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NEWS



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Cover:

In a joint sea-to-air rescue drill, a wire basket is lowered from a Coast Guard helicopter to a 44-foot boat, where Ocean City CRTs prepare to practice lifesaving maneuvers. Photo: Andy Trohanis

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Cooperation Key to Timely Sea Rescues

A US Coast Guard HH-52A helicopter hovers over a charter fishing boat 30 miles offshore near Ocean City, Maryland. Carefully and smoothly a wire basket is lowered from the chopper to the deck of the vessel. Crouched in the basket is the second in a team of Ocean City Fire Department CRTs, bringing lifesaving EKG monitoring and defibrillation equipment to treat a heart attack victim. To the vacationing executive out for a day's sports fishing, this cooperative rescue effort could mean the difference between life and death.

First the CRTs will stabilize the patient, starting intravenous lines if necessary. Through an ingenious radio relay arrangement, it will be possible to exchange voice and telemetry information with physicians at Salisbury's Peninsula General Hospital, where the victim will be flown for further treatment. Since last July when the Coast Guard and the Ocean City Fire Department CRTs held their first joint sea-to-air rescue drill, the technique has not been used in any actual emergencies. But the two organizations expect to be ready to respond promptly and effectively when the need arises.

The impetus for the joint drill

came from Ocean City Fire Department CRT Clay Stamp, who called the commander of the Cape May Coast Guard Station to suggest that the response time could be improved in such situations by using one of the three helicopters stationed at the Cape May facility.

"We've worked cooperatively with the Coast Guard for about five years," Mr. Stamp recalls, "and we've gone out to sea with our equipment perhaps 15 times a year. But the biggest rescue boat at the local Coast Guard station has a top speed of 30 knots, so it may be hours before we reach the victim. Sometimes we get there too late to do anything. By using the Coast Guard helicopter we can cut the response time significantly," Mr. Stamp explained. In an actual emergency the chief of the Ocean City Coast Guard Station would decide whether to call in the chopper.

Plans for the drill last July were worked out by Mr. Stamp, Ocean City Ambulance Department Supervisor Kover Ellingsworth, Chief Eugene Powell of the Ocean City Coast Guard Station, and Lt. Comdr. Lou Manfra of the Cape May air station. Nearly 40 fire department and Coast Guard personnel took part.

A preliminary exercise, held a few weeks earlier, had familiarized the fire department CRTs with the Coast Guard helicopter, its equipment, and Coast Guard protocols. The day of the drill, the group gathered early in the morning at the Ocean City Coast Guard Station, where they reviewed procedures. The CRTs then climbed into the 44-foot Coast Guard boat for the half-hour ride out to the drill site, where the helicopter joined them.

Bobbing on choppy seas, the lifeboat held its position while the helicopter hovered as close as possible over it. Since the pilot cannot see a ship's mast from his



(Top) A Coast Guard corpsman explains rescue procedures to Ocean City CRTs participating in the joint rescue drill. (Below) A Coast Guard helicopter and Ocean City ambulance stand ready, symbolizing cooperation between the two agencies for quick sea rescues.

Siegel, Cardiac Monitoring Specialist, Named Deputy Director of MIEMSS



John H. Siegel, MD, joined MIEMSS on March 1 as the agency's new deputy director, clinical director of the Shock Trauma Center, and professor of surgery at the University of Maryland. An innovator in the field of cardiac output monitoring, Dr. Siegel comes to MIEMSS from Buffalo, where he was professor of surgery and research professor of biophysical sciences at the State University of New York and chief of surgery at Buffalo General Hospital.

Dr. Siegel will work closely with MIEMSS Director R Adams Cowley, MD, in administering Maryland's EMS system, and will

be responsible for all clinical facets of the MIEMSS programs. A practicing surgeon, Dr. Siegel takes his turn "on call" at the Shock Trauma Center and frequently makes morning rounds. He also is actively involved in developing the center's professional education and training programs, which include both residencies and other in-service programs.

Patient care areas in the Shock Trauma Center already are beginning to reflect Dr. Siegel's initiatives. Sophisticated automatic patient monitoring equipment is being installed in all units of the center. The computerized network will allow physicians to utilize quantitative data on the patient's physiological and metabolic status in making decisions about treatment.

The new equipment also will be linked to a computer system used in two major NIH-funded research projects for which Dr. Siegel is the principal investigator. Both studies are aimed at finding more effective methods of treating critically ill patients, specifically those susceptible to myocardial infarction (heart attack) and acute respiratory distress syndrome (ARDS).

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vantage point, knowing its height is essential.

Each CRT in turn practiced grounding the lowered wire basket with a "dead man's stick" — a metal rod named for the possible consequences of *not* using it. One by one they climbed into the basket to be lifted to the helicopter, then back down to the boat — actually the reverse of what would happen in a real emergency.

Testing the compatibility of Coast Guard and EMS communications equipment was an important part of the drill. A circuitous way of linking the two very different frequencies on which the groups normally broadcast had been devised — and it worked beautifully. The plan involved the Coast Guard FM radio on board the helicopter, connected by phone patch to the Chincoteague Coast Guard Station, then to the EMS base station at Wicomico, and finally to Peninsula General Hospital. Voice transmissions were very clear, and posed no problems.

The second phase of the drill, however, involved monitoring a "patient" in the helicopter. Though the signal was clear and vibrations were evident only on takeoff and landing, transmitting telemetry information on that frequency could be a bit of a

regulatory problem.

For the next drill, planned for late spring, a new communications approach will be tried. The scheme was worked out in 1980 by the Harwich (Massachusetts) Fire Department and the Cape Cod Coast Guard. It keeps all transmissions within the EMS radio system by using an EMS portable attached to a UHF antenna on the helicopter. When this arrangement is tested in Maryland, signals will be beamed from the Coast Guard helicopter to an Ocean City Fire Department ambulance on shore and relayed from there to the Wicomico EMS base and to Peninsula General. This method should be clear and trouble-free within a range of 70 miles from the hospital.

Innovative EMS schemes are something of a tradition in Ocean City. The resort area poses a unique set of problems when it comes to providing emergency medical services. With a year-round population of 8,000, Ocean City is not large enough to warrant its own hospital, but during the summer months the population swells to 250,000, dramatically increasing the demands for health services. The four privately owned clinics now open in Ocean City during the

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EMT Case Reviews Improve Care, Rapport

EDITOR'S NOTE: More than a dozen Maryland hospitals are participating in emergency care case review programs for EMTs and hospital emergency department personnel. The following article details the experience of Calvert Memorial Hospital which had the first and one of the best programs in the state. Unfortunately, since the writing of this article, the case review program at Calvert has been terminated due to economic restraints.

On at least one evening a month a group of southern Maryland EMTs could enter Calvert Memorial Hospital in Prince Fred-

erick accompanied by no sirens, no stretchers, no IVs, no reports, no patients, no pressure.

They headed not for the emergency department, but for the hospital board room where they were participants in what a volunteer rescue squad member called "one of the best educational programs for EMTs that's come along."

Titled "Emergency Care Case Review and Continuing Education," the program was designed to bring hospital emergency department personnel and EMTs together to review current and former cases treated by EMTs. In informal sessions allowing for plenty of interchange, questions, and discussion, they heard from

Trauma Line Links Surgeons to Field



Dr. Alasdair Conn takes a trauma call.

EMTs and CRTs in Region III now can consult by two-way radio with a MIEMSS trauma surgeon about any accident victim they think should be taken to the Shock Trauma Center. The new EMS communications link was installed in response to requests from field personnel, and complements similar services provided by Baltimore's four areawide trauma centers.

To request a MIEMSS trauma consultation, EMS field personnel simply contact the Emergency Medical Resource Center (EMRC) at Sinai Hospital by radio. The communications center then connects the unit at the scene with the attending trauma surgeon at the Shock Trauma Center. A portable two-way radio enables the surgeon on call to answer promptly, regardless of his location in the MIEMSS complex. In addition, two regular telephones at different locations in the Shock Trauma Center, are connected directly with EMRC and may be used for trauma line consultations.

"The purpose of the trauma line is to provide medical direction for patients the field personnel feel should be treated here," MIEMSS surgeon Dr. Ameen Ramzy explained. Dr. Ramzy was responsible for orienting the MIEMSS surgeons in the Maryland Echelons of Trauma Care and in EMT and CRT protocols. Since the trauma line became operational on March 1, the number of consultations has increased steadily, from one or two a week to the same number almost daily.

—Dick Grauel

doctors and other authorities on case-related topics.

They also followed specific cases from emergency field care through emergency department treatment, transfer procedures, operating room procedures, and recovery.

Participants agreed that the program had been successful not only in improving emergency medical services in the county and in keeping up the skill level of EMTs between recertification exams, but also in improving rapport between first responders and emergency department personnel.

The program was developed because "rural EMTs don't get as much experience as someone in city or suburban areas and some of their skills decay long before their recertification comes up," explained Jim Abate, special assistant to the director of field programs.

In 1978 Mr. Abate, with the help of Calvert County emergency services leaders and others, secured US Department of Transportation funding to develop the case review program in five Maryland counties. The program has since spread throughout Maryland.

Calvert County's Department of Public Safety (then the Department of Emergency Services) under the direction of Marvin Riddle and the county's Emergency Services Advisory Council were instrumental in getting the project started and in obtaining county funding for continuation of the sessions after the federal grant ended the first year.

When the program began, Harriet Gurganus and Sally Showalter, the project coordinators at the hospital, would meet with Mr. Riddle to plan sessions for a three-month period, selecting topics in which EMTs had expressed interest and which, over an extended period, would provide specific examples of cardiac, burn, poison, behavioral, neonatal, and trauma experiences.

As the program matured, there was a slight shift from pure case review to continuing education. Material from the EMT manual and recognized emergency practices in Maryland, as well as illustrative cases, were covered.

Sessions often varied with the season. A winter meeting, for example, covered ice accidents, frostbite, and hypothermia, while a summer session considered bee stings, snake bites, and near drownings.

The quality of the program's results can be measured in comments from those who were involved.

"What we discussed at the meeting was used three hours later on an ambulance run," one EMT told the project's leaders.

After deciding on the topics, Ms. Gurganus and Ms. Showalter would research cases, pull charts and ambulance run sheets, and develop an evening's program. Often they called in speakers or prepared audiovisual materials to further amplify the cases.

"They reviewed cases in which there was commendable work and also in which something was lacking," Mr. Abate noted.

"Giving EMTs feedback in what they did right is very important," emphasized Marie Warner, coordinator of MIEMSS Region V, of which Calvert County is a part. "They should know when they have properly prepared a patient in the field."

Each squad or department in Calvert County was asked to send seven participants (at EMT or advanced-first-aid levels) and the monthly sessions lasted approximately 2½ hours.

The comfortable nature of the sessions promoted an easy exchange among EMTs, doctors, and nurses and encouraged EMTs to ask questions that they may have been reluctant to ask previously.

"EMTs are afraid of doctors, and tests scare them to death," stated Warren Parks, an EMT with the Prince Frederick Rescue Squad. "In this course it's all informal and any testing is verbal. I think that makes the EMT more comfortable. And the eye-to-eye contact with the doctors helps you pick up things that will help you on your test for recertification."

According to Mr. Parks, "the main thing that gives the program such an edge is that the doctors make the presentations on an EMT level. The EMTs are beginning to understand what the hospitals are all about. The nurses are learning about the first responders out there and what they're going through."

His comments are backed up by the project coordinators who note the program's unexpected dividend — the relationship between volunteers and emergency department staff improved 150 percent.

—Melady Klausmeier

Dr. Siegel Responsible For Clinical Care, Research

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The myocardial metabolism project involves new techniques for measuring the heart's electrical impulses in order to predict arrhythmias before they occur. The investigators — Miklos Fabian and Drs. C. L. Nikias, Peter Scott, and Thomas Paul — also will study several natural isotopes of cardiac muscle fuels that may be of therapeutic benefit in preserving myocardial function.

In the ARDS study, a noninvasive multiple inert gas technique developed by Dr. Fred Geisler will be used to measure cardiac output, pulmonary volumes, and lung ventilation/perfusion. Changes in lung function will be analyzed quantitatively, using mass spectrometry, to evaluate the effectiveness of ARDS therapy in patients suffering from major traumatic injury or sepsis.

A prolific writer, Dr. Siegel is the author of more than 100 papers on physiological and surgical subjects and the co-editor of the surgical textbook *The Aged and High Risk Patient: Medical, Surgical, and Anesthetic Management*.

—Judie Zubin

EHS Program Offers Off-Campus Training to Native Americans

"I have just returned from a training course at the Black Hills Training Center and was so favorably impressed that I thought it only proper to pass this on to you," begins an enthusiastic letter to the director of Indian Health Services in Rockville, Maryland.

The letter is from the director of the Tribal Health Department Administration in Fort Hall, Idaho. He had just completed an introductory EMS course provided by the emergency health services (EHS) program at the University of Maryland Baltimore County (UMBC).

The EMS division of Indian Health Services (IHS) had made special arrangements with the EHS program staff to offer the course to emergency care profes-

sionals who serve American Indians.

Sixteen of the 20 students in the class were native Americans. They represented numerous Indian tribes from all parts of the United States west of the Mississippi, including Alaska.

IHS's main objective in holding EMS courses is to build an effective EMS system for the numerous Indian reservations.

In the past, Indians residing in rural or wilderness areas have been cut off from emergency medical services because of their great distance from communities where such services are available. The costs of extending EMS services to remote areas and of training Indians in EMS were too great for these communities.

In the late 1960s, therefore,

native Americans started thinking about establishing their own EMS system, but lack of funds prevented their plans from materializing. Finally, about five years ago, the Indian tribes in America decided jointly to make EMS development a priority. Certain tribes hired consultants on an individual basis to provide EMT training. However, few tribes could afford such training and the training that was provided was not sufficient to set up a complete EMS program.

To bridge those gaps, Jerry Rousseau, training coordinator for the EMS division of IHS, started looking for someone who could provide training in the management aspects of running an EMS system, as well as in the patient care aspects. His search led him to Dorothy Gordon, DNSc, director of the EHS program at UMBC.

After meeting with Mr. Rousseau in the summer of 1980, Dr. Gordon agreed to offer the introductory course in the EHS program the following summer at a location that would be accessible to as many Indian tribes as possible.

Last August Dr. Gordon and Jeff Mitchell, an EHS faculty member, along with Wanda Bair, director of special sessions for UMBC, headed for the Black Hills Training Center near Rapid City, South Dakota.

Referring to Dr. Gordon, and Mr. Mitchell, the writer of the letter said: "Equally important to seeing the need for such a course is finding a group of instructors who can deliver the goods. Never will IHS find a more skillful, sensitive, and thoughtful resource than they have in [them]."

The 16-week course was taught in just nine days. To accomplish this, Dr. Gordon and Mr. Mitchell restructured the course and scheduled three to six hours of class time each day. They took turns teaching the content, which covers such topics as managing a communications system, planning for a new EMS unit, and organizing an association of EMS personnel.

The students were also given work to complete outside of class, including group projects on various EMS topics. Other learning experiences involved role playing to give students practice in requesting financial aid from a governing body, and a field trip to

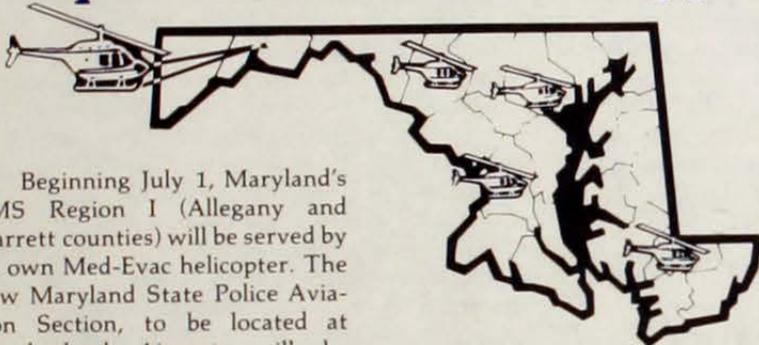
Rapid City to see a regional trauma center, an EMS communications center, and a paramedic unit.

The students who successfully completed the course were awarded three undergraduate credits from UMBC. To make it possible for the students to receive credit for the course, Ms. Bair registered the students on site and made sure they qualified for admission to the university.

Because this experience was so positive for everyone concerned, Dr. Gordon and Mr. Rousseau are making plans to offer an advanced course in EMS planning next summer.

—Dick Grauel

Western Maryland Counties Acquire Med-Evac Chopper



Beginning July 1, Maryland's EMS Region I (Allegany and Garrett counties) will be served by its own Med-Evac helicopter. The new Maryland State Police Aviation Section, to be located at Cumberland Airport, will be headed by veteran pilot and flight instructor Sgt. Carl Marshall. Before the transfer to Cumberland, Sgt. Marshall served with the Frederick-based aviation section, which has handled Med-Evac missions for both Regions I and II.

Regional Coordinator Dave Ramsey and the EMS Advisory Council worked closely with Allegany County Commissioner William Kenny, local EMS providers, and members of the area's legislative delegation in extending Med-Evac coverage to Region I.

Plans call for the construction of a new hangar, which should be completed this fall. Initially the unit will share existing hangar space and will use two crews to provide coverage during peak times. The staff will be increased gradually to the five crews needed for 24-hour coverage.

Sgt. Marshall has been in Cumberland since early March coordinating the many details involved in opening the section. The project is very much a cooperative effort. The local government is funding hangar construction, while the state is providing both manpower and equipment. Med-Evac helicopters normally rotate throughout the state system, and it will not be necessary to purchase a new one for the Cumberland section.

Arrangements for a landing site near the region's areawide trauma center proved a bit complicated, but the solution is really quite ingenious. A 5-story addition to Cumberland's Memorial Hospital will be topped by a new helipad specially equipped so that choppers can land under poor visibility conditions — a frequent problem in the area. But the

hospital addition will not be completed until 1985, and relying on the previous arrangement seemed less than optimal. The Frederick-based helicopter always has landed at the Cumberland Airport, where it was met by the hospital's ambulance.

Now, thanks to the efforts of Superintendent Wayne Hill, a temporary site less than a block from the hospital has been approved for Med-Evac landings — the Fort Hill High School stadium. A secondary site behind the stadium may be used if a sports event is in progress at the stadium.

The Maryland State Police Aviation Division traditionally has collaborated with neighboring states by flying Med-Evac missions just outside Maryland's borders. Since coverage in adjacent areas of West Virginia and Pennsylvania is limited, special arrangements may be worked out among the three states.

—Judie Zubin

Dr. Gordon, Chinese Swap Ideas



Dr. Dorothy Gordon, director of the emergency health services program at UMBC, was one of 30 health care professionals who visited China last October as part of People-to-People International's Citizen Ambassador Program. She is standing between clinical personnel from Shanghai, to whom she gave copies of the "Maryland EMS News." The purpose of the trip was to exchange information about methods of health care.

Sea Rescues Now Quicker

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summer months (two of them remain open year round) take care of basic health problems. Patients with more serious conditions are treated at Salisbury's Peninsula General Hospital.

With hospital care 30 miles away, prehospital services are a priority concern for the city government. The city itself employs 3 EMTs and 12 CRTs, who work at the Ocean City Fire Department. In addition, 40 of the company's volunteer fire fighters are certified EMTs. The fire department's 7 ambulances — all but 1 of them telemetry equipped — are split among its 5 stations in the resort area. Recently the Ocean City Paramedic Foundation equipped a 9-man scuba rescue team, composed of fire department CRTs. In addition, there are 10 landing zones in the Ocean City area for the Maryland State Police Med-Evac helicopter, which is based in Salisbury.

Though the Coast Guard has primary responsibility for rescues offshore, the equipment and skills of the two organizations complement each other so well that they have found it natural to share resources. The Coast Guard station at Ocean City is basically a lifesaving facility. It is equipped with 21- and 30-foot boats for fast response rescues near shore, a 25-foot bay or surf boat used if the surf is higher than normal, and a 44-foot severe weather lifeboat. Similar lifesaving stations are located at Indian River, Maryland, and Chincoteague, Virginia. Each is staffed by corpsmen who are trained at the basic life support level.

In most of the approximately 50 less-than-critical rescues each year near Ocean City, corpsmen from the local Coast Guard station handle the situation. They usually escort the other vessel to shore where Ocean City's CRTs take over, transporting the victim to Peninsula General by ambulance. The smaller stations rely on larger Coast Guard stations at Cape May, New Jersey (25 minutes from Ocean City by air) and Elizabeth City, North Carolina (60 minutes distant by air) for helicopter or cutter support.

—Judie Zubin

Disaster Planning for Hospitals' Symposium

Ed. Note: Who should be involved in planning a disaster drill? What makes for a successful drill? How should lifesaving efforts at the site of a disaster be organized?

Because these questions on emergency preparedness are always current, we are devoting several pages of this issue to articles summarizing a few of the many presentations made at the national symposium on Disaster Planning and Emergency Preparedness for Hospitals held last spring in Baltimore.

MIEMSS was selected by the American Hospital Association to host the conference, which was cosponsored by the two organizations.

Phases of a Disaster

A man-made disaster can be divided roughly into three phases, according to what is most important to do at a particular time in the crisis, said R Adams Cowley, MD, director of MIEMSS.

In the first or primary phase of the civic response to a disaster, the main goals are to save as many lives as possible and then treat patients who do not have life-threatening injuries, said Dr. Cowley.

This phase involves the rescue and medical assistance provided during the first six hours after the disaster occurs. Besides the Red Cross and the Civil Defense Department, which are involved throughout responses to all disasters, policemen, firemen, and medical personnel manage the efforts made during this phase.

The secondary phase, which can extend up to 48 hours from the time the disaster occurred, is when any remaining hazard is removed and the cleanup of the debris left by the disaster begins, Dr. Cowley said.

The efficiency of operation during this phase can be hampered by lack of traffic and crowd control. Steps should be taken to make the site of the disaster easily accessible to emergency vehicles but not to onlookers, so that the victims can receive medical attention as soon as possible and the onlookers, themselves, do not become victims, he added.

The efforts made during this phase are the responsibility of health and sanitation personnel, and the operators of cranes, bulldozers, and trucks.

The aims of the final or tertiary phase are to complete the cleanup operation and to attend to the social service needs of the disaster victims and their families, he said.

This phase usually extends from the second to the 60th day after the occurrence of the disaster. This is the time when the patients and other people affected by the disaster are helped to adjust to the new circumstances created by the disaster. For example, relocation assistance is provided for anyone who may need it. This phase brings into play the assistance provided by social service and family service agencies.

—Dick Grauel

Disaster Planning

Successful disaster planning is an ongoing, continual process, according to Goldie Y. Lansky, director of emergency medical services and ambulatory care of the Chicago Hospital Council. It consists of two phases: the mechanics of producing the plan and the incorporation of the EMS disaster linkage components.

Below is a checklist for the steps involved in each phase.

Planning Process

- Appoint an overseer agency (one only) to be in charge of organizing the plan.
- Enlist support agencies and specialty groups on a full-time or as-needed basis.
- Designate one agency to be in charge at the site.
- Encourage agencies to self-assign areas of on-site responsibility; unclaimed areas should be assigned by the overseer agency.
- Note potential local disaster sites whether natural (flood plains) or man-made (chemical plant).
- Obtain formal approval of plan in writing from participating agencies to ensure cooperation.

• Institute drills to test entire plan, or portions of it, at one time.

• Critique success of the drill among participating agencies by discussing whether the goal was reached.

• Revise plan, incorporating corrections noted in critique.

• Repeat drill, critique, and revision steps continually.

EMS Disaster Linkage Components

• Arrange identification and protection of on-site medical/paramedical personnel.

• Institute system of rapid triage; designate point of transport and field hospitals.

• Establish communication and backup systems for disaster notification, victim number and wound severity feedback, and all-clear signal.

• Arrange two-way transport and/or police escort between site and hospitals.

• Classify available facility capabilities as comprehensive, basic, or standby for patient distribution.

• Use public safety agencies (Red Cross) for peripheral procedures (mass feeding, information center, extra blood supply, backup communications).

• Assign police or other agency to deny site access to general public, including the press, but give progress reports through chosen individual.

• Keep accurate, standardized records on site, but each hospital may retain its own system upon patient admission.

• Evaluate response two weeks post-disaster in a by-invitation-only meeting of the participating agencies to encourage objective, candid analysis of the disaster management.

—Elaine Rice

JCAH Guidelines

The Joint Commission on Accreditation of Hospitals (JCAH) requires hospitals to have a written plan for the timely care of casualties arising from both external and internal disasters, and to document the rehearsals of these

plans.

The JCAH guidelines that specify the standards that these plans must meet seem, at first, like a jungle of regulations. As a result, the guidelines are often misunderstood by hospital administrators.

Some of the misconceptions about the JCAH regulations regarding hospital preparedness for disasters were clarified by C. Roger Camplin, a JCAH spokesman.

One common misconception that hospital administrators have is that all hospitals must meet the same JCAH standards of preparedness for a disaster, said Mr. Camplin.

This is false, he said, adding that disaster plans are based on the capabilities of each hospital. The standards that JCAH uses to determine whether a university-affiliated hospital is prepared for a disaster are more stringent than the ones it uses to evaluate a community hospital.

Rehearsals of the implementation of an external disaster plan must be conducted at least twice a year. Only one of the rehearsals has to be a staged enactment of the plan, but a walk-through drill does not count as a rehearsal, Mr. Camplin said.

JCAH regulations do not require that employees who work during the day report to work for a rehearsal that is held during the evening or night shift, he noted. However, they do stipulate that a telephone survey be made to find out who would have been available to work.

Patients do not have to be evacuated from the hospital during a rehearsal, he said, but the hospital's disaster plan must outline the procedure that would be used to evacuate patients in an external disaster that affects the functioning of the hospital. The plan must also state how patients who could be discharged or transferred to another medical institution to make room for the casualties of a disaster would be identified and transported.

The hospital must have enough basic utilities and supplies, as well as the essential medical and supportive materials, to function for at least one week. However, these items do not have to be on hand as long as there is a preestablished mechanism for obtaining these items immediately, the JCAH spokesman said.

A different set of JCAH regulations has been formulated for internal disasters.

At least one fire drill per quarter must be held during each of three work shifts for each patient-occupied building. This works out to a minimum of 12 fire drills per year for a hospital that is housed in a single building, and multiples of 12 if more than one building is involved.

If the hospital does not have the benefit of fire protection services from a local fire department, it must provide its own services, said Mr. Camplin.

Emergency exits must be identified by door labels and directional signs. JCAH places great importance on the stipulation that staff members know the exit routes of the hospital. In fact,

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MIEMSS Authors Publish Two New Books

Two books on emergency care by MIEMSS authors are available to medical and EMS professionals.

Published in April by University Park Press, *Shock Trauma/Critical Care Manual: Initial Assessment and Management* was edited by R Adams Cowley, MD, and C. Michael Dunham, MD. Dr. Cowley is the director of MIEMSS; Dr. Dunham is an attending surgeon at the MIEMSS Shock Trauma Center.

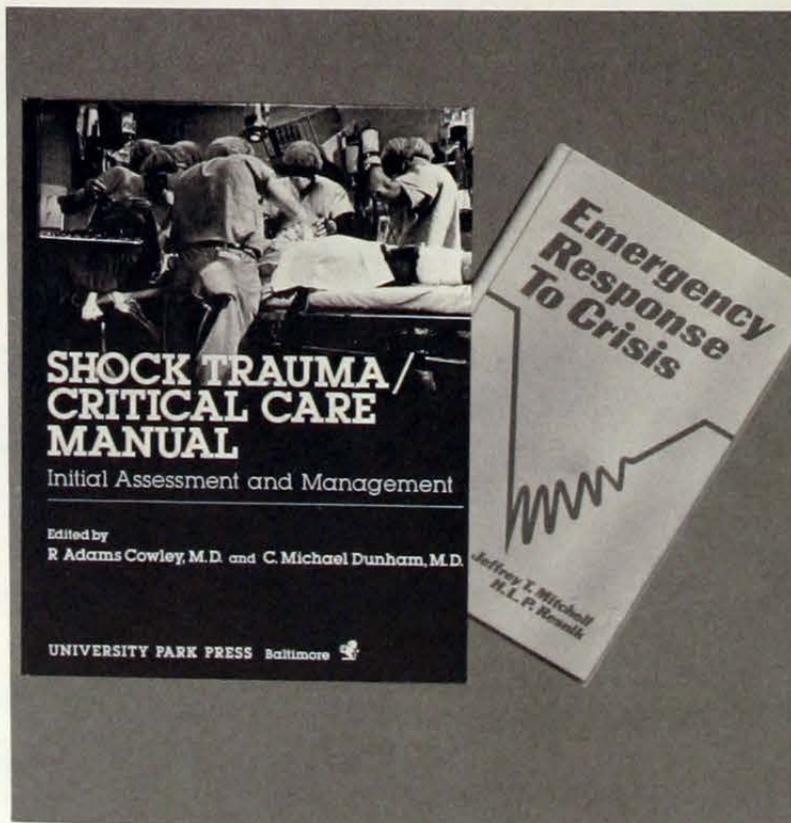
The authors of the manual, which is based on the Shock Trauma Center protocols and the experiences of its staff, take a practical approach, presenting information in a step-by-step fashion.

Jeff Mitchell, MS, is a principal author of *Emergency Response to Crisis: A Crisis Intervention Guidebook for Emergency Service Personnel*.

Chapters include information on assessment and management techniques for various crisis situations, such as violence, alcohol intoxication, drug abuse, sexual assault, battered children, suicide, and multi-casualty events. The book also offers insights to crisis workers dealing with their own personal stress.

Mr. Mitchell is on the faculty of the emergency health services program at the University of Maryland Baltimore County and is consultant psychologist for the MIEMSS crisis intervention training program.

—Beverly Sopp



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the site surveyor may ask various employees to identify the nearest emergency exit, he said.

Of course, hospitals have to comply with numerous other regulations to assure JCAH that they would be able to cope in an internal or external disaster. If administrators get lost in the maze of regulations, Mr. Camplin urged them to call JCAH toll free at (800) 621-8007 to get straight answers to their questions.

This number can also be used to verify whatever a site surveyor may say about JCAH standards during his visit to the hospital.

Site surveyors often make recommendations that are not required by JCAH standards, said Mr. Camplin.

He advised hospital administrators who disagree with a site surveyor about the mandatory requirements for their particular hospital to contact JCAH directly to resolve the issue.

—Dick Grauel

'Doctor on Site' ?

Should hospital medical personnel have a role at the site of a disaster and, if so, what is it?

General discussions between speakers and participants at the symposium brought conflicting answers to this question. Opinions ranged from restricting physicians to hospital environs to putting them in charge at the disaster site.

The pro-physician partisans maintained that a physician should be present at a disaster site because: by virtue of training, a physician is more qualified to determine the severity of medical emergencies; a physician has a wider range of experience in dealing with medical emergencies; and paramedics, regardless of the level of their training, function under the direct guidance of a physician and are not permitted to make independent medical decisions.

The anti-physician partisans maintained that physicians should not be at a disaster site because: it would further deplete hospital staff, which might already be short-handed; possible physician/paramedic disagreement over authority in the field and over triage decisions would contribute to confusion and time delay rather than to the rapid solution of the disaster problem; and a physician would spend too much time on one victim instead of following the rapid field triage rule of doing the most for the greatest number.

Lou Jordan of MIEMSS proposed hospital go-teams as a compromise solution.

At MIEMSS, a go-team consists of a traumatologist, an anesthesiologist, an admitting area nurse, and an EMT/ALS training supervisor, with the senior medical officer designated in charge of the group. The team, therefore, represents both prehospital and hospital personnel, making it effective as a support and linkage group, according to Mr. Jordan.

It was indicated that using the go-team as a support unit and locating it adjacent to, rather than on, the disaster site answered most objections of the anti-physician group.

The benefits derived from a

physician on a go-team outweigh the disadvantage of a slight decrease in hospital staff size. At the scene, a physician can give more immediate, intensive emergency care to the severely injured victims before they are transported to a hospital. In addition, a physician can provide a knowledgeable link between the field and the hospital environs, maintaining efficient and appropriate distribution and informing the receiving hospital of the exact medical condition of each victim so that the hospital staff is fully prepared.

Second, no field triage disagreements could occur since the go-team has no jurisdiction over the field but performs a "second triage" of those victims already red-tagged by the field triage unit, as severely injured. (This second-triage concept also eliminates the objection that physicians might spend too much time on triaging and treating one victim, to the detriment of the others.) The physician in charge of the go-team determines which of the severe cases needs first treatment and transport and what kinds of care are necessary to maintain those victims waiting for treatment. Thus, the go-team concept not only avoids triage disagreements but improves the efficiency of the triage procedure and increases the amount of prehospital care.

—Elaine Rice

Management of Nuclear Accidents at the Disaster Site

Most disaster planning involves preparing for a single-occurrence crisis such as a plane crash or a flood.

However, a nuclear accident can be a continuing disaster, and the problems it engenders are different than those of a disaster with a definite end, according to Dr. H. Arnold Muller, Secretary of Health, Commonwealth of Pennsylvania.

Plans for dealing with a nuclear disaster must be based on the availability of emergency supplies, equipment, and personnel within a specific, local geographical area; although assistance may be needed in a radioactive area, it is unlikely that personnel and equipment will be sent if there is the risk of contamination.

Depending on whether decontamination facilities are available at the site of a nuclear accident, radioactive contamination can be a problem for the medical personnel in charge of treating nuclear disaster victims. However, according to Dr. Muller, the problem of contamination, even that of hospital staff, is secondary to the problem of life-threatening injuries; once the injuries have been treated, steps can be taken to protect the hospital staff and environment.

Vinyl sheeting on the floor will catch and contain radioactive particles. Special suits and masks, and slippers will protect the staff; glass partitions may also be used to separate victims and hospital staff. Personnel can be rotated and extra shifts can be scheduled so that each individual receives as little cumulative exposure as necessary.

Contamination of an emergency room is a potential hazard; if possible, each victim should be given a shower before admission to a hospital. If the victims are few in number, individual plastic bathtubs can be used from which the contaminated wash water can be drained and stored in separate plastic containers for proper disposal later. If there are many victims, the first priority in the decontamination process is to get them all washed off as quickly and as thoroughly as possible; mass

showers will answer the need for decontamination but may lead to complicating "run-off" problems for the general public when the wash water is allowed to return untreated to the public sewerage system.

Since a hospital may be threatened by potential radioactive contamination (for example, from a radioactive cloud), nuclear disaster plans must include evacuation procedures and alternate plans, lacking evacuation time, for moving patients and staff to the safest place within the hospital.

If a hospital is endangered and there is not enough time to effect an evacuation, plans must be made to collect life-support supplies (oxygen, food, water, medicine) in the safest possible place, to provide care for seriously ill patients in a confined area, and to compensate for personnel shortages, which will occur through some staff members leaving the hospital and the inability to recall replacements because of the danger of contamination.

—Elaine Rice

A National Symposium
For
TRAUMA
Physicians & Administrators

Some 250 traumatologists and trauma center administrators gathered at Baltimore's new Hyatt Regency Hotel April 19-21 for the first National Symposium for Trauma Physicians and Administrators.

According to symposium co-chairman Carl A. Soderstrom, MD, "The conference was significant in that it brought together a faculty composed of nationally known people with hands-on experience in both clinical and administrative areas." In all, more than three dozen experts addressed the group. Clinical topics included controlling sepsis, reducing mortality in head-injured patients, reimplanting severed limbs, and new techniques for peritoneal lavage and tracheal intubation. Administrative sessions focused on issues such as disposition coordination, quality assurance, disaster planning, facility design and staffing, and financial matters.

Hazardous Materials

"Hazardous Materials, 1980 Emergency Response Guidebook" is available free of charge from the Materials Transportation Bureau, Research and Special Programs Administration, U.S. Department of Transportation, Washington, D.C. 20590.

The handbook, written primarily for fire fighters, police, and first responders, offers guidelines in the initial phases of response to a chemical accident. It is recommended that, following a chemical accident, additional information be obtained at the earliest opportunity by contacting CHEMTRAC, a 24-hour-a-day computer bank of chemical data: (800) 424-9300.

Equipment Donated to EHS Program



Ambu International, a Copenhagen-based medical equipment manufacturer, has donated some \$10,000 in resuscitation devices to the new emergency health services (EHS) program at the University of Maryland Baltimore County. Students are using the oxygen, suctioning, and resuscitation equipment in courses that cover the practical skills required of EMTs.

A world leader in its field, Ambu International developed the first manual bag-mask resuscitator in the 1950s. The gift, which EHS program instructors termed "most generous" and "extremely valuable," was arranged through the company's American distributor, Narco Scientific, Air Shields Division, of Hatboro, Pennsylvania.

Planning for Communications during a Disaster

Contingency planning, not hardware, is the key to successful communications during a disaster, according to Richard L. Neat, director of communications for MIEMSS.

"No amount of hardware will prevent a communications breakdown. With a well developed plan, however, even the simplest of [communications] systems will suffice," said Mr. Neat.

Channel overloading in a two-way radio communications system can occur between ambulances in the field and regional trauma or specialty referral centers, and between the trauma centers themselves, said Mr. Neat.

In Maryland's EMS Communications System, both ambulance and hospital personnel can initiate radio contact independently with a central communications center, called the Emergency Medical Resource Center (EMRC). Calls coming into EMRC are patched to the party specified by the caller.

Under normal circumstances, this feature of the system is advantageous. But in a disaster situation, when use of the system is markedly greater, the communication lines through the central operator can become jammed, he said.

To solve this problem, a single "command post" can be set up at the site of the disaster to handle all communications between the field and EMRC, he said.

The command post on the scene should be stationed near the other ambulances, and all ambulance personnel would have to send and receive information about patient care and triage through the command post, he explained.

This arrangement makes it unnecessary for each ambulance to contact EMRC directly, and ties up only one channel.

To handle communications between EMRC and trauma centers, a polling routine can be used instead of the usual procedure of "one-at-a-time" contact, said Mr. Neat.

Polling works this way: the EMRC operator requests information about bed status and emergency department capabilities from each hospital, but instructs the hospital not to call back with the information.

After the EMRC operator has finished contacting all hospitals to request information, he calls them again to collect the information, which is then relayed to the command post.

The same information can be supplied to hospitals upon request to reduce the need for interhospital communications.

"Of course, the protocols of one system do not always work well in another [system]. However, the basic principles of a command post can be incorporated into most communications systems," Mr. Neat said.

A different kind of communication problem that can occur during a disaster is incapacitation of part or all of the communications network. He said the best solution to the problem is the same: advance planning.

Physical damage resulting from the disaster, such as breaks

in large telephone cables or flooded conduits, can cause major communications problems.

Because such occurrences are rare, it is impractical to develop extensive backup systems to deal with them.

However, patient care can be handled adequately on a short-term basis if at least one alternate communications link to the outside world is maintained.

This link can be the Public Switched Telephone Network, a dedicated leased circuit, microwave, or two-way radio, depending upon the nature of the disaster.

Both leased circuits and public telephone lines are subject to physical damage. However, a leased circuit has one important advantage over public lines, according to Mr. Neat. Use of it will not usually be preempted in the event of a telephone system overload.

When an overload occurs, the telephone company can systematically terminate the capability of placing outgoing calls from selected telephones starting with the lowest priority users, he said.

Access to the Public Switched Telephone Network can be safeguarded by registering with the telephone company as a priority customer. However, registration does not offer total protection because use of the network by even high priority customers may be preempted in a national emergency, he said.

This problem can be averted by making prior arrangements to place outgoing calls through an agency that has a higher priority rating, such as Civil Defense, or that is in a different exchange area, he added.

A microwave system can be an expensive alternative to leased circuits or public telephone lines. But if the system is linked to a telephone exchange in a remote area, it will permit nearly "normal" communications.

A single-channel two-way radio system is not adequate for long-term use because only one conversation can take place at a time, he said. However, the system can be made more efficient if the hospitals using the system can agree to channel their communications through a communications command post, similar to the one operating at the disaster site.

—Dick Grauel

Coping with, Management of Civil Disorders

It was never officially called a disaster, according to Lynn Gonzalez, an EMS consultant from Miami. But racial riots crippled Miami, Florida, for nine days in May 1980. As a result, 220 patients were brought to the emergency room at Jackson Memorial Hospital Medical Center.

The disturbances were sparked by the decision of an all-white jury to acquit four police officers of the charges of unnecessary manslaughter and fabrication of physical evidence in the death of Arthur McDuffie, a 33 year-old black man.

Most of the casualties occurred in the first two days of the rioting; almost three-fourths of the 220 patients treated at Jackson Memorial arrived during that period.

A majority of the injuries treated during the first 24 hours of turmoil had resulted from beatings. In the following 24 hours, gunshot wounds became the predominant injury because more of the rioters had started arming themselves.

The patients arrived at Jackson Memorial Hospital in waves, corresponding to violent episodes in the community.

Many of the victims did not have to be transported far, since Jackson Memorial was surrounded by the violence that occurred. But this situation posed major security problems for the hospital, such as keeping the entrance to the emergency room open, controlling access to the rest of the hospital, and getting hospital personnel to and from work.

The crowds, which seemed to be rebelling against any kind of authority, sometimes turned against emergency medical personnel, who were evidently seen as an extension of the "system."

In some instances, the police prohibited rescue units from responding to emergency calls in disturbance areas to maintain public safety, she added.

Consequently, many patients did not gain access to the EMS system through normal channels, such as the 9-1-1 emergency telephone system. Instead, they were taken to hospital emergency departments in private vehicles.

As this set of circumstances illustrates, a general disaster plan would not be adequate to meet the special problems that arise during a civil disorder. A separate disaster

plan must be devised to handle this specific situation.

The best disaster plan for such situations is one offering alternative courses of action and specifying in what circumstances each will be used, she said.

—Dick Grauel

Rescue at the Disaster Site

The primary concern in organizing the rescue efforts at the scene of a disaster should be to do the greatest good for the greatest number of people, according to Carole Katsaros, a nurse coordinator in the MIEMSS field nursing program.

Medical and paramedical personnel should not spend a lot of time treating any one patient. This idea is contrary to the concept of hospital-based treatment, which involves doing everything possible for each patient admitted, said Ms. Katsaros.

The key to making sure the greatest numbers of people are helped is a good system of triage, managed by highly trained medical personnel who can make accurate judgments about which patients should be treated first. The first squad on the scene of the disaster should take charge of the situation, and one person should be designated to guide triage, said Ms. Katsaros.

Deceased patients should be left where they are until medical personnel have evacuated persons who are still alive, she said.

The first step in aiding the living patients is to tag them according to the severity of their injuries. In Maryland, a red tag means the patient has life-threatening injuries and should receive immediate treatment in the field or in a field hospital, if one is set up.

Red-tagged victims should be the first persons to be moved to a second-stage triage center, where a physician decides which of the red-tagged patients should be transported to the hospital first.

Ms. Katsaros also suggested setting up a triage station outside of the receiving hospital to reduce confusion and maximize efficiency in treating victims.

The purpose of such a station would be to check each patient's medical status quickly upon arrival to find out whether the status changed during transport.

This mechanism would prevent the needless delay that would occur in sending a patient to an inappropriate area of the hospital, based on the erroneous status indicated by the triage tag, she explained.

—Dick Grauel

Jewish Charities Donates to MIEMSS



Stanford Rothschild, on behalf of the Associated Jewish Charities and Welfare Fund, Inc., presents a \$5000 check to R. Adams Cowley, MD. The contribution will be used for the MIEMSS Shock Trauma Center.

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Rehabilitation Agreement Benefits Trauma Patients

MIEMSS patients who are sent to the Montebello Center for extended rehabilitative care will be among the beneficiaries of an agreement that will soon transfer responsibility for all medical care provided at the center from the Maryland Department of Health and Mental Hygiene (DHMH) to the University of Maryland at Baltimore (UMAB).

DHMH will retain its administrative and policy-making responsibilities to the center, and will ensure that the center will comply with all licensing and accreditation regulations.

The medical director of the Montebello Center, a university employee, will be in charge of the medical services.

The center's director will be a DHMH employee. He will oversee administrative policy matters. The medical director will be responsible to the center director on administrative issues.

This arrangement is only meant to be temporary, however. As soon as possible, UMAB will assume full control of the Montebello Center. Legislation will be required to make the transfer of responsibility complete.

In addition, the center will serve primarily as a rehabilitation hospital. Patients who are chronically or terminally ill will be placed in other medical institutions that can care for them as openings occur. However, a certain number of beds will always be available to accommodate such patients.

Under the terms of the agreement, 50 of the 250 beds at the Montebello Center will be reserved for trauma patients from MIEMSS. These beds will be intended for patients who no longer need close medical attention for their injuries, but are not able to function independently outside of a hospital setting.

However, the center will not be able to accommodate all of the MIEMSS patients who need intensive rehabilitation. As has been done in the past, overflow patients will be placed in other rehabilitation centers.

The medical services provided at the Montebello Center will continue to be funded through DHMH, but UMAB will have complete control over the allocation of the funds.

In addition to managing patient care activities, UMAB will conduct teaching and research activities at Montebello.

The university will provide any training in rehabilitation and

chronic disease medicine that the center's medical personnel may require. The center will also be used to train health professionals from the UMAB campus. Any rehabilitation research studies that UMAB decides to conduct will have to be approved by DHMH.

For MIEMSS, one of the advantages of UMAB's new relationship with the Montebello Center is that patients will be discharged earlier than is now possible because of the larger number of beds that will be available to MIEMSS patients.

Earlier discharge will also be made possible by the facts that MIEMSS is taking major steps to upgrade its own rehabilitative services and to initiate the rehabilitative process as early as possible in the recovery process.

The rehabilitative process will begin while patients are still receiving acute medical care. The intensity of rehabilitative therapy will increase as the patient gradually recovers.

If patients are discharged sooner, medical costs can be reduced. For example, paraplegic patients spend an average of 85 days in a traditional rehabilitation setting. Once the comprehensive rehabilitation program at MIEMSS becomes fully implemented, that average might be reduced by as much as 25 days.

The comprehensive rehabilitation program at Montebello will encompass respiratory therapy, speech and hearing therapy, psychotherapy, and activity and recreational therapy, as well as physical and occupational therapy.

Patients who need continuing rehabilitative care following discharge from the trauma rehabilitation unit at the Montebello Center will be able to get treatment through the outpatient clinics at MIEMSS or the Montebello Center. Those who need vocational training to secure employment will be referred to the Maryland Rehabilitation Center.

Patients who have difficulty in adjusting psychologically to their disabilities or their former environment will be referred to the Center for Living. The center is a nonmedical facility that helps trauma patients and their families readjust to new roles. It is managed cooperatively by MIEMSS and the Easter Seals Society, Central Maryland Chapter.

The rehabilitation of MIEMSS trauma patients will involve a lifetime of follow-up.

—Dick Grauel



The Maryland congressional delegation listen as members of FUTR stress the need for improved rehabilitation for trauma patients.

Consumer Group Focuses On Better Rehabilitation Care

"Is it ethical to save a life and not apply the needed resources . . . a rehabilitation system that enables that human life to be one worth living?" This is the question spokesman Joseph McCurdy asked when members of Families United for Trauma Rehabilitation (FUTR) testified in Washington recently before Maryland's congressional delegation.

In addition to Joseph and Bonnie McCurdy (whose teenage son was paralyzed in 1980 while surfing in the ocean), the group was represented by Price Baum (left a quadriplegic after a diving accident) and FUTR chairperson Mary Behning (whose husband is the victim of a skiing accident).

Each family spoke highly of the emergency and acute care received in Maryland and of the comprehensive rehabilitation care they sought out of state. The group's goal is to increase awareness of the need for quality rehabilitation services in Maryland.

Most trauma victims require a lengthy period of rehabilitation therapy and follow-up. After treatment at one of Maryland's areawide trauma centers or the Shock Trauma Center, patients with severe head or spinal cord injuries usually are transferred to one of several state or privately operated centers for rehabilitation.

Currently no single agency has responsibility for standards of rehabilitation care in Maryland. The American Spinal Injury Association has just released criteria for all phases of spinal care, but compliance is voluntary. Federal criteria for such care have not yet been defined. Accreditation by the national Commission on Accreditation of Rehabilitation Facilities is not mandatory, and JCAH standards are not specific about the extent of care provided in rehabilitation centers.

FUTR members have been working since November 1980 to remedy this situation. The independent consumer group, which includes recovering trauma patients and families, has established a statewide communications network. FUTR members meet twice a month to share concerns, exchange ideas, and to serve as a support group. They also have launched a vigorous letter-writing campaign to bring their concerns to the attention of providers and consumers alike.

By involving legislators at local, state, and federal levels, FUTR members hope to generate

additional support for coordinated rehabilitation and follow-up programs. FUTR has formed alliances with two local consumer advocacy groups — Baltimore's Disabled in Action, which has been instrumental in improving facilities for the handicapped at Memorial Stadium and on MTA buses; and the Maryland Alliance of Advocates with the Handicapped, an umbrella organization for 30 consumer groups concerned with specific issues.

Through these and other efforts, FUTR hopes not only to have uniform standards adopted for inpatient rehabilitation care but also to have a continuum of care model established in Maryland. As the group reminded Maryland's congressional delegation, there are already 14 federally designated Model Spinal Cord Programs in other states. These ensure continuous care for victims of head and spinal cord injury, from emergency care through acute care, inpatient rehabilitation, home care, vocational training, and often lifetime follow-up. FUTR sees such a program as a logical — and vital — extension of Maryland's commitment to excellence in its pioneering emergency medical services system.

Questioning by Senator Paul Sarbanes and Representatives Parren Mitchell and Barbara Mikulski showed that the group's presentation at least has provoked serious thought. Though the legislators seemed to assume that the group's purpose was to ask for federal money, the FUTR representatives reiterated that they sought a shift in priorities and better use of the state's resources, not federal financial commitments. They pointed out that, although the daily cost of care in federal model spinal cord facilities exceeds that in Maryland's rehabilitation centers, the length of stay is far shorter. In addition, when comprehensive rehabilitation therapy is initiated early, patients are less likely to need long-term inpatient care.

After reviewing the current situation in Maryland and proposals for added facilities, Senator Sarbanes recommended that the group work with Shock Trauma Center administrators on long-range expansion plans that encompass a comprehensive rehabilitation program. In the interim, it is hoped that the recently signed agreement with the Montebello Center will prove to be beneficial to MIEMSS patients (see article on this page).

—Judie Zubin



This logo was designed for the Emergency Health Services (EHS) Program at the University of Maryland Baltimore County by Timothy Cujdik, who is currently enrolled in the program. It was selected by the EHS student body as the best of three designs entered in a competition sponsored by the EHS Association, which organizes various EMS and community service activities.

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Advanced Life Support Update

Periodically, matters concerning the Maryland CRT program are presented to the Board of Medical Examiners for clarification. Through this column, CRTs will be made aware of the Board's decisions in these matters, as well as in cases of alleged protocol violations.

Advanced Life Support

The Board has ruled that CRTs should not discontinue either basic or advanced life support without the consent of a physician who is consulted through the EMS communications system. According to the ruling, the use of *any* advanced life support equipment constitutes the initiation of advanced life support.

In practice, therefore, CRTs should not start advanced life support if the patient is obviously dead. In Maryland, a patient is judged to be obviously dead by the following criteria:

- Injury incompatible with life, for example, decapitation or hemi-corporectomy.
- Rigor mortis with postmortem lividity. Postmortem lividity must be present, since stiffness can be associated with hypothermia. In addition, medical literature tells of cases in which resuscitation after a prolonged period of time resulted in restoration of normal function.
- Decomposition of body organs incompatible with life. This

includes advanced decomposition of the head or chest. It does not include decomposition of the extremities, for example, peripheral gangrene in a diabetic patient.

When the CRT is uncertain whether the patient is dead, according to these criteria, basic and advanced life support should be instituted. By checking a patient's heart rhythm through a "quick-look" use of the paddles, the CRT has initiated advanced life support. He or she is obligated to continue this care until the patient has been delivered to a hospital, or a physician at an EMS consultation center tells the CRT to stop treatment.

The same stipulations apply to basic life support measures, such as CPR. If basic life support has already been initiated when the CRT arrives at the scene, it must be continued by the CRT.

Certification Requirements

CRTs are responsible for making sure they have met the annual CRT certification requirements, as outlined in the CRT Program Standards. They must also report to MIEMSS any changes in their names, addresses, or company affiliations within 30 days of the changes. CRTs who fail to meet these responsibilities will be recommended to the Board of Medical Examiners for decertification.

—Dick Grauel

Dealing with Deaf Patients Subject of EMS Seminar

How can an emergency medical professional determine whether a trauma victim has impaired hearing? How can communication be established with such patients?

These and other important questions relating to the management of trauma patients with a partial or complete hearing loss were answered at a two-day workshop on "Dealing with Hearing Impaired Trauma Victims," held in May at the College Park campus of the University of Maryland.

This workshop was offered to selected EMS instructors and emergency room physicians and nurses because the inability to recognize deaf persons and to communicate with them can lead to misdiagnosis and exacerbation of the patient's medical problems.

Participants were taught specific communication skills to use with patients having different degrees of hearing loss and had an opportunity to practice these skills in role-playing exercises.

The workshop was funded by the National Academy of Gallaudet College and the Lion's Club of Baltimore. It was cosponsored by the emergency health services program at the University of Maryland Baltimore County, the Maryland Fire and Rescue Institute, and the Maryland Institute for Emergency Medical Services Systems.

—Dick Grauel