



Loretta Swit ("Hot Lips" of M*A*S*H fame) made a guest appearance at the Mash Bash. She is shown with her husband Dennis Holahan and Dr. Cowley (MIEMSS director).

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Maryland EMS Olympics

1st Place, ALS . . . Chief M. H. (Jim) Estep (Prince Georges County Fire Department) and William E. Clark (state EMS director) award plaque to CRTs from Frederick County, Keith Roberson and Rick Himes. Missing is CRT Dwayne Danner.

1st Place, BLS . . . Laurel Volunteer Rescue Squad's winning team (l-r) Leona Rowe, Deborah Fiedler, and Lorraine Lawson receive plaque from Chief Estep and Mr. Clark.

Skills, Fun Shared at EMS Care '85

They came from Maryland, Massachusetts, New Jersey, Virginia, Delaware, DC, New York, Pennsylvania, and North Carolina. Two-hundred prehospital care providers and nurses attended EMS Care '85 at the Bethesda Marriott Hotel. The annual conference was sponsored by the Region V EMS Advisory Council and MIEMSS, June 22-23.

Friday's preconference program attracted more than 75 people who attended several EMT and nursing day-long sessions. On Friday evening, winners from the regional EMS Olympics competed in the statewide finals held at the Montgomery County Public Services Training Academy. Each three-

person team confronted and worked out two specific problems and was evaluated according to preset criteria. (Winning teams are pictured on this page and page 2.) First-place teams in the ALS and BLS Maryland EMS Olympics were flown to Florida to participate in the national EMS competitions. The national ALS competition (CliniCon '85) was held July 10-11 in Orlando. Jacksonville was the site of the national BLS competition sponsored by the International Rescue and Emergency Care Association from August 19 to 23.

Conference participants had a chance to unwind during Saturday's Mash Bash, which featured a guest

appearance by Loretta Swit (Margaret "Hot Lips" Houlihan of the M*A*S*H series) and a look-alike contest. Characters from the 4077th came alive again (see photos on page 2)!

Over the next months we will be publishing articles on some of the presentations at EMS Care '85. Below are some excerpts from the keynote luncheon speech of Ameen Ramzy, MD, state medical director for MIEMSS field operations, who spoke on "From Medical Tents to Trauma Centers: Three Decades of Progress." Dr. Ramzy contrasted what was going on in medicine and the rest of the world during the

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2nd Place, ALS . . . Baltimore City Fire Department CRTs (l-r) Edward Shreve, John Workman, and George Michaloski receive plaque from Chief M. H. (Jim) Estep (Prince Georges County Fire Department) and William E. Clark (state EMS director).



2nd Place, BLS . . . (l-r) Margaret Kline, Jan Redman, Ron Meihls, and Wayne Williams from Smithsburg EMS, Inc., with Chief Estep and Mr. Clark.



3rd Place, ALS . . . Prince Georges County Fire Department CRTs (l-r) Rita Vanderbosch, John Medani, and Sherri Shifflet with Chief Estep and Mr. Clark.



3rd Place, BLS . . . LaVale Volunteer Rescue Squad (l-r) Janice Beasom, Laurie Mihailovich, Dianne Shoemaker, Bill Mihailovich with Chief Estep and Mr. Clark.



Starring at Mash Bash '85 . . . Corp. Klinger (Leon Hayes, member and former chairman of Region V EMS Advisory Council), Father Mulcahy (Dale Hupp), and Margaret Houlihan (Karen Smith Hupp).



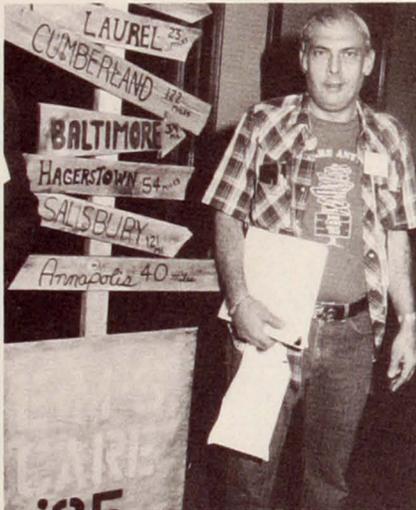
Loretta Swit talks to Dave Ramsey (Region I administrator) and his daughter during the Mash Bash.



The Pleasant Valley BLS team (l-r) Doreen Dutterer, Michael Chrest, and Wendy Bowersox treat auto accident "victims" James Lacey and Ronald Maxemchuk during EMS Olympics.



Participants in EMS Care '85 try out computer-assisted training materials developed by MIEMSS.



Before and after Mash Bash . . . Leon Hayes (member and former chairman of Region V EMS Advisory Council) stands transformed! Corp. Klinger never looked so good!



HealthCare Expo'85

Health Care Expo '85—conference programs, demonstrations, and exhibits on major health problems that now or in the future may plague our population—will be held at the Washington Convention Center, August 18–24.

Health Care Expo '85 is reported to be the first conference to address the educational needs of all who are interested in health care, from physicians to laymen, and includes activities for children. In addition, it is reported to be the first educational event to address all aspects of the health care scene; each of the 18 Expo exhibit centers will focus on a major specialty of medicine. The conference attempts to shorten the lag time between medical advances and the awareness of them by health care professionals, the public, and the media.

R Adams Cowley, MD, director of MIEMSS and a member of the advisory board of Health Care Expo '85, is coordinating a program for health professionals on trauma. MIEMSS will also have an exhibit tracing the history of EMS and trauma care back to the ancient Egyptians.

Numerous public, private, and voluntary health-care organizations are collaborating in planning Health Care Expo '85.



Maj. Gary Moore (commander, aviation division, Maryland State Police) with Loretta Swit, Dr. Cowley (MIEMSS director), and Dennis Holahan (Ms. Swit's husband). EMS Care '85 was dedicated to the Maryland State Police Aviation Division for 15 years of med-evac service.



Field Notes

By William E. Clark, State EMS Director

This is a time when most industries and businesses staff-down for the summer because it is their off season. However, we in EMS see just the opposite. This is the busiest time of the year for us especially in the area of motor-vehicle-related trauma. And things appear to be unusually busy this summer.

And things are on the move in Maryland. The new paramedic programs are starting to come on-line with Anne Arundel County being the first. This tremendous achievement shows the dedication and commitment that the prehospital providers have in their pursuit of excellence.

Enhancements in the EMT-A training and certification program are starting to take effect, and these too are directly attributable to the hard work and creative suggestions of many providers.

The Maryland State Firemen's Association recently held its annual convention in Ocean City. Many informative programs and updates were provided at this important meeting. Leonard T. King, from Damascus, was installed as the new president. Leonard is well known to the emergency services throughout Maryland and he has been very active and involved in EMS. I anticipate that he will provide excellent leadership to the MSFA and that we will continue to work closely together to improve our EMS system.

One of the new initiatives that MIEMSS Field Operations unveiled at the convention was that of computer applications for EMS. Over 600 persons tried out some newly developed computer-assisted training materials that were prepared by our staff members. These programs focused on prehospital care and provided positive feedback to the users, regardless of whether they had selected a correct or incorrect answer. Another application demonstrated was how to conduct a computerized literature search using a phone line. Also on-line at the Convention Center was the Maryland Prehospital Provider Registry that had been downloaded onto a small computer. Participants were able to sit down, call up their file, and immediately receive a printout of the record. This was the first time that we have been able to download the MPPR

from a main frame computer to a personal computer.

There will be a major work effort from my staff this fiscal year to develop and pilot test computer-assisted training materials for use in EMT-A training and for use by ALS providers. At this time, we have developed some very ambitious plans for the acquisition and utilization of computer applications. Besides the training applications, we will be moving aggressively to computerize our major offices in Field Operations, both in the central office and at the regional level.

One of my concerns, as we proceed with this initiative, is to make sure that we can be as compatible as possible with what equipment is available and in use throughout the state. To this end, we will be conducting a brief survey within the next month to determine what is used by the various fire departments and rescue squads. Our initial effort will be to develop, as our standard, software that is IBM-compatible and to be able to offer the software in other formats. I will keep you updated on these efforts as we proceed, and I encourage you to provide me with any thoughts or suggestions you might have.

On July 1, the Maryland State Police dedicated their sixth operating section for Med-Evac to serve primarily the upper Eastern Shore. Delegate Clayton Mitchell, Dr. R Adams Cowley, and State Police Superintendent W. T. Travers were among the dignitaries that assembled to cut the ribbon.

And now that we have a sixth section, we have received a report from the Region V EMS Advisory Council that they have identified the need for a seventh helicopter section to serve Southern Maryland. This additional section would provide coverage that was determined to be so necessary for our state in the initial EMS plan that was developed pursuant to the Executive Order that created the Maryland EMS system in 1973. Since that time, our system has matured into the first statewide system of EMS in the nation where true regionalized emergency care has become the standard. And with the addition of another med-evac section, all of the citizens of the state would then enjoy

what most of us have and take for granted, a nearby chopper that can respond rapidly to assist ground units in cases of critical injury or illness.

Maryland will be participating with the National Disaster Medical System (NDMS) in a major exercise they are conducting on Saturday, September 14. The exercise will simulate the regional impact of a major disaster occurring elsewhere in the United States with acute patients being flown into the Baltimore-Washington metroplex for hospitalization at approximately 50 participating hospitals. Plans call for 600 "victims" to be airlifted by the U.S. Air Force into Dulles, Andrews Air Force Base, and the BWI Airport. Civilian Disaster Medical Assistance Teams will meet the incoming patients at each airport and will assist in the dispersal of the patients. To my knowledge, this is the first time that the NDMS has interacted directly with an organized EMS system to conduct such an exercise. Previous efforts have called for military transport to deliver the patients directly to the receiving hospitals and thus have not taken advantage of the civilian transportation and communications assets.

Chief Rudy Sagan at the BWI Airport and Chief Jim Estep from the Prince Georges County Fire Department will be playing major roles in this three-state, massive exercise. There will be an opportunity for ambulance units throughout Maryland to participate in this exercise. Anyone wishing to volunteer his services or provide us with other support for the exercise should call me directly or contact his regional EMS office.

And finally, I want to remind you that EMS Week 1985 will be September 29–October 5. We are again planning an event in Baltimore's Inner Harbor and will also be trying to stimulate media coverage throughout Maryland. Together we can better educate and inform the public about the vital role EMS plays in their lives and those of their loved ones. And we can focus public attention on the selfless dedication of our 20,000 volunteer and career prehospital providers and in-hospital providers that make our EMS system the best in the nation.

Region IV Gets New Chopper at Centreville

The Maryland State Police's sixth med-evac helicopter section was dedicated on July 1 at Centreville. The new section will provide med-evac services to the residents of Cecil, Kent, Queen

Anne's, Talbot, and Caroline counties on the upper Eastern Shore in Region IV.

During the past years the number of med-evac calls from this area has been

increasing. Previously if med-evac transport was needed, a helicopter from Salisbury or Baltimore was called. The new helicopter should cut transport time for those injured on the upper Eastern Shore down to approximately 20 minutes.

Initially one crew will be providing part-time coverage from 2 to 10 pm, Wednesdays through Sundays. Sgt. Gary L. Shields, a med-evac pilot, is commander of the new section; TFC Kevin Knussman is medic-observer. A second crew will be added by December 31. Next spring, a third crew will provide coverage.

The new hangar, to be located adjacent to the Centreville Barrack, will soon be under construction. Until this hangar is completed, the Centreville helicopter will be based at Easton Airport.



A large crowd attended the dedication of the new MSP med-evac helicopter in Centreville.

Tips on Treating Summer Emergencies

Heat emergencies are preventable. Three types that EMTs and CRTs need to know—heat stroke, heat exhaustion, and heat cramps—were discussed by Patricia Epifanio, MS, RN, nurse coordinator for MIEMSS, during EMS Care '85 in June.

A day that reaches 95 to 100 degrees Fahrenheit, with high humidity and little breeze, is a perfect day for problems. Heat stroke is a life-threatening emergency that occurs suddenly; symptoms include dry, hot, flushed skin; sweating conspicuously absent; convulsions; and coma. Athletes or people doing strenuous work are particularly vulnerable if their bodies are not acclimated to the heat. "There is a formula that has been worked out to determine if the weather will be dangerous for heat stroke," Ms. Epifanio says. "Add temperature plus humidity, multiply by 0.4, and add 15. Let's say the temperature is 90 degrees + 80 percent humidity = $170 \times 0.4 = 68 + 15 = 83$. Anything over 65 is dangerous; over 80 is extremely dangerous. One sports medicine physician I know says that when the number is over 65 he watches very carefully; when it goes to 80 he cancels the sporting event. The formula works."

Even relatively cool temperatures (such as 75 degrees) combined with high humidity (for example, 85 percent) can be dangerous. In such conditions,

runners will sweat profusely but not get enough vaporization because the air is already so saturated it can't absorb any more moisture. In such conditions, runners can often have major heat strokes.

Ms. Epifanio advises: "Keep a high index of suspicion when someone who has been out in the direct sun does not feel well. Maintaining an airway should not be difficult. *If heat stroke is suspected, keep the person as cool as possible, and get him to the hospital.* Putting a patient in an ice bath would cause shock—it is better to strip him, cover him with wet towels, and blow a fan at the towels to cool him. Plastic ice packs can be broken and placed in the axillae, and around the neck and groin. Get his temperature down to 102 degrees Fahrenheit, and then stop. If his temperature starts to rise, cool him, but to 102 degrees again. The body will automatically cool him down from there. If you overdo it, he could get hypothermic. Closely observe him."

Heat stress is a combination of many factors. In addition to the hot weather, the body makes its own heat through metabolism and muscle activity. If care isn't taken, it's easy for the thermoregulatory system to fail.

Our main defense against heat stroke is the evaporation of sweat. But the water thrown off through evapora-

tion must be replaced. Some athletic coaches do not allow athletes access to water, because they believe that water will cut down their efficiency. "That is wrong," emphasizes Ms. Epifanio. "They should have unlimited access to water or one of the products that replaces electrolytes as well as fluids."

It is no longer considered advisable to give salt tablets to replace what the body loses; if there is insufficient hydration, salt tablets create another problem. When allowed to eat normally, the individual will automatically use a bit more salt in his food or eat potato chips or pretzels to make up the loss, and supplement the loss by drinking more to relieve his thirst. The body will seek its own level, and balance out. When the body acclimates to the heat it sweats more, but reacts more efficiently—it doesn't lose as much salt, and the body temperature and pulse stay down.

At higher risk for heat stroke is anyone who has had a previous heat intolerance; babies, who need fluid in addition to their milk; overweight people, whose extra insulation tends to hold in the heat; the physically unfit; the elderly, who may have inadequate ventilation and do not drink enough; and alcoholics, who have poor heat regulation, vasodilate, are diaphoretic, and lose fluid through

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MIEMSS Staff View Soviet Medicine

Four members of the MIEMSS staff, who traveled in the Soviet Union and talked with their counterparts there, recently spoke of their impressions and observations, giving a glimpse of Soviet medicine.

The Soviet Union is a huge country; it crosses 11 time zones and has a population of 275 million (compared with the United States' population of 236 million), comprised of over 100 ethnic groups. During the Great Patriotic War (which Americans know as World War II), several major Soviet cities were destroyed and 20 million people were killed. It is estimated that 40,000 Soviet hospitals, clinics, and emergency care centers were destroyed in the war.

The modern era of Soviet organized medicine has spanned fewer than 70 years. The first organized medical system, the first link between government and medicine, was established in 1917, after the Bolshevik Revolution. The political system, which emphasizes the good of the state, does not necessarily provide incentive for the growth of the medical system. Despite these challenges, the Soviet Union was the first country in the world to organize pre-hospital emergency care. That system, begun in 1955, provided the basis for the design of EMS systems in other countries. The Soviet EMS system, although in many ways different from the systems in this country, effectively serves the population.

The emergency ambulance center in Moscow (population, 11 million) was visited by Joyce Maslyk, associate nurse supervisor of the admitting area of the MIEMSS Shock Trauma Center. The central dispatch center in Moscow receives 7000 to 9000 calls per day. As in Baltimore, the peak hours are 4 pm to midnight. During those hours, 900 ambulances are available in the Moscow emergency system.

In Moscow's system, the city is divided into 10 regions; emergency ambulance centers are located in areas to enable them to best serve the population. To reach the emergency system, a citizen phones a central number, "03." When a call for assistance comes to the central dispatch center, the phone operator at the center writes the information on a form, which is picked up by a "runner" and delivered to a dispatcher across the room. The dispatcher reviews the information on the card, decides what type of ambulance to send to the emergency site, and contacts the regional ambulance dispatch center, from which an ambulance goes to the scene. Individual ambulance crews specialize in separate areas of emergency care, including trauma, surgery, cardiac medicine, obstetrics, pediatrics, poisoning/toxicology, or orthopedics. The average ambulance run is 3 to 5 kilometers (2 to 3 miles), and the average response time is 3 to 5 minutes, with a maximum response time of 12 minutes.

In addition to nurses and physicians' assistants, physicians are commonly members of ambulance crews. Moscow has 10,000 ambulance personnel—2000 physicians, 6000 nurses and physicians' assistants, and 2000 drivers. There are no staffing problems because EMS work is considered challenging, even glamorous.

The types of accidental injuries requiring emergency assistance in Soviet cities are very different than in urban areas in the United States. The majority of emergency calls for accidents are related to falls on ice. Because there are comparatively few automobiles per capita in the USSR and the regulations regarding operation of a vehicle are so stringent, the number of emergency calls related to car accidents is very low (about 20 per day in Moscow). The number of calls for gunshot wounds in Moscow is estimated at 3 per year (stabbing were not mentioned); the reason for such a low incidence is that the availability of firearms is limited because citizens are forbidden to own them.

One-third of the calls received at the Moscow central dispatch center are not related to emergencies. Because the Soviet Union does not have walk-in emergency rooms as we know them in the United States and because so few Soviet people have automobiles, the emergency ambulance system is often misused as a means of obtaining medical care or transportation to medical facilities. Of the legitimate emergency calls, 80 percent are cardiac related and 20 percent involve abdominal pain and "miscellaneous" disorders.

The USSR has a nursing shortage, which was explained by Deana Holler, nurse clinician II in the admitting area of the Shock Trauma Center, as due to the low prestige and low salary associated with the profession. Nursing in the Soviet Union appears to be an exclusively female occupation. The chief nursing responsibilities are to supervise aides and carry out physicians' orders.

Many Soviet nurses have plans for career advancement. They were orderlies before they became nurses, and many are studying to become physicians' assistants or physicians.

Requirements for acceptance to nursing school are stringent. Individuals being considered for nursing school are interviewed and given a series of tests;

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Treating Heat Stroke, Exhaustion, Cramps

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the urine. Drugs may affect resistance to the heat. Antidepressants definitely affect the heat regulatory system, as do LSD, diet pills, diuretics, and anti-Parkinsonian medicines. Those whose heat regulatory systems are affected also include: children with cystic fibrosis; people with bad infections (the infections generate heat); quadriplegics, paraplegics, and head-injury patients, who have damage to the central nervous system; people who have had burns that damage the sweat glands; or people inappropriately dressed for the weather, like military personnel in full gear, or police officers in black uniforms directing traffic in the hot sun.

Heat exhaustion is a milder form of heat illness brought on by the pooling of blood in the vessels in the skin. Some of

the symptoms are headache; feeling tired, clammy, very sweaty, nauseated, dizzy, restless; vomiting; and possibly having brief periods of unconsciousness. People with these symptoms need tap water rather than a salt water solution that can cause nausea, and should be put in a cool environment. Appropriate hospital consultation should be sought. Heat exhaustion can lead to heat stroke.

Heat cramps are any cramp in the arm, leg, or abdomen caused by the depletion of both water and sodium in the body, brought on by vigorous exertion in hot, humid weather. Put a patient with heat cramps in a cool environment, and let the body take in salt through food intake. There may be nausea and vomiting. The cramps will taper off in a couple of days.

—Erna Segal



Carole Briscoe shows an example of recycled materials from the Soviet Union—a duck made of IV tubing in rehabilitative therapy—to (l to r) Joyce Maslyk, Deana Holler, and Dr. Carl Soderstrom.

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their backgrounds and medical history are thoroughly reviewed. The nursing school curriculum is a three- or four-year program, which is standardized throughout the country. Students are instructed by physicians in biology, anatomy, physiology, microbiology, pathology, pharmacology, hygiene and health care, and physical education. The clinical courses are taught by nurses. Topics include therapy, patient care, pediatrics, surgery, internal medicine, obstetrics, and technical procedures. Continuing education is required for nurses. Graduate-level work is in areas such as social work or biochemistry or in preparation for becoming a physicians' assistant or physician.

As for all employment, the Soviet government selects the people who will become nurses and physicians and decides where they will work. The selection is based on scholastic aptitude and interests; placement is relative to community need.

Generally, Soviet salaries are based on the "boredom level" of a job. The average national monthly wage is 156 rubles (\$218). A bus driver earns 320 rubles (\$450) each month in the Soviet Union. Nurses' salaries are 123 to 143 rubles (\$170 to \$200) per month, and physicians' monthly earnings average 250 rubles (\$350, compared with American physicians' earnings of \$1400 to \$6250 per month).

The Soviet Union has more physicians per capita than any other country: 1 physician per 220 citizens compared with 1 physician per 450 citizens in the United States. Although 70 percent of the 1.2 million physicians in the USSR

are women, the majority of health-facility directors and all of the 15 health ministry directors are men.

Similar to nursing school, requirements for acceptance to medical school are very strict. The physician education program is seven years long. During the first two years, topics of study include physics, organic chemistry, Latin, pharmacology, physiology, anatomy, pathology, and genetics. In the third year, specialization begins; fields of focus include general medicine, pediatrics, public health, or dentistry. The fourth and fifth years are devoted to hospital training. Practical instruction in areas such as radiology, physical diagnosis, surgery, obstetrics and gynecology, and pediatrics is given in the sixth and seventh years.

Medical supplies are far less abundant in the Soviet Union compared with the United States. The MIEMSS personnel who traveled to Russia saw little disposable equipment in the hospitals that they visited. Needles and intravenous tubing are sterilized and reused. Glass solution bottles are used in ambulances and hospitals. If a patient being transported by ambulance does not require all of an intravenous solution, the remaining solution is kept in the ambulance and used in the next appropriate situation. Hospital equipment tends to be "old" in comparison with that used in the United States, and much of the equipment in Soviet hospitals bears foreign manufacturers' labels.

Carole Briscoe, former MIEMSS trauma nurse coordinator, went to trauma centers in Moscow and Leningrad. At Botkin Hospital, a 2500-bed facility in Moscow, patients arrive by

ambulance and are taken to a resuscitation center. (Visitors were not permitted to tour that part of the system.) After resuscitation, patients are moved to a trauma hospital.

Permission was granted by the government health ministry for Ms. Briscoe to give a 30-minute presentation about MIEMSS, from resuscitation to rehabilitation, to 20 staff members at Hospital #20 in Leningrad. The Soviet nurses and physicians who attended that talk were very interested in the services provided by MIEMSS and in comparing the American and Soviet EMS systems.

An important component of Soviet medical philosophy is health maintenance and disease prevention. This approach is centered in the 300 health resorts and sanitoriums in the USSR, which are used by 55 million Russians annually. In these magnificent stone buildings in beautiful mountain settings are offered the elements of sanatorium treatment: climate, diet, exercise, health counseling, ultrasound, galvanic current, and mineral spring water. Drug therapy is kept to a minimum.

Carl Soderstrom, MD, trauma surgeon at the Shock Trauma Center and associate director of physician education, visited Sochi, a resort area on the Black Sea, which has 60 sanitoriums. The sanitoriums in the area of Sochi specialize in treating neurologic and cardiovascular disorders. The treatment of different disorders is emphasized in other resort/sanatorium areas.

Matsesta (translated "fire water") is one of the resorts at Sochi. The mineral water at Matsesta, which is brought 1500 meters to the earth's surface, has a higher concentration of sulfur than any other springs in the world. Dr. Soderstrom described the effect of entering the treatment facility that houses the springs as "walking into 10 million rotten eggs." Therapy with the mineral water can be administered via inhalation of the vapors, showers, or partial or complete immersion.

Most sanitoriums are owned by labor unions. Dr. Soderstrom visited the Metallurg Sanatorium (for steelworkers), which can treat more than 30 patients at one time. It has a staff of 14 physicians and 30 nurses. The usual 24-day stay costs 48 rubles. Labor unions pay 70 percent of the cost of the treatment; the individual receiving the treatment is responsible for the remaining 30 percent. Soviets often plan their vacations around these treatments and make them a family event. —Linda Kesselring

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Learning, Relaxing at EMS Care '85

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decades of the 1950s, 1960s, and 1970s, with what is happening today. The 1950s saw the development of the polio vaccine, ventilators, renal dialysis, and vascular surgery. In the 1960s, coronary care units and coronary bypass procedures became commonplace. CT scanning, in the 1970s, revolutionized the management of head injuries. During this period, EMS started to have a significant impact on the survival of citizens who were critically ill or injured. Trauma centers and EMS systems continue to become more sophisticated in the 1980s.

According to Dr. Ramzy, health care is an issue today "not because it's costly, and not because the issue is fair access to all citizens, but because health care finally makes a difference. Think of the things we take for granted, such as the use of blood transfusions. The first one took place in the 1600s; the patient lived. The second patient was transfused with blood and died, because nobody knew about blood grouping compatibilities. There were no more attempts at blood transfusions for 300 years, until 1901, when someone discovered blood groups and we were able to type and to crossmatch blood. Even though blood could be crossmatched, it wasn't

until 1937 when reliable refrigeration was developed that blood banks could go into existence. Medicine is never independent. It relies on all the other technology available in a society. . . .

"I'm sure the time will come—and should come—when blood transfusions will become obsolete. There'll be no risk of giving anybody a disease or a transfusion reaction. Maybe our grandchildren, possibly our children, when they read a medical history book will say, 'Do you see here where it says that back in the 1980s they used to take blood out of one person and put it into another? Unbelievable!' I'm suggesting that we're still in evolution, and if anyone thinks that we developed the perfect EMS system, the perfect health system, or the perfect democracy, they are not looking ahead. . . .

"I would suggest that the challenges ahead are not only for us to improve individual patient care; the real challenges are less medical than they are

social—we must help contain some of the violence in our community, including our global community. . . . If we do not do something to curb our violence and our aggression it's simply a matter of time. Having witnessed what human beings do to other human beings with whatever means are available, there's no question in my mind that as the number of nations with nuclear weapons increases, somebody is going to use them. . . .

"Our idealized goal should be to make ourselves obsolete—out of business. We're not going to achieve it in our lifetimes. But if we genuinely see to it that our neighbors wear safety belts, and our more adventurous neighbors wear motorcycle helmets, maybe we can put some of the resources that we put into health care into other things, like schools, roads, fire suppression, and museums, and all the other things society needs in addition to health care. . . .

"I commend you as EMS providers in this state. You are doing a phenomenal job. If your communities don't always thank you, *we* know what you are doing, and we appreciate it. And if, as citizens, you come up with some answers to the social issues ahead, you'll be the real heroes."

Mark Your Calendars!

EMS Care '86 is scheduled for April 25-27, at the Bethesda Marriott Hotel. If you have any suggestions for next year's program, please contact your regional administrator.