is also possible to have one strain superimposed on top of another. The virus is present in much lower titers in body fluids, with the highest level in blood. Fortunately, this factor makes the disease harder to contract unless you sustain a needlestick with a large bore needle or have large amounts of blood splashed into mucus membranes.

The incubation period is two weeks to several months. The current lab test only tests for the presence of antibodies that comes from being infected. The test has some false negatives and positives and must be confirmed by another test called a RIBA II. The tests do not distinguish between acute and chronic infections. A liver biopsy may be necessary to confirm the disease.

Individuals may have symptoms like those found in hepatitis B or may have none at all. In addition, the liver enzyme ALT may also be elevated. However, the lack of liver enzyme elevation or symptoms does not correlate with the severity of the disease. The damage can only be determined by liver biopsy.

Currently, there is no medication for prophylaxis if an exposure occurs, and no vaccine is available to prevent the disease. CDC is currently working on recommendations for individuals who sustain occupational exposures.

The highest risk populations are IV drug users and dialysis patients. It is also not unusual to see individuals with HIV infections who also have hepatitis C. Hepatitis C infections can become chronic in as high as 80 percent of the cases. A drug called Alpha Interferon has been used in the treatment of both hepatitis B and C, with 40 percent improvement in hepatitis B and 50 percent improvement in hepatitis C. However, about 50 percent of those treated for hepatitis C had a recurrence within five months of stopping treatment.

Liver cancer, cirrhosis and liver failure is possible with both hepatitis B and C and in some cases, a liver transplant may be the only way to recover.

Emergency response personnel protection

Emergency response personnel can protect themselves from these diseases in the following ways:

1. Obtain the hepatitis B vaccine series
2. Wear appropriate personal protective equipment in all instances where blood exposure is likely to occur: gloves, gowns, glasses and a fluid-resistant mask
3. Use safety IV cannulas when possible
4. Follow your departments protocols
5. Report all occupational exposures promptly

Remember that hepatitis C requires special follow-up and testing procedures. This is especially important on significant exposures mentioned earlier. If you have questions contact the communicable disease nurse or epidemiologist with TDH or your local health department.

Carol S. Lawrence, RN, BSN, is the communicable disease coordinator for the Dallas Fire Department/EMS.

Earn 1.5 hours of CE/Medical Emergencies

Continuing Education

By Peter Snell, NREMT-P

PHOTO BY JOEL ANDREWS

Understanding diabetic ketoacidosis

Scenario

It's 3:00 am, and you and your partner are awakened by pagers as you are toned out for a single vehicle accident with injuries. Upon your arrival, you notice that the sheriff's department is on scene and has control. A deputy approaches and reports, "I have the drunk over here in my car. He was alone when he missed this curve and went through the fence, taking out a couple of posts. He wasn't speeding, only doing 45-50 mph. He'll probably have to kill someone before he wises up." The officer continues to tell you that the patient was out of the car and wandering around the scene when they arrived.

Your primary assessment of this 32-year-old male reveals disorientation, decreased level of consciousness, tachycardia and a rigid, painful abdomen. Based on these findings, you decide a rapid extrication from the patrol car is indicated with immediate transport to the trauma center 20 minutes away. En route to the hospital, the patient complains of nausea, and is thirsty and unable to appropriately answer your questions. Your secondary examination reveals a three cm contusion above the right eye, weak peripheral pulses and weak motor responses in all extremities. Vital signs are: pulse 130 irregular and weak; respirations, 30 deep and non-labored; blood pressure 110/74; and temperature 99.3. Skin is warm, dry and flushed.

What is your impression of this patient? What treatments would you initiate? Do you think he is definitely intoxicated? Are all of the presenting symptoms accident-related? After reviewing this article, your answers may change. You may be surprised at what true emergency this patient actually faces.

Objectives

Upon completion of this article, the reader should:

1. Be able to describe the pathophysiology of DKA.

2. Be able to differentiate between DKA and other conditions that may present with similar signs and symptoms.

3. Be able to state appropriate interventions necessary to facilitate recovery from acidosis.

Peter Snell is a nationally-registered paramedic who has worked in EMS for 7 years, both in Canada and Texas. He is currently employed with American Medical Response in San Antonio and volunteers with Kendall County EMS in Boerne.

Diabetes Review

Diabetes mellitus is a chronic disorder of carbohydrate metabolism. The chief characteristic of this disease is an inadequate supply of insulin. Problems present themselves either when supply is inadequate (e.g. diminished secretion rate by the Islets of Langerhans in the pancreas), or when insulin demand is high (e.g. obesity, increased stress, infection). Diabetes, with its complications, is the third leading cause of death by disease in the U.S. Aside from death, diabetes mellitus is also a major cause of new blindness, limb amputation and hospitalization. Diabetes incidence has steadily increased over the past decades. Some reasons for this include a longer life span and obesity in the general population, and with decreased mortality due to insulin treatments, more diabetics having children, who are predisposed to diabetes themselves.

It should be noted here that there are two types of diabetes, type I and type II. Type I is a lack of insulin production by the pancreas; these people are usually insulin dependent. Type II is the inability of the target tissues to utilize the insulin effectively. These individuals usually are not insulin-dependent.

Three acute complications can potentially develop in the diabetic patient: ketoacidosis, hypoglycemia and hyperglycemic hyperosmotic non-ketonic coma (HHNK). This article explores diabetic ketoacidosis in depth.

Pathophysiology

DKA is primarily a complication of Type I diabetes. However, Type II individuals may develop ketoacidosis when experiencing periods of increased insulin demand. This complication develops because the lack of insulin prevents glucose from being transported into the cells. The result is an increase in serum glucose and a decrease in intracellular glucose.

This situation sets off a chain reaction (page 46, see chart #1). The lack of carbohydrates for cellular fuel triggers the liver to produce more glucose (gluconeogenesis) and convert its glycogen stores back to glucose (glycogenolysis). However, these responses only exacerbate the problem by dumping more glucose into the blood with no insulin available to transport it across the cell membrane. This exacerbation results in hyperglycemia. As the serum glucose level exceeds the renal threshold, glycosuria results, causing polyuria, and acts as an osmotic diuretic. The renal threshold is reached when glucose in the glomerular filtrate can no longer be reabsorbed by the tubular system after entering Bowman's capsule. This usually occurs when the serum glucose reaches 180 mg/dl. Osmotic diuresis results from the osmotic pressure preventing reabsorption of water. This excessive amount of water is excreted in the urine. As the diuresis increases, a rapid decrease in circulating blood volume and electrolytes ensues, contributing to a hypovolemic state.

Since the cells are still fuel-starved due to the lack of insulin, alternate cellular fuel sources are sought. These sources are found in the metabolism of lipids and proteins.

As fats are broken down for energy (lipolysis), the ketone bodies (B-hydroxy butyrate, acetoacetate and acetone) are produced. In the individual with an insulin deficiency, lipolysis is uninhibited; therefore, an increase in ketone body production

also goes unchecked. As the capacity to oxidize the ketones is surpassed, the excess ketones are secreted in the urine (ketonuria). The number of ketone bodies eventually increases beyond the kidneys' capacity, and subsequently accumulates in the blood (ketosis). Because two of the three ketone bodies (B-hydroxy butyrate and acetoacetate) are acids, this accumulation of ketones in the blood produces metabolic derangement known as ketoacidosis. This acidosis causes nausea and vomiting, which further decreases the circulating blood volume.

To combat the ketosis, the body employs three lines of defense. First, the buffer system is activated. As acetoacetate is synthesized, hydrogen ions are produced. These react with bicarbonate to form carbonic acid, and this in turn is converted to carbon dioxide and water. The lungs then expel the carbon dioxide and water while the kidneys excrete the acetoacetate. The phosphate buffer system works to buffer other ketone bodies.

The second system activated is the respiratory system. As the lungs work to rid the body of excess CO_2 and acetone, an odor of "rotten fruit" or "nail polish remover" may be noticed on the breath. This is the smell of acetone. Also an increased rate and depth of respirations may be realized (Kussmaul's respirations).

Finally, the renal system attempts to control ketoacidosis by increased excretions. The decreased pH also activates the ammonia mechanism, which works to remove excess hydrogen ions.

When ketoacidosis is uncontrolled, the body's compensatory mechanisms are overwhelmed, and ketoacidosis worsens and serum pH falls. When the acid overload is great enough, diabetic coma ensues.

The body also metabolizes protein to create cellular fuel. Protein metabolizes into amino acids, which are broken down by the liver into glucose and nitrogen. The increased gluconeogenesis further worsens the hyperglycemic state while increasing the osmotic diuresis. This protein breakdown also causes a loss of intracellular potassium.

In addition to ketoacidosis, some degree of lactic acidosis may also be present. As polyuria, vomiting and Kussmaul's respirations continue, the plasma component of blood becomes depleted, causing hemoconcentration. This restricts blood circulation, and results in widespread, severe tissue anoxia. Tissue anoxia results in anaerobic metabolism and the production of lactic acid, further decreasing the serum pH. Hydrogen ions, which have built up in the extracellular fluid, move to the intracellular fluid. This causes intracellular potassium depletion as potassium is forced out of the cells by the hydrogen ion.

The patient also loses sodium, phosphate, magnesium, chloride and bicarbonate through excessive urination and vomiting.

The hyperosmolarity, which results from the hyperglycemia and ketosis, causes water to move out of the cells. The resultant intracellular dehydration within the central nervous system manifests as some degree of altered sensorium.

Decreased circulating volume, metabolic acidosis and altered sensorium combine to create a dangerous position for this patient. The decreased circulating volume causes hypotension and tachycardia as well as

the decreased organ perfusion. The kidneys experience a decrease in function, contributing to the acidosis. Metabolic acidosis causes a decrease in intracellular potassium resulting in potentially lethal cardiac dysrhythmias. Finally, the altered sensorium canprogress to coma and death.

DKA clearly is an emergent situation. The patient may die, not from the hyperglycemia, but from hypoperfusion and the severely acidotic state. DKA requires prompt recognition with immediate and appropriate interventions to avoid a fatal outcome.

Presentation

DKA shares many symptoms with other illnesses and injuries. DKA does, however, have some cardinal presenting characteristics. These include Kussmaul's respirations, an elevated serum glucose level and Three Ps: Polyuria, Polydipsia and Polyphagia. Polyuria, excessive urination, is explained above. Polydipsia, excessive thirst, is a result of the severe dehydration caused by the polyuria. Polyphagia, excessive hunger, is a manifestation of the cells starving for glucose. Even though adequate glucose is present, it is unavailable to the cells due to lack of insulin. Several other nonspecific findings may be noticed during your examination. Keep in mind that an accurate history, AMPLE, is especially helpful in the recognition of problems with the diabetic patient. However, an episode of DKA may be the indication of a new onset of diabetes in a previously undiagnosed patient. Remember as well that a slow onset (12-24 hours) of symptoms may indicate DKA. A slow onset can be attributed to the body systems affected and their attempt to compensate.

AMPLE

- **A** - Allergies
- **M** - Medications
- **P** - Past history
- **L** - Last oral intake
- **E** - Events leading to the situation

Fluctuating potassium levels affect the heart and an EKG. Even though an EKG tracing may appear normal, potassium disturbances may still exist and be determined only by serum analysis. Since serum analysis is not available in the field, it is worthwhile to be familiar with the EKG changes that both a hypokalemic and a hyperkalemic state can produce. The EKG abnormalities progress and become more evident as the potassium levels continue to move farther from normal.

Initial signs of hypokalemia indicate abnormalities in repolarization. An early EKG manifestation of hypokalemia is the emergence of a U-wave. This usually corresponds with a decreased T-wave. As the potassium decline continues, the T-wave continues to decrease in height as the U-wave increases in height. S-T depression is also noted. The T- and U-waves will often merge, creating a "camel hump" appearance. A relative fluctuation of the T- and U-waves creates a "see-saw" pattern and is indicative of fluctuating potassium concentrations. The P-wave also enlarges, both in amplitude and duration, and the PR-interval increases. The advanced stages of hypokalemia reveal a prolonged Q-T interval, wide QRS complex, marked ST depression and T-wave inversion. Physiologically, hypokalemia prolongs the cardiac action potential by slowing the rate of repolarization. This accounts for the widened PR-interval, which may lead to advanced heart block and also explains the tendency of patients with severe hypokalemia to develop V-fib.

In contrast, hyperkalemia short-

ens the cardiac action potential. This occurs because an elevated serum potassium level causes an earlier opening of the potassium channels in the membrane. These channels control the outward (repolarizing) current. This results in an accelerated repolarization and a partial depolarization during diastole.

The initial indications of hyperkalemia are the appearance of tall, thin T-waves and shortened Q-T intervals. These are indicative of the accelerated repolarization. As the hyperkalemia progresses, irregularity develops, the PR-interval lengthens, the QRS complex widens and the ST segment becomes depressed. This indicates delayed conduction attributed to the partial depolarization in the advanced stages of hyperkalemia. The P-waves widen to the point of disappearance, and the QRS complex continue to widen until ventricular extrasystole develops, and finally V-fib results.

Management

A patient suffering from DKA is in jeopardy, not from hyperglycemia, but from the resultant hypoperfusion and metabolic acidosis. The interventions chosen should be aimed at correcting the acidosis and replenishing fluids.

The first step is, as always, establishing and maintaining a patent airway. This is especially important in the comatose patient who may have vomited. After determination that the patient is indeed experiencing DKA, appropriate treatments should be initiated.

The initial treatment, after airway security has been addressed, includes establishing two large bore IVs of normal saline, with maxidrip administration sets.

The management of the hypovolemia is of particular importance to the prehospital provider, as it is most often the only prehospital treatment the patient with DKA can receive.

Hypoperfusion is a common cause of death in the untreated DKA patient. This is because the severe volume depletion experienced by these patients results in hypovolemia, acute tubular necrosis and uremia. Therefore it is easy to see why fluid replacement is a critical intervention. A person whose DKA has progressed to the point of diabetic coma can lose approximately 10 percent of their body weight as well as approximately 40 grams of sodium. For these reasons, the fluid of choice is 0.9 percent sodium chloride, 2-3 liters initially, run wide open. If the patient's cardiovascular function has been compromised, a slower infusion rate is indicated. Caution should be exercised when continuing an infusion of normal saline when the initial 2-3 liters has been administered, as hyperchloremia acidosis may result from the overuse of chloride-based solutions. This acidosis is avoidable through appropriate management of fluid resuscitation. If allowed to develop, hyperchloremia delays the correction of acidosis. To avoid this complication, the use of either $D_5W_{1/2}N_5$ or $D_{10}W_{1/2}N_5$ should be considered once serum glucose levels reach 200-300 mg/dl. This also helps prevent hypoglycemia which may result from insulinization. Also, the infusion rate may be reduced to run at 100-125 ml/h. Constant reassessment to evaluate the effectiveness of fluid resuscitation should be performed. This reassessment can consist of orthostatic vital signs, improved skin turgor, in-

creased weight and lowering hematocrit levels.

Scenario Summary

Now that we have covered the pathophysiology behind DKA, the preventive symptoms and the management of the patient, let's return to our 3:00 am EMS crew and see how they handled their patient.

As you recall, we left them as they started transport to a trauma center with a patient from a motor vehicle crash who presented with disorientation, tachycardia, painful and rigid abdomen and weak peripheral pulses, complaining of nausea and thirst. The only external injury appeared to be a contusion superior to the right eye.

The attending paramedic assumes hypovolemia stemming from intra-abdominal bleeding. Based on this impression, the medic appropriately administers high flow O_2, initiates 16 gauge IV of Lactated Ringers in bilateral antecubital, elevates the foot of the backboard and covers the patient with a blanket. Due to the disorientation, the patient is unable to provide any history and no medical ID is found. The medic decides to run an EKG which reveals an irregular rhythm of 135 bpm, an apparent first degree heart block, a widened QRS (0.16 sec) and a tall, thin T-wave. The medic remembers this possibly indicated an electrolyte imbalance, which can be attributed to the suspected intra-abdominal hemorrhage. The patient is delivered to the ED with these vitals: pulse, 140 irregular and weak; respirations, 38 deep and non-labored; B/P, 100/68; and temp 100.1 degrees. The patient is still disoriented with occasional periods of unconsciousness. The remainder of the assessment remains unchanged.

In the ED, blood work is drawn, x-rays taken and a complete physical exam performed. The x-rays are unremarkable and the physical exam is unchanged from the field exam. The blood work results reveal elevated levels of potassium, blood urea nitrogen (BUN), ketones, white blood count and hematocrit. The serum glucose level was reported as approximately 1200 mg/dl. An ABG shows metabolic acidosis with a pH of 7.32. The ED physician admits the patient to the ICU under a diagnosis of diabetic ketoacidosis. The patient spends seven days in ICU, is discharged with a new diagnosis of type I diabetes mellitus and is placed on insulin.

Did the paramedic err in his assessment? Under the circumstances, the suspicion of an intra-abdominal hemorrhage was logical. The only clues to the contrary were subtle—such as the absence of diaphoresis and the EKG abnormalities. The diagnostic use of a dextrose stick would have been beneficial with this patient. All other findings with this patient could have been attributed to an intra-abdominal hemorrhage.

With the impression of an intra-abdominal hemorrhage, was the patient harmed? No. Since a major cause of mortality related to DKA is hypovolemia, fluid replacement is an appropriate therapy. The only difference in the prehospital treatment would have been the choice of fluids. In DKA-related hypovolemia, normal saline is the preferred fluid, not lactated ringers.

If the paramedic had picked up on the subtle clues and arrived at the correct conclusion of severe DKA, the hospital would have been more appropriately prepared, but the patient

Glossary

Bowman's capsule
Functions as a filter in the formation of urine.

Glycosuria
The presence of glucose in the urine.

Kussmaul's respirations
Very deep gasping type of respiration.

Polydipsia
Excessive thirst.

Polyphagia
Eating abnormally large amounts of food.

Polyuria
Excessive secretion and discharge of urine.

From *Tabor's Cyclopedic Medical Dictionary, Clayton L. Thomas, MD, MPH, editor. Published by F.A. Davis, Philadelphia.*

outcome would have remained unchanged with altered levels of consciousness.

Conclusion

The diagnosis of DKA can easily be missed. However, if the prehospital providers are familiar with the distinguishing characteristics of this disease process, DKA can be recognized even in the absence of serum glucose testing. Although the recovery period for a patient with DKA is prolonged and the prehospital intervention is limited to mainly fluid resuscitation, it is still important for EMS providers to understand and be able to recognize this disease process. Severe DKA is an extreme medical emergency requiring immediate and appropriate interventions. Since emergency medical care begins in the field, EMS providers can influence the outcome of these patients with prompt and proper care.

References:

1. Luckmann J., Sorensen, K. Nursing people experiencing endocrine disorders of the pancreas. Med-Surg Nursing. 3rd ed. Philadelphia, PA: W.B. Saunders 1987; pp. 1404-1437.

2. Yeates S, Blauruss S. Managing the patient in diabetic ketoacidosis. AAON. Vol. 17 num. 3. June 1990; pp. 240 - 248.

3. Horne M, Heitz Y, Swearingen P. Potential fluid, electrolyte, and acid-base disturbances occurring in specific clinical disorders. Fluid, Electrolyte and Acid-Base Balance. St. Louis, MO: Mosby-Year Book 1991; pp. 380-381.

4. Bedsoe B, Porter R, Shade B. Endocrine and metabolic emergencies. Paramedic Emergency Care. 2nd ed. Englewood Cliffs, NJ: Brady 1994; pp. 730-735.

5. Katz A. Ionic and Pharmacological actions on cadiac rate and rhythm. Physiology Of The Heart. 6th ed. New York, NY: Raven 1986; pp. 355-359.

6. Marriott H. Miscellaneous Conditions. Practical Electrocardiography. 7th ed. Baltimore, MD: Williams and Wilkins 1988; pp. 522-536.

Diabetes information now available

Looking for resources to promote diabetes awareness? Here are four that can be the first step in the search for public awareness information.

Texas Department of Heath's Diabetes Control Program/Texas Diabetes Council is the lead agency in developing diabetes awareness and prevention activities in the state. Headquartered in Austin, The TDH Diabetes Control Program has programs and staff located throughout Texas. For more information, call (512) 458-7490.

The Centers for Disease Control and Prevention (CDC) Diabetes Home Page on the Internet's World Wide Web provides information on diabetes and how to contact state and territorial diabetes control programs. These programs operate in 49 states, four territories and the District of Columbia, and collaborate with CDC to conduct diabetes prevention and control activities. The home page address is http://www.cdc.gov/nccdphp/ddtddthome.htm

National Eye Health Education Program (NEHEP) partnership organizations coordinate and conduct activities to increase awareness of the risks and hazards of diabetic eye disease and encourage persons with diabetes to receive an annual dilated eye examination. Additional information is available from NEHEP, National Eye Institute, National Institute of Health, 2020 Vision Place, Bethesda, MD 20892-3622, or telephone (301) 496-5248. NEHEP materials are available by calling (800) 869-2020.

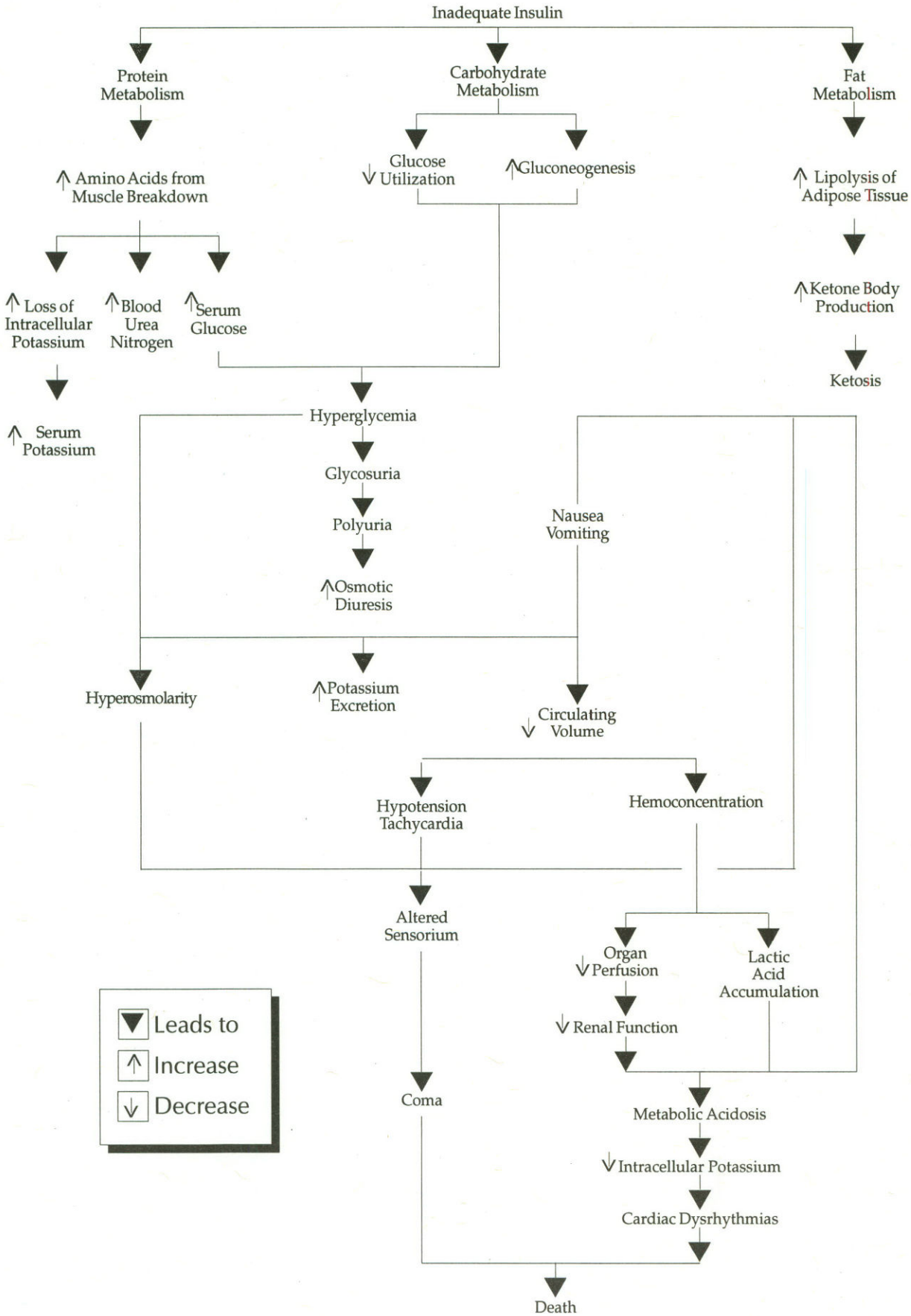
Diabetes: A Serious Public Health Problem, At-A-Glance, 1996, is a four-page introduction to some of CDC's efforts to reduce the burden of diabetes. This resource is available on CDC's Diabetes Home Page and discusses the increasing prevalence of diabetes and diabetic complications.

Additional information is available both from the TDH Diabetes Control Program/Texas Diabetes Council, 1100 W. 49th Street, Austin,Texas 78756, (512) 458-7490, and the CDC National Center for Chronic Disease Prevention and Health Promotion, 4770 Buford Highway, NE, Mail Stop K-10, Atlanta, Ga. 30341-3724, (770) 488-5000.

From TDH's *Health 1*, Barry Sharp, editor.

Chart 1

Pathophysiology of Diabetic Ketoacidosis



Understanding Diabetic Ketoacidosis CE article questions— 1.5 hours of CE

ECAs, EMTs, and EMT-Is must answer 1-10 for credit; paramedics must answer all 15 for credit.

Choose the best answer. Choose only one answer.

1. Only the Type I insulin-dependent diabetic can experience diabetic ketoacidosis.

   A. True
   B. False

2. Diabetic ketoacidosis can be easily missed, if not routinely suspected.

   A. True
   B. False

3. Diabetic ketoacidosis results from fuel starved cells resorting to sources other than glucose for energy.

   A. True
   B. False

4. Diabetic ketoacidosis-related deaths are a direct result of hyperglycemia.

   A. True
   B. False

5. Since diabetic ketoacidosis is a state of metabolic acidosis, there are no prehospital interventions available.

   A. True
   B. False

6. Any patient found unconscious, with a medical I.D. indicating insulin dependant diabetes, should be assumed to:

   A. Be experiencing an episode of diabetic coma.
   B. Be having a severe hypoglycemic period.
   C. Be in cardiac arrest.
   D. Require further assessment.

7. Complications of diabetes mellitus include:

   A. Hypoglycemia.
   B. Hyperglycemic, hyposmotic, nonketonic coma.
   C. Death.
   D. All of the above.

8. Major complication of diabetic ketoacidosis include:

   A. Cardiac Dysrhythmias.
   B. Hypotension.
   C. Death.
   D. All of the above.

9. The history of present illness for a patient in diabetic ketoacidosis may include:

   A. Slow onset.
   B. No history of diabetes at all.
   C. Recent stressful event.
   D. All of the above.

Paramedics must answer 11-15.

10. Prehospital interventions for a patient in diabetic ketoacidosis include:

    A. Airway and fluid replacement
    B. Airway management and glucose adminstration.
    C. Airway management only.
    D. There is no prehospital intervention.

11. The blood glucose level at which glycosuria may be expected to develop is approximately:

    A. 500 mg/dl.
    B. 260 mg/dl.
    C. 150 mg/dl.
    D. 180 mg/dl.

12. The initial fluid therapy recommended for the patient with diabetic ketoacidosis is:

    A. 2-3 L LR
    B. 2-3 L NS
    C. 1-3 L D5 W 1/2 NS or D10 W1/2 NS
    D. 1-2 L NS

13. The acetone odor of the breath can be described as _____ in the nature.

    A. Sweet.
    B. Nail polish remover.
    C. Garlic.
    D. None of the above.

14. Lactic acidosis directly results from:

    A. Anaerobic Metabolism.
    B. Hyperglycemia.
    C. Hypotension.
    D. Intracellular Dehydration.

15. Without the use of laboratory tests, hyperkalemia may be suspected in the presence of:

    A. Tall, thin T-waves.
    B. P-waves widening.
    C. Widened QRS.
    D. All the above.

1.5 hours of CE/Medical Emergencies

Continuing Education

This answer sheet must be postmarked by April 25, 1997.

CE Answer Sheet #8 — Understanding Diabetic Ketoacidosis *Texas EMS Magazine*

Name_____ SSN _____

Certification Level _____ Expiration Date_____

Organization _____ Work Phone _____ (area code)

Address _____ (street) City_____

State_____ Zip_____ Home Phone _____ (area code)

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

For 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.

1.	a.☐	b.☐	c.☐	d.☐	9.	a.☐	b.☐	c.☐	d.☐
2.	a.☐	b.☐	c.☐	d.☐	10.	a.☐	b.☐	c.☐	d.☐
3.	a.☐	b.☐	c.☐	d.☐	11.	a.☐	b.☐	c.☐	d.☐
4.	a.☐	b.☐	c.☐	d.☐	12.	a.☐	b.☐	c.☐	d.☐
5.	a.☐	b.☐	c.☐	d.☐	13.	a.☐	b.☐	c.☐	d.☐
6.	a.☐	b.☐	c.☐	d.☐	14.	a.☐	b.☐	c.☐	d.☐
7.	a.☐	b.☐	c.☐	d.☐	15.	a.☐	b.☐	c.☐	d.☐
8.	a.☐	b.☐	c.☐	d.☐					

Did you enclose your $5 check or money order?

EMS Awards Categories

EMS Educator Award honors a state-certified EMS Instructor or Course Coordinator who has advanced EMS education in Texas.

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.

Public Information Award honors an EMS group or individual for outstanding achievement in public education, injury prevention, or health promotion.

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

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, tax-based 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.

Volunteer Provider Award honors an organization staffed by volunteers which assumed a leadership role in EMS by achievement in areas of patient care, public access, medical control, disaster preparedness, public education, and training.

First Responder Award honors a first responder 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.

1997 Texas EMS Award Nomination Application

This nomination is for:

- ☐ EMS Educator Award
- ☐ EMS Medical Director Award
- ☐ EMS Administrator Award
- ☐ Public Information Award
- ☐ Citizen Award
- ☐ Private Provider Award
- ☐ Public Provider Award
- ☐ Volunteer Provider Award
- ☐ First Responder Award

Name of nominee _____

Street address of nominee _____

City _____ State _____ Zip _____

Telephone number of nominee _____
Area code

Your name _____

Your street address _____

City _____ State _____ Zip _____

Your level of certification _____

Your daytime telephone number _____
Area code

Your service or other affiliation _____

Your signature _____ Date _____

Send awards to:
Texas EMS Awards, Texas Department of Health, 1100 West 49th Street, Austin, TX 78756-3199, or fax to (512) 834-6736.

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...

By Kelly Harrell

Citizens in Baltimore can now dial 3-1-1 to call police about nonemergency matters. The program, which began last October, is the first in the nation. However, the Justice Department has asked the Federal Communications Commission to reserve the number so that any police department in the nation could use it for nonemergency purposes. The move was made to alleviate the 9-1-1 overload experienced in many urban areas. In Los Angeles, for instance, an estimated 80 percent of 9-1-1 calls are for nonemergencies. Also in October, the National Advisory Committee of the Congressional Fire Service Institute passed a motion to recommend support of legislation that would recognize 9-1-1 as the only three-digit universal number for citizen access to emergency services on a national basis.

From *EMS Insider*, "Baltimore Police May Get 3-1-1," Marion Garza, editor, November 1996.

In Baltimore dial 3-1-1 to call police about non-emergency matters—this alleviates the 9-1-1 overload.

American Airlines will become the first U.S. carrier to equip its planes with AEDs. Two other airlines, Australia's Qantas, Britain's Virgin Atlantic and Air Zimbabwe already carry defibrillators. Under U.S. federal rules, airline medical kits now contain devices to measure blood pressure, a stethoscope and several medications for chest pain, circulatory collapse, allergic reactions and diabetes. American plans to first put the defibrillators on international flights and train crew members in their use.

From TDH's News Clips, *Dallas Morning News*, "American Airlines to equip planes with heart defibrillators," Associated Press, November 19, 1996.

A new study in *Pediatric Emergency Care* shows how much pediatric firearms injuries have increased over six years in two emergency departments in Baton Rouge, Louisiana. During the study period, January 1, 1987 through December 31, 1993, there were 465 pediatric firearm injuries seen in the two urban EDs. Of all patients, 302 (65 percent) were male, and that proportion remained unchanged during the study period. However, the incidence of firearm injury rose from 3.0 per 1,000 pediatric ED patients to 5.9 per 1,000, and admission percentage rose from 7 percent to 46 percent. The proportion of firearm injuries in the age group 15 to 19 years rose from 52 percent in 1987 to 82 percent in 1993. The most common sites of injury in decreasing order of frequency were extremity (60 percent), head/neck (14 percent), chest/back (13 percent), abdomen/flank (seven percent) and pelvis/buttock (six percent). Researchers suggest targeting preventative measures to the 15- to -19-year age group.

From *Pediatric Emergency Care*, 12(6): 391-3, 1996. "The increasing burden of pediatric firearm injuries on the emergency department," by Ron Ary, MD, et al.

American Airlines will become the first U.S. carrier to equip its planes with AEDs.

Americans got behind the wheel after drinking too much an average of 14,000 times an hour in 1993, according to researchers who think they still may be underestimating the extent of drunken driving. And nearly one of every 12 instances involved a driver under age 21—too young to

drink legally in any state, researchers reported in the January 8 issue of the *Journal of the American Medical Association*. The prevalence of alcohol-impaired driving found in the study was 82 times the arrest rate that year for driving under the influence. Although alcohol-related crash deaths have declined more than 30 percent since 1982, they still totaled about 17,000 in 1995. Researchers suggest stricter laws, better enforcement and an increased effort by physicians to identify and treat alcoholics.

From TDH's News Clips, *San Antonio Express-News*, "Study finds abundance of drunken drivers," Associated Press, January 8, 1997.

Choose gifts for asthmatic children carefully, says the American Lung Association—plush or furry toys made of animal fibers, wool or feathers may trigger asthma.

Heart bypass surgery causes serious, lingering brain damage in as many as 25,000 Americans a year—6 percent of cases—according to a study published in the *New England Journal of Medicine* in December. Doctors have long noticed that some people have trouble thinking and remembering after bypass surgery, but traditionally have contended that patients almost always eventually recover. However, the new study found that about 3 percent of these operations trigger strokes that cause permanent impairment, while another 3 percent results in a sharp loss of intellectual abilities similar to moderate Alzheimer's disease. The surgery may harm the brain by dislodging bits of fatty deposits in the arteries, as well as releasing pieces of blood clots and even air bubbles produced by the machine that circulates blood during surgery.

From TDH's News Clips, *Dallas Morning News*, "Bypass found to harm some patients' brains," Associated Press, December 19, 1996.

A recent study shows that parental rules are associated with bicycle helmet use by children. In other words, the children of parents who had a strict rule about wearing helmets were more likely to always wear helmets than helmet owners who had a partial rule or no rule (88 percent vs. 1 percent). Researchers also found that helmet ownership was significantly related to parental characteristics: educational level, race, perceived effectiveness of bicycle helmets, seat belt use and parental helmet ownership. The most common reasons parents gave for lack of helmet ownership by children was "never thought about purchasing" a helmet. Bicycle injuries in children are responsible for more than 500 deaths and 400,000 emergency department visits annually. A head injury is the primary contributing cause in 70 to 80 percent of bicycle injury-related deaths.

From Archives of *Pediatric Adolescent Medicine*, (150)12: 1259-1264. "Children's Bicycle Helmet Attitudes and Use: Association With Parental Rules," by Helen Binns, MD, et al.

Choose gifts for asthmatic children carefully, says the American Lung Association. In particular, plush or furry toys made of animal fibers, wool or feathers may trigger asthma. Instead, purchase stuffed animals made of synthetic fibers that can be washed regularly. Also, toys with small pieces that may be aspirated are particularly dangerous for asthmatics. Children with asthma have sensitive airways, so gagging without choking may trigger an attack.

(*Ed. note*: For EMS personnel, consider asthmatic complications if you carry stuffed toys to give to children in the ambulance.)

From TDH's News Clips, *Houston Chronicle*, "Pick gifts for asthmatic children carefully," December 18, 1996.

Prescription drug errors double a person's risk of dying in a hospital and can cost an estimated $2 billion a year, according to a study in the *Journal of the American Medical Association*. Preventable errors include ordering doses that are too high or prescribing drugs to which the patient is allergic. Errors most often occur in sicker patients who take more than one drug, and they most commonly occur with antibiotics and painkillers. Ordering prescriptions by computer dramatically reduces preventable errors. Errors that cannot be prevented include reactions to chemotherapy. The study found 2.43 drug errors for every 100 admissions.

From TDH's News Clips, *USA Today*, "Hospitals' drug errors cost lives, drain resources," by Tim Friend, January 22, 1997.

Prescription drug errors double a person's risk of dying in a hospital.

People who suffer from depression not only endure the well-known symptoms of hopelessness and despair, but also run a heightened risk of developing heart attacks, according to a Johns Hopkins study in *Circulation*. Researchers followed 2,000 residents of East Baltimore for a decade and found that those with histories of clinical depression had a 4½ times greater chance of having a heart attack than did those with no such history. Researchers were careful to identify people who were depressed prior to the heart attack, as opposed to those depressed because of the heart attack. Researchers could only speculate on the causes, but did rule out anti-depressant medications. The study included adults of all ages, male and female, black and white.

From TDH's News Clips, *Houston Chronicle*, "Depression increases risk of heart attacks," by Jonathan Bor and Diana Sugg *(Baltimore Sun)*, December 18, 1997.

People who suffer from depression not only endure the well-known symptoms of hopelessness and despair, but also run a heightened risk of developing heart attacks.

Texas EMS
Magazine

$20 for 2 years

Your point of contact with the agency that regulates Texas EMS - taking state and national EMS issues and answers to emergency medical services professionals serving in every capacity across Texas.

☐ New subscription
☐ Renewal subscription

$20 for 2 years
Fill in name and address and mail along with payment.

☐ Change of address
Include mailing label and fill in name and address below.

Please enter my subscription for two years (please print)

Name

Address

Zip

Send a gift subscription for just $20 to:

Name

Address

Zip

From

A 2-Year Subscription for $20

Amount enclosed $ _____
2A284 – Fund 160

Make check or money order for $20 payable to Texas Department of Health

Send subscriptions to:
Texas Department of Health-EMS
PO BOX 149200
Austin, Texas 78714-9200

M

Two-year continuing education Emergency Suspensions

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.*

The following is a list of EMS personnel 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 hand carry to the 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/stdsusp.htm This list is comprehensive and routinely updated.

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

Emergency Suspensions

KENNETH	ABENDROTH II	DICKINSON	TX	EMT
MISTY	ADAMS	SEALY	TX	EMT
KITRINA	ALLEE	HOUSTON	TX	EMT
JOHN	ALLELY	WIMBERLEY	TX	EMT-P
SUSAN	ALLEN	RICHARDSON	TX	ECA
ROBERTO	ALVAREZ	MISSION	TX	ECA
DON	ANDREWS	FORT WORTH	TX	EMT
DONNA	ANTHONY	HOUSTON	TX	ECA
GARY	APPLE	LEWISVILLE	TX	EMT-P
BRIAN	ARNDT	HOUSTON	TX	EMT
ROY	ARNOLD	GARLAND	TX	ECA
JAMI	ARNOLD	STOCKDALE	TX	ECA
JUAN	ARTEAGA	MC ALLEN	TX	EMT-P
DARLA	ASBILL	EMORY	TX	EMT-P
YARON	AST	HOUSTON	TX	EMT-P
OSAMA	ATALLAH	PLANO	TX	EMT
RICHARD	ATWOOD	HOUSTON	TX	EMT
MARSELLES	AVERY	FRIENDSWOOD	TX	ECA
SANDRA	AVILA	DEL RIO	TX	EMT
MICHELLE	BANKS	KILLEEN	TX	EMT
RANDALL	BARBER	VICTORIA	TX	EMT-I
CRAIG	BARKER	LUBBOCK	TX	EMT
CONSUELO	BARRERA	CORPUS CHRISTI	TX	EMT
MICHELLE	BASKETT	HILLSBORO	TX	EMT
CARL	BASWELL	WICHITA FALLS	TX	EMT-I
DENNIS	BATEMAN	CANYON LAKE	TX	EMT
NELLIE	BEEBE	WINNIE	TX	EMT
DEBBIE	BEECHLY	GATESVILLE	TX	EMT
DEBRA	BELL	LAGO VISTA	TX	EMT-P
BENJAMIN	BENDELE III	SAN ANTONIO	TX	EMT
MARKUS	BENYS	CORPUS CHRISTI	TX	EMT-P
RICHARD	BERRY	LAKE JACKSON	TX	EMT-I
MICHAEL	BEST	HOUSTON	TX	EMT-I
LARRY	BIRDSONG	ALVIN	TX	EMT-I
JOSEPH	BISHOP	OZONA	TX	EMT
CRAIG	BLACKMON	HOUSTON	TX	EMT
JOHN	BLISSETT	DALLAS	TX	EMT
DAVID	BLOUNT	BEDFORD	TX	EMT
REBECKA	BOONE	LIPAN	TX	EMT
FABIAN	BOSLER	CONROE	TX	ECA
ANDRES	BOTELLO	SAN YGNACIO	TX	ECA
PAMELA	BOWEN	KINGWOOD	TX	EMT
RODNEY	BOWEN	ANGLETON	TX	EMT
WESLEY	BOYD JR	HOUSTON	TX	EMT
CHARLES	BRACE	HOUSTON	TX	EMT
CHARLES	BRADLEY	VAN HORN	TX	EMT
JOHN	BRATTLOF	PASADENA	TX	EMT
CHRISTINE	BREDAHL	AUSTIN	TX	EMT-P
RANDALL	BRIDWELL	BRIDGEPORT	TX	EMT
WYNDELL	BROSH	ROBERT LEE	TX	EMT
ROBERT	BROST	DALLAS	TX	EMT-I
RICHARD	BROWDER	LA PORTE	TX	EMT
DANNY	BROWN	CONROE	TX	EMT-I
DEBBIE	BROWN	DRIPPING SPGS	TX	EMT
THOMAS	BROWN	NEW BRAUNFELS	TX	EMT-P
JODY	BRUCE	CLEBURNE	TX	EMT-P
WALTER	BRUMMETT	LAKE DALLAS	TX	ECA
GREG	BUCK	AUSTIN	TX	EMT
JACQUELINE	BUMGARDNER	LULING	TX	EMT
JUAN	CABALLERO	HOUSTON	TX	ECA
ARTURO	CACERES	CORPUS CHRISTI	TX	EMT-P
JOYCE	CARAWAY	BAYTOWN	TX	ECA
TERRY	CAROTHERS	HOUSTON	TX	EMT
RAYMOND	CASAS	CUERO	TX	EMT
NELBA	CASTILLA	DALLAS	TX	EMT
EDUARDO	CASTILLEJA	EDINBURG	TX	EMT
SHARON	CAVAZOS	NEW BRAUNFELS	TX	ECA
JOSE	CAZARES	LAREDO	TX	EMT-P
CESAR	CEPEDA	MISSION	TX	ECA
MIKE	CHAMBERS	TERRELL	TX	EMT
AMIE	CHANEY	BRECKENRIDGE	TX	EMT-I
BONNIE	CHEUVRONT	HOUSTON	TX	EMT
SHAWNA	CHRISTIE	HOUSTON	TX	EMT
ALLEN	CLARK	ARLINGTON	TX	ECA
RICHARD	CLARK	COLLEGE STATION	TX	EMT-P
PHILIP	CLEARMAN	CORPUS CHRISTI	TX	EMT-P
LISA	CLIFTON	ALVIN	TX	EMT
KENNEY	CLINTON	HART	TX	EMT-I
MARGUERITE	COLE	HOUSTON	TX	EMT
MARK	COLE	DEER PARK	TX	EMT
DONALD	COLLINS	MIDLOTHIAN	TX	ECA
GORDON	CONE	SMITHVILLE	TX	EMT
ROBERT	CONFORTI	ROUND ROCK	TX	ECA
JEFFERY	CONLEY	AMARILLO	TX	EMT-I
RICKY	CONNALLY	CHICO	TX	EMT
RAYMOND	COOK	EL PASO	TX	ECA
JOHN	COOPER	LUBBOCK	TX	EMT
CONNIE	COPELAND	HUTTO	TX	EMT-P
DAVID	CORTEZ	MISSION	TX	ECA
TERRY	COX	FREER	TX	ECA
MELISSA	COXE	LAWN	TX	EMT-I
KELLY	CRAMM	HOUSTON	TX	EMT
DAVID	CRAWFORD	HOUSTON	TX	ECA
JAMES	CROFT	SPRING	TX	EMT
MATT	CROSS	SNYDER	TX	EMT-I
KYLE	CROW	DUNCANVILLE	TX	EMT
MATHEW	CROW	AUSTIN	TX	EMT
DAVID	CRUZ	MISSION	TX	ECA
LAURO	CUDE	FREER	TX	ECA
JAMES	CUMMINS	GARLAND	TX	ECA
ONIE	CUTHBERTSON	WESLACO	TX	EMT-I
JOHN	DANNER	MISSION	TX	ECA
OLLIE	DAUGHTRY	CHARLOTTE	TX	EMT
EDWARD	DAVID JR	MISSION	TX	ECA
PENNY	DAVIS	HOUSTON	TX	ECA
WILLIAM	DAVIS	AUSTIN	TX	ECA
MARTIN	DAVISON	SUDAN	TX	EMT
CODY	DAY	DALLAS	TX	EMT
VRIES	DE	HOUSTON	TX	EMT
NORA	DE LA GARZA	MISSION	TX	EMT
DAVID	DENNING	COLLINSVILLE	TX	EMT
DAROLD	DIETRICH	GRAND PRAIRIE	TX	ECA

Emergency Suspensions

STEPHEN	DIETZ	CLUTE	TX	ECA
KRISI	DINKLA	BASTROP	TX	EMT
ROBERTO	DOMINGUEZ	EL PASO	TX	ECA
CHARLEY	DOUTHIT	PAMPA	TX	ECA
JASON	DOYLE	LOCKHART	TX	EMT
THOMAS	DRANSFIELD	FORT WORTH	TX	EMT-P
PATRICIA	DSPAIN	JUNCTION	TX	EMT
ALBERTO	DUARTE	MISSION	TX	ECA
LARRY	DUBOSE	FREER	TX	ECA
SHERRY	DUKES	GROVES	TX	EMT
FIONA	DURKIN	AUSTIN	TX	EMT
JERRY	DYCUS	ROTAN	TX	ECA
JAMES	EATON	FRIENDSWOOD	TX	EMT
MEREDITH	EDGLEY	AUSTIN	TX	EMT
PATRICIA	EDWARDS	BEEVILLE	TX	EMT
KIM	ELLIOTT	DALLAS	TX	EMT
CHRISTOPHER	ESHENBAUGH	DALLAS	TX	EMT
ABRAHAM	ESPINOSA	HOUSTON	TX	EMT
JOSE	ESPINOSA	ALAMO	TX	EMT
COLLEEN	EVANS	WICHITA FALLS	TX	EMT
THOMAS	FAIR JR	VEGA	TX	EMT-I
ELIZABETH	FALKENBURG	KEMAH	TX	ECA
MICHAEL	FANDRICH	KENNEDALE	TX	EMT
CARROLL	FERGUSON	WALTERS	OK	EMT
JOSIE	FERNANDEZ	FREER	TX	ECA
JERRY	FERRELL JR	HOUSTON	TX	EMT
CRAIG	FISHER	KATY	TX	EMT
DARRELL	FITCH	N RICHLA HILLS	TX	EMT-P
TRACY	FIX	LONGVIEW	TX	EMT
PATRICK	FLANAGAN	CORPUS CHRISTI	TX	EMT-P
GARY	FLEMING	BLANCO	TX	EMT
XAVIER	FLORES	KELLER	TX	EMT
JOHN	FLYNN	CORPUS CHRISTI	TX	EMT-P
GERALD	FORTNER	WICHITA FALLS	TX	EMT
MARTIN	FOSHEE	FORT WORTH	TX	EMT
JAMES	FOSTER	YOAKUM	TX	EMT
LORETTA	FOX	KILLEEN	TX	EMT
LUIS	FRANCO	MESQUITE	TX	EMT
MATTHEW	FREDERICK	ORANGE	TX	EMT-I
KATHY	FRIESE	THORNTON	TX	EMT-I
CLARK	FRITZ	COLLGE STATION	TX	ECA
WILLIAM	GALLOWAY	LAKE DALLAS	TX	ECA
NORMA	GANN	QUINLAN	TX	EMT
LUIS	GARCIA	EL PASO	TX	EMT
GERARDO	GARCIA	ZAPATA	TX	ECA
RICARDO	GARCIA	MISSION	TX	ECA
LOUIE	GARCIA JR	HOUSTON	TX	EMT
MELIA	GARDNER	PFLUGERVILLE	TX	EMT-P
DAVID	GARZA	FREER	TX	ECA
FRANCISCO	GARZA	MISSION	TX	ECA
JAVIER	GARZA	SANTA ELENA	TX	EMT
ROBERTO	GARZA	MISSION	TX	EMT-I
REYNALDO	GARZA JR	HOUSTON	TX	EMT
JUAN	GARZA JR	ZAPATA	TX	ECA
TERRY	GASKIN	KILLEEN	TX	EMT
DEBORAH	GEDDES	PASADENA	TX	EMT-P
JERRY	GEORGE	GRAPEVINE	TX	EMT-P
JULIE	GIBSON	WICHITA	KS	EMT
MICHAEL	GILLEY	TEXARKANA	TX	EMT
ROBERT	GIRARD JR	MISSION	TX	ECA
MATTHEW	GIRGENTI	RICHMOND	TX	EMT-I
RICHARD	GMITTER	BELTON	TX	EMT
BERTON	GOLDEN	HOUSTON	TX	EMT
ODILON	GONZALES	PASADENA	TX	EMT
JOSE	GONZALEZ	DONNA	TX	EMT
MARK	GONZALEZ	DONNA	TX	EMT
MATTHEW	GORDON	HOUSTON	TX	ECA
JOEL	GOSSAGE	TEMPLE	TX	ECA
TERESA	GRAHAM	BEAUMONT	TX	EMT-I
RAUL	GUTIERREZ	SAN ANTONIO	TX	EMT-I
EDWARD	HABERSTROH	FLORESVILLE	TX	ECA
MARK	HAGER	WICHITA FALLS	TX	EMT
CLAYTON	HALL	MONT BELVIEU	TX	EMT-I
MARVIN	HALL III	MISSION	TX	ECA
MITCHELL	HAMNER	CHICO	TX	EMT
JONATHAN	HANCOCK	DALLAS	TX	EMT
HILLARY	HANDLEY	WEST COLUMBIA	TX	EMT
FRANKIE	HANEY	BAYTOWN	TX	ECA
SHIRLEY	HANLEY	MCKINNEY	TX	EMT
DENNIS	HARDEN	DALLAS	TX	EMT
JOHN	HARDIN	SAN ANTONIO	TX	EMT
DARLA	HARDY	SHEPPARD AFB	TX	EMT-P
MONICA	HARRINGTON	ORANGE	TX	EMT
ELVIN	HARRIS	HOCKLEY	TX	EMT
MICHELLE	HARRIS	HOUSTON	TX	EMT-P
RAY	HARRISON	GARLAND	TX	ECA
ROBERT	HARRISON	CORPUS CHRISTI	TX	EMT-P
RONALD	HARTER	LEAGUE CITY	TX	EMT-P
VICTOR	HAVARD	FORT WORTH	TX	EMT-P
REBECCA	HAXTON	FLINT	TX	EMT-P
LOUANN	HAYES	BLANCO	TX	EMT
EUGENE	HAYNES	SUGAR LAND	TX	EMT-I
SUSAN	HERNANDEZ	EDEN	TX	EMT
PATRICIA	HERNANDEZ	HIDALGO	TX	ECA
PAULO	HERRERA JR	MISSION	TX	ECA
STEVEN	HESSEL	HOUSTON	TX	EMT
ARTHUR	HETTINGER	SAN ANTONIO	TX	EMT-I
RONALD	HICKMAN	DALLAS	TX	EMT
RAYMOND	HICKS	KATY	TX	EMT-P
SHERYL	HINES	CORPUS CHRISTI	TX	ECA
RICHARD	HIPPE	FLINT	TX	EMT-P
MONICA	HOLDEN	DALLAS	TX	EMT
JOHN	HOLDEN JR	ALEDO	TX	EMT-I
DEBORAH	HOLLAN	HEMPSTEAD	TX	EMT
ROGER	HOLLAND	EULESS	TX	EMT
JUDY	HOLLEY	HIGHLANDS	TX	ECA
DOYLE	HOLMES	TEXARKANA	AR	EMT-P
TANA	HOLMES	KATY	TX	EMT-P
MICHAEL	HONEA	CLIFTON	TX	EMT
EDDIE	HOOPER	GARLAND	TX	EMT
BILLY	HOPKINS	HOUSTON	TX	EMT
CRAIG	HORTON	KATY	TX	EMT

Emergency Suspensions

PAUL	HOWARD	CHATTANOOGA	TN	EMT-P
RANDALL	HOWELL	CANTON	TX	EMT-P
MARTIN	HOWELL	PITTSBURG	TX	EMT-P
STEVEN	HUCKINS	SKELLYTOWN	TX	EMT-P
GILBERT	HULL	MINERAL WELLS	TX	EMT-P
THOMAS	HULSEY	WATAUGA	TX	EMT
JAMES	HUNTER	FT WORTH	TX	EMT-P
RICHARD	HUNTER	WINONA	TX	EMT-P
WILLIAM	HUNTER	WEST COLUMBIA	TX	EMT
KIMBERLY	HUTCHINSON	HOUSTON	TX	EMT
JOSEPH	HUYETT	MISSION	TX	ECA
CARRIE	HYATT	PLANO	TX	EMT
JOSEPH	INDAY	MISSION	TX	ECA
JODY	JACKSON	POINT COMFORT	TX	EMT
GARY	JAMES	ADRIAN	TX	ECA
LINDA	JAMES	ADRIAN	TX	ECA
WILLIAM	JAMES III	GORDON	TX	ECA
ROBERT	JETER	HAMTON CITY	TX	EMT
JAMES	JOHNSON	SEALY	TX	EMT
JAMES	JOHNSON	ANGLETON	TX	ECA
LARRY	JOHNSON	HOUSTON	TX	EMT-P
CURTIS	JOHNSON	ROUND ROCK	TX	EMT
DANNY	JONES	HOUSTON	TX	EMT
STEVEN	JONES	GALVESTON	TX	EMT
TERESA	JUPE	POTEET	TX	EMT
BRIAN	KAY	BROWNFIELD	TX	EMT
NICHOLAS	KEARNEY	DALLAS	TX	ECA
PENNY	KELLEHER	GORDON	TX	ECA
NECIL	KELLEY	ANAHUAC	TX	EMT
JOSHUA	KELLY	CELINA	TX	EMT
KENNETH	KELLY	DALLAS	TX	EMT-P
CHARLES	KERN	SPRINGTOWN	TX	EMT
CLIFFORD	KILLOUGH JR	NEWARK	TX	EMT
LARRY	KIMMITH	DALLAS	TX	ECA
MARGARET	KLOSS	BOERNE	TX	EMT-P
PAUL	KNAPP	HOUSTON	TX	EMT-P
WILLIAM	KROMER	ADRIAN	TX	ECA
MELINDA	KUBECZKA	ALVIN	TX	EMT
JARROD	KUBES	PLANO	TX	EMT
HENRY	KYLE	SULPUR SPRINGS	TX	EMT
BORDE	LA	LONGVIEW	TX	EMT
DONNA	LACHER	HOUSTON	TX	EMT-P
ANGELA	LAND	WICHITA FALLS	TX	EMT
BARBARA	LAQUA	SAN ANGELO	TX	EMT
CHRISTOPHER	LATSON	HOUSTON	TX	EMT
DONALD	LAUER	VALLEY VIEW	TX	EMT-P
STAN	LAWING	HIGHLA VILLAGE	TX	EMT-P
VERONICA	LAWRENCE	DALLAS	TX	EMT
RUBEN	LEAL	DAYTON	TX	EMT
KATHRYN	LEHAN	HOUSTON	TX	EMT-I
CHRISTOPHER	LEWIS	DAYTON	TX	ECA
LAWRENCE	LEWIS	KINGWOOD	TX	EMT
SHELLY	LEYTHAM	MISSION	TX	EMT
GARVIN	LINE	MIDLAND	TX	EMT-P
STACY	LOCHRIDGE	GARLAND	TX	EMT
VICKI	LOCKETT	BELLVILLE	TX	EMT-P
RENE	LOPEZ JR	MISSION	TX	ECA
BILLY	LOREDO	DALLAS	TX	EMT
PEDRO	LOREDO III	DALLAS	TX	EMT
JOHN	LOTT	JEWETT	TX	EMT
EDWARD	LOWE	EL PASO	TX	ECA
JOHN	LOWRY	MIDLOTHIAN	TX	EMT
MARCOS	LOZANO	HOUSTON	TX	EMT-I
JOHN	LUBY	MABANK	TX	ECA
MELISSA	LUCAS	SAN ANTONIO	TX	EMT
NOLAN	LUJAN	AUSTIN	TX	EMT-P
ARTURO	LUJAN	EL PASO	TX	EMT
SHARON	MABE	BRIGGS	TX	EMT
CHARLES	MAHAN	MINERAL WELLS	TX	EMT-I
PAUL	MAHAR	LA PORTE	TX	ECA
PATRICK	MALONE	MONT BELVIEU	TX	EMT-I
MARYANNA	MANCHEE	PLANO	TX	EMT
NECOLE	MANN	VALLEY MILLS	TX	EMT
ROSS	MANN	CORPUS CHRISTI	TX	EMT-P
CHERYL	MANNING	CISCO	TX	EMT-I
HEIDI	MANSY	PORT LAVACA	TX	EMT
RUSSELL	MARCH	SUGARLAND	TX	EMT-I
DENNIS	MAREK	BARTLETT	TX	EMT-P
ANGELA	MARTIN	AUGUSTA	GA	EMT
LARRY	MARTIN JR	NEDERLAND	TX	EMT
VERONICA	MARTINEZ	FREER	TX	ECA
YVETTE	MASUCA	HOUSTON	TX	EMT
LARRY	MATHIS	SAN ANTONIO	TX	EMT
PATRICIA	MATHYS	BUDA	TX	EMT
BRYAN	MAULDIN	SYLVESTER	TX	ECA
ROBERT	MCCAMMON JR	TEXAS CITY	TX	EMT
ROBERT	MCCOY	PORTLAND	TX	ECA
JASON	MCELYEA	WILMER	TX	ECA
WILLIAM	MCGILL	CORPUS CHRISTI	TX	EMT-P
KENDALL	MCGILVRAY	ALVIN	TX	EMT
DOROTHY	MCGINNES	HOUSTON	TX	EMT-I
ANNE	MCGOWAN	COLLEG STATION	TX	EMT-P
DAVID	MCINTYRE	CORPUS CHRISTI	TX	EMT-P
DEVYN	MCNAMARA	BEAUMONT	TX	EMT
ROBERT	MELVIN JR	HOUSTON	TX	EMT
MARGO	MENDOZA	ALVIN	TX	EMT
CHANDRA	MERCER	AUSTIN	TX	EMT
KAREN	MERRILL	ARLINGTON	TX	EMT
MIKE	MERRITT	DALLAS	TX	EMT
WILLIAM	MIELCKE	WICHITA FALLS	TX	EMT-P
ANTHONY	MIELLMIER	WATAUGA	TX	EMT-P
NEIL	MIJARES	HOUSTON	TX	EMT
MATTHEW	MILLER	FORT WORTH	TX	EMT
GEORGE	MILSTEAD	ABILENE	TX	EMT-P
CHRISTOPHR	MINIE	DENTON	TX	EMT
PHILIP	MINJARES	HOUSTON	TX	EMT
ENRIQUE	MIRELEZ JR	CORPUS CHRISTI	TX	EMT-P
GINGER	MITCHELL	TEXARKANA	AR	EMT
JASON	MOAT	CORPUS CHRISTI	TX	EMT-P
DALE	MOATS	WICHITA FALLS	TX	EMT
BRIAN	MOORE	HICKORY CREEK	TX	ECA
JAMES	MOORE	LAKE JACKSON	TX	ECA

Emergency Suspensions

CONNIE	MOORE	KEMPNER	TX	EMT
MICHAEL	MORRIS	BRYAN	TX	EMT
MICHELLE	MORROW	WICHITA FALLS	TX	EMT
SAMUEL	MOWERY	BLANCO	TX	EMT
MICHAEL	MULLER	CORINTH	TX	ECA
JAMES	MULLIN	SOUR LAKE	TX	EMT-I
JOHN	MURPHY	MANOR	TX	EMT
SAMUEL	MUTRUX	MISSION	TX	ECA
JAMES	MYERS	ROWLETT	TX	EMT
PAULA	NELIUS	SEALY	TX	EMT
RICHARD	NEWMAN	HOUSTON	TX	EMT
TUYEN	NGUYEN	HOUSTON	TX	EMT
CHARLES	NICHOLS	CEDAR PARK	TX	EMT
JEFFERY	NIELSEN	ARLINGTON	TX	EMT
WALTER	NOLAN III	BAYTOWN	TX	EMT-P
SALVADOR	OBIEDO	BANDERA	TX	EMT
JESSE	OCHOA	SAN ANTONIO	TX	EMT
MARY	OCONNELL	AUSTIN	TX	EMT-P
TARA	ODLE	ARLINGTON	TX	EMT
MICHAEL	OLIVER	AUSTIN	TX	EMT
MARVIN	OLLE	ALIEF	TX	EMT
TOMMY	OLSON	HOUSTON	TX	EMT
DAVID	ORTEGA	SAN ANTONIO	TX	EMT
RUBEN	ORTIZ	MISSION	TX	ECA
JANETH	OWENS	BRIGGS	TX	EMT
PAUL	PALMER	HOUSTON	TX	EMT
ROBERT	PANKRATZ	COMFORT	TX	EMT-I
TERRY	PARRISH	MESQUITE	TX	EMT
MELISSA	PARTRIDGE	PARIS	TX	EMT-I
CAROL	PATTERSON	MT VERNON	TX	EMT-I
BRETT	PEABODY	BELTON	TX	EMT
JULIO	PENA	SAN ANGELO	TX	EMT
TANYA	PENNINGTON	SPRINGTOWN	TX	EMT
MANUEL	PEREZ	SPRING	TX	EMT
ANGIE	PEREZ	SAN MARCOS	TX	EMT
JOE	PEREZ	BEEVILLE	TX	EMT
LISA	PERRY	CARROLLTON	TX	EMT
DERIC	PEVETO	BRIDGE CITY	TX	EMT-I
HOLLY	PICHETTE	MONTGOMERY	TX	EMT-P
TOMMY	PIERCE	VERNON	TX	EMT
SUE	PILLOW	DESOTO	TX	EMT
JUAN	PINA	ZAPATA	TX	ECA
ERIN	PLACER	AUSTIN	TX	EMT-P
MICHAEL	POWELL	TROUP	TX	EMT
STEPHEN	POWERS	DALLAS	TX	EMT
DAVID	PRATT	MCKINNEY	TX	EMT
TIMOTHY	PRICE	SPRINGTOWN	TX	EMT
JONATHAN	PUDA	RICHARDSON	TX	ECA
SERGIO	RAMIREZ JR	EL PASO	TX	EMT
DAVID	RAMON	DESOTO	TX	ECA
JOSE	RAMON	BEEVILLE	TX	ECA
TONY	RAMON SR	SAN ANTONIO	TX	EMT
PAUL	RAMSEY	EL PASO	TX	EMT-I
SHAWN	RATHBURN	SUTHERLND SPGS	TX	ECA
GLYNN	RAY	WHITEHOUSE	TX	ECA
ALLEN	REED	MIDLOTHIAN	TX	ECA
ERVIN	REEVES	HOUSTON	TX	EMT
JERRY	REIMER	SPRING	TX	EMT-P
LOGAN	REININGER	HOUSTON	TX	EMT
THOMAS	REMSING JR	CORPUS CHRISTI	TX	EMT-P
JEAN	RENAUD	GARLAND	TX	EMT
RAMON	RESENDEZ	DONNA	TX	ECA
STEPHEN	REYNA	HOUSTON	TX	EMT-P
LAWRENCE	RICHARDS	ROCKDALE	TX	ECA
SHELIA	RICHARDSON	BIG SPRING	TX	EMT
TROY	ROBERTS	SUGAR LAND	TX	EMT
RACHAEL	ROBINSON	HEARNE	TX	EMT
RACHAEL	ROBINSON	HEARNE	TX	EMT
MARK	ROBISON	FORNEY	TX	ECA
GUADALUPE	ROCHA III	MISSION	TX	ECA
JESUS	RODRIGUEZ JR	SAN ANTONIO	TX	EMT
ROBERT	RONES	BALCH SPRINGS	TX	EMT
ANTHONY	ROSE	PASADENA	TX	EMT
WILLIAM	ROSE	SAN ANTONIO	TX	EMT
TIM	ROSSEISEN	HOUSTON	TX	ECA
STEPHANIE	ROUSE	GORDON	TX	ECA
LINDA	ROUTT	FORT HOOD	TX	EMT
PAUL	RUDDEN	LEWISVILLE	TX	EMT-P
ROBERT	RUMSEY	SARATOGA	TX	ECA
MICHELLE	RYDER	DALLAS	TX	EMT
SERGIO	SAAVEDRA	LAREDO	TX	EMT-P
LARRY	SADECKY	GALVESTON	TX	EMT-P
ARMANDO	SALAZAR	LAREDO	TX	EMT
RICARDO	SALDANA	MISSION	TX	ECA
JOE	SALDIVAR SR	SAN ANTONIO	TX	EMT
SAUL	SALINAS	PEARLAND	TX	EMT-P
ROBERT	SANDOVAL JR	AUSTIN	TX	EMT
JEFF	SARLES	BRYAN	TX	ECA
ADELLE	SCHAUER	FT WORTH	TX	EMT
DAVID	SCHAUM	CORPUS CHRISTI	TX	EMT-P
MARY	SCHUELKE	LOCKHART	TX	EMT-P
TERESA	SCOTT	PASADENA	TX	EMT
SHANE	SCOTT	AUSTIN	TX	EMT
TAMARA	SCOTTEN	BEEVILLE	TX	EMT
TOMMY	SEABOLT	LAKE DALLAS	TX	ECA
DENNIS	SELL	FORT WORTH	TX	EMT-I
BILLY	SHANKLIN	ARLINGTON	TX	EMT
BRENT	SHANKLIN	ARLINGTON	TX	EMT
LADONNA	SHIRLEY	LEANDER	TX	EMT
WILLIAM	SIGLER	FRIENDSWOOD	TX	ECA
RICHARD	SIMMERS	FREER	TX	ECA
DENNIS	SIMPSON	AMARILLO	TX	EMT
PATRICK	SIMS	HOUSTON	TX	EMT
KENNETH	SINGLETON	DUNCANVILLE	TX	EMT-P
CASSANDRA	SINGLETON	KATY	TX	EMT
CONNIE	SKIDMORE	WICHITA FALLS	TX	EMT
BRENDA	SKINNER	ROBERT LEE	TX	EMT
PAUL	SLAY	LAVON	TX	ECA
MARK	SMITH	FARMERSVILLE	TX	EMT
SOLON	SMITH	PILOT POINT	TX	EMT-P
HOWARD	SMITH	LONGVIEW	TX	EMT

Emergency Suspensions

JOSEPH	SMITH	BACLIFF	TX ECA
RICKIE	SMITH	PASADENA	TX EMT
THOMAS	SMITH	HOUSTON	TX EMT-P
SUSAN	SMITH	BEEVILLE	TX EMT
RONALD	SOMMERS	FRIENDSWOOD	TX EMT
DANNY	SOUTHER	DECATUR	TX EMT
THOMAS	SPAIN JR	HUMBLE	TX EMT
LENA	SPECK	HARLINGEN	TX EMT-I
MELISSA	SPOONTS	HORSESHOE BAYF	TX EMT
TIM	STANLEY	FRIENDSWOOD	TX ECA
CLINTON	STARK	SAN ANTONIO	TX EMT
CALVIN	STARKIE III	SOUR LAKE	TX EMT-I
ERIC	STAUFFACHER	AUSTIN	TX EMT-P
PAUL	STEPHEN II	STRAWN	TX ECA
DAVID	STERLING	MEXIA	TX EMT
MATTHEW	STEVENSON	EULESS	TX EMT
MICHAEL	STIEDLE	SAN ANTONIO	TX EMT
BRENDA	STIGALE	HOUSTON	TX EMT-P
SARAH	STOKES	ARLINGTON	TX EMT-P
MICHAEL	STOM	AUSTIN	TX EMT
RONNIE	STOUT	SPRING BRANCH	TX EMT
KELLY	STOWELL	BELTON	TX EMT-P
JAMES	STRACENER	EL GROVE	LA EMT
JOHN	STREET	ARLINGTON	TX EMT-P
SALIM	STREET	AUSTIN	TX EMT
MICHAEL	STRONG	PINE HURST	TX EMT
GEORGE	SUN	AUSTIN	TX EMT
STEPHEN	SUNTHIMER	CARROLLTON	TX EMT-P
GREGORY	SUTHERLAND	AUSTIN	TX EMT
DUSTIN	SVATEK	SEALY	TX EMT
MARY	SWENSON	GALVESTON	TX EMT-P
LAURA	TAGLE	FREER	TX ECA
LESLIE	TANNER III	SUGARLAND	TX ECA
TOMMY	TARPLEY	KEMP	TX ECA
NICKY	TARRANT	JACKSONVILLE	TX EMT-I
LESLIE	TEAGUE JR	SAN ANTONIO	TX EMT
BUFORD	TEASDALE	TAYLOR	TX EMT-P
JASON	THARP	VALLEY MILLS	TX EMT
ROBERT	THOMAS	BOERNE	TX EMT
KEITH	THOMPSON	PLANO	TX EMT
CHARLES	THOMPSON	SAN LEON	TX ECA
NORMAN	TOLIVER	EL PASO	TX EMT
ISMAEL	TORRES	PASADENA	TX ECA
RAFAEL	TORRES	EL PASO	TX ECA
ADRIAN	TORRES	DONNA	TX ECA
KENNETH	TRADER	SEALY	TX EMT
KARL	TRAEGER	SAN ANTONIO	TX EMT
KAREN	TRAINOR	CYPRESS	TX EMT-P
JOHN	TUNSTALL	CLARENDON	TX EMT
DAVIE	TURNER	PAMPA	TX EMT
BILLY	TURNER	LONGVIEW	TX EMT-P
JENNIFER	UPTON	ROUND ROCK	TX EMT
AMY	URBAN	PEARLAND	TX EMT-P
GLADYS	VACEK	HOUSTON	TX EMT-P
SARA	VALRIE	CHRISTOVAL	TX EMT
CHAD	VAN CLEAVE	BRYAN	TX EMT-P
SHERRI	VAN DRESAR	CALDWELL	TX EMT
JUAN	VARGAS	HOUSTON	TX EMT-I
JUAN	VASQUEZ	RALLS	TX EMT
TERRANCE	VERBURGT	DRIPPING SPRINGS	TX EMT
RICKY	VICARS	HENRIETTA	TX EMT
TED	VICHA	CORPUS CHRISTI	TX EMT-P
JOHNNY	VILLARREAL	HOUSTON	TX EMT
ARTURO	VILLARREAL	MISSION	TX ECA
MICHAEL	VONWUPPERFELD	AUSTIN	TX EMT
PAUL	WALDRUM	BONHAM	TX EMT
DANNY	WALLACE	LUBBOCK	TX EMT
BRIAN	WALLIS	ROCKDALE	TX EMT
RORY	WASSENAAR	DALLAS	TX EMT
DAVID	WATKINS	HOUSTON	TX EMT
CLAUDE	WATSON	DALLAS	TX EMT
SANDRA	WEAVER	TEXARKANA	TX EMT-P
BILLIE	WEBB	ADRIAN	TX ECA
G	WEBB	ADRIAN	TX ECA
LAUREN	WEBER	SEALY	TX EMT
SHERRY	WEIRICH	JOHNSON CITY	TX EMT
ALICIA	WELCH	ORANGE	TX EMT
CLYDE	WELLS	DAYTON	TX EMT
JAMES	WELLS	LEAGUE CITY	TX ECA
JOSEPH	WHEAT	SHADY SHORES	TX ECA
KIMBERLY	WHITTEN	HUNTSVILLE	TX EMT
THERESA	WHITTLEY	BARKSDALE	TX ECA
WILLIAM	WILKERSON	RIVER OAKS	TX EMT
DOUGLAS	WILLIAMS	MISSION	TX ECA
DAVID	WILLIAMSON	PASADENA	TX EMT-P
BRIAN	WILSON	LA PORTE	TX EMT
CLIFFORD	WISE	CLEVELAND	TX EMT
ROBERT	WOLFF	MANSFIELD	TX EMT
BARRY	WOMACK	SAN ANGELO	TX EMT-P
MATTHEW	WOOD	CORPUS CHRISTI	TX EMT-P
DANIEL	WYNN	WATAUGA	TX EMT-P
ELSA	YANEZ	ROTAN	TX ECA
LEE	YARIGER	INEZ	TX EMT
CHAD	YOKUM	AUSTIN	TX EMT
CHRISTOPHR	YOUNG	DALLAS	TX EMT
KENNETH	YOUNG	ARLINGTON	TX EMT
AMELIA	ZAPATA	AUSTIN	TX EMT
REBECCA	ZIENTEK	TOMBALL	TX EMT-I

Texas Out-of-Hospital DNR logo revised

The Texas Out-of-Hospital DNR logo has been revised as of 1/15/97. The black state outline and lettering will now be red. This revised logo will appear on all official DNR orders and patient IDs.

THE INFORMATION IN THIS SECTION IS INTENDED TO PROVIDE PUBLIC NOTICE OF DISCIPLINARY ACTION BY THE TEXAS DEPARTMENT OF HEALTH AND THE BUREAU OF EMERGENCY MANAGEMENT AND IS NOT INTENDED TO REFLECT THE SPECIFIC FINDINGS OF EITHER ENTITY.

THIS INFORMATION MAY NOT REFLECT ANY NUMBER OF FACTORS INCLUDING, BUT NOT LIMITED TO, THE SEVERITY OF HARM TO A PATIENT, ANY MITIGATING FACTORS, OR A CERTIFICANT'S DISCIPLINARY HISTORY. THIS LISTING IS NOT INTENDED AS A GUIDE TO THE LEVEL OF SANCTIONS APPROPRIATE FOR A PARTICULAR ACT OF MISCONDUCT.

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

* **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.

Beatty, Brian Reid, Lumberton, Texas. Emergency suspension of EMT-Paramedic certification. EMS Rule 157.51 (a)(1)(A), reasonable cause to believe certificant creates an imminent danger to the public health or safety.

Big Thicket Lake Estates VFD, Rye, Texas. Administrative penalty of $100. EMS Law Section 773.050, failure to have two certified personnel on emergency medical services vehicle when in service.

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.

Bradley, Dennis Mark, El Paso, Texas. Three month suspension of EMT-Paramedic certification starting June 28, 1996 through September 28, 1996. Additional nine month probation through June 28, 1997. EMS Rule 157.51(b)(1) and (20), intentional falsification of patient records.

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.

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

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.

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

* **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.

Irvin, Timothy Keith, Colmesneil, Texas. Twelve months probation of EMT certification through May 22, 1997. EMS rules 157.44, 157.51(b) and (c), and 157.53 misdemeanor conviction.

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), fauilure to follow EMS standards of care in the management of a patient.

King, Julie Ann, Sour Lake, Texas. Twenty-four month probation of EMT-Intermediate certifiation 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

* 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.

fraud or misrepresentation 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.

Medevac EMS Inc., Brownwood, Texas. Administrative penalty of $1,500.00. EMS Rule 157.11 (m)(1), failure to notify department of vehicle added to service.

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, misdeanor convictions.

Perez, Hector Xavier, McAllen, Texas. Denial of EMT-I certification and decertification of EMT certification. EMS Rule 157.51(b)(16) and (26), misdemeanor convictions while currently certified and falsification of an application for certification or recertification.

* **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.

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.

Rouse, Molly C., Groveton, Texas. Twelve months probation of EMT certification through May 3, 1997. EMS rule 157.51(2)(C), failure to maintain confidentiality of patient information obtained in the course of professional work.

Salazar, Luis, El Paso, Texas. Three month suspension of EMT-Paramedic certification starting July 5, 1996 through October 5, 1996. Additional nine month 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 emerency vehicle when in service.

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.

Stiles, Jeffrey Scott, Dallas, Texas. Twelve month 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.

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.

* **Wolfskill, Andrew Lloyd**, Lolita, Texas. Previously EMT-I emergency-suspended February 29, 1996; revocation of EMT-I certification effective January 11, 1997. EMS Rules 157.44 and 157.51(b)(16), felony convictions.

Calendar

Meetings/Safety Dates

March 29, 1997. **National Registry Review Course**. Dallas, TX. All levels. Contact Metroplex Medical at 972/270-0857 or 800/583-0097.

March 16 - 22, 1997. **National Poison Prevention Week**. Poison Prevention Week Council, 301/504-0580.

March 22, 1997. **CPR-C**. New and renewal certification will be held at the Ramada Inn in San Antonio. Contact Metroplex Medical Training at 972/270-0857.

April 7-11, 1997. **Rescue I**. The Roco Corp. $600. Corpus Christi, TX. 800/647-7672.

April 14, 1997. **Effective QI in EMS**. $50. Contact Mari Maldonado, Metrocrest Medical Control at 972/484-1158.

April 15, 1997. **Field Evaluation and Training**. $250. Contact Mari Maldonado, Metrocrest Medical Control at 972/484-1158.

April 19-20, 1997. **Prehospital Trauma Life Support**. $150. Contact Kathy Jordan at Texarkana College 903/838-4541.

April 27 - May 2, 1997. **Operations 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.

April 28-May 2, 1997. **Rescue I**. The Roco Corp. $600. Vancouver, BC, Canada. 800/647-7672.

May 8, 1997. **Death and Dying**. $45. Contact Kathy Jordan at Texarkana College 903/838-4541.

May 3-10, 1997. **Safe Kids Week**. National Safe Kids Campaign. 202/662-0600.

May 3 - 10, 1997. **Arson Awareness Week.** Texas Commission on Fire Protection, Lydia Fluitt, 512/918-7100.

May 17, 1997. **ACLS Review Course**. Brookhaven College, Dallas, TX. For information call 972/860-4715.

May 17 - 23, 1997. **National Safe Boating Campaign**. NSC, Public Relations Department, 630/775-2307.

May 18-24, 1997. **National EMS Week/Texas EMS Week**. American College Emergency Physicians, 202/728-0610, Texas Department of Health, 512/834-6700.

May 22, 1997. **Violence in the Workplace**. $45. Contact Kathy Jordan at Texarkana College 903/838-4541.

May, 1997. **National Clean Air Month**. NSC, Nyki Palermo Brandon, 202/293-2270 ext. 725.

May, 1997. **Trauma Awareness Month**. American Trauma Society, 800/556-7890, Texas Trauma Coordinators Forum, Beverly Allen - Injury Prevention 409/776-4907, St. Joseph's Regional Health Center, 2801 Franciscan Drive Bryan, Texas 77802.

May, 1997. **Motorcycle Safety Awareness Month**. For information call the Texas Department of Public Safety, Motorcycle Safety Bureau at 512/465-2021 or 800/292-5787.

May 19 - 26, 1997. **National Buckle Up America Week,** National Seat Belt Coalition, Carole Guzzetta/NSC, 202/296-6263.

June, 1997. **National Safety Month**, NSC, Public Relations Department, 630/775-2307.

June 1 - 7, 1997. **National Safety Week**, American Society of Safety Engineers, 847/699-2929 ext. 218.

June 8 - 14, 1997. **Animal Bite Prevention Week**, Texas Department of Health, Zoonosis Control Division, 512/458-7111.

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

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

October, 1997. **National Car-Care Month**, NSC, Nyki Palermo Brandon 202/293-2270 ext. 725.

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 20 - 26, 1997. **National Radon Action Week**, NSC, Nyki Palermo Brandon, 202/293-2270 ext. 725

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

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

Calendar deadlines and information

Deadline: Six weeks in advance. After the pages of this magazine have completely gone through editorial, layout and design, 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.

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. An entry form will appear in a later issue.

Jobs

EMT-I and EMT-P: City of Austin. Austin EMS receives 60,000 calls per year and is an ALS system that serves a

Calendar

community of over 675,000 with a city/county response territory of 1100 square miles. Excellent benefits. For applicant and qualification requirements, contact Jane Lingo at 512/477-6182. Application deadline is 12:00 noon, Friday, March 14, 1997.+

Paramedic: West Texas Ambulance-Alpine EMS has a full time opening. City/County 9-1-1 service and hospital transfers. Send resume to WTAS, PO Box 338, Alpine, TX 79831 or call (915) 837-3028—leave message on voice mail.

Paramedic: TDH-certified paramedic. ACLS, BTLS, PALS, a plus. Salary range $19,200-$24,000 depending on years of experience. Send resume to Shannon Moman, PO Box 1071, Dalhart, TX 79022 or call 806/249-2524 for more information.+

BLS Instructor: Company representative to market and instruct CPR and first aid courses in the Houston and Galveston area. Send resume to Metroplex Medical Training, 2429 E Hwy 80, #101, Mesquite, TX 75150 or call 800/583-0097.+

Volunteers: Needed for Clear Lake Emergency Medical Corps, a 9-1-1 EMS, serving the Clear Lake/bay area in southeast Harris Co. for 23 years. Training, CE, uniforms provided. For information call Michael Cooper, 281/488-3078.+

EMT-P, EMT, or RN: Needed to instruct medical Spanish at local community college. Begin with the summer semester. Must be fluent in Spanish. Send resume to Metroplex Medical Training, 2429 E Hwy 80, #101, Mesquite, TX 75150.

Firefighter/Paramedic: College Station. Certified firefighter/paramedic. 18 or more college hours. $1,903/month. Excellent benefits. Contact: College Station FD, 1207 Texas Ave, College Station, TX 77840 or call 409/764-3705.*

Instructor/Coordinator: Full-time to develop curriculum and teach EMT-Basic throught EMT-Paramedic. Must have paramedic certificate and minimum of associate's degree. Competitive salary and benefits. Northeast Texas Community College, Mount Pleasant, TX. Call 903/572-1911.*

EMS Operations Director: New county system. Must be currently certified EMT-P with significant administrative experience. Salary commensurate with qualifications and experience. Send Resume to: Judge Martin McLean, Burnet County Courthouse, 200 S. Pierce, Burnet, TX 78611. No phone calls please.*

Instructors: Part-time position instructing EMT/EMT-P EMS CE for seven fire-based emergency medical services. TDH advanced instructor certification, ACLS provider/instructor, and CPR provider/instructor required. Send resume and copies of certifications to: Baylor Medical Center at Grapevine, EMS Education, 1650 West College St., Grapevine, TX 76051.*

Work Wanted: Help! Got to get out of California. Would like to move to small to medium size rural community (10,000 - 25,000 pop.) with fairly busy EMS system. Have 11 years EMS experience. Presently employed as EMT-I and have California EMT-P certification. Have ACLS, BTLS, and PALS certifications. Contact Tim Wiese, 2378 Funston Ave., San Francisco, CA. 94116-1947 or 415/566-4971.*

For Sale

For Sale: 1991 Ford XL ambulance. Wheeled Coach, diesel, automatic, 43k miles, many extras. Extra clean. $35,000. 281/999-9000.+

For Sale: Prepared CE lesson plans. Complete with outlines, quizzes. Provided on disk in Word or WordPerfect. Over 40 titles available. $15-$30 each. Call for list and sample. Contact Mari Maldonado, Metrocrest Medical Control at 972/484-1158.+

Prepared medical protocols. BLS, intermediate, and paramedic. Provided on disk in Word or WordPerfect. Very progressive and complete. $400-$1,000 depending on level. Contact Mari Maldonado, Metrocrest Medical Control at 972/484-1158.+

For Sale: Midland 16-channel VHF handheld 2-way radio. Model 70-153B scans with channel lockout. With charger, remote mic, spare battery, manual. $300 OBO. Call Chris at 281/483-0794.+

For Sale: 1992 Matrx life defense plus with pacing, synchronized cardiovert, hands off defibrillator, paddle defib, pedi paddle covers, single bay charging system, 3 batteries, extra defib and pacing pads. Contact Larry or Stephen at Fisher County EMS, Rotan, TX. 915/735-2256.*

Announcements

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.+

Scholastic Scholarship Searches: Write Advanced Business Innovations, 40 FM 1960 West #433, Houston, TX 77090.*

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

+ 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? To place an ad in the calendar 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.

The back page profile submitted by Mark Nickson of Amarillo Medical Services

Profile: *Amarillo Medical Services*

Amarillo Medical Services received the 1996 TDH Private Provider of the Year Award at the Texas EMS Conference in Fort Worth. Accepting the award are, from left, (top row) Tony Hopkins, Kent Scroggins, Casey Synder, Troy Lightsey, AMS Manager Mark Nickson, Commissioner of Health Patti J. Patterson, and Bureau Chief Gene Weatherall; (middle row) Gary Hammond, Bill Heizer, Jerry Brock, Doug Adcock, Keith Covey, Brian Wooburn, and AMS Director Jamie Farrell; (bottom row) Brittan Carrier and Michael Wiggs.

Name of Service: Amarillo Medical Services

Personnel Statistics: Amarillo Medical Services has 42 full-time staff and 33 field personnel. All are EMT-Paramedics. Amarillo Medical Services has been in operation since 1980.

Number of Units: Operates five MICU units stationed at two locations in Amarillo with the capability to increase to nine MICU units.

Number of calls: AMS responded to 24,769 calls in 1996.

Favorite injury prevention activities: AMS personnel speak with area elementary schools and various civic groups on various prevention topics and provide information on the "LifeLine" emergency response system when needy families or patients are recognized. They also support local first responders by providing them with AEDs.

Current Projects: AMS was acquired in May 1996 by Universal Health Care Services and took delivery of two new Road Rescue ambulances in February.

What is unusual about your service? AMS received the 1996 TDH Private Provider of the Year Award at the Texas EMS Conference in Fort Worth.

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

Periodical
Rate Paid
At Austin, Texas