Maryland EMS NEWS

MARYLAND INSTITUTE FOR EMERGENCY MEDICAL SERVICES SYSTEMS VOL. 8 No. 1 AUG 1981

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Cover:
MIEMSS films a public service announcement on diving accidents. Twenty and 30-second psa's were given to TV stations in an effort to alert people to the dangers of diving into water without checking its depth. (Photo by Jim Brown)

St. Agnes Hospital Opens Chest Pain ER

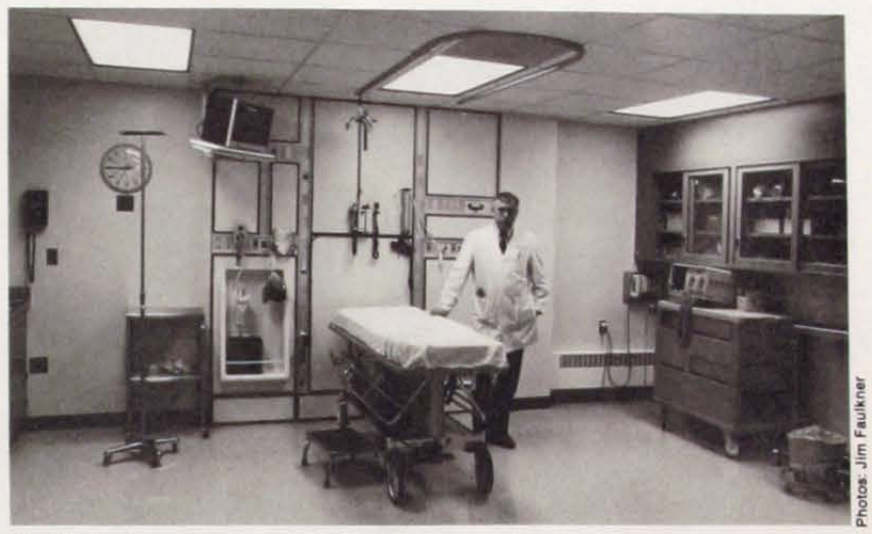
With prompt treatment, most heart attacks are completely reversible events. This is especially true in Maryland, where coordinated emergency coronary care has dramatically improved the prognosis for heart attack victims. Why, then, does death from cardiac arrest remain the nation's number one killer of adults?

According to Raymond Bahr, M.D., Director of Coronary Care at St. Agnes Hospital, the answer, quite simply, is delay on the part of the patient. Only 20 percent of those who have heart attacks are admitted to a hospital within the first four hours, he points out, yet 70 percent of those who die of heart failure succumb within *two* hours of feeling the first chest pains. As a result, two-thirds of the victims of fatal heart attacks die before reaching a hospital.

"The heart attack problem," Dr. Bahr explains, "is a community rather than a hospital problem. In cardiac emergency care the vital link needed to reduce the mortality rate is community awareness. Lack of knowledge about the early warning signs of a heart attack and natural defense mechanisms of denial and procrastination are the real obstacles."

To overcome these obstacles, Dr. Bahr has worked for several years to implement a cardiac care system that bridges the gap between hospital and community. His goals are to educate potential cardiac patients to seek medical attention early and to provide a comprehensive facility for immediate evaluation and treatment.

The need for public education, Dr. Bahr feels, can be addressed most effectively by teaching the early warning signs of heart attack and by preaching the importance of seeking medical attention immediately after experiencing chest pain. Since the first two hours are crucial, every household should have an "executive spouse"—a family member who will not tolerate excuses from someone having chest pains and who calls immediately for an ambulance. Ideally, the executive spouse also should be trained in CPR. But, Dr. Bahr stresses, it is better to bring a potential heart attack victim to the hospital before resuscitation is needed.



Photos: Jim Faulkner

Dr. Bahr in the resuscitation area of the Chest Pain Emergency Room.

Under Dr. Bahr's direction, St. Agnes Hospital has launched an intensive coronary care education campaign in the surrounding community. In cooperation with the American Heart Association, the hospital's coronary care system has produced a video tape that teaches the early warning signs of heart attack and the actions to take, and includes information on the statewide emergency medical services system. The film is available to community groups on request and is shown to all patients and visitors to the hospital.

In conjunction with the Baltimore City Fire Department, St. Agnes Hospital offers CPR training four to five times a year. The hospital also supports the teaching of CPR in public and private high schools. Hospital employees who volunteer to serve on a speakers' bureau teach the early warning signs of heart attack at community club and group meetings. Information about coronary care also is included in periodic advertisements in local newspapers.

If everyone with a chest pain is to seek immediate medical help, hospitals must be prepared to provide quality cardiac care. Realizing this, Dr. Bahr was the impetus behind the creation of a specialized Chest Pain Emergency Room at St. Agnes Hospital. The Chest Pain ER, which opened officially on January 26, 1981, is an extension of the hospital's regular emergency room, but gives priority to suspected cardiac patients. In this way, patients with signs of heart attack avoid red tape and are routed immediately to a center especially equipped to monitor and treat cardiac problems.

The Chest Pain ER includes a cardiac consulting area where nurses and physicians can communicate with incoming ambulances and observe EKG patterns; a large, completely equipped resuscitation area; private observation

(Continued on page 3)

Maryland EMS Week
Oct. 11-18

A full agenda of EMS Week activities is planned, focusing on EMS providers and the role that citizens play in summoning help. Launching the week's activities will be the EMS Olympics on October 10.

See Page 2.

MIEMSS Examines EMT-P Certification

The first graduates of the U.S. Department of Transportation's paramedic training program will not be able to function as paramedics in Maryland until the state's lawmakers give their formal approval to the program.

State law currently recognizes only the training programs for emergency medical technicians (EMTs) and cardiac rescue technicians (CRTs). Both programs are coordinated by MIEMSS, in conjunction with other state agencies.

To provide sanction for the DOT paramedic program, a bill will be introduced in the next session of the Maryland Legislature, and its passage is expected, according to Alasdair Conn, M.D., medical director of field programs for MIEMSS.

The bill would also give the State Board of Medical Examiners the authority to decide how DOT-trained paramedics will be certified. Without a certification mechanism, paramedics would not be allowed to practice in Maryland.

The board has the choice of recognizing DOT certification, which is awarded to trainees who pass the national registration test, or to develop a state certification examination.

(Continued on page 5)

PSA's on Diving Accidents Produced by MIEMSS

Each summer MIEMSS Shock Trauma Center can anticipate an increase in the number of spinal cord injuries due to diving accidents. In a public education effort to prevent such accidents, MIEMSS prepared 20- and 30-second public service announcements based on the following script. These were distributed to six Maryland TV stations and four D.C. stations to be aired throughout the summer.

Man: If you like to go swimming, and most of us in Maryland do, think of me the next time you dive into the water.

Every summer there are people who dive into pools or off boats without checking to see how deep the water is.

Some people end up with a broken hand or arm. And some of us aren't so lucky. I'm a paraplegic and I'll be in this wheel-chair for the rest of my life.

Announcer: When you dive into a pool or into a lake, or from a moored boat, know how deep the water is.

Photos: Jim Faulkner

October 11-18

MARYLAND EMERGENCY MEDICAL SERVICES WEEK

Your Life Is Worth Our Time

October 11–18 will be declared Emergency Medical Services Week 1981 by Governor Harry Hughes.

Focusing on the theme "Your Life Is Worth Our Time," EMS Week 1981 offers an opportunity to generate public knowledge about EMS providers who give life-saving care to the injured in the field and in the emergency departments and specialty centers throughout Maryland. It will also emphasize the vital role of citizens in summoning help and rendering aid during an emergency.

Launching the week's activities will be the EMS Olympics at the Timonium Fairgrounds, October 10. Sponsored by MIEMSS and the Maryland Fire and Rescue Institute, the event begins at 10 a.m.

There is no limit to the number of three-person teams that an ambulance company can enter for the three-part basic life support competition. The event will include such situations as motor vehicle and industrial accidents, and victims will be moulaged to indicate injuries. Teams will be given a prescribed length of time to evaluate, treat, and prepare the patient for transport.

Judges will consist of physicians and EMT instructors. Teams will be evaluated on overall performance, patient assessment, and patient care rendered.

First prize is $1,000; second prize, $750; third prize, $500. Plaques will be presented to the winning teams. Every entrant will receive a certificate of participation.

Other events will be scheduled simultaneously with the skills competition. Tentatively slated are helicopter rescues; sky-diving; high-rise rescues; demonstrations of auto extrication and life-saving techniques; and scuba diving and rescue equipment displays.

Proposed focus of EMS Week:

Oct.	
10	EMS Olympics (*launching EMS Week*)
11, 17, 18	Fairs, parades, community displays
12	EMTs/CRTs
13	Md. State Police Med-Evac
14	Nurses (emergency department and trauma center)
15	Physicians (emergency department and trauma center)
16	Statewide communications

Succeeding days will center on the different professionals who make EMS work: emergency department and trauma center physicians and nurses, CRTs and EMTs, Maryland State Police Med-Evac personnel, and communications personnel. Fairs, parades, and CPR demonstrations will also be part of the week's activities.

MIEMSS regional councils appointed subcommittees to develop and coordinate EMS Week activities for their own geographical areas.

In some cases, each county is developing its own program. For example, in Region V, the EMS Week subcommittee is coordinating a speaker's bureau. Experts from hospitals, trauma centers, ambulance and rescue companies, and health agencies are available to talk to schools and associations on 16 topics on accident prevention and emergency medical care.

Each of the region's five counties is also planning its own activities. These activities range from a parade and a mini-disaster demonstrating extrication, prehospital treatment, and the Med-Evac helicopters in St. Mary's County to an Emergency Department Nursing Day in Montgomery County. Several Region V counties are planning displays and health fairs.

Many counties throughout Maryland will be presenting awards and certificates of appreciation to outstanding EMS providers. A statewide banquet is also planned.

MIEMSS invites EMS directors nationwide to join Maryland in celebrating EMS Week October 11–18.

—Beverly Sopp

Students Major In Emergency Health Services

Twenty-six students (out of 35 applicants) have been accepted as emergency health services (EHS) majors at the University of Maryland Baltimore County (UMBC).

In addition, two more EHS faculty members have been recruited, and the curriculum has been mapped out for the 1981–82 academic year, the first in which the EHS program will be in full swing. The EHS program is offered by MIEMSS in conjunction with UMBC.

The selection process for EHS majors involved formal interviews with Dr. Dorothy Gordon, director of the program, and Jeffrey Mitchell, who is on the EHS faculty.

The interviews served both to evaluate the student's potential for finishing the EHS program and stepping into leadership positions after graduation, and to make sure the students had a realistic notion of what the EHS program would prepare them to do, said Dr. Gordon.

In addition, the students had to write two-page essays to explain why they chose EHS as a major, and how a degree in EHS would help them achieve their career goals.

Nearly half of the first EHS majors are practicing EMTs or CRTs. The class is almost equally divided between men and women (14 to 12, respectively).

Five of the students come from other states: two from New York, and one each from Delaware, Virginia, and Texas. The two students from New York transferred to UMBC to take the prerequisite courses they needed to qualify for the EHS program without any assurance that they could get into the program.

Five of the EHS majors already have bachelor's degrees in other fields. Most of them hold degrees in related fields, such as nursing, and want to move into managerial positions in the EMS field.

One student, however, has made an about-face in career directions. Her bachelor's degree is in history. Unable to find suitable employment, she enrolled at UMBC to get a second bachelor's degree, this time in biology.

As an elective, she took the introductory EHS course, which was the only EHS course offered last year. It is open to all university students. She became so interested in what she was learning, she applied for admission into the EHS program.

The 26 EHS majors will be taught by three faculty members.

Photo: Jim Brown

UMBC students accepted as Emergency Health Services majors pose with (l-r) instructor Jeff Mitchell; MIEMSS Director, R Adams Cowley, M.D.; and EHS Program Director, Dr. Dorothy Gordon.

Joining Mr. Mitchell on the EHS faculty are William Hathaway and Lawrence Schneider. Mr. Hathaway has seven years of experience in the Maryland EMS System. Mr. Schneider comes from the EMS Division of the Oklahoma State Department of Health, where he was director of training and evaluation.

Four courses will be offered for the fall semester.

A course entitled "Introduction to Emergency Health Services" will provide an overview of the operation of EMS systems and their impact on the health care delivery system. In addition, the course will introduce management concepts central to an EMS system, such as triage, communications, 24-hour availability, continuity of care, and risk management. Observation of field activities will be part of the course, which will be taught by Mr. Mitchell.

Mr. Mitchell will also be teaching an elective course, "Emergency Response to Crisis." Specific methods will be taught for handling various emotional crises, including suicide attempts, drug abuse, sexual assault, family disputes, child abuse, and sudden death. Role playing and group discussion will supplement classroom instruction.

"Emergency Health Services Theory and Practice" is the title of the course that will be taught by Mr. Schneider. The 15 basic components of an EMS system will be analyzed. In addition, federal, state, and local authority for the delivery of emergency services will be examined, as will the interfacing of public and private organizations, the relationship between public health and public safety, and the role of management in an EMS system.

Mr. Hathaway will teach the course entitled "Planning Emergency Health Systems." Students will be asked to plan the various segments of an EMS system in a specified location after completing field research.

All three of the required courses will probably be repeated in the spring semester. However, Mr. Mitchell will be teaching a different elective course, called "Stress Management for Emergency Management Personnel."

In addition, a course that is a continuation of Mr. Schneider's course in EHS theory and practice may be offered. The follow-up course, which will be team-taught by Mr. Schneider and Mr. Hathaway, will go into more detail about EMS program development and implementation, management skills, evaluation, manpower training, and resource allocation.

Another new course planned for the spring semester will be "Clinical Practice Concepts." Students will be exposed to both the didactic and laboratory elements of the course required for EMT-A certification in Maryland. The problems related to record-keeping and to the rights of privacy and information will also be discussed.

In their senior year, all students will spend one semester taking a 15-credit EHS practicum. They will be required to take the EMT-A refresher course and will be given supervised, on-site experience in EMS management situations.

Seminars will also be held to help the students integrate their book learning with their field experiences, and to discuss controversial issues concerning certification, training, grantsmanship, and the law.

—Dick Grauel

Chest Pain ER Established

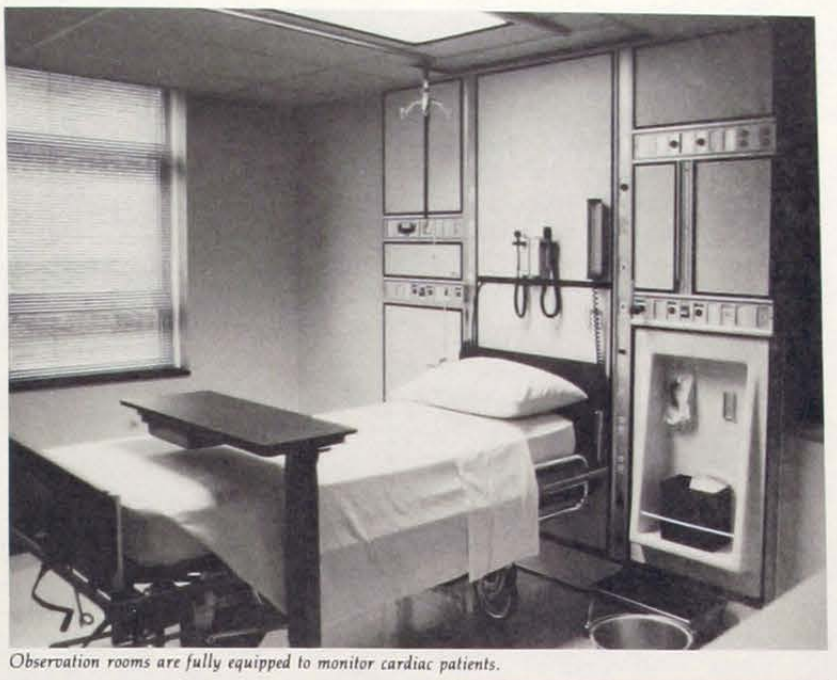
(Continued from page 1)

rooms for monitoring patients; a private elevator direct to the hospital's coronary intensive care area; and a rehabilitation area. The Chest Pain ER is staffed 24 hours a day by personnel specially trained to handle cardiac emergencies.

Follow-up education is an integral part of the comprehensive cardiac care at St. Agnes Hospital. Heart attack patients and their families are invited to attend monthly meetings of the Coronary Care Club, which sponsors lectures on heart disease and its management. A supervised exercise program, which has proven beneficial in preventing coronary artery disease and reconditioning heart attack victims, is available at nearby Catonsville Community College.

Besides instilling community awareness and providing optimal cardiac care, Dr. Bahr believes that positive relations between the hospital and rescue and transport services are essential. A status display board map, made expressly for the paramedic waiting area that adjoins the cardiac resuscitation room, has a colored light for each area hospital and ambulance company. As paramedics deliver patients to the Chest Pain ER, their names are placed on the active roster of EMTs and CRTs at the side of the display board. This familiarizes ER nurses and physicians with individual paramedics and facilitates the exchange of ideas between these two groups of emergency care providers.

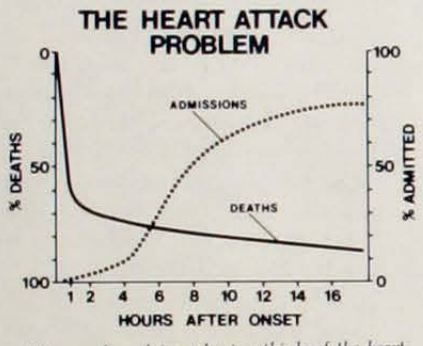
— Lynn Rutkowski and Judie Zubin



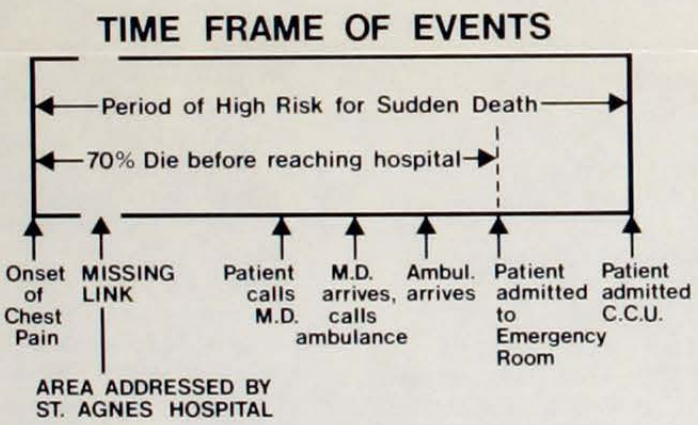
Observation rooms are fully equipped to monitor cardiac patients.

Photos: Jim Faulkner

The cardiac consult area where nurses keep in contact with incoming ambulance calls and monitor patients.



This graph explains why two-thirds of the heart-attack victims die before reaching a hospital.



"Community awareness" is the missing link in decreasing the number of deaths from heart attacks. According to Dr. Bahr, a large segment of the population should be trained in the early warning signs of a heart attack and forewarned of a patient's natural tendency to deny the problem. If enough people are trained, it is likely that one of these would be at the scene of a patient suffering chest pain, and would immediately call into play the Maryland EMS System.

1204 EMS Funds Received

The EMS Division of the Department of Health and Human Resources has awarded 1204 grants to Maryland EMS Regions I and II ($358,169) and Region V ($250,400). The funds will be used to purchase hospital and ambulance equipment, as well as EMS communications equipment, and to cover advanced life support training costs.

In the present system, federal grants are awarded on an individual request basis; however, if Congress votes to put the EMS programs under the block grant system, the federal agency would allot a "block" of money to a particular state, giving that state the responsibility for fund distribution.

ParaScope '81 to Emphasize EMS Crisis Intervention Skills

ParaScope '81 (entitled "Crisis Connection"), a national program on crisis intervention for EMS personnel, will be held at the Marriott Hotel in Bethesda, September 18-20. The program is sponsored by Emergency Medical Services of Montgomery County Fire and Rescue Services.

"Crisis Connection," directed toward paramedics, CRTs, EMTs, emergency care instructors, and supervisors, will emphasize current emergency care issues on the first day. On the second and third days, general sessions will be presented in the morning, followed by afternoon workshops.

This program has been approved by the National Registry of EMTs for eight hours of continuing education credits. A written examination will be offered to those who want to receive credit for the didactic portion of Module 13 (Management of the Emotionally Disturbed) of the National EMT-P curriculum.

Eight workshops will be offered: Alcoholism, Substance Abuse, Sexual Assault, Violence, Special Problems, Suicide, Children in Crisis, and Hidden Side of Communications.

Seven general sessions are offered: Crisis Theory, Interviewing and Assessment, Major Mental Disturbances, Death and Dying, Multi-Casualty Situations, Stress Management, and a Couples Workshop.

The registration deadline for "Crisis Connection" is September 11, and the fee is $80.

For information, schedules, and registration forms, send to ParaScope '81, Montgomery Co. Fire and Rescue Service, 10025 Darnestown Rd., Rockville, MD 20850 or call 279-1836.

Trauma Center Speech Qualifies TSU Student for National Contest

Last summer, Beverly Creamer started boning up on EMS in preparation for her junior year at Towson State University where she belongs to the public speaking team. By fall she had polished a speech on the need for more trauma care systems in the U.S.—and she began winning tournaments.

She qualified for the prestigious national tournament held at Towson State University last April,

Photo: Brian Slack

Nancy Klemic (Physical Therapy) explains Shock Trauma Center's CCRU to Beverly Creamer.

and again delivered her speech. She didn't win the national tournament, but, considering the judges' and spectators' comments, she made many people question how effective their local EMS systems are.

Ms. Creamer traces her interest in EMS to several TV segments and magazine articles on MIEMSS Shock Trauma Center and, perhaps more importantly, to knowing William Husselbaugh, the critically injured, sole survivor of a small plane crash who was treated at the Shock Trauma Center.

Ms. Creamer used a logical, rather than an emotional, approach in developing her 10-minute speech. One of her hardest tasks was condensing and explaining a complex subject that the average citizen does not fully understand.

Included in her speech were a definition of shock and its effects; statistics on accident mortality and morbidity; a description of a trauma care system in terms of efficiency, expertise, and equipment; studies that cited the need for trauma centers; and the status of EMS systems nationwide.

Noting citizen apathy as a significant barrier to further EMS system development, she recommended that interested persons organize into groups and promote EMS funding on state and local levels.

Ms. Creamer was impressed not only with the abundant material available supporting the need for more trauma systems but also with the willingness of EMS and trauma center directors to talk with her. And she evidently made an impression on those who heard her speech. Many people commented on how well researched her speech was and some confessed they felt "deprived" because they lived in an area far from a trauma center. She's hoping they make their voices known to their legislators and government officials.

— Beverly Sopp

Mock Terrorists Stage Symposium Takeover

"Don't think this cannot happen to you," said the Honorable Arthur Kaplan after showing video tapes of emergencies involving emotionally disturbed persons during the MIEMSS symposium on psychosocial factors in emergency medicine.

The municipal court judge from Atlanta had barely finished speaking when shots rang out and six armed terrorists stormed into the meeting hall.

Each of the masked outlaws grabbed a hostage. The leader pulled a screaming woman to the front of the room as he shouted orders to his comrades to seal off the room.

The woman struggled wildly to free herself; finally she did. The leader seized another hostage and yanked her to the speaker's podium. Judge Kaplan backed away.

Just then, one of the male hostages put up a struggle. Seconds later, he was lying on the floor, bleeding to death from a stab wound.

"All right . . . all of you shut up. Nobody's going to get hurt," the leader shouted.

"We're all going for a nice ride," the leader said as his eyes swept the room continuously to make sure his comrades were in control of the situation.

"Go ahead . . . read," the leader ordered his hostage. The hostage tried to speak, but the words stuck in her throat.

"Read!" the leader demanded and tightened his grip on her.

The woman read the message, gasping for breath between phrases. The message stated that the terrorists were fighting with the Irish against the "bloody English" and that they wanted $5 million, two buses with radios, and a plane to fly them to Belfast.

If demands were not met, everyone would be killed.

The tension broke when Judge Kaplan retook the podium and it became apparent that this was only an enactment.

Photo: Andy Trahanis

Mock terrorists hold hostages.

"All right, ladies and gentlemen. . . . Look at this. Share it," said the judge, who is also a practicing EMT.

He then asked a woman in the audience to try to negotiate with the terrorist leader. This was the result:

WOMAN: Why are you doing this?
LEADER: What's it to ya?
WOMAN: I would like to help.
LEADER: Why do you want to help? Why didn't you help before?
WOMAN: I didn't know about it.
LEADER: You don't know s——. You're like everybody else. You don't care because it's not happening here.
WOMAN: It is happening here.
LEADER: No, it's not happening here.
WOMAN: No?
LEADER: It's going to happen here.
WOMAN: (no response)
LEADER: Awl, f—— you.
SOUND: Bang! Bang!

The woman failed to do what Judge Kaplan had said a negotiator *must* do in dealing with an emotionally disturbed person: gain the person's confidence.

"You must sell yourself to the patient," Judge Kaplan said in his talk before the "takeover" occurred. "You must convince the patient that you have his welfare at heart."

This is extremely hard to do, he said, and that is why specially trained negotiators are called on to talk emotionally disturbed persons out of whatever they want to do.

Relatives of the patients and ministers usually are not effective in this role, he noted.

"Don't be phony," he warned. "Really try to understand the patient's problem. Be compassionate, but not weak. Help the patient realize that the problem can be overcome or, at least, ameliorated."

Another mistake that the "negotiator" in the audience made was to talk to the terrorist leader as if he were a rational person.

"Speak to the patient on his level; you will not be able to bring the patient up to your level," the judge had said earlier.

Judge Kaplan prefaced his remarks about dealing with psychiatric emergencies by saying: "I cannot tell anyone how to meet a situation that has not yet occurred." However, he gave general guidelines to follow in such situations.

The most important point to remember, he said, is that "you are dealing with a person who cannot deal with himself. That person hurts as much as anyone else, and is as frightened as you are."

"The negotiator should try to avoid giving into the demands of the patient," Judge Kaplan said. But if that cannot be circumvented, he said to "try to get something for every concession you make."

Threats should be taken seriously because emotionally disturbed patients are likely to carry out their threats, he said.

"Most psychiatric patients are not harmful, but a small percentage of them are extremely dangerous," he said. For that reason, a patient should never be backed into a corner in which his only alternative is to carry out what he has threatened to do, he added.

The same is true for a person who is threatening to commit suicide. Anything that is said or happens to frighten the suicide patient, such as a sudden outburst, may cause him suddenly to end his life, said the judge.

The primary objective in talking to a suicide patient is to get the patient's mind off of the reason he wants to kill himself, he said.

The more that is known about the patient, the easier it becomes to defuse the situation, Judge Kaplan noted.

The negotiator can learn much about the patient simply by listening to the way he talks, he said.

For example, if the patient does not talk coherently, he may be a drug addict or alcoholic. If his speech indicates a lack of composure, attempts at communicating with him may be counterproductive.

If the patient is coherent and wants to talk, the negotiator should ask him for basic information, such as his name, where he lives, and the names of family members, Judge Kaplan said.

The patient may even be willing to say what prompted the incident. If not, this and other information might be obtained by talking with the patient's family, friends, and neighbors, he said.

—*Dick Grasel*

Psychosocial Needs of Patients Addressed at Symposium

Trauma victims usually face special problems when the medical crisis is over. Changes in body image, role changes within their families, fears of dependence, inability to perform former jobs —all contribute partly to what mental health practitioners are calling "post-traumatic stress disorder." Patients may take months or years to put their lives back together. In the meantime, bouts of depression, family problems and separations, and alcohol and drug abuse frequently occur.

With this perspective in mind, the Second National Symposium on Psychosocial Factors in Emergency Medicine focused on the psychosocial needs of trauma victims and how the impact of trauma extends beyond the patients and their families to the health and social work professionals working in emergency medical situations. Sponsored by MIEMSS, the Symposium, held May 14–16, was attended by more than 225 persons, including symposium faculty.

This issue and the following issue of the *Maryland EMS News* will focus on some of the talks presented at this symposium.

Emergency Skills Video Tapes Available on Loan to Physicians

Several video cassette programs for physicians are available from MIEMSS.

"Crisis Intervention: The Psychotic Assaultive Patient" is designed by and for the emergency department physician who must be prepared to deal with the irrational, unpredictable, and sometimes violent behavior of psychotic patients in crisis. The cassette presents methods for verbal control and physical restraint, and discusses patient release and disposition procedures.

"Emergency Management: The First 30 Minutes" is also available for physicians' independent or group study. The videotapes were prepared under the supervision of Stephen E. Goldfinger, M.D., Associate Dean of Continuing Education, Harvard Medical School, and James J. Dineen, M.D., Director of the Emergency Training Course, Massachusetts General Hospital.

Each topic covers the clinical background and techniques needed for diagnosis and stabilization of acute illness and injury, with emphasis on the first 30 minutes of care.

Volume 1 of the video cassettes includes: Central Venous Pressure, Pneumothorax and Hemothorax, Airway Maintenance, Diabetic Ketoacidosis, Emergency Examination of the Eye, Nasogastric Intubation in GI Bleeding, Bacterial Meningitis, Emergency Treatment of Seizures, Abdominal Aortic Aneurysm, Arterial Blood Gases, Dislocations, and Neck Injuries.

Volume 2 of the video cassettes includes: Urinary Retention, Hypertensive Crisis, Acute Renal Failure, Arthrocentesis and Synovial Fluid Analysis, Anaphylactic Shock, Knee and Ankle Injuries, Tachyarrhythmias, Acute Vaginal Bleeding, Emergency Room Treatment of the Eye, Septic Shock, Advanced CPR, and Pulmonary Embolism.

The programs are produced in color on ¾-inch U-matic video cassettes and run 15–25 minutes. Each program contains a self-assessment quiz designed to reinforce the techniques demonstrated.

The video cassettes may be reserved for a 2-week period through the MIEMSS Office of Biomedical Media Resources by contacting either Jim Brown or Dick Regester at (301) 528-3994. The cassettes will be sent and can be returned by insured mail.

Assault Victims Benefit From Early ER Counseling

The physical results of assault are often obvious.

Not so obvious, but perhaps more debilitating, are the psychological and emotional scars that also result from assault.

"The number of assault victims who survive is increasing," psychotraumatologist Barry Richards said recently at the MIEMSS symposium on psychosocial factors in emergency medicine.

Consequently, the need for special help in adjusting to the psychological aftermath of assault is growing, said Mr. Richards, of L.D.S. Hospital in Salt Lake City.

"Psychosocial intervention should begin during resuscitation," said Mr. Richards. "Emergency room protocols should accommodate such intervention."

The first treatment goal of the psychotraumatologist is to establish a therapeutic alliance with the patient at the time of admission. This is accomplished initially through eye contact and touch, he said.

If conscious, the patient should be reassured that he or she is in a safe place and is no longer in danger of being harmed, he continued.

In addition, the psychotraumatologist should speak and act in a manner that gives the patient confidence that he or she is in good hands and does not have to worry about the treatment that is going to be administered, he said.

Mr. Richards recommends that, as soon after admission as possible, the psychotraumatologist should talk to the patient to find out such information as how, when and where the assault took place and encourage the patient to talk about the assailant because this provides an opportunity for him or her to vent personal emotions.

The primary function of the psychotraumatologist is behavior management. The practitioner must help the patient deal with his or her intense feelings of anger, remorse, and personal violation, he emphasized.

Another line of questioning could relate to the patient's plans for the future in terms of employment and family relationships.

The psychotraumatologist should encourage the patient to resume interpersonal relations with family members and friends as soon as possible, said Mr. Richards.

He added that the patient should be helped to adopt realistic goals for rehabilitation and to adapt to any chronic physical limitations.

One of the biggest hurdles for any assault patient to overcome is the posttraumatic dysfunction that usually occurs six to ten weeks following discharge, he said.

Assault patients are usually in good spirits at the time of discharge because they are elated to be getting out of the hospital. However, the problems involved in readjusting to normal life outside of the controlled environment of the hospital can be extremely stressful and, therefore, can cause severe depression, he explained.

Psychotraumatologists should do everything possible to help the assault patient regain his or her feelings of competence and self worth, he said.

Patient followup should be initiated by the professional rather than the patient, he suggested.

—*Dick Grasel*

Aviation Trauma Technicians Graduate

Photo: Jim Brown

(Left) *Maryland State Police TFC Gilbert Grey receives ATT certificate and congratulations from State Comptroller, Louis Goldstein.*

(Below) *Members of the ATT "graduating" class pose with R. Adams Cowley, M.D. (MIEMSS Director), State Comptroller, Louis Goldstein, and State Police representatives. The ATT course, an advanced trauma-orientated program, consists of 120 hours of training, including 8 hours of clinical observation in MIEMSS Shock Trauma Admitting Area. The course increases the medics' ability to recognize and manage acute problems in the trauma patient prior to and during transport.*

Photo: Jim Brown

EMT-P Certification Discussed

(Continued from page 1)

What is most likely to happen, said Dr. Conn, is that two examinations will be required. Following training, students will probably be required to take the state examination after they have passed the DOT certification test.

DOT certification would serve a useful purpose, Dr. Conn said. It would be recognized nationwide, and therefore would give paramedics the right to practice anywhere in the United States.

The DOT training program is good in terms of medical content, but it does not cover important matters that relate specifically to the Maryland EMS system, such as legal jurisdictions, the Med-Evac transport system, and the emergency medical communications system, he said.

A separate state certification examination is needed to make sure paramedics know how to function specifically in the Maryland EMS system, he added.

If both examinations become required for certification, a student who passes the DOT examination but not the state test would not be allowed to practice as a paramedic in Maryland.

In addition, a DOT-certified paramedic from another state would have to pass the Maryland certification exam for paramedics before they could practice in this state.

This requirement will necessitate the creation of a course, covering the material on the state certification exam, for out-of-state paramedics who want to become licensed to practice in Maryland.

Although the DOT paramedic training program is more extensive than are the MIEMSS training programs for EMTs and CRTs, it will not replace them, Dr. Conn claimed.

"We have made a commitment to the EMT and CRT programs," he said, adding that MIEMSS has no intention of diverting funds from those two programs into a paramedic program.

Furthermore, the difference between what a paramedic can do and what a CRT is permitted to do is not vast, he continued.

And in this state, victims of the special kinds of trauma that paramedics are capable of treating are managed, instead, by transporting them rapidly in Med-Evac helicopters to a regional trauma center, where advanced trauma care is available, Dr. Conn pointed out.

In addition, the medical observers who ride the Med-Evac helicopters receive advanced-life-support training that is not included in the CRT and EMT programs, he said.

However, MIEMSS wholeheartedly supports the DOT paramedic training program and applauds the EMTs and CRTs in Maryland who wish to expand their capabilities as field personnel, said Dr. Conn.

The extra training can only improve the quality of care provided by the Maryland EMS system, he said.

—*Dick Grasel*

AACC Schedules Paramedic Training

A paramedic training program, developed by the U.S. Department of Transportation (DOT), will be offered for the first time this fall at the Anne Arundel Community College.

Fifty-nine CRTs in Anne Arundel County have already gone through a pilot DOT paramedic program at the college, and will complete their training this month.

The program meets all DOT requirements for training paramedics, according to Valerie Deverse, the EMT-P coordinator at Anne Arundel Community College.

It involves 517 hours of classroom and clinical training. In comparison, a minimum of 84 hours of instruction are required for EMT training and a minimum of 160 hours of instruction beyond the EMT level is required for CRT training.

The paramedic program covers all of the topics taught in the EMT and CRT programs, but provides a greater depth of training than do the other two programs, said Ms. Deverse.

In addition, paramedics will be trained to perform certain procedures that EMTs and CRTs are not allowed to do, such as endotracheal intubation, she said.

The program will also be tailored to the geography of Anne Arundel County. For example, it will include a module on water accidents, since the county borders the Chesapeake Bay.

As part of their field training, student paramedics will spend a day at MIEMSS observing the activity in the operating rooms and admitting area.

—*Dick Grasel*

Ambulance Runsheets Revised, Field-Tested

Ambulance companies from Anne Arundel, Baltimore, Garrett, and Montgomery counties, are field-testing newly revised ambulance runsheets this month.

With the revised runsheet, more pertinent information on pre-hospital care can be compiled. In addition, ambulance personnel will automatically receive routine feedback on information inputed.

The top sheet of the four-page form will be read by an optical scanning machine. The information can then be converted to a computer tape and finally to monthly reports, by county, on an ambulance-specific level.

The development of the revised form began last February, with research of existing pre-hospital care forms and information-gathering systems nationwide. Input was also solicited and received from regional coordinators, regional councils, ambulance medical advisory committees, EMS division chiefs, physicians, hospitals, EMTs, and paid and volunteer company personnel statewide.

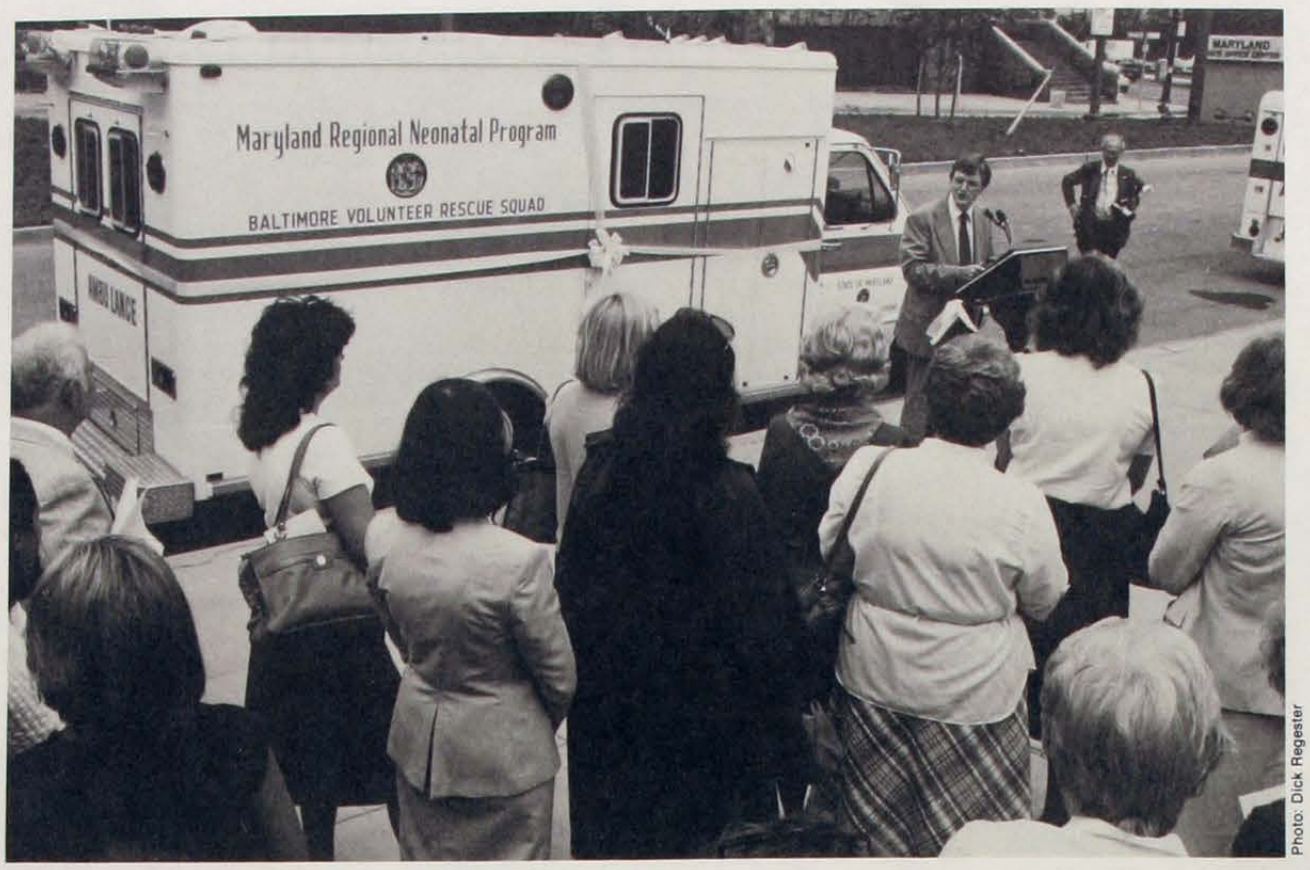


Photo: Dick Regester

New Neonatal Ambulance Dedicated

Charles Buck, Jr., Sc.D., Secretary of the Maryland Department of Health and Mental Hygiene, dedicates the new Maryland Regional Neonatal Program ambulance. Designed and equipped to transport infants at risk, the ambulance can accommodate three infants and 2 nurses. Currently, EMTs from the Baltimore Volunteer Rescue Squad respond to a neonatal nurse's call and transport her and the isolette to the requesting hospital. There the nurse stabilizes the sick newborn and accompanies the infant in the new ambulance to the receiving neonatal center.

Emergency Snakebite Treatment Outlined

Two types of poisonous snakes inhabit Maryland, the copperhead and the timber rattlesnake. Although snakebites do not seem to be a serious problem in Maryland in terms of numbers (only 78 snakebite-related calls were recorded by the Poison Information Center in 1980), they should be taken seriously in terms of treatment.

Snake venom acts immediately on the nervous system and on body tissue; by destroying protein on contact, it breaks down body tissue, causing it to rot away. Antivenin can prevent death and can counteract some of the venom's effects with a "diluting" action, but it cannot prevent damage or loss of a limb, nor can it restore tissue that has been damaged.

According to standard EMT operating procedures, treatment in the field for snakebite, regardless of type or severity, is the same:

1. Assume it is a serious bite which will produce a life-threatening condition;

2. Apply a constricting band above the wound site;

3. Briefly apply ice directly to the wound to relieve pain, if necessary;

4. Keep patient warm and treat for shock;

5. DO NOT cut, use suction, cool, or freeze extremities;

6. Transport patient to a hospital as quickly as possible;

7. If possible without time delay, identify the snake or bring the snake's body to the hospital for identification.

At the hospital, a physician will determine the type and severity of snakebite and will decide what treatment needs to be implemented; often a physician's course is one of waiting and observation for symptoms. Unfortunately, symptoms do not always appear immediately, so that the poison may already have been active for some time before antivenin is administered.

To aid doctors in identifying, evaluating, and treating snakebites, Dr. Harry Froelich, pharmacologist at the Biomedical Laboratory at the Aberdeen Proving Grounds and a lecturer on snakebites in the MIEMSS nursing workshop on summer emergencies has established the following checklist:

1. Identify the snake by noting the patient's symptoms or by calling the Poison Information Center in Baltimore to avoid giving unnecessary treatment for a non-venemous bite.

2. Evaluate the seriousness of bite:

Grade O — erythema surrounding fang punctures, but no other symptoms (25–30 percent of bites from venemous snakes are "dry" bites — that is, no venom is injected.

Grade 1 — 5 to 6 inches of edema, pain, slight discoloration, no systemic effects. (This is the most common grade for copperhead bites.)

Grade 1½ — 6 to 12 inches of edema, pain, and ecchymosis. (This is the gray area between grades 1 and 2 when you should start to consider antivenin.)

Grade 2 — 10 to 15 inches of edema, ecchymosis, petechiae, nausea, vomiting, oozing from fang punctures. (The key is the onset of systemic envenomation. Antivenin is a MUST; do not waste time calculating amount to be given; if the patient is not antivenin-sensitive, be aggressive and continue antivenin until symptoms begin to decrease.)

Grade 3 — similar to grade 2 with symptoms appearing rapidly, within one hour. (Antivenin must be started as soon as possible; this is a rare degree for a copperhead bite but common for a rattlesnake bite.)

Grade 4 — severe envenomation; rapid edema progressing to ipsilateral trunk, bleb formation, weakness, vertigo, vomiting, hematemesis, facial tingling, fasciculations, cramping, yellow vision, blindness, convulsions, and shock. (This is rare in Maryland; it calls for the most aggressive antivenin therapy; have 30 to 50 vials on hand.)

3. Determine treatment:

Fasciotomies — These are rarely necessary in Maryland because no venom will be retrieved from tissues 30 minutes post-bite and should be considered only in cases of high-grade envenomations (rattlesnake) or if edema is complicating distal circulation.

Antivenin — Administer IV only; serum sickness is manageable — venom sickness is not! Reserve antivenin for serious (grade 2) envenomations.

Steroids — Reserve steroids to treat serum sickness, not venom sickness; they may have a tendency to interfere with antibody-antigen responses.

Antihistamines — Antihistamines tend to increase venom activity by adding to phospholipase burden.

Antibiotics — Start broad spectrum antibiotic when patient is under control.

Antitetanas — Use for any snakebite.

Blood work — Obtain blood type cross-match, and general work-up upon admittance even if a transfusion is not necessary since venom action may affect these results at a later stage.

Sedation — Use meperidine (Demerol) to control pain.

DO NOT USE CRYOTHERAPY for snakebites.

Vital signs — Take vital signs and measure edema progression at a specified point every 15 minutes during the critical period.

—*Elaine Rice*

MFRI Announces New Coordinator For EMS Program

Corporal Robert Schappert, of the Maryland State Police Training Academy, replaced Stephen Carter this month as the Emergency Care Division Coordinator of the Maryland Fire and Rescue Institute (MFRI).

With MFRI since 1977, Mr. Carter is now the Emergency Services Director for the Indian Development District of Arizona. He is working with 12 Indian tribes to set up a prototype system of emergency services training that will be available to tribes nationally. He is also working on programs for government agencies and industry.

Corp. Schappert, as the new coordinator of MFRI's emergency care division, is responsible for managing the division and its emergency systems training programs on a statewide level. He plans to rely heavily on the input of field personnel — that is, "what issues they feel are important, what they think the problem areas are, and what their ideas for solutions are." He stresses that the field personnel are an integral, working, contributing part of the training programs.

With the State Police for 10 years, Corp. Schappert was assigned first to field operations, then to the aviation division as a medical observer and later as a medical training officer responsible for formulating medical protocols for Med-Evac personnel. At the State Police Training Academy since 1978, he was responsible for all EMS training, including first-responder, EMT, and Med-Evac programs.

—*Elaine Rice*

PGGHMC Sponsors Trauma Day in Oct.

The Traumatology Service of Prince George's General Hospital and Medical Center will hold a Trauma Day on October 31, from 8:30 a.m. to 2:30 p.m.

Focusing on the theme "Time Is the Essence of Care," the program features discussions on hyperbaric oxygenation, pediatric trauma, surgical resuscitation, burn patients, head injury patients, neonatal transports, and "swoop and scoop." The luncheon speaker is David Boyd, M.D.C.M., talking on perspectives on trauma care for the 80s.

The $5 registration fee includes materials, refreshments, lunch, and parking. CME and CEU credits are available. For further information and registration forms, call PGGHMC at 341-6470.

Maryland EMS News

Published by the
Maryland Institute
for Emergency Medical
Services Systems

22 S. Greene Street
Baltimore, Maryland 21201

Director: R Adams Cowley, M.D.

Editor: Beverly Sopp, 528-3248

Designer: Jim Faulkner

Center for Living Aids Post-Rehab Patients

About 18 months ago, Ralph Behning's life changed drastically. Skiing at Camelback in the Poconos during a blizzard, Mr. Behning became snow blind, missed a turn in the trail, fell out of control, and crashed into a tree. Head and neck injuries left him partially paralyzed, unable to walk, and subject to memory lapses. Discharged last February from Maryland Rehabilitation Center, he is back at home but finds that he cannot resume his former life. A commercial artist prior to his accident, he is now unable to close his fists; however, he is slowly learning to draw by means of a special device attached to his arm.

Jim Sexton was involved in an industrial accident, falling 100 feet in a loader in the quarry where he worked. Although he is back at work, he finds that he and his wife and children are still feeling some after-effects resulting from his injuries received in the accident 18 months ago.

Five years ago, Jane Cook's son was injured in a head-on collision at age 19. While in a coma for 84 days, he spent 56 days in the Shock Trauma Center and an additional 67 days in the University of Md. Hospital. Mrs. Cook takes care of her son, who has some brain damage and is partially paralyzed, and her life has changed drastically since the accident.

The Center for Living, located in Brooklyn, offers counseling to the post-rehab patient.

Before March 1981, there was no place in Maryland for these people or other multiply-injured patients or their families to turn for ongoing psychosocial support, educational retraining, or social needs after the rehabilitation stage. A community-based program, the Center for Living (CFL), a cooperative venture between MIEMSS and the Easter Seals Society, Central Maryland Chapter, hopes to fill that gap. Located in Brooklyn, the CFL is a nonmedical, comprehensive "bridge" facility to help former trauma victims and their families to readjust to their new roles. By facilitating their reentry into society, the CFL hopes to prevent the need for institutionalizing these trauma patients.

Marge Epperson-SeBour, Director of Family Services at MIEMSS, is the Program Director for the CFL. Fred Ruof, the Executive Director of the Easter Seals' Central Maryland Chapter, is the CFL Fiscal Director. Others currently on staff include: Elaine Rifkin, A.C.S.W., Director of Psychosocial Services; Elaine Karp, Ph.D.; Robert Anderson, M.S.; and Jeff Mitchell, M.S.

According to Ms. Epperson-SeBour, interviews with former MIEMSS patients and their families in the Trauma Recovery Group (a self-help group of former trauma patients) revealed that multiply-injured patients —for example, amputees, quadriplegics, paraplegics, patients with burns or with minimal brain or residual limb dysfunction—often have trouble making a smooth transition into the mainstream of society.

Meeting on Thursday evenings, the CFL currently offers family, individual, and couple therapy to help trauma victims sort out their feelings about their accidents and their effects. In September, the CFL will expand counseling sessions to two evenings and will offer group and sexual readjustment counseling, as well as didactic sessions. Psychometric testing and speech therapy are also currently available.

Although a few socials have already been held, the CFL plans to host competitive, team, and wheelchair sports; family and community days; picnics, parties, and dances. These will help trauma victims "test" their new body image and social acceptability, as well as develop social skills. Daily living skills—for example, personal hygiene, hair and facial care, and dress modification—will be taught.

Educational programs to be offered in the future include speech retraining, memory retention skills, debate team training, high-school equivalency programs, and aptitude testing. Job reentry skills, resume writing, interview skills, and CFL-affiliated cottage industries using computer data processing are being discussed for the job development phase. In the past, many vocational rehabilitation programs have focused primarily on "arts and crafts" work. The CFL hopes to expand employment alternatives for its clients by installing computer terminals in their homes so that data processing jobs in accounting, marketing analysis, and home sales can be executed for profit by the homebound.

It is hoped that, in the future, residential accommodations for persons needing a break from home or independent group living situations can also be offered. Transportation services provided by the CFL are also planned. In addition, preliminary work is underway for a rehabilitation resource library, the first in Maryland.

Currently seven families involving 12 individuals are participating in the CFL. Most were referred to the CFL through the Trauma Recovery Group or Family Services staff. (There is currently a waiting list of clients.)

Although the CFL has been open for only a few months, some families, according to Ms. Rifkin, have said that "they feel optimism for the first time that they might make it as a family."

Further information about the CFL can be obtained by calling 355-8989.

—*Beverly Sopp*

Photos: Jim Faulkner

Jim and Darlene Sexton undergo couple therapy with Elaine Rifkin. Mr. Sexton was critically injured in an industrial accident.

Ralph Behning discusses problems he faces as a result of a skiing accident with psychologist Robert Anderson.

Center for Living staff (l-r) Robert Anderson, Elaine Rifkin, and Elaine Karp.

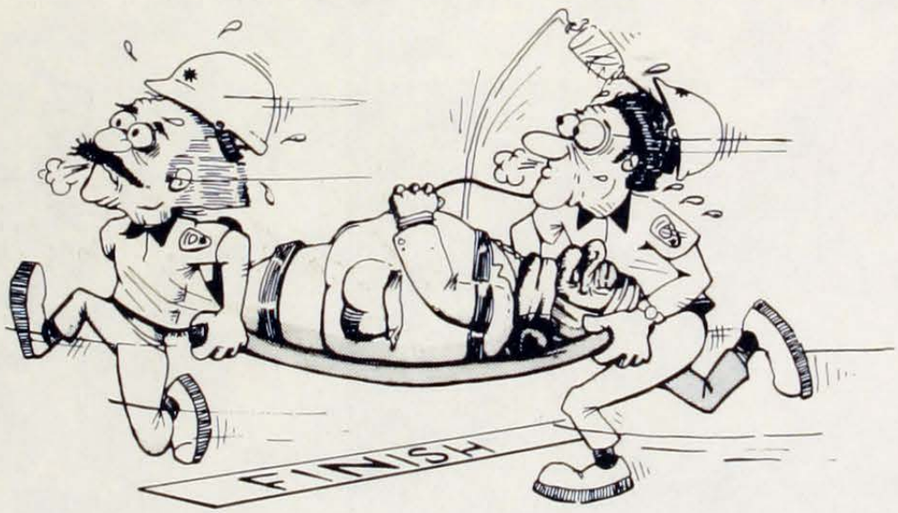
Jane Cook, whose son was critically injured in an accident five years ago, receives counseling from Elaine Karp.

Maryland EMS News
Maryland Institute for Emergency Medical Services Systems
University of Maryland at Baltimore
22 S. Greene Street, Baltimore, Maryland 21201

Address Correction Requested
7215 Rolling Mill Rd./Baltimore, Md. 21224

Emergency Medical Services Olympics

Saturday, October 10
10 A.M.—4 P.M.
Timonium Fairgrounds



Emergency Medical Skills Competition

Helicopter Rescues
High-Rise Rescues
Demonstration of Life-Saving Techniques
Scuba Diving
Sky Divers
Auto Extrication and Rescues