Managed Care and

The pace of growth of managed care is picking up, and EMS

BY CHERYLE BESEMER

Even though federal health care reform has been placed on the legislative shelf this year, don't think the EMS industry can breathe a collective sigh of relief. President Clinton's original plan may be virtually dead, but the underlying principles — universal coverage, insurance reform, a managed care delivery system, a basic set of benefits and an employer mandate to pay a portion of the costs — are alive and well. Reform will happen and, experts say, the time is now for EMS providers to prepare for the impending changes.

"Some kind of health care reform is inevitable," says Dick Clinchy, president of Emergency Medical Resources Corp., and the chairman and founder of the American College of Prehospital Medicine in New Orleans. "You either get on the wagon, or it runs you over."

Regardless of what form it takes, the shake-up in the system will affect everyone from hospital emergency departments and physicians to paramedics, EMTs and emergency transport personnel. EMS providers need to adapt, or they may not survive.

Economics Driving Reform

In the United States, where health care costs represent nearly 14 percent of the gross domestic product, economics are driving reform. Federal health care spending will double by 2030 even with cost controls. Without them, it will triple, and the budget deficit will balloon again, says the commission on entitlement reform.

One of the most attention-getting wastes of health care dollars in the EMS industry is the use of 9-1-1 for other than emergency treatments. In a San Diego survey, results showed that of 15,000 9-1-1 responses, only 13 percent required ALS intervention involving drugs. Another 30 percent required only prophylactic ALS intervention. The balance were not true emergencies but meant expending effort, resources, man hours and dollars. Health and Human Services Secretary Donna Shalala recently stated that 65 percent of all patients entering emergency departments across the U.S. are not really emergency patients. Treating a broken toe in the ER is expensive.

Industry-Wide Consolidation

As reform and managed care grow, so do the pressures for cost containment. There has already been a world of change throughout the industry as organizations scramble to survive. Insurance companies, hospitals, physicians' groups and ambulance providers are merging, acquiring and consolidating at an unprecedented rate. There were 19 completed or announced health care mergers valued at $200 million or more apiece, for a total dollar value of $21.5 billion, during the first half of 1994 alone, according to the Jenks Healthcare Business Report.

This has created a new phenomenon in the health care industry. Hospitals are buying large medical practices and/or creating their own in-house managed care health insurance plans. Doctors are banding together and purchasing financially troubled hospitals. Giant health insurance providers like Blue Cross, Cigna and Prudential are gobbling up hospitals and physicians' groups to create their own outpatient centers and provide convenient one-stop-shopping integrated health care organizations. There is so much new competition in the field that even managed health care pioneers, like Kaiser Permanente, a 40-year-old, California-based health care system that provides everything from administration to its own doctors, hospitals and health insurance plans, is restructuring to take on the new world of American medicine.

Important recent acquisitions and mergers in the health care industry include:

- Columbia Hospital Corp., with $15 billion in revenues and more than 300 acute care hospitals, became the largest hospital firm in North America by acquiring Health Trust and HCA-Hospital Corp. of America.
- United HealthCare Corp. bought both Ramsay-HMO and Complete Health Services.
- Blue Cross of Western Pennsylvania purchased a 70-member physician medical group.
- American Medical Response, the nation's largest provider of ambulance services, signed a letter of intent in April to acquire U.S. Healthtec and another in August to acquire the ambulance service of Metro Ambulance, the largest service in northern Louisiana.
- Rural/Metro, which now operates in seven states, announced in July that it had purchased Ohio's largest ambulance company.
- MedTrans, the health care services division of Laidlaw, has made more than 35 acquisitions since June 1993.

These mergers, acquisitions and consolidations, in turn, have created a move toward managed care, capitated (flat fee-per-member) contracts, more outpatient treatment, the growth of integrated health organizations and a growing interest in prevention-oriented medicine.

"The four largest ambulance services in the nation — AMR, MedTrans, Careline and Rural/Metro — are nationally focused," says Brenda Staffan, administrative director of the American Ambulance Association, a national trade organization of ground ambulance services. "These companies are all very active in consolidation and working within the managed care system. The more they consolidate and streamline, the more services they can offer and at a lower cost."

Growth of Managed Care

Managed care began long before President Clinton took office. Nationally, it already has 35 to 40 percent market penetration. In some states, like California, more than 70 percent of the insured population in metropolitan areas is currently covered by some type of managed care in the form of health

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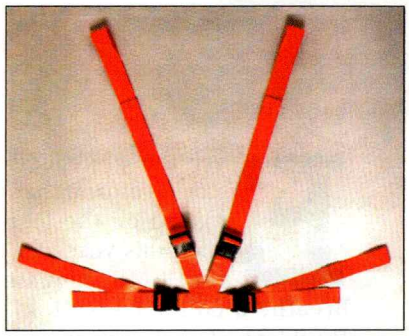

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EMS

is feeling its impact.

maintenance organizations (HMOs) or preferred provider organizations (PPOs). Other areas where it is the prevailing system include Minneapolis/St. Paul, Albuquerque and Worcester, Massachusetts.

Donald Jones, vice president for marketing with MedTrans, defines managed care as "a structured, organized approach to health care delivery where everyone receives all the medically appropriate services that are medically necessary in an economically feasible manner.

"Managed care changes have been happening during the past decade," Jones adds. "It's naive for providers to think they don't need to prepare. They have to figure out how to provide value-added services that managed care organizations will reimburse — or they will die."

EMS Within Managed Care

How does emergency medicine fit into the managed care system? Jones says that EMS will be sold wholesale to the managed care business and that regional HMOs will most likely be the source of payment, with cost control being paramount. EMS providers will need to learn a whole new set of rules for financial incentives and risks.

Currently, the largest reimbursers for emergency services are the government, in the form of Medicare and Medicaid, and private health insurance companies. Private firms have been moving toward managed care for years, and now the government is following suit. In Arizona, for example, all Medicaid recipients are already enrolled in managed care plans. California has placed 300,000 of its MediCal recipients in HMOs and plans to have most of the state's Medicaid population in managed care by 1996. At least 30 other states are working on plans to place Medicaid patients in HMOs.

As large HMOs take over the payment of services, they will increasingly demand capitated contracts from providers. The payor will offer providers like ambulance companies a flat fee-per-member-per-month rate for a predesignated group of people who are members of the HMO. Capitation is a key issue for emergency fee-for-service providers and one they need to prepare for.

Under the traditional EMS system, providers set fees for specific services, and the payor is billed when a service is rendered. This paradigm is still dominant in most East Coast cities and in rural and agricultural areas in the U.S. To increase revenues the financial incentives are to have high call volumes, to transport patients to a hospital emergency room, to upgrade and provide more and higher levels of service, and to do it all with a decent response time.

The incentives with capitated contracts are just the opposite. There will be an incentive to decrease call volume since the company gets paid exactly the same amount whether or not HMO members use the service. Since many HMOs won't pay for a trip to the emergency room if a patient is discharged or is treated for a nonemergency problem, there is less incentive to transport patients to the ER. The payor also will not reimburse for treatment administered that isn't within the stated guidelines of medically necessary and medically appropriate. Additionally, under a capitated contract, response time becomes less important than patient outcome data.

"Emergency departments are worried," says Jim Paturas, director of

Emergency Medical Services at Bridgeport Hospital in Connecticut. "We need statewide legislation and a clear definition of exactly what emergency services will consist of. We need to understand capitation and perhaps form closer relationships between hospitals and ambulance services."

Controlling Health Care Dollars

Nicholas Benson, MD, professor and acting chair at the Department of Emergency Medicine at East Carolina University's School of Medicine, agrees. "In this country the government, major employers and major health insurance companies control the health care dollars. And now they may be indicating what is and isn't an emergency, and how much we get paid for it. The onus is on emergency physicians to be proactively involved in the process from the beginning. We need to help negotiate the types of services that will be covered and what fees we get for them, or we'll be getting $250 for treating a heart attack victim."

In Benson's area of Pitt County, North Carolina, doctors are in the process of organizing the Eastern Carolina Health Organization (ECHO) to give physicians a chance to band together to be better positioned to negotiate contracts with hospitals and insurance companies. ECHO will work with its own 700-bed hospital, 400 attending physicians and 200 resident doctors in all subspecialties so the group will be able to provide any type of medical service. If it works in Pitt County, Benson says, the group will take the model to other North Carolina communities.

"The days of doctors being independent businessmen and women are over," he says. "We have to think in collective terms now. If we band together and collectively offer our services, we'll come to the table with more ability to negotiate."

Changing Medicine's Focus

Managed care HMO and PPO cost-containment measures also favor treatment in outpatient settings rather than in hospitals since it is less expensive, and the recovery time is usually shorter. Paturas says that in Connecticut, where managed care has reached only 20 percent of the population, the average hospital stay is seven days. In managed care hospitals like Kaiser, the average stay is four days. Additionally, hospitals nationwide are suffering from low occupancy and decreased operating budgets. According to Hospital Watch, the overall occupancy rate of New York City hospitals dropped from a high of more than 90 percent in the late 1980s to 82 percent in the third quarter of 1993, while outpatient services increased. However, from September 1992 to September 1993, clinic visits at voluntary hospitals jumped 6.9 percent and clinic visits at municipal hospitals rose 3.2 percent in New York. This trend is mirrored throughout the country.

Managed care groups are changing the focus of medicine by offering a wide variety of wellness and preventative programs. For example, in response to the U.S. Public Health Service's Healthy People 2000 initiative, more than two-thirds of 547 hospitals reported the development of disease prevention and health promotion programs.

As managed care principles expand throughout the health care system, EMS operations will change dramatically.

To remain an integral part of the managed care system, companies like HealthSpan Transportation Services, a wholly-owned subsidiary of the industry giant Allina, has already moved into the prevention side of medicine. "Thirty-five percent of our ambulance activity is for accidents that could easily have been prevented," says David R. Miller, president of HealthSpan Transportation and vice president of Allina Health System. "As part of a study, we went to Bloomington, the third largest city in Minnesota, and asked people what they needed from us. The answer was they wanted accident-prevention education about common problems like in-line skating and bike accidents. We put together a 10-minute accident-prevention education program in the city park. Later, we did a random survey and found that more kids were wearing protective devices, and accidents had gone down. Our data shows we can influence behavior."

Dramatic Changes in EMS

As managed care principles expand throughout the health care system, EMS operations will change dramatically. In many cases delivery system providers like ambulance and helicopter vendors will become part of a larger integrated health care service. At that point these vendors become cost centers rather than profit-making entities. In order to win capitated contracts with health insurance organizations, vendors will need to provide hard data and patient outcomes research to prove they can provide efficient, high-quality service at a low cost.

"Capitation is going to be the biggest and hardest change for emergency medical transportation services," says Richard Keller, an EMS consultant at Fitch & Associates in Missouri. "Currently, most ambulance companies don't keep actuarial data, demographics, number of trips per month or the cost per trip. Under managed care, that will have to change."

MedTrans' Donald Jones says that most providers will have no choice but to participate in capitation. "Undertaking capitated agreements involves the kind of complexity that starting a brand new billing system involves and then some," says Jones. "It means completely rethinking how services are provided, knowing the demographics of the group you are providing them to and exactly how much it costs to provide each service. Computerized systems that collect actuarial, statistical and demographic data and provide statistical analysis on health plan members will be crucial."

Jones also projects that managed care will generally have the same impact on private, public, third-service and hospital-based ambulance services. The caveat, however, is that in areas where managed care is already prevalent or with large, national private ambulance companies, these services may fare better since they are already knowledgeable about captitation and usually have a stronger financial base to draw from. "Survival for EMS providers will mean being familiar with managed care principles and creating any type of value-added services that will add to a company's revenues," Jones emphasizes.

The AAA's Staffan says that the goals of the ambulance association coincide nicely with managed care principles. "The association perspective is that to be effective, emergency ambulance services should provide the best service possible at the lowest cost," she says. "An important part of that is the competitive bid process. Providers should be chosen on a performance-based system."

Some of the larger ambulance service providers have already tested the managed care waters. Chuck Dovey, executive vice president/chief operating officer at AMR West in California's Bay Area, says that his company, which responds to 320,000 calls a year, has negotiated a few capitated contracts in the past year. "We have gradually gotten into managed care, and it has changed the whole protocol of EMS," Dovey says. "The Bay Area is very competitive. We have to go through a bid and proposal process, and it can be very dangerous. Actuarial tables are important now. You need to know the demographics of the area you're bidding on, because instead of billing the government, insurance companies or patients, the ambulance company is now the one at risk. If we don't know our costs and underbid, we can lose big dollars."

Managed Care Working Well

Any change in an established system is scary. Nobody, not even EMS practitioners themselves, claim to know exactly what the system will be once the health reform dust has settled. But the news isn't all bad. In several areas of the country, managed care principles are working well.

San Diego County has about 70 percent of all insured patients enrolled in managed care plans. Although hospitals reported lower occupancy rates in 1993, net revenues were up. Under capitated arrangements some hospitals often do better with fewer patients. San Diego's 29 hospitals, which serve about 2.6 million people, have mostly consolidated into four large systems: Sharp Healthcare, Scripps Health/Mercy, University of California's UCSD Medical Center and Kaiser. About 75 percent of all admissions go to these organizations, and each is either fully integrated with physicians or their own insurance products or intends to become so.

"In the years to come, the emphasis will not be how individual hospitals are doing. What is going to be the measure of success is how comprehensive a system can be, from primary care to highly specialized tertiary care. It must be geographically dispersed and well integrated," says Leslie Franz, UCSD spokeswoman.

Sharp Healthcare was the first hospital system in California to develop an integrated system. In 1993 it committed more than half its capital budget to physician leadership programs, practice development, primary care strategies and projects related to its more than 1,000 affiliated physicians. Sharp is also redistributing acute care revenue to priorities from building physician organizations to developing clinical data systems. In the past two years Sharp has obtained an HMO license and has developed its own managed care plan.

Although the San Diego systems can be used as models for those still unfamiliar with managed care, all is not rosy on the city's EMS front. About three months ago, San Diego's LifeFlight helicopter rescue system, cut back from two full-time helicopters. One of the two now operates only a 12-hour shift. Two pilots, two mechanics and a couple of flight nurses have been laid off due to the low reimbursement rate and expense of operating the program.

"In my 12 years as a flight nurse for LifeFlight, I've never seen it this bad,"

TERMS DEFINED

Managed Care: A structured, organized approach to health care where everyone receives all the medically necessary and medically appropriate care in an economically feasible manner.

HMO: Health maintenance organization, which through an organized system, provides or assures the delivery of an agreed set of comprehensive health care and treatment services (including emergency medical services) for an enrolled group of persons under a prepaid fixed sum or payment-per-capita arrangement; HMOs must employ or contract with health care providers who undertake a continuing responsibility to provide services to its unruliest. The members pay more for services if they go outside the HMO's list of providers.

PPO: Preferred provider organization; an insurance arrangement whereby insurers contract with providers for certain services based on a fee schedule. Plan members are encouraged to use these preferred providers for necessary services. If they do not, they must pay out-of-pocket for any difference between charges of a nonpreferred provider and those of the approved-fee schedule.

Capitated Contracts: A contract between an HMO, PPO or other health insurance payor and a health care provider, including emergency ambulance services; the payor offers the provider a flat monthly fee-per-member for a particular insured group for a specific, itemized list of services to be provided. The provider takes on the financial risk in a capitated contract.

Medically Necessary and Medically Appropriate: Two concepts of patient treatment that have attained a higher priority under managed health care contracts; in these agreements, health care providers are reimbursed for providing patients only what is medically necessary — no more, no less — to treat or help them. Medically appropriate is treatment that is medically necessary for the best possible patient outcome. These treatments are usually specifically outlined in managed care contracts.

Actuarial Data: The calculated, statistical risks of a certain population; this data is important under capitation since health care providers will need to know what services are used and needed when contracting for a particular geographic area. For example, retirement communities usually require more emergency medical service than an area where young single people live.

Demographics: Exact data on a particular group of people that includes age, race, sex, livelihood, areas they live in, etc.

says Donna Heiser. "I think a lot of it is in anticipation of health care reform. If someone doesn't come through with funding, there may not be a LifeFlight in San Diego next year."

In Albuquerque, managed care now covers more than 80 percent of the insured population. The leader of four systems there is Lovelace Health System. It includes a 140,000-member HMO, a 325-physician multispecialty medical group and a 235-bed hospital with capitated contracts for EMS providers. The entire organization is owned by Hartford, Connecticut-based Cigna. "At Lovelace the changes under managed care have been good and exciting," says Sharon Bromberg, director of emergency services at Lovelace Health System. "It was the driving force in making us look at our overall medical care and adjusting to provide the appropriate health care at the appropriate costs. The emergency encounter is only one part of the overall continuum of care we provide. True emergency patients get the same treatment from ER entry to rehabilitation. But we also have qualified registered nurses who provide telephone triage for our members. That funnels patients to the appropriate treatment rather than overusing the 9-1-1 system."

Other managed care and integrated care leaders in the U.S. include the more than 160,000-member Fallon Health Plan in Worcester, Massachusetts, and the business-community driven systems that pushed managed care in the Minneapolis/St. Paul region.

"Minneapolis has been immersed in managed care for about 10 years," says HealthSpan's David Miller. Allina Health System has 17 hospitals, homecare, an ambulance division, 7,000 physicians and a multitude of related health care operations run by 17,000 employees. "But during that 10 years, the focus has been more on big-dollar items like OB/GYN services and cardiac care. Managed care providers didn't really know enough about the overall EMS system to look at it closely until now. I think that within the next two to three years, HMOs and PPOs will be looking carefully at EMS. The changes may be a hardship initially for providers, but changes in EMS are also risky for the managed care payors, so they will be made carefully."

Hawaii's Head Start

The state of Hawaii has a head start on some of the managed care principles Clinton outlined in his reform package, primarily that of universal coverage. It came about, says Donna Maiava, Hawaii's EMS director, because of three state legislative acts. Together, they have allowed for near-universal access (98 percent).

"Hawaii has the best health care system in the nation," says Maiava. "It has the best overall health outcomes and has costs significantly below national norms. We have proven that businesses can comply without undue burden, that using a better system of primary care works. We have the lowest infant mortality rate and the lowest death rates for cardiovascular disease in the nation."

Good or bad, the changes in emergency health care are just around the corner.

Hawaii has also implemented a transportation system that uses taxi shuttles and vans for patients who need other than emergency transportation.

In Hawaii the state Department of Health is responsible for the administration and coordination of EMS. Maiava says that emergency services are a critical component of Hawaii's successful health care system. The high access to primary care in the state has resulted in a one-third reduction of emergency room use and inpatient care, which has created changes in some EMS areas like training and scope of practice. "The issues of do-not-resuscitate, treat-and-release and treat-and-refer to multilevel health services are among many directing changes in EMS," Maiava says. "But caution must be used to ensure that managed care does not dictate clinical standards for the use of ambulance and EMS resources. We must maintain EMS system integrity with access to care and rapid response to medical emergencies."

Effects and Portents

Nationwide, especially under managed care systems, 9-1-1 calls have gone down. "Kaiser systems have had a 25 percent decrease in 9-1-1 requests," states Richard Keller. "Emergencies are not being ignored, but the HMO members are being educated by the company to use less costly options. Through information numbers people are referred to the proper services."

The health care systems of the future will probably be hybrids of the managed care models in California, New Mexico, Minnesota and Hawaii. Industry experts say that EMS will always be a covered part of the managed care system but that its role will change.

The most cited guess is that the 9-1-1 dispatch system may play the role of gatekeeper. As part of a large integrated health organization, 9-1-1 calls may become a triage point where callers are steered in any of several directions. Obviously, in this scenario, dispatchers will need more medical training.

Paramedics and EMTs will also need further training and education in order to expand their scope of practice in a managed care system. They may end up resembling the house-call doc of the past, working under the direction of online medical control in the homes of patients who are not critically injured. They may work like nurse practitioners or physician assistants and do immunizations, wound care, fracture splinting, secondary checkups and accident-prevention education.

"There have already been successful experiments in Alaska and New Mexico, with health care workers other than physicians seeing elderly patients at home and checking blood sugar for diabetic patients, for example," says Benson of East Carolina University.

One pilot program for paramedics was ahead of its time. It was born not from the pressures of cost containment and managed care, but the inefficiency of the Fulton County EMS system in Atlanta, Georgia, according to Dr. Stephen Holbrook, co-medical director

of Grady Hospital EMS and assistant professor at the Division of Emergency Medicine at Emory University. A few years ago, data at Grady Hospital showed that nearly 85 percent of its annual 70,000 9-1-1 calls were not emergencies. So the hospital began the Field Treatment Program, which consisted of advanced education and training of hand-picked paramedics. The paramedics went through classroom and clinical training in the EMS department of Emory University to learn more about primary care. They learned to treat eye infections and rashes, and to do wound checks, health screenings, immunizations and other routine medical assessments. The paramedics used Ford Explorers licensed as first-responder vehicles instead of ambulances to check on patients throughout the county. Holbrook says the program was very successful and was a model for managed care EMS services. But, due to budget cuts and high operating losses, Grady EMS has put the program on hold.

"Paramedics will need further training, but, in general, they have the cognitive and procedural abilities to do more. I have no problem with their having an expanded role when the bottom line is getting good care to as many people who need it," says Benson.

In the future EMS paradigm, ambulance transportation will not only deliver people to an ER but to outpatient clinics, primary care physicians' offices or even the patients' pharmacies to pick up prescriptions. And all of these services will likely be covered by capitated contracts.

Doubts About Readiness

Many EMS practitioners worry about health reform and managed care moving too soon into markets that aren't prepared for it. "The catch-22 is that we don't have the re-education in place yet," says EMS director Paturas. "We don't have primary care services in place where people are still using emergency departments for their primary treatment."

Hawaii's Donna Maiava also voices a concern. "EMS shouldn't be in competition with primary care physicians. Ambulance crews and paramedics don't have diagnostic capabilities in the field. Caution must be used if they triage patients. Appropriate levels of care should always be a physician's decision."

HOW MANAGED CARE AFFECTS EMS

Reduced Call Volume: As managed care insurance groups educate their members, 9-1-1 calls will drop as they already have in California, Hawaii and New Mexico, states where managed care is prevalent.

Employment: There will be greater demand for more highly trained providers; EMT-Basics, especially volunteers, will become an endangered species.

Expanded Scope: In order to protect their jobs in a managed care environment, paramedics and EMTs may be encouraged to have more training and move into other areas of prehospital medicine like primary care. In some areas of the country, EMS workers have already begun to provide treatment (immunizations, treatment of skin disorders, care of the homebound elderly, wound care) similar to house-call doctors of the past.

Prevention Education: In keeping with the cost-containment basis of managed care, EMS systems will expand their education programs, changing the old adage to "prevention is *cheaper* than cure," and will broaden the provider's role to include teaching.

Demand for Hard Data: In order to more successfully negotiate and compete for capitated contracts in a managed care system, EMS providers like ambulance companies will need to know specific information about potential patients in their geographical provider area — their ages, the level of violent crime, what services the population has needed in the past and what they may need in the future. Providers will also need to maintain an exact record of patient outcomes in every area they serve, particularly in a competitive environment.

Alternate Destinations: Rather than simply delivering patients to the ER, ambulance crews will also be providing on-site care, referring patients to primary care physicians, arranging for prescription fulfillment, and transporting to community clinics and urgent care centers.

Ambulance Service As Cost Center vs. Revenue Center: Under traditional fee-for-service arrangements, ambulance companies bill and are reimbursed for every service they provide, so their operation is a revenue-producing business. Under capitated contracts, ambulance services will be just one part of a larger, integrated health care system that is operated by payors like HMOs and PPOs, which pay the ambulance provider for specific, agreed-upon services. To the payor, therefore, ambulance providers become a cost center. This means that ambulance companies must negotiate adequate fee-per-member prices in order to survive in the managed care system.

Decline of Air Medical Service: As has already been seen in San Diego and elsewhere, when there is little or no advantage to air transport, ground transport will prevail by virtue of its lower cost.

Continuing Consolidation of the Ambulance Industry: The acquisiton rampage will continue, and there will be increased competition among proprietary services and between public and proprietary services to capture care contracts.

Good or bad, the changes in emergency health care are just around the corner. Providers need to educate themselves in the principles of managed care and, says Paturas, "keep one eye on the federal government and two eyes on state governments." If the EMS industry educates lawmakers as well as HMO executives to the potential for providing an efficient integrated system, it has the potential of being a win-win situation for providers, insurers and patients.

"The industry isn't doomed, it's just going to change," says Allina's Miller. "We will have to try different approaches and, if they don't work, modify them. There is always a period of trial and error in a new system."

Cheryle Besemer is a free-lance writer based in San Diego, California.

Come Fly With

Flight paramedics are the elite of the medic corps

by Joe Schweiger, EMT-P

"Dust off!"

When helicopters took to the air over Vietnam's jungles, that was the army infantryman's cry. And for a wounded soldier, the helicopter represented perhaps his only chance of survival.

Helicopter-borne Army medics and crews flew 496,573 missions in Vietnam, airlifting more than 900,000 injured soldiers to medical facilities.[1] The flight medics lived by a seemingly simple motto: Keep the wounded alive until they reach the hospital.

In Vietnam, helicopters proved so effective in transporting injured personnel that the craft became a staple of civilian medicine in the late 1970s. Flight programs began to pop up all over the United States. Urban hospitals found helicopters ideal for moving patients from rural hospitals and clinics. Life Flights became an indispensable EMS tool.

At first, physicians and registered nurses staffed civilian medical helicopters. But it didn't take long for paramedics to find their way to the sky. By the early 1980s it had become too costly to crew helicopters with physicians. Paramedics, trained to recognize and treat life-threatening conditions, were the most logical choice to replace physicians.[2] Today, 60 percent of rotor-wing and 41 percent of fixed-wing air medical transport services fly with paramedics.[3]

Flight paramedic is now one of the most sought-after positions in EMS. Aside from sharing in the prestige attached to air medical transport, flight paramedics enjoy many benefits. Several flight teams are based at university medical centers and teaching hospitals. In these environments flight paramedics see state-of-the-art medicine firsthand.

In Spokane, Washington, Deaconess Medical Center serves as a teaching hospital and was the base for the Lifebird air transport team. Greg Colley worked as a Lifebird flight paramedic for four years, finding the academic surroundings helpful in development of his prehospital skills. "You have access to other health care professionals and their working environment," he explains. "We get the best opportunity to improve our skills and education."

A flight team, thanks to its tightly knit structure, develops an intimate working relationship with its medical director. This close association enables many flight paramedics to work under expanded protocols. University of Pennsylvania Medical Center's PennStar flight program operates under such protocols. "We use drugs for rapid sequence intubation that ground providers would not get the opportunity to use," says PennStar flight paramedic Richard Hershberger. PennStar's hospital-based flight operations also make it possible for paramedics to transport blood directly to the field for trauma infusion.

With the high number of critical patients and expanded protocols, flight paramedics see great opportunity to use their advanced skills. "The helicopter doesn't carry refusal forms," says Andy Button of Loyola University's LifeStar program. "When you're called to the scene, you know the patient is critical and needs ALS."

Though some programs primarily handle on-scene transports, for most, interhospital transfers account for the majority of flights. "Thirty percent of our transports are interhospital cardiacs, another 30 percent are high-risk obstetrics and pediatrics," says Button. "Only 10 to 15 percent of our patients come from on-scenes. We see the sickest of the sick."

The high number of interhospital transports means flight paramedics often work with registered nurses. Lifebird's Colley feels that working with nurses is a major asset. "Nurses have a high level of skill and training that is different from our own," he says. "Working with nurses allows the paramedic to get a better understanding of the hospital environment." The flight nurse's hospital critical care background enhances the paramedic's experience in the prehospital environment. "It's a nice melting pot," says PennStar's Hershberger. "Each person brings their own specialty to different situations."

According to the National Flight Paramedic Association (NFPA), the United States boasts more than 1,600 flight paramedics. Many come from private ambulance services. Some are part-time paramedics who work air transport during their off hours from public and private ground services. But no matter what their backgrounds, flight paramedic candidates must prove to be a cut above.

The NFPA requires that paramedics entering the air medical service meet minimum standards. These require a paramedic to be a graduate of a school using the DOT paramedic curriculum. Flight paramedic candidates must also hold certifications in advanced cardiac life support, pediatric advanced life support and trauma life support. Three years' experience working with an advanced life-support service is another requirement for candidates, as is receiving instruction in air-related issues.[2]

Competition for flight paramedic positions is tough. For three years, Jay Boudreaux has served as a flight paramedic in the southern United States with Acadian Ambulance's flight service, AirMed. "You don't get to be a flight paramedic by sitting back on your can," he says. After working seven years for Acadian as an EMT and ground paramedic, Boudreaux had to undergo a rigorous application process to earn his flight position. Having been approved by his immediate supervisor, Boudreaux inter-

Me!

COLIN WILLIAMS

Anticipation and concern show in the demeanor of two Scottsdale, Arizona, flight paramedics as they respond to an MVA.

viewed with Errol Babineaux, Air Med's program manager. Babineaux, a former flight paramedic, seeks the well-rounded candidate — someone possessing more than just good paramedic skills.

"We're looking for the paramedic who is good at dealing with the public, other care providers and the patient's family. We want compassionate individuals who can help people through the toughest time in their life," says Babineaux.

A flight paramedic undergoes strenuous training. Loyola's LifeStar program sends its medical crews through a three-month enhanced paramedic curriculum. LifeStar's Button explains that the training program introduced him to skills not usually practiced by his earthbound counterparts. "We had classes in air physiology, X-ray interpretation, 12-lead ECGs and the placement of chest tubes."

Rotations through a hospital's critical care areas provide a flight paramedic insight into his job as an advanced skills provider. PennStar's Hershberger recalls a turn in the hospital. "We had to follow the treatment of a trauma patient from the time he entered the emergency room until he got through surgery and into the intensive care unit."

PennStar also involves its flight paramedics in a unique aspect of air transport: cockpit resource management. "There are no passive passengers in the helicopter," says former flight paramedic Chuck Kaczmarski, now program leader. "The crew members act as observers looking out for other aircraft. They assist in navigation by helping the pilot with maps and charts. The crew members also enter coordinates into the LORAN, operate radios and participate in the pre-takeoff and landing checklists."

Stringent FAA regulations govern the maintenance and flight of medical aircraft. Engines and avionics are kept in top operating condition. Weather minimums are set to insure maximum flight safety. Yet despite these precautions, medical transport aircraft do crash. Flight paramedics and their families accept the danger. "Everyone is well informed of the risks," says PennStar's Hershberger, "but we do all we can to maximize safety. No one is skittish."

Will flight paramedics, with their unique skills and experience, represent the first specialty in emergency medical technology? NFPA President Jeff Sarkas believes they might. "We're looking into a specialty certification for flight paramedics. It would be a valuable tool to promote our profession." But for now, flight paramedics seem to be restricted to the position of flight team medical technician. Of all flight program managers in the United States, only 2 percent come from paramedic backgrounds.[3]

Will flight paramedics be able to climb the air medical transport career ladder? David Samuels, former flight paramedic and founding president of the National Flight Paramedics Association, now leads the largest U.S. air medical transport service, Samaritan AirEvac of Phoenix. AirEvac transports more than 7,000 patients yearly. Its fleet consists of seven helicopters and six fixed-winged aircraft, including a Lear Jet. Samuels gives simple advice to flight paramedics wanting to move up.[3] "Focus on moving ahead. I encourage people to go to school and get a college degree or degrees." PennStar's Kaczmarski agrees. "Paramedics who prepare themselves can easily be in line for promotion in either administration or education."

With less than a 1 percent turnover in flight paramedic positions nationwide, it doesn't appear that many flight paramedics are in a hurry to move elsewhere. After all, why drive when you can fly? F

Joe Schweiger, is a flight paramedic working for MedStar Air Ambulance in Spokane, Washington.

REFERENCES

[1]Cook JL: *Dust Off, The Illustrated History of the Vietnam War.* Bantam, New York, 1988; 153.

[2]National Flight Paramedics Association: The Role of the Flight Paramedic in the Prehospital Environment. *Air Medical Journal,* 1993; 12(6): 203-204.

[3]Cady G: 1994; Program Survey. *Air Medical Journal,* 1994; 13(9): 353-358.

Sharing Job Info With Kids

Healthful ways to tell your kids about your work

BY JUDI LIGHT

You want your spouse and children to feel proud of your career achievements. After all, working to be of service to others is a special calling. But coping with the demands of job and family isn't easy for anybody these days. Do your loved ones really understand what your work as an EMT, rescue worker or firefighter involves? Do they comprehend why you need quiet time after a tough day? Do they have a realistic overview of your profession?

Sharing job information and experiences with a spouse is one thing. But how can you tell your kids about your work in ways that will be good for them? How much do they need to know? The picture you paint of your work can determine how your kids will feel about handling their own careers some day. Children will respond to work responsibilities much as they've seen their parents respond.

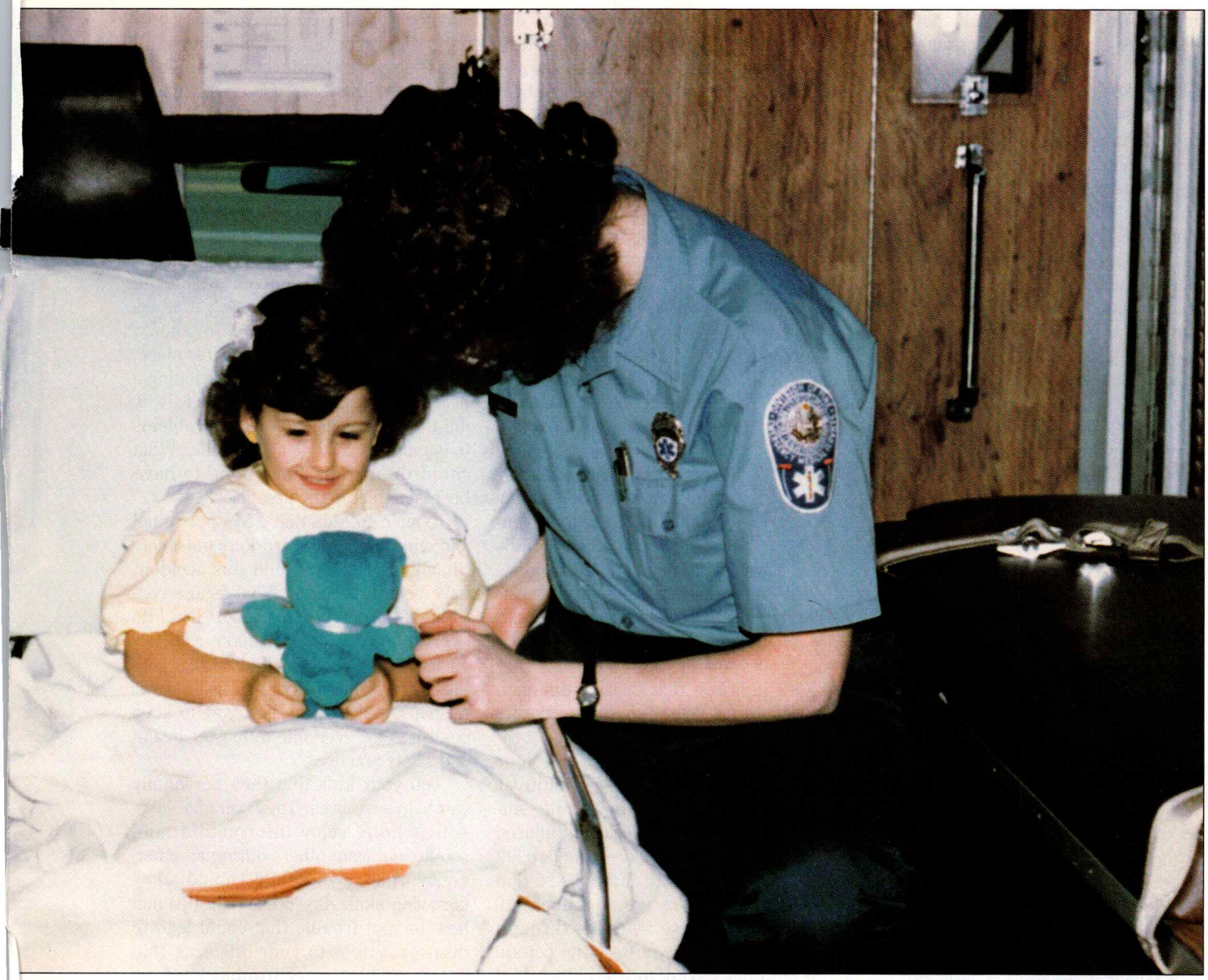
There are many positive ways to share emergency work experiences and information with children. When they learn more about your job, safety in general and how kids can help save lives, they feel more a part of it all. Even small children can understand the personal rewards that come from helping others. One of the best things they learn is that people like mom or dad are respected role models in the community.

Psychologists say it's good for your kids to watch you cope with a certain amount of stress too. They can't learn coping skills if adults always pretend everything's fine. They need to see you confront problems, cope as best you can and bounce back. Still, while your children need to understand the basics of what you do, how you help save lives or property, some of the dangers involved and the importance of your work, they should not be told gruesome details. "There's no value in letting children hear gruesome remarks or see gruesome pictures from a catastrophe," says psychologist Larry Conner, primary planner for Tennessee's statewide critical incident stress debriefing (CISD) program and director of EMS at Walters State Community College.

It's a good idea to take your children to work with you occasionally, let them talk with your co-workers and assign them some simple tasks, such as sharpening pencils or stacking papers. Acquaint them with the equipment your department uses and let them tour the vehicles. You might also drive them to the hospital to show them where you take your patients for further care. "Children need to have a mental image of their parents at work," says Leah Fisher, co-director of the Center for Work and Family in Berkeley, California. "When they can picture you on the job, they're actually reassured about your safety."

While children love to watch their favorite EMS and rescue shows on television, they need to understand that emergency work is not always so glamorous nor so neatly packaged, complete with satisfying conclusions. "Otherwise, they won't grasp why you're stressed enough to kick the cat out the back door when you come home," says Conner. Explain that actors on emergency shows are working mostly to entertain us, but that the value of the work shown is real.

Help your kids see that your work involves getting to a scene quickly, racing against the clock and facing situations



Taking your children to work and inviting their participation can reassure them about your safety.

that may be raging out of control — just like on TV. But also tell them, "Unlike TV, sometimes what's out of control can't be fixed. People do die, and houses do get destroyed by fire." Explain that stress skyrockets when you lose the control you were trying to achieve.

Be honest with your kids when you're bent out of shape because of work. Tell them, "I've had too many things to do today," or, "I need quiet time to think about what went wrong today." Psychologists say kids will feel you're mad at them if they don't understand why you're stressed. "Stressed emergency workers tend to flood the family with talk, or just clam up," says Conner, who often writes and teaches about the impact of work-related stress on EMS personnel. "Children need to have explained to them what stressed people act like."

Telling your kids why you have good days and bad at work — along with briefing them on the sacrifices and rewards involved — helps them understand how you're looking at your career. Try to get a fix on how your kids perceive what you do. They may want to ask questions, figure out whether or not they'd like to follow in your footsteps, or voice concerns about your personal safety. The best way to allay a child's fears about the dangers of your work is to stress your preparation for the job. Talk about the study and rigorous training emergency work mandates. Find out how much your kids really know about what it takes to do your job well. When you know this, you can paint a broader, more accurate picture of your skills.

"If you're a firefighter, there's nothing wrong with telling your kids that you do get the chance to be a hero, daredevil, champion and lifesaver," says Dennis Smith, a veteran firefighter who's written several books for Doubleday on firefighting as a profession and its impact on family life. "But point out to kids why the job requires skills in math, physics, mechanics and good communication," he adds. "In your discussions, don't forget to mention abilities needed such as staying coolheaded under pressure and getting along well with other people."

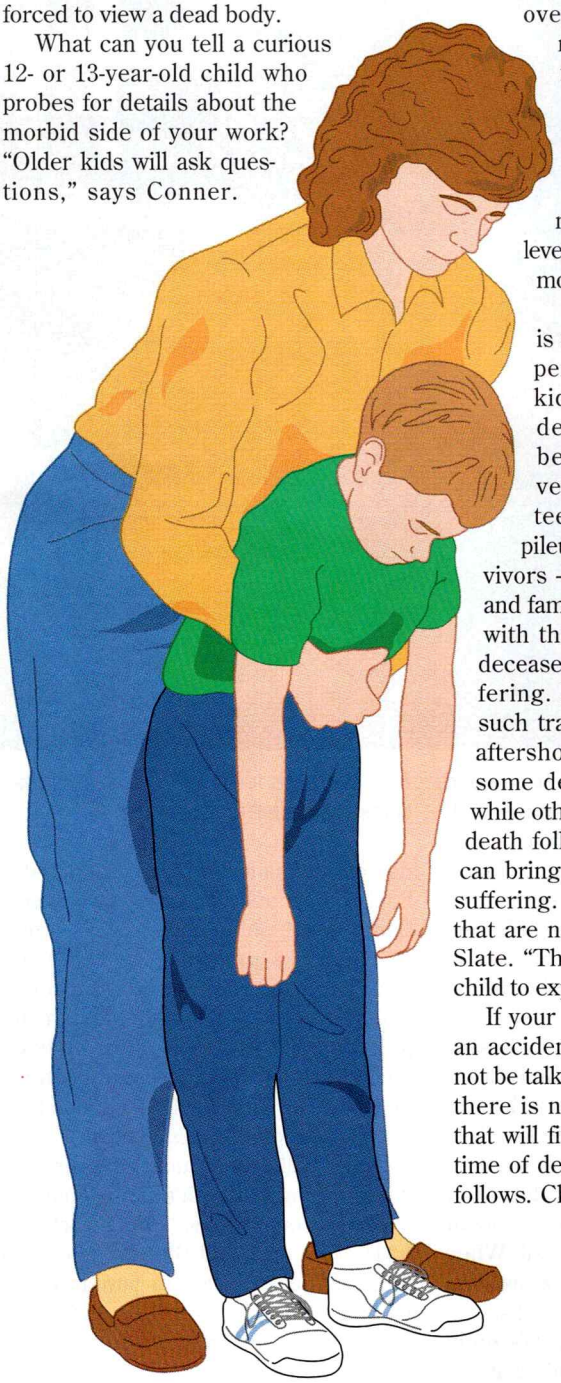
Larry Conner says: "In my work with EMS personnel and their families, I've found children relate to you and your work based solely on their individual personalities. For example, my own children hold me accountable for lending a

hand. When we pass a wreck, they'll ask, 'Dad, aren't you going to stop and help?'"

The Good, the Bad, the Ugly

Conner believes it's necessary for kids to have some firsthand knowledge of accidents and death. This helps them appreciate why mom or dad must be on call at odd times — nights, weekends, holidays. "I've talked about death with my own kids," says Conner. "They've been to funerals of relatives, and they know death is something everybody will have to face." Child experts believe, however, that children should never be forced to view a dead body.

What can you tell a curious 12- or 13-year-old child who probes for details about the morbid side of your work? "Older kids will ask questions," says Conner.



"But I don't believe it's good to carry discussions like this too far. I don't see any benefit from letting a child, or any lay person, see pictures of a person cut up by a chain saw, for example. When school groups tour Walters State, I make sure we don't have gruesome pictures in view."

So what can you tell a teenager who inquires: "Were people really dismembered in the multiple car crash in front of the East Gate Mall? Everybody at school's talking about it." Or, what can you say when your 6-year-old asks, "Does it hurt to die?" How do you explain the fragile nature of life without making children feel overly afraid? "There's usually more growth in exploring questions than in attempting to provide quick answers," says Richard Slate, grief counselor at Holston Valley Community Hospital in Kingsport, Tennessee. "Begin at the child's level and remember that attitude is more important than words."

It helps to explain that death is a different experience to each person — just as life is. Help kids see that death from accidents are especially tragic because accidents are preventable. When you tell your teen more about the multicar pileup, point out that it's the survivors — both the seriously injured and family of the dead — who are left with the aftermath. Emphasize that deceased persons are no longer suffering. It's those who live through such tragedies who bear the painful aftershocks. Tell your children that some deaths are painful to victims, while others deaths aren't. Explain that death following a long, serious illness can bring a merciful end to a patient's suffering. "Express your own feelings that are natural to the situation," says Slate. "This will provide a basis for a child to express his own feelings."

If your child knew someone killed in an accident, the child needs to talk — not be talked to. Says Slate, "Remember, there is no one procedure or formula that will fit all youngsters, either at the time of death or during the period that follows. Children find comfort and reassurance from the presence of loving people." It's important to treat your children's feelings tenderly, but don't be afraid to let them see you cry or mourn if you've lost a loved one or friend to death, Slate adds.

Your child should learn to do the Heimlich maneuver, mouth-to-mouth resuscitation and CPR, preferably in formal classes where a certificate of completion is given.

A Stitch in Time

It's a good idea to tell your children that adhering to stringent safety codes and practicing good health measures help prevent emergencies. Make the point that it's wonderful to defeat a blistering fire, but add that the fire should have been prevented in the first place. Or, while your success in resuscitating a heart patient might have felt heroic, why did the patient develop heart problems to begin with? Did diet contribute? What could the patient have done to have been healthier in the first place?

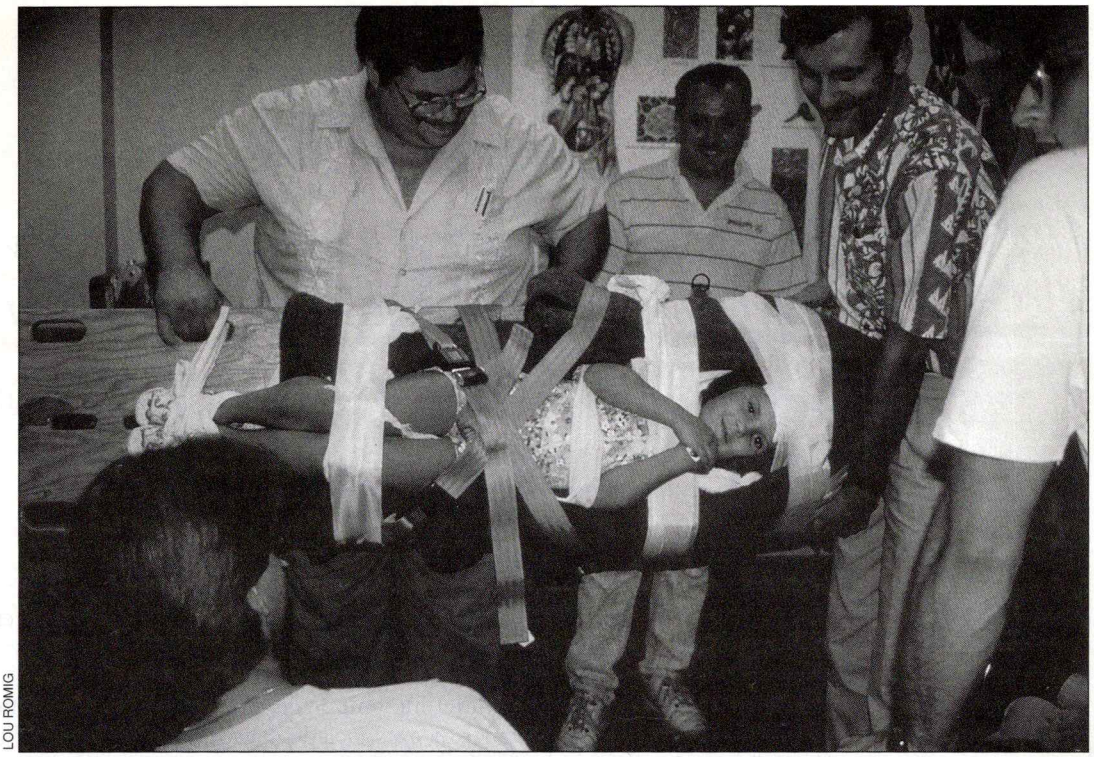
Explain to kids that EMS personnel and other emergency workers must continually ask: "How could this accident have been prevented? What factors contributed to bringing this about? Did I do everything possible to make a difference?" Reassure your children that people do have lots of control in life over mishaps, and that the best way to keep control is for everyone to master health and safety practices.

Tell your kids that they personally can help save lives. They can give help, solicit help, relay information, and soothe and calm others during an emergency. Also, every child should know lifesaving skills, fire prevention tips and how to spot trouble that could lead to disaster. Stress to your offspring that kids can be primary troubleshooters. They can spot fire hazards, poisonous materials and potentially dangerous scenarios just as quickly as adults. Vigilance is the name of the game.

In addition, excellent safety training manuals for kids are available through the American Red Cross. These manuals contain entertaining stories, games and artwork pertaining to water safety, fire prevention, safe ways to be home alone, how to dial 9-1-1 with correct information, what to do when someone is poisoned, how to report suspicious adults who might harm children and dozens more incidents a child might encounter.

Talk to your kids about why it's important to memorize specific rules for handling certain emergencies. Doing the wrong thing can be worse than doing nothing at all. For example, trying to give liquids to an unconscious person might

cause choking. Help kids see that staying calm, giving clear information to a 9-1-1 dispatcher and yelling for adult help are three simple ways they can do their part.



LOU ROMIG

Kids love to participate, and involving them in simulations at work can be a reassuring and valuable learning experience.

Education Is Crucial

Your child should learn the Heimlich maneuver, mouth-to-mouth resuscitation and CPR, preferably in formal classes where a certificate of completion is given. True, your child can learn these skills from you. But children hear and retain more detail in a structured classroom setting. If your child should need to actually perform these maneuvers, his/her recall of details will help ensure they're performed correctly.

Many children do help save lives by controlling bleeding, giving mouth-to-mouth and assisting choking victims — especially siblings who choke on food or a toy. Since four to six minutes of oxygen deprivation can cause brain death, a child's quick action can be the key to averting disaster. On many occasions, 4-year-old children have placed crucial, even lifesaving, calls to 9-1-1. Of course, it's important to discuss with your kids the appropriate times to call 9-1-1. Kids often dial for help unnecessarily. A minor cut or bruise may spell "emergency" to them. Yet explain that when in doubt, they should call 9-1-1. The dispatcher can help decide if it's a real emergency.

You can invent games with your kids to help them learn about safety. As you ask them about the dos and don'ts of emergency action, you'll teach them how to properly assess a situation. For example, you might ask, "Do you, or don't you, turn off the power before touching somebody receiving an electrical shock?" Another example: "Do you, or don't you, practice CPR on friends?" Explain to your kids why this is a major don't. Chest compressions should, of course, be practiced only on manikins. Plus, remind them they shouldn't blow air into a healthy person.

You can help your children visualize a safety lesson by painting a scene in their minds that puts them somewhere in the action. You say: "You're walking along the sidewalk and see an elderly person has fallen. What do you do?" Thinking about the answer, your children will feel the power their judgment holds. Simple what-if games are also fun. For example, you ask, "What if you are heating oil to make popcorn and the skillet catches fire? What would help put out the fire?" You could then open a discussion about why putting a lid on the skillet would work, because fire can't burn without air.

When it comes to fire safety at home, let your children help with the family fire escape plan. Ask them to spot potential problems. For instance, your kids may tell you, "I believe I'd have trouble getting out of my bedroom window. It's too high to jump out of if necessary." Building a deck outside the window might then be in order. Or, if your children say the basement is too cluttered, you can put them in charge of a cleanup.

It's nice to involve your kids in your work as an EMT or firefighter, but how can you be a better parent when work stress is heavy? How can you pay your kids lots of attention right after you've finished fighting a big fire? Or, maybe you saw three people die this week. Where can you get enough energy to help with homework? Try these tips:

- Talk to yourself on the way home from work. Sure, sane and normal people talk to themselves. Talk releases emotional pressure when you're on overload.
- Make your presence felt. Gather the entire family around you when you first get home. Children need to physically connect with you when you first arrive. After this, they find it easier to leave you alone.
- Be honest. Tell your family, "I've had a tough day. I'm under major stress and need time alone." Take a bath, go for a walk, or sit quietly before dinner.
- Connect with kids during dinner. Give them your undivided attention, and ask about their day.
- See what your kids need. After dinner, find out specifically what each child needs from you. If it's not critical, beg off. Ask to postpone it to another day. If it is critical, try to do what's asked willingly.
- Find someone to listen to you. Ask your spouse, or a friend on the phone, to hear you out for 15 minutes without interruption. Explain that you don't want advice, but that you just need to release some emotions.
- Undertake a bedtime ritual with each child. If you can't read a story or talk, do a simple 10 hugs and 10 kisses. Children love rituals, and rituals stick fondly in a child's memory forever. E

Judi Light, a free-lance writer based in Kingsport, Tennessee, specializes in psychology topics.

A Taxing Experience

Some year-end steps can help reduce your tax burden

By Milton Zall

Though 1994 is near its end, there's still time to take steps to cut your taxes. Here are ideas that might save you tax dollars if you act quickly.

Deductibles

Medical expenses and miscellaneous and/or employee business-related expenses are deductible only if they exceed a specific percentage of your adjusted gross income (AGI). These are 7.5 percent of AGI for medical expenses and 2 percent for employee business expenses. Examine where you stand with respect to these deduction categories. If you're close to the tax deductibility threshold, explore the possibilities to meet and exceed the threshold so some of your expenses will be tax deductible in 1994. For example, if your medical expenses are close to the 7.5 percent threshold, before 1994 ends consider scheduling dental work or elective surgery that you've been putting off.

The same strategy should be applied to employee expenses. If you're near the tax deductibility threshold of employee and miscellaneous expenses, try to exceed the threshold so you can deduct some 1994 expenses. One method is prepaying your 1994 tax preparation fees. It's legal as long as your accountant starts doing work for you before 1994 ends, even though the bulk of work will be done in 1995.

Ordering résumés you're going to use in connection with a job search is another option. Are there any professional journals you can subscribe to? Other tax-deductible employee and miscellaneous expenses include: legal fees associated with retention of your job; dues to a professional organization or union; employment-related educational expenses; and investment counsel and job-seeking fees, including résumés. If you're short of cash, charge these items in 1994 but pay for them later. Now, these are just some prominent deductions. A complete catalogue of miscellaneous deductions is contained in IRS publication 529. Call 1-800-426-3676 toll free for IRS forms.

If you're nowhere near the threshold for medical or miscellaneous expenses, there's not much you can do for 1994. But for future years consider bunching your expenditures for these deductible expense categories into one year. For example, if an individual with an adjusted gross income of $50,000 typically incurs annual medical expenses of $3,500, none of these are deductible because they're less than the 7.5 percent of AGI threshold, which is $3,750. But over a two-year span if you plan the expenditure of $7,000 in medical expenses so most occur in one year and the remainder fall in the other, you'll be able to deduct some expenses. If instead of spending $3,500 a year, an individual spends $5,000 in 1994 and $2,000 in 1995, $1,250 of the 1994 expenses are tax deductible. If the $3,500 per year pattern persists, none of the medical expenses incurred are tax deductible. Similar strategies can be applied to employee and miscellaneous expenses.

IRA and Keogh Contributions

To ensure tax deductibility of your IRA and Keogh plan contributions, make them on time. For IRAs, you can deduct contributions made prior to April 15, 1995, and you have until then to establish the IRA if you don't already have one. For Keoghs, however, your plan must be established by December 31, 1994, though you have until April 15, 1995 to make your 1994 contribution.

Adjusting Withholding

If you received a tax refund this year and the tax amount currently withheld from your pay is the same as last year's, and you expect 1994 deductions to be comparable to 1993's, you may be entitled to a tax refund in 1994. By filing a form W-4 with your employer and reducing the number of exemptions claimed, you can receive some of the money due you now. You needn't wait until you file your income tax return to get your refund. Why give the government an interest-free loan?

If insufficient taxes are being withheld, however, you may be liable for a possibly substantial penalty: 8 percent of taxes owed plus accrued interest. To avoid this, you must have sufficient tax withheld from your salary during 1994 and/or make quarterly estimated tax payments. You want to make sure total tax withheld/paid in 1994 is at least 90 percent of your 1993 tax liability or is equal to your 1994 tax liability, whichever is less.

EMT to Paramedic

Experience, education, and perhaps a degree, pave the road to paramedic status

by Deb Crager, EMT-P

So you've decided to become a paramedic. Perhaps the desire started with your first EMT class or the first accident you witnessed. Or maybe you caught an emergency incident on TV. The question is, do you have what it takes? "We're looking for students who have passion," says Carol Gallagher, program director at Daniel Freeman Hospitals in California. "They show initiative, have good communication skills and an ability to set priorities." Gary Boswell, paramedic program coordinator at Methodist Hospital in Indianapolis agrees. "Students who tend to do best are aggressive," he says. "They have a little bit of an ego, without the attitude."

In addition to the right combination of commitment and initiative, entry into most paramedic programs requires at least six months to a year of prehospital experience treating and transporting patients. Boswell notes that solid prehospital experience is one of the most important prerequisites for a successful paramedic career. Applicants must also be well versed in BLS skills. "Many are surprised by the testing process," he says. "They feel they don't need to prepare and are surprised at how poorly they do." Applicants should also take some preparation classes in science and math, he continues. "We consistently see weaknesses in these areas, especially in math related to drug computations."

Even students whose programs have residency or employment requirements "must demonstrate good field experience, and most have done some work in the sciences, particularly in anatomy and physiology," says Ann Dunlap, assistant director of the EMS Academy at the University of New Mexico in Albuquerque. In addition, she says, other sciences such as biology, chemistry and biochemistry provide a broad base for understanding the mechanisms of injury and disease.

To increase your chances of acceptance into the program of your choice, acquire as much experience as possible and build on your education. The selection process is highly competitive and may take several months. And remember, if you aren't accepted the first time, you can apply again after you've had a chance to get more experience and education. "Many students do significantly better the second time around," says Boswell.

Are you ready? How should you choose a paramedic program? Programs vary widely nationwide, and few of us live in the same town as the best paramedic school. In fact, what is best for one person may not be best for another. Which program you choose depends on where you are in your life and what direction you want your career to take.

When Sam Neville decided to attend the University of Maryland Baltimore County (UMBC), moving the 3,200 miles from Los Angeles wasn't difficult. "The timing was right," he says, "and not owning anything helped. Everything I had fit in my truck." Neville was working as an EMT for a company that had very little room for advancement when he made the decision to earn a degree. At first the move was a shock, he acknowledges, but now he's happy with his choice. "There is always something happening, and there have been so many tremendous opportunities."

During the first two years of the program, students take classes in biology, chemistry, anatomy, physiology and languages. In the junior and senior years, specialized classes include supervision, management and paramedic education. Neville feels the classes in disaster management and crisis intervention have given him a broader perspective and the ability to "think about the big picture." He graduates in two years and plans to work as a paramedic in a busy municipality.

"We try to put out thinking professionals who can respond to diverse situations," explains Dwight Polk, paramedic coordinator at UMBC, one of 13 universities in the country to offer bachelor-degree programs. "We prepare students who want to be in the field for a few years and then move on to management or go back to school to become physician assistants or go on to medical school." Polk says many people feel the general concept behind a degree is the difference between education and training. "When students graduate from here, they often know exactly what they want to do."

If you've had substantial amounts of investment income or capital gains in 1994, you may owe more taxes than you anticipated and may not have had sufficient taxes withheld to avoid the IRS penalty. To prevent this, determine how much tax has been withheld so far in 1994 and project your total 1994 tax withholding. If it falls short of the threshold for avoiding a penalty, file a new W-4 immediately and decrease the number of exemptions claimed so that additional taxes are withheld and you don't incur a penalty. If decreasing the number of exemptions claimed will not sufficiently increase the amount of tax paid to avoid the 8 percent penalty, ask your employer to withhold additional money from your pay for the rest of 1994, making up the shortfall. The W-4 form may be used for this as well. In 1995, if you don't want withholding to continue at the higher rate, you can file a new W-4 and change your withholding back to 1994's level.

Deductible Investment Expenses

The following investment expenses are considered miscellaneous itemized deductions and are tax deductible if they exceed 2 percent of your adjusted gross income:

- Set-up charges and annual custodial fees for IRA and Keogh plans but only if these expenses are paid by separate check
- Safe deposit box rental costs, if the box is used for storing investment-related assets
- Costs incurred for investment books, magazines and newspapers such as the Wall Street Journal, plus tax preparation and advisory publications
- Investment counseling and advisory services fees
- Tax preparation and advisory fees
- Postage and telephone costs incurred in connection with investment-related activity.

Investment Interest

For investment interest to be tax deductible, it must be paid in 1994. To deduct margin interest, you must have credits in your margin account showing payment of margin interest in 1994 offset against dividend income, interest income, cash payments or proceeds of security sales that are at least equivalent to your interest expense. It's not sufficient for margin interest to simply have accrued in your account over the year. To claim margin interest as a tax deductible item, you must pay interest during the year by making sufficient cash deposits to your account before December 31, 1994 or by taking advantage of one of the other techniques mentioned above.

Remember, however, that interest expense incurred to maintain tax exempt securities, for example, municipal bonds, is not tax deductible. Within the above parameters, investment interest is tax deductible up to the amount of your 1994 net investment income plus an additional $2,000. If you have investment interest in 1994 that is not deductible because of the above limitations, it can be carried over to 1995 and future years and deducted in accordance with the above limitations.

Early IRA Withdrawals

Early IRA withdrawals, for example, prior to age 59-1/2, are ordinarily subject to a 10 percent penalty tax unless the withdrawals are part of a "series of substantially equal payments made over your life expectancy or joint life expectancy of you and your beneficiary." During 1994 the IRS issued additional guidance on this provision. When calculating the maximum allowable annual IRA withdrawal that avoids imposition of the 10 percent penalty tax, you may take into account projected future earnings on the remainder of your IRA not withdrawn. As a result, rather liberal amounts can be withdrawn from an IRA prior to age 59-1/2. For example, a 50-year-old person with an IRA account balance of $100,000 can withdraw $9,000 to $10,000 annually as part of an annual withdrawal plan — without incurring the 10 percent penalty.

Consult your accountant or tax advisor before making an early IRA withdrawal; there are some fairly complicated calculations necessary to determine the precise amount deductible without penalty. And, once you begin taking annual IRA distributions before age 59-1/2, you must continue these for at least five years after the initial distribution or until age 59-1/2, whichever is later.

Overlooked Medical Deductions

With taxes on the rise, the name of the game is to reduce taxable income by taking every deduction you're entitled to. Some frequently overlooked medical deductions include:

- Mileage to and from a doctor's office or health care provider; you're entitled to deduct 9 cents per mile.
- The cost of a medically prescribed diet — to the extent it exceeds your normal diet — for the treatment of a specific health problem, such as a salt-free or fat-free diet for heart disease, high blood pressure, etc.
- The cost of a cellular phone so a person with heart disease can reach his doctor in an emergency
- The cost of special mattresses and beds for someone with an arthritic condition
- Contact-lens insurance
- Nonpermanent modifications to your home, such as heaters, humidifiers, air conditioners and air cleaners, needed for a specific medical condition and prescribed by a doctor; an example of this is an air cleaner used by an allergy sufferer or someone with emphysema.
- Long-distance calls made to an out-of-town doctor or hospital
- Weight-loss programs prescribed by a physician for treatment of a specific medical disorder such as hypertension, arthritis or heart disease
- Alcoholism treatment
- Treatment by a chiropractor or Christian Science practitioner
- Cosmetic surgery
- An elevator installed in your home if you have a heart condition and can't climb stairs
- The cost of prepaid lifetime medical care
- The cost of Braille publications for the blind to the extent the cost exceeds that of a regular publication
- The cost of lodging on an overnight trip for medical care performed by a physician at a licensed hospital
- The cost of a health club membership if your doctor prescribes the membership as a way to treat a specific medical ailment, such as high blood pressure or arthritis

Especially now when many providers are feeling the economic pinch, keeping complete records and knowing IRS rules can mean substantial tax savings.

Milton Zall is a free-lance writer and consultant based in Silver Spring, Maryland, who specializes in taxes and personal finance.