

# CPR

## IN HIGH SCHOOLS

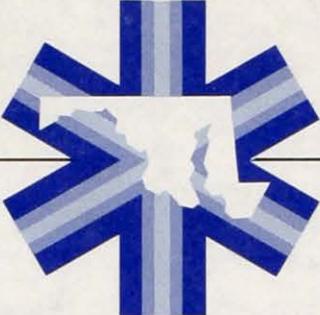
Eighteen Maryland school systems (out of a total of 24) are currently setting up plans to include training in cardio-pulmonary resuscitation (CPR) in the high-school curriculums. The CPR program resulted from the cooperative efforts of the Division of Emergency Medical Services; the American Heart Association, Maryland Affiliate; Heart Association chapters and divisions; and the regional school systems. Introduced into the curriculums of many schools last September, the program is now at various levels of implementation.

Through federal funds totaling \$57,000, the DEMS provides training equipment and materials (Resusci-Anne and Resusci-Baby manikins, instructor's manuals, workbook sets, films, slide/tape sets, and CPR flyers and cards). The Heart Association forms CPR training workshops for high-school teachers. School systems cooperate by providing educational facilities for the training; many also authorize work-release time for teacher-training in CPR. Schools use their own discretion in introducing CPR into either their ninth- or tenth-grade curriculums.

Training large numbers of high-school students in CPR moves DEMS and the Heart Association significantly closer to their goal of having a person trained in CPR in every family. Michaeline Silverstein, Medical and Community Program Director of the American Heart Association, Central Maryland Chapter, notes that the implications of citizen-CPR involvement are staggering. "No matter how great the EMS system is, how magnificent the ambulances are, the fact is someone can be biologically dead in four to six minutes. Having every citizen know CPR is the final link



*Cheryl Cheatham and Joe Walters, Aberdeen High School students, practice two-rescuer CPR. (Photo: Harford County Public Schools)*



**EMS  
NEWS**

MAR. 1977 VOL. 4 NO. 3

STATE OF MARYLAND - EMERGENCY MEDICAL SERVICES

in making our EMS system complete."

### CLOSE-UP OF CPR PROGRAM IN HARFORD COUNTY

Ninth-graders in Harford County Public Schools are learning a different type of ABC's this year--ABC's (Airway, Breathing, and Circulation) that are part of the cardio-pulmonary resuscitation (CPR) training now included in their health education course. Like their counterparts in many other school systems throughout the State, they are discovering CPR is as functional and relevant as reading and writing.

This relevancy, together with the "enthusiasm of teachers, in-

novative teaching methodology, appropriate equipment and materials, and great support from principals and parents," perhaps relate to the fact that approximately 90 percent of the Harford County students receive CPR cards. Helen Stemler, Supervisor of Health Education in the Harford County Public Schools, cites the percentage rate and probable reasons for it just after reminding one that the teachers have "extraordinary high standards."

The Harford County Public Schools' commitment to CPR instruction is emphasized by their making it part of the local, ninth-grade, half-credit, health education requirement for graduation. This year approximately 2766 students

*(continued on p. 2)*

(continued from p. 1)

from six Harford County high schools will have taken their health education course that includes approximately 8 to 10 one-hour lessons in CPR (more than the basic 3½ hour CPR course recommended for laymen).

This "enriched" CPR course and Harford County Public Schools' participation in the CPR program, are due largely to the leadership of Mrs. Stemler. Last August she responded to the Division of Emergency Medical Services and American Heart Association's proposal to include CPR in the curriculum by presenting it to the General Curriculum Committee (it was unanimously approved) and, in cooperation with the American Heart Association, Central Maryland Chapter, set up a one-day training session in CPR for 17 instructors chosen by the principals of the six participating schools.

In formulating the CPR program and teaching strategies with these instructors, Mrs. Stemler emphasized that CPR should be taught in the context of the first-aid unit or as part of the unit on chronic diseases, prevention, and control, and should stress attitudes as well as knowledge and skills.

In the actual CPR program, following several days of attitude development and theory presentation, students participate at learning stations to receive instruction in witnessed arrest, infant resuscitation, one- and two-rescuer CPR, and problems of airway obstruction in both conscious and unconscious victims. They are tested individually on their skills at each learning station when they feel they can competently demonstrate the proper techniques. A written test is also given to each student after a review of the material. The CPR "chapter" concludes with a discussion of the entire EMS system, the role of EMS in Harford County, local volunteer rescue services, community involvement, and careers in emergency medicine and other

health occupations. Games and crossword puzzles, as well as audio-visual materials, lectures, and discussions, are often utilized in teaching. In fact, three creative teaching games to sharpen decision-making skills were developed by Lin Van Name and Tom Waite, team-teachers of health and physical education at Aberdeen High School. (These games will be "refined" this summer and made available to other schools next fall.) Homework



*Denise Bell, Joppatowne Jr.-Sr. High School student, gets ready to practice CPR on Resusci-Baby. (Photos: Joppatowne Jr.-Sr. High School Photo Club)*

assignments frequently involve the parents—for example, explaining the Heimlich Maneuver or finding a parent's pulse.

In setting up learning stations, teachers often utilize volunteer, trained, resource personnel (often parents of the students who are nurses trained in CPR) to help students with specific skills. An example of such a cooperative team effort existed at Havre de Grace Sr. High School when Cheryl L. Keck, an EMT with the Darlington Volunteer Fire Company and a school attendance clerk, shared first-hand

CPR knowledge and experience with students.

The individual, extra attention from both teachers and volunteers makes it possible for CPR learning to be personalized for special students, such as foreign-speaking and special education pupils. Mrs. Stemler recalls with pride a Spanish-speaking ninth-grader who experienced severe communication problems last semester at Joppatowne Jr.-Sr. High School after



*Instructors Barbara Day and Tom Stephens observe CPR techniques of Eddy Rugel and Don Korenczuk, students at Joppatowne Jr.-Sr. High School.*

arriving from South America. After the Spanish teacher worked individually with him to explain the body's systems and discussed the CPR program with his father who translated the entire CPR booklet into Spanish the same night, the student not only performed his skills well the next day but surpassed his peers and experienced their admiration for the first time. This semester he is working as a student assistant in demonstrating these skills to other classes.

CPR "consciousness-raising" has spread beyond Harford Coun-

ty's ninth-grade health education classes. Parents are requesting CPR courses through their PTA's and various clubs. Non-ninth-grade students are requesting courses; for example, Bel Air High School's student government is hoping to sponsor Saturday morning CPR classes. School personnel are also interested. With the urging of their principal, Edgewood High School's entire faculty received CPR instruction. Plans are also being made to train coaches, cafeteria managers, nurses, administrators, and supervisory personnel in CPR.

This instruction has already been dramatically utilized. A ninth-grade student at Bel Air High School who had taken CPR and learned the Heimlich Maneuver used his skills to save a classmate who started choking during a language class's pinata festivities. A health technician also employed the Heimlich Maneuver to save the principal of Hillsdale Elementary School when he started choking.

Mrs. Stemler observes that in the Harford County Public Schools "no one really fails CPR," for even if they do not receive CPR cards, students have still progressed in terms of attitudes, knowledge, and basic skills. And an experienced teacher says: "CPR is the most important thing I've ever taught." There are probably very few people who would disagree with him.

## STATE OF MARYLAND DIVISION OF EMERGENCY MEDICAL SERVICES

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Since the Maryland Cardiac Rescue Technician Act of 1975, the CRT program has been rapidly expanding. There are currently more than 630 certified CRT's within Maryland, and the goal of DEMS is to certify approximately 1500 during the next two-year period. (CRT's provide advanced life-support, including ECG monitoring, defibrillation, and the administration of intravenous solutions and drugs under a physician's direction.)

Following the initial 1-year evaluation of the total CRT program by physician and lay CRT instructors, the program was significantly revised to tighten training standards and improve training procedures to increase the quality of CRT care in the field. The revised CRT program standards, developed by DEMS in collaboration with the Board of Medical Examiners, reflect DEMS' effort to maintain standardized training programs, skills maintenance, and certification methods throughout the State.

Changes in the CRT program are effective in four areas: training, testing, recertification, and decertification. The *main changes* are summarized as follows:

**TRAINING.** To be certified as a CRT, an EMT must complete a 140-hour-minimum CRT course. Experience may no longer be substituted for any part of a CRT course. There are no waivers for any CRT candidates—including those with medical background, such as nurses and physician assistants.

All prospective CRT-Instructors, after passing their CRT-Instructor course, must complete a CRT-teaching internship and be satisfactorily evaluated by a review-board of CRT instructors and a designated physician in order to receive certification.

CRT course content will include new procedures, such as use of the Esophageal Obturator Airway. There will also be greater emphasis on CPR.

**TESTING.** If a CRT candidate fails the written exam, he or she must repeat the didactic portion of the course. A candidate who fails the second time must spend an additional year in active ambulance service while main-

taining EMT status and retake the didactic session of the course. After a third failure, a candidate is permanently excluded from the CRT program.

**RECERTIFICATION.** CRT's must now be recertified annually, not semi-annually. The number of technical performance procedures to be satisfactorily completed prior to this recertification has accordingly been doubled. During this period, CRT's must also pass a mandatory CRT refresher course to be conducted at ambulance companies by CRT-Instructors and to include simulated clinical situations in which CRT's will demonstrate their skills.

**DECERTIFICATION.** Since reciprocity agreements do not presently exist with other states, CRT's may practice their CRT skills only in Maryland or be decertified. CRT's may also be decertified for unprofessional conduct and for failing to fulfill recertification performance procedures.

A new policy has also been recently adopted regarding the utilization of CRT's in rural and sparsely populated areas where ambulance and rescue companies usually consist of volunteer personnel. Under the double-dispatch policy, CRT's compose a "roving" unit that covers a multi-district area. This roving unit and the closest ambulance company (a company without CRT capability) respond to all serious emergencies to assure advanced life-support. In this way, additional manpower frequently needed for cardiac arrest situations is also guaranteed. The double-dispatch policy has been in effect in parts of Anne Arundel County for the past nine months and is also being planned for Charles and Frederick counties.

Certified CRT's are currently practicing in Regions III, IV, and V, and training programs are underway for Regions I and II. Further information on CRT training programs and guidelines can be obtained from DEMS regional coordinators.



Emergency Medical Technicians (EMT's) have to deal not only with such injuries as severe bleeding, poisonings, and cardiac arrests in emergencies, but also with the "crisis" reaction of the victim or the victim's family and friends. "Crisis" means that persons need outside help in reconstructing their defense systems so they can cope with the reality of the situation.

Crisis often results from one being thrown into a stressful situation of sudden illness or injury; it can affect one's usual ability to function adequately, frequently decreasing one's capacity to make appropriate decisions. This can result in life-threatening injuries; for example, many people are often injured or killed while wandering around fire or accident scenes in a state of bewilderment and emotional shock.

The state of emotional disequilibrium immediately following the crisis event is known as the high-anxiety phase of crisis. It is characterized not only by high anxiety but by periods of confusion, time and space disorientation, reduced ability to discriminate the dangerous from the trivial (an example would be a woman returning

to a burning house to recover some trivial household item), and disorientation of visual-motor coordination.

An EMT should keep in mind several points about crisis victims.

1. Most people experiencing a crisis need immediate attention.

2. In cases of disruptive behavior, restraints should be used as a last resort. (They should be used as sparingly as tourniquets since, like tourniquets, they usually cause some damage—in this case, emotional damage.)

3. Do not rush a person undergoing crisis. Remain calm and think ahead.

4. Avoid arguing with a person undergoing crisis. Persons under severe stress are not usually thinking rationally.

5. A medical assessment of the patient's condition should be brief and accurate.

6. To ensure the patient's safety, remove the patient from disturbing persons or things.

7. To help control the stressful situation, utilize family members or friends who have positive influence on the patient.

8. Be aware of your own limitations and intervene only to

the extent you feel competent. If you feel you have reached your limits, seek additional help or consultation.

The first step of crisis intervention is the EMT calmly taking control of the situation and removing or protecting the victim and the victim's family from the stressful situation.

After the EMT has made a medical assessment and established adequate controls, he or she should begin data-gathering—that is, a brief but accurate history of the situation. Actively involving the family in the data-gathering process also actively involves them in the helping process and enables them to keep a fairly balanced view of the situation.

Whenever time and personnel allow, the EMT should allow the victim and the victim's family to ventilate their feelings. This step in crisis intervention requires an unrushed period of careful listening by the EMT.

Before effectively completing the transfer of the patient, the EMT should tell family members the medical facility where the patient will be transported. It is important for the EMT to reassure family members that the patient is being well cared for and that they should take time to calm themselves before rushing to the hospital. It is also helpful to suggest that family members consider riding to the hospital with friends or family who are not emotionally involved in the situation.

EMT's should not underestimate the impact they have on victims of crisis. They do not have to be trained to the level of practicing psychologists to deal effectively with most crisis situations. Their comments and actions can contribute to the overall ability of crisis victims to cope with stressful situations and facilitate those victims' return to their normal state of functioning.



## RESUSCITATORS RECALLED

Robertshaw Controls Company is attempting to locate approximately 900 Model 4201 "demand type" resuscitators manufactured in 1972 that may fail if damaged or improperly re-assembled.

Damage to the valve could cause failure of a rubber diaphragm in the pressure regulating mechanism which could result in a dangerously excessive oxygen supply pressure being administered to a patient.

Owners of Robertshaw Model 4201 Demand Valve Resuscitator, serial numbers 0001 through 1800, should remove those units from service and contact Robertshaw Controls Company at 714-535-8151 for instructions regarding their inspection and/or replacement.

Units with serial numbers above 1800 are not involved, but should be tested periodically as recommended in the manufacturer's operating instructions.

## EMT RECERTIFICATION

The certification of approximately 1700 EMT's will expire by June 30, 1977. If you received your certification at least three years ago, yours will be one of them.

If you want to renew your certification, recertification courses are being offered throughout the State. These courses consist of seven 3-hour sessions; you review EMT material previously learned and have your skills checked by the instructor. There is no practical skills test.

During the period of July - December 1976, 436 EMT's were recertified; there were 926 recertifications from July 1975 through June 1976.

For information on recertification courses, contact Joe Rood at the Maryland Fire and Rescue Institute (University of Maryland, College Park), 454-5966.



*Neonate transport via State Police helicopter to University of Maryland Hospital's neonate center.*

## TROOPER-MEDICS UPDATE NEONATE-TRANSFER SKILLS

Emergency care of the sick infant differs significantly from the care given adults due to the small margin of error in management that exists for children. Insults that an adult's biological system may tolerate will further weaken and endanger the sick newborn. The small size of equipment and patient also complicates emergency management.

In an effort to deliver the optimum care to this patient population, a review course for Maryland State Trooper-Medics was developed at the University of Maryland Hospital by Cheryl Bowen, nurse clinician, and Ron Gutberlet, M.D., Director of Nurseries. The three-day course included classroom and clinical instruction in cardiopulmonary resuscitation, respiratory assessment and management, identification of abnormal behavior and physical characteristics, and operation of isolettes designed for transporting infants. Seventeen troopers successfully completed the course.

In the clinical area, the troopers were supervised as they learned monitoring of heart rate, body temperatures, respiration, fluid administration, and airway management (this included naso-pharyngeal suctioning and ventilation via mask,

endotracheal tube, bag, or respirator).

When the neonate transport program first began in 1969 at Baltimore City Hospitals under the supervision of Herman Risemberg, M.D., many physicians accompanied infants during transfer; however, due to the increased level of expertise of the trooper-medics, physician accompaniment is rarely necessary today. Safe transport to any of the regional intensive care nurseries that are part of the Maryland EMS system is ensured by updating skills of the medics periodically. The neonate specialty referral centers are located at University of Maryland Hospital, Baltimore City Hospitals, and Johns Hopkins Hospital.

## WE'VE MOVED

The Maryland Division of Emergency Medical Services have new headquarters: 31 S. Greene St. (Med-Tech Building). New telephone numbers are as follows:

**ADMINISTRATIVE OFFICES**  
528-7800

**EDUCATIONAL SUPPORT SERVICES, EVALUATION, NURSES AND PHYSICIAN PROGRAMS.**  
**PUBLIC INFORMATION**  
528-3930

**COMMUNICATIONS DEVELOPMENT**  
383-7390

Testing and Certification offices remain at 25 S. Calvert (phone: 383-2986).



## PROFILE

### JUDY BOBB

If you take a few minutes to talk “non-business” (that is, “non-nursing”) to Judy Bobb, R.N., B.S.N., you might find yourself on Hawk Mountain in Pennsylvania on a cold, blustery morning, searching for the “softest rock”—a place to huddle while you wait to sight a golden eagle; or you could find yourself on many other adventures as Judy’s travel anecdotes roll past like miles on an odometer.

Judy’s stories are laced with humor and her verbal pictures are sharp as any Sierra Club or National Geographic photos. You find you could listen for hours. And as you think of Judy’s keen eye for detail, her curiosity, wit, “down-to-earthness,” and ability to put things in perspective, her quick perception of a question in the mind of her listener and her equally quick interjection of an explanation in the middle of an anecdote—you suspect that she might be a teacher. And it turns out that you are right and that these qualities, combined with extensive nursing background and experience, are what make her an exciting teacher in the DEMS continuing education program for emergency and critical care nurses. Judy is currently coordinator of the nursing workshops on cardiac emergencies, acute respiratory distress, diabetic emergencies, and blood

gases and ventilation.

Before coming to Baltimore, Judy worked in Pasadena, California for two years and in Colorado for eight years, accumulating a variety of nursing experiences. She has worked as staff nurse, camp nurse, supervisor of the night nursing staff, head nurse on the medical floor, supervisor of a coronary care unit (where she did teaching as well as patient care), and head nurse of an intensive-care/coronary-care unit.

Judy came to the Maryland Institute for Emergency Medicine (MIEM) as a staff nurse in 1970 and later became a team leader and nurse clinician. Trauma nurses are generally surgical nurses. Judy, however, has three specialties—coronary care, respiratory management, and cellular pathophysiology. She has recently finished chapters on the pathophysiology of shock, pulmonary management, total body response to shock, monitoring, and applications to shock to be included in “Trauma Nursing,” a book written by Elizabeth Scanlan (Director of Nursing for MIEM and DEMS) and MIEM staff.

With her skills in patient management and several specialty areas and some “dabbling in educational theory,” Judy was a “natural” teacher. In 1972, she joined Peggy Trimble, R.N. (now a coordinator of the nursing workshops), to work on the MIEM orientation program for trauma nurses.

When Anne Arundel County Ambulance Company requested a Cardiac Rescue Technician training program for 20 ambulance attendants in the spring of 1974, Judy developed and taught a concentrated 160-hour CRT course at University of Maryland Hospital and later helped to develop State standards for CRT written exams.

The DEMS continuing education program for emergency/critical care nurses formally began in September 1975, and so did Judy’s “formal” teaching program. Last year she conducted approximately

30 to 35 workshops, each averaging 40 participants. Workshops have been given in various places throughout the State—hospitals, churches, community colleges.

Judy sees the workshops as providing a needed resource for nurses. To be prepared for any type of injury or illness—seizure, drug overdose, heart attack, etc.—the emergency room nurse has to maintain a basic level of proficiency in all areas of nursing care. The nursing workshops, stressing knowledge transmission rather than skills transmission, offer an overview and concise update of current trends in patient management in a specific area.

In addition, Judy notes that an increased proficiency in nursing is needed as the role of the nurse expands. Since the physician cannot always be present, she views the nurse as becoming “more of an independent health practitioner providing continuity of care.” Judy points out, however, that the expanding role of the nurse must be determined by nurses themselves. “Nurses must define for nursing what the role of the nurse is.” If they are to define their own identity, nurses should learn to view themselves as peers of—not subservient to or dependent on—physicians. It is in this peer relationship that the physician and nurse can “work together as a team to provide optimal care for the patient... Nursing is interdependent with medicine (sort of the same relationship of coronary care to primary care). Nursing cannot survive without medicine any more than medicine can survive without nursing.”

Reflecting on aspects of patient care that she misses and aspects of teaching that compensate for that loss, Judy notes that teaching keeps you alert and that you learn what is happening in nursing throughout the State. She says that teaching the workshops “keeps you moving.” Meeting Judy, you would also suspect that she is a force that helps to keep nursing moving.



## LIFE-SAVING CARE FOR SMITH ISLAND

The Smith Island Medical Clinic is located on Ewell. (Smith Island consists of Ewell, Tylerton, and Rhodes Point. Mrs. Becker travels by boat to Tylerton, an island completely isolated from Ewell and Rhodes Point which are connected by a bridge.) In appearance, the Medical Clinic is somewhat unconventional compared with the usual doctor's office. Young patients often pick out tunes on the piano in the waiting room or climb into the old barber chair in the examining room.

Smith Island, a 300-year-old fishing community in the lower Chesapeake Bay, has a population of approximately 700 people. They are hardy and independent. As one Islander says: "Smith Island is unique insofar as 98% of its residents 'can paddle their own canoes.'" It is a community where everyone knows each other, where people are distantly related and have similar backgrounds. Non-natives usually come only to visit—except for Lynette (Schim) Becker, R.N., the only medical person on Smith Island and its vital link in Maryland's EMS system.

Before coming to Smith Island in 1972, Mrs. Becker, a native of Australia, was an operating room nurse in open-heart surgery at University of Maryland Hospital and a protégée of R Adams Cowley, M.D., Director of DEMS and the Maryland Institute for Emergency Medicine. She was also a recovery room nurse at University of Maryland Hospital. In an age of specialists, she now provides total care for her patients. This includes emergency life-saving care to stabilize her patients until they can be evacuated by helicopter to McCready Memorial Hospital in Crisfield on the Eastern Shore mainland and then to a specialty referral center if necessary.

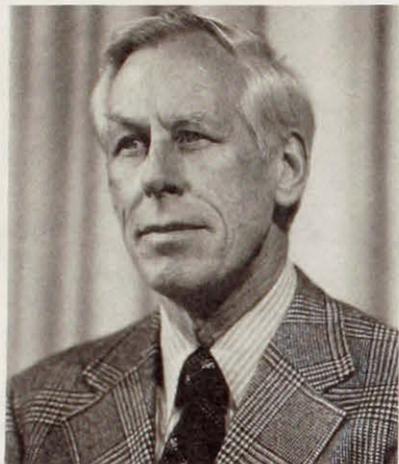


Mrs. Becker is on call 24 hours a day. Clinic appointments usually revolve around the life-style of the Islanders. Mrs. Becker treats and follows up on all problems—ranging from minor cuts and bandaging, high blood pressure, respiratory ailments, and arthritis, to delivering babies and treating major accident injuries. If a patient with a serious injury has to be transported to a hospital, she accompanies him to the hospital and stays for follow-up support and treatment.



Mrs. Becker's work continues beyond clinic "hours." She will often discuss an Islander's medical and non-medical problems whenever she meets him, as in Charlie Evans' General Store. Five times a day she visits a woman who is bed-ridden to feed her and assist with daily chores. During the January snowstorms when Smith Island was isolated from the mainland by about 14 miles of ice, Mrs. Becker coordinated emergency airlifts of food and fuel with the Maryland National Guard. Whatever she does, she touches the lives of all the Islanders.





The appointment of John Bacon as first executive director of the Mid-Atlantic Emergency Medical Services Council, Inc., was recently announced by R Adams Cowley, M.D., Chairman of the Board.

As stated by Governor Marvin Mandel in endorsing the Council concept in August 1973, the purpose of the Council is to foster EMS interstate cooperation and communication—especially regarding patient transfers across state lines. Council representatives from six member states—Delaware, Maryland, Pennsylvania, Virginia, West Virginia, and the District of Columbia—held their first meeting in September 1974.

The Mid-Atlantic Council Board is currently composed of 12 representatives appointed by their respective governors.

The concerns of the Council are reflected in the various committees: legislation, hospital categorization, EMS communications, reciprocity of EMT certification, interstate disaster triage, and EMT training. These committees will consist of experts in their respective fields who will provide material for an informational clearing-house and identify what resources exist in each area. This will help maximize efficient planning and implementation. The negotiation of cooperative agreements and the development of model legislation to be adopted by legislatures will hopefully ensure reciprocity and adherence to compatible standards.

Mr. Bacon's own background is perhaps even more varied than the Council he heads. Although he was most recently Associate Director for Program Development with the Maryland Regional Medical Program, he has held other posts in the health field. In addition, he has worked in business, banking, educational administration, community action, and served as an executive officer in the U.S. Agency for International Development in Iraq, Liberia, and Tanzania for four years. The element of service evident throughout his career, together with his flexibility and broad experience, will be a great asset to the Council as it progresses beyond its early stages of growth.

## CALENDAR STATE

- Apr. 12,  
7 - 9:30 p.m. Hand Center Seminar, Union Memorial Hospital (cafeteria). Lecture/slide-tape presentations by Raymond M. Curtis, M.D., and Hand Center staff. Open to ambulance personnel. Co-sponsored by Hand Treatment Center at Union Memorial Hospital and Baltimore City Fire Dept. Contact: Raymond M. Curtis, M.D., 235-1603.
- Apr. 20 - 22 Medical and Chirurgical Faculty of Maryland, Hunt Valley Inn, Cockeysville, Md. Contact: J. Sargeant, CAE, 1211 Cathedral St., Baltimore, MD 21201.
- June 9 - 11 EMS Symposium for Paramedics, Johns Hopkins University School of Medicine. Contact: Robert J. Wilder, M.D., 821-9402.

## NATIONAL

- Mar. 27 - 30 Communications/Transportation, National EMS Meeting, Atlanta, GA. Fee: \$30. Contact: Doug McAllister, (301) 436-6284.
- Apr. 29 -  
May 1 American Trauma Society, Houston, TEX. Contact: L. N. Lotz, 875 N. Michigan Avenue, Chicago, ILL 60611.
- May 3 - 5 Manpower, National EMS Meeting, San Francisco, CALIF. Contact: Dick Salamandra, Lee Shuck, (301) 436-6296.
- May 16 - 18 University Assoc. for EMS, Kansas City, MO. Contact: UA/EMS, 3900 Capital City Blvd., Lansing, MI 48906.



31 S. Greene Street, Baltimore, MD 21201 phone: (301) 528-7800

Address Correction Requested

325 E. OLIVER ST. / BALTIMORE, MD. 21202