THE EMS NEWSLETTER

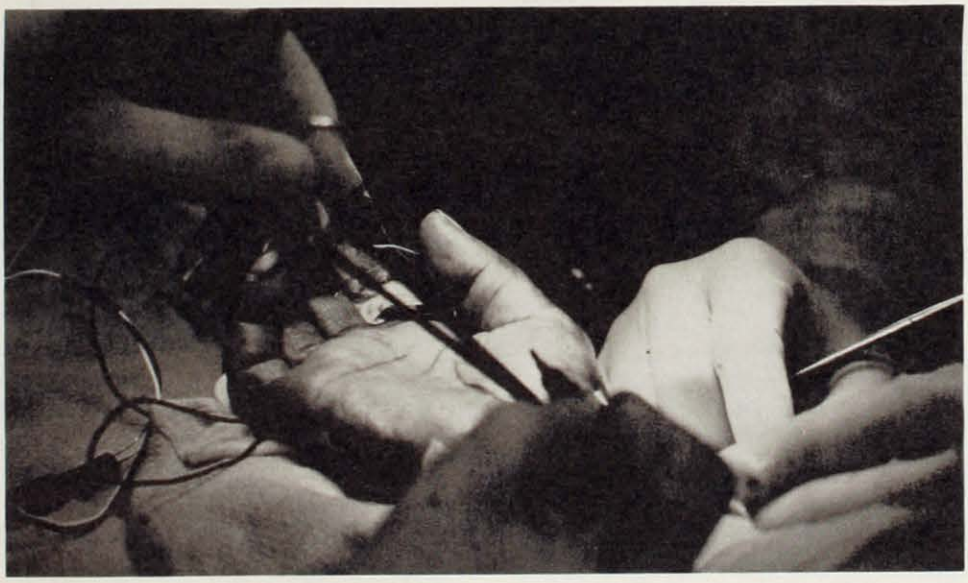
Nov. 1975
Vol. 2, No. 3

NEW SPECIALTY REFERRAL CENTER ESTABLISHED

The Union Memorial Hospital Raymond M. Curtis Hand Center has been established, according to George H. Yeager, M.D., President of The Union Memorial Hospital. The only one of its kind in this part of the country, the Center will serve as a specialty referral center for the Division of Emergency Medical Services. Working with the Center, DEMS is now in the process of developing protocols for the preparation of the patient and/or his severed part, as well as transportation arrangements, which will be distributed to hospitals and ambulance companies throughout the State.

This new specialty center is to consist of three units; the acute trauma unit, a microsurgical laboratory and an extended care facility which will contain special facilities and therapists specializing in the care of injuries of the hand and upper extremity. Comparable functioning centers are located in Durham, North Carolina (Duke Medical Center), and Louisville, Kentucky (University of Louisville affiliated Hospitals).

The acute trauma unit will be staffed by specialists in Hand Surgery, Orthopedic Surgery, Plastic Surgery, Neurosurgery and Vascular Surgery. These specialists will provide the most advanced type of treatment. Microsurgical teams are available for the re-implantation of an amputated extremity or digit or the re-establishment of circulation to an injured extremity.



A specialized care facility consisting of ten beds to which patients can be transferred from the acute general hospital following their acute treatment is being established. This unit will be separate from the general hospital Physical Therapy and Occupational Therapy Departments. Special therapeutic facilities will be concentrated in this unit as well as light and heavy duty workshops to retrain the impaired hand.

The human hand has enabled man to set himself apart from all other creatures. This fact, coupled with his concern for economic loss or his contribution to society, explains the psychological disturbances associated with crippling hand injuries. For this reason the Social Work Department will be an integral part of the organizational structuring of the unit.

When patients with this type of injury are brought together for therapy each one motivates the other toward regaining hand function. This greatly decreases the period of disability and loss of time from work.

Recent advances in the re-implantation of amputated parts of the hand and extremities, as well as nerves and tendons, have stimulated the use of microsurgical techniques for this type of surgery.

(Continued on page 2)

EMERGENCY MEDICAL SERVICES
MARYLAND DEPARTMENT OF HEALTH AND MENTAL HYGIENE

(New Referral Center continued)

Since the surgical teams of doctors, nurses and technicians are not performing such procedures daily, a microsurgical laboratory is available where the techniques of repairing these minute structures can be practiced as often as deemed desirable.

The establishment of this specialized regional referral center for hand injuries and its incorporation within the EMS system will enlarge the options for specialized care presently offered through the neo-natal programs at the University of Maryland Hospital and Baltimore City Hospitals, the pediatric trauma center at the Johns Hopkins University, the burn care facilities at Baltimore City Hospitals and the adult trauma unit at the Maryland Institute for Emergency Medicine. In addition, it is consistent with the basic philosophy of the Maryland Emergency Medical Services System, e.g., "to assure every citizen the right to the best emergency medical care that science can provide, regardless of the type of illness or injury, its severity, the citizen's personal circumstances or his geographical location".

The need for quality care for hand injuries can be readily understood when we realize the magnitude of these emergencies. In 1969, there were 2,200,000 work related injuries in the United States and approximately one-third of these involved the upper extremity. If we add to this the non-industrial injuries, it can be estimated that there were 1,000,000 patients requiring primary surgical treatment for upper extremity injuries in that year.

The Center is to be a major teaching unit where residents and other physicians at a postgraduate level will be given an opportunity for training in this sub-specialty of surgery. A few Fellowships are available to general surgeons, orthopedic surgeons and plastic surgeons who have a great interest in this special area of surgery.

"HEIMLICH MANEUVER" CLARIFIED

Dr. Henry J. Heimlich, a surgeon at the Jewish Hospital, Cincinnati, Ohio, developer of the emergency technique for saving choking victims, recently issued a caution in applying the "maneuver" which bears his name.

Dr. Heimlich stresses extreme care when applying pressure to the victim's abdomen (above the navel and below the rib cage). He emphasized that the "maneuver" is not a hug or squeeze (which utilizes power from the arms) which may cause internal injuries such as broken ribs.

The procedure consists of wrapping your arms around a standing or sitting person's waist, and grasping your fist with the other hand, to press into the person's abdomen. The fist is then pressed with a sharp upward thrust forcing the diaphragm upward, compressing the air within the lungs to expel the obstacle blocking the breathing passage.

Dr. Heimlich has documented about 180 reported "saves" of drowning victims, as well as persons suffering from food lodged in the throat, a condition sometimes described as "cafe coronary".

The "maneuver", first described in the June, 1974 issue of "Emergency Medicine" magazine, enabled an eight year old Wenatchee, Washington boy, who had learned the technique at school, to save his six year old brother who was choking on candy.

MEDIHC MANPOWER ROSTER AVAILABLE

MEDIHC stands for Military Experience Directed Into Health Careers. It is a cooperative nationwide program designed to assist veterans with military medical experience to obtain employment in the health field with a brief synopsis of their experience and goals. If you are interested in obtaining a copy of this roster, please contact the following for further information and/or assistance: Mr. Tom Moses, MEDIHC Coordinator, Department of Health & Mental Hygiene, 201 W. Preston Street, 3rd floor, Baltimore, Maryland 21201, Telephone (301) 383-4046.

NEW STAFF

The Division of Emergency Medical Services has continued to recruit highly specialized and experienced personnel to further enhance EMS resource services to the citizens of Maryland. The following are recent appointments:

Paul V. Dorrett has been appointed Director of Program Evaluation. He comes to the staff from the Regional Planning Council of Maryland where he was the Coordinator of Health Services Data.

Lawrance H. Mitchell, formerly an electrical engineer for the General Services Administration in Washington, D.C, has joined the staff as the Communications Engineer charged with the supervision and operation of the statewide EMS Communication System.

PROFILE: JEFF MITCHELL

"Part of the challenge is to teach the people", says Jeff Mitchell in reference to his role as DEMS Coordinator for Region V, a diverse area ranging from the mainly metropolitan Montgomery and Prince George's Counties to the largely rural sections of St. Mary's, Charles and Calvert Counties.

Indeed, teaching appears to come naturally to Jeff since he first began giving American Red Cross first aid instruction while still a college student. Born in Brooklyn, New York, he received his undergraduate education at Don Bosco College in Newton, New Jersey, and St. Mary's Seminary in Catonsville, from which he graduated with a B.A. in Philosophy. Youth work during this time led to part-time and summer jobs as an emergency room attendant and trained Respiratory Therapist.

Following his graduation, while teaching elementary and junior high school science (and serving simultaneously as a guidance counselor), Jeff earned a Master of Science Degree in Guidance and Counseling in May, 1975.

During his time as teacher, guidance counselor and graduate student, Jeff joined the Arbutus Volunteer Fire Department in an effort to maintain his patient care skills. While serving as an ambulance attendant, he became an EMT-A and an Emergency Medical Technician Instructor, and is also certified as a Cardiac Rescue Technician by the State of Maryland.

Jeff joined DEMS in August, 1974 and has found his background in hospital work helpful in working with medical staff members and administrators in reference to the needs of his Region, just as his volunteer experience as a fireman and rescue squadsman has aided him in interacting with the people in his area.

A typical week for Jeff takes him to meetings with allied health persons, fire and police, hospital staff, public safety councils, and numerous other people who need his services. Jeff feels that this is one of the most rewarding aspects of his job. He is quick to point out that cooperation from citizens in the Region is helping to bring about needed improvements in emergency medical services.

The work week may also find Jeff teaching human communications to primary care nurses, conducting a tour of the Maryland Institute for Emergency Medicine for rescue squad personnel, manning regional public information exhibits or attending planning meetings for the improvement of EMS services to the Region.

After working an average 50-60 hour work week, Jeff still always finds time to work with children as a supervisor of youth groups. He also mixes his hobbies of water sports and photography by taking a group of children away on day-long or weekend trips.

Jeff can be reached at 735-5580. His office address is 5408 Silver Hill Road, Suite 403, Suitland, Maryland 20028.

COORDINATOR'S DIRECTORY

These resource people are located throughout the State to respond to the needs of emergency medical personnel, citizens and various community groups in their regions. The regional coordinators can be reached as follows:

Region I - Appalachia Region (Allegany and Garrett Counties)

David Ramsey - EMS Office, P. O. Box 34, Grantsville, Maryland 21536, 895-5934.

Region II - Mid-Maryland (Frederick and Washington Counties)

Michael S. Smith - 1610 Oak Hill Avenue, Room 134, Hagerstown, Maryland 21740, 791-2366.

Region III - Metropolitan Baltimore (Baltimore City and Baltimore, Anne Arundel, Harford, Howard and Carroll Counties)

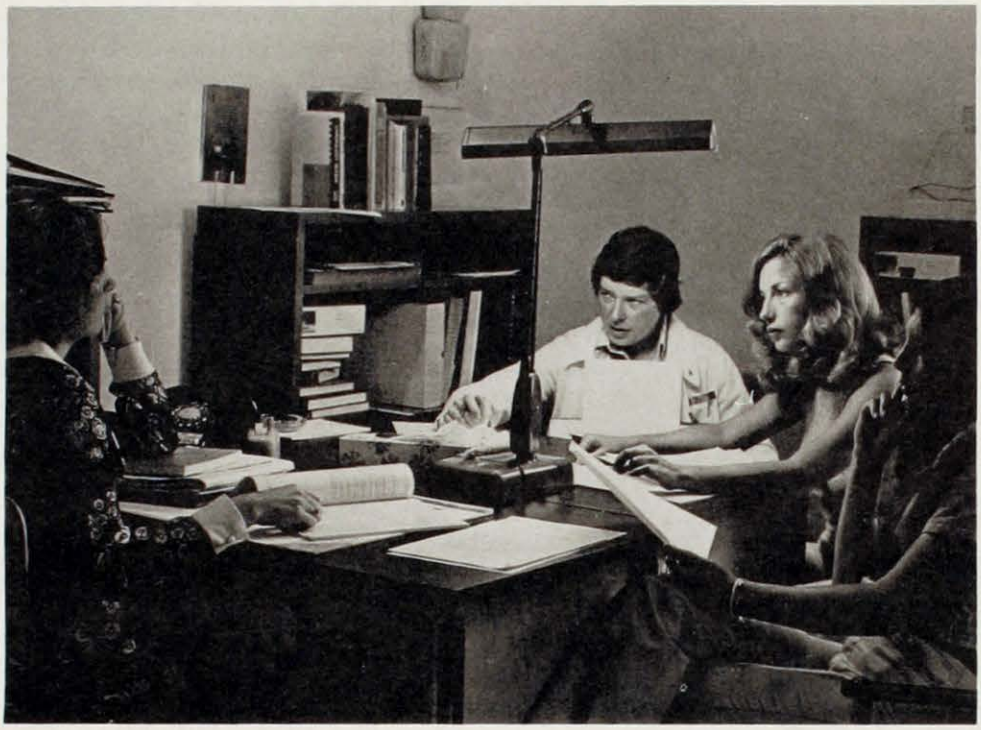
George Pellitier, Jr. - Equitable Trust Building - Suite LL-7, 401 Washington Avenue, Towson, Maryland 21204, 828-5300.

Region IV - Eastern Shore (Cecil, Kent, Queen Annes, Caroline, Talbot, Dorchester, Somerset, Wicomico and Worcester Counties)

Marcus Bramble - P. O. Box 536, 12 N. Washington St., Easton, Maryland 21601, 822-1799.

Region V. - Metropolitan Washington (Montgomery, Prince Georges, Charles, Calvert and St. Mary's Counties)

Jeff Mitchell - 5408 Silver Hill Road, Suitland, Maryland 20028, 735-5580.



Planning for the 1975-76 series of Statewide DEMS Nursing Workshops are: (left to right) Peggy Trimble, R.N.; Judy Bobb, R.N.; Sally Sohr, R.N.; and Carole Katsaros, R.N.

EMT-A TRAINING PROGRAM A YEAR OF TRANSITION

The Division of Emergency Medical Services (DEMS) and the Maryland Fire and Rescue Institute (MFRI), formerly known as the University of Maryland Fire Service Extension, are working together to insure an orderly transition of the responsibility for conducting the training portion of the State's Emergency Medical Technician - Ambulance (EMT-A) program to MFRI.

During the period of transition, EMT-A training courses will continue to be offered throughout the State and the current high standards of the program will be maintained. When the transition is complete (by July 1, 1976), all EMT-A instructors certified by the State as of July 1, 1975 will be incorporated into the MFRI program and will be designated as University of Maryland MFRI Instructors.

Maintenance of the instructional program will be the responsibility of MFRI, with DEMS administering final examinations and issuing certification. As before, EMT-A instructors will be responsible for both teaching classes and conducting examinations. New exams will be designed around a bank of questions previously validated through pre-tests and use in past EMT-A examinations. DEMS and MFRI will work together to develop a format for improved practical examinations that will be as objective as possible.

DEMS will participate in each new EMT-A course opening, explaining to new students the relationship of the EMT-A and the EMT-A training program to the statewide Emergency Medical Services system.

DEMS and MFRI will strive to continue training of EMT-A's in Maryland at the current rate of approximately 1,500 per year. A goal is to have at least one EMT-A training program in each Maryland county, with DEMS and MFRI jointly determining the location of these courses.

Working together as a team, the Division of Emergency Medical Services and the Maryland Fire and Rescue Institute are committed to maintain a cooperative, efficient EMT-A Training Program of the highest order within the statewide system.

DEMS NURSES TO PRESENT STATEWIDE WORKSHOPS

Crisis Intervention, Burns, Pediatric Emergencies, Trauma, Medical Emergencies and the Changing Role of the Emergency Room Nurse are among the subjects of a series of continuing educational workshops for Emergency Department Nurses throughout the State. Presented by DEMS in cooperation with the Maryland Institute for Emergency Medicine (MIEM) and various Maryland Hospitals, the workshops will focus on specific skills required by the Trauma Nurse.

The workshops will provide the nurse with increased skills in such areas as: patient data acquisition by history taking, physical examination, and the use of laboratory procedures; understanding of the pathophysiological concepts underlying the assessment and care of emergency illness; understanding the concepts and impact of acute emotional disturbance and its effect on a patient, the patient's family and the medical staff, and how to provide them with necessary supportive care; initiation and participation in resuscitative measures; and the ability to evaluate an injured patient and direct the initial course of treatment or consultation. For further information, contact Elizabeth Scanlan, Director of Nursing, DEMS, at 528-6846.

DIVISION OF EMERGENCY MEDICAL SERVICES

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NEWS ITEMS

THE CRT ACT OF 1975

The Cardiac Rescue Technician Act (Senate Bill 572) was enacted during the 1975 session of the Maryland General Assembly, and became law on July 1, 1975.

The following is the text of the complete CRT Act:

The following persons may practice without a license, but subject to rules, regulations and orders of the Board of Medical Examiners:

Cardiac Rescue Technicians while delivering emergency health care services or while undergoing training are permitted to carry out all phases of cardio-pulmonary resuscitation, to administer drugs or intravenous solutions as directed by a licensed physician via radio, telemetry, written or oral instruction, and to obtain blood for laboratory analysis, if they

Have successfully completed an advanced Cardiac Rescue Technician course or its equivalent as determined by the Director of Emergency Medical Services and have been examined and hold Certification as Cardiac Rescue Technicians by the Board of Medical Examiners or

Are enrolled in a Cardiac Rescue Technician Program, the standards of which are set by the Board of Medical Examiners.

POISON INFORMATION CENTER – A VITAL PART OF AN EMERGENCY MEDICAL SERVICES EFFORT!

During 1974, the Maryland Poison Information Center (MPIC), a division of the University of Maryland Hospital's School of Pharmacy, received a record number of inquiries - 16,726.

This compares with 1,531 calls received during 1966, the Center's first year of operation, and 1973's total of 11,468.

Three years ago, the poison control centers at the University of Maryland Hospital and Baltimore City Hospitals joined to form the Maryland Poison Information Center (MPIC). Inquiries involving poisoning are received from both the general public and health professionals. Since the MPIC has no treatment facilities, all information is provided by telephone, and patients in need of emergency treatment are referred to local treatment facilities.

While in 1974, total calls increased by 45.9 percent over 1973's figure, ingestion calls increased 55.6 percent. A call is recorded as an ingestion when a human is exposed to an alien substance (drug, chemical or household product, either toxic or non-toxic, by any route - oral, topical, etc.). Total calls include human and animal ingestions, and inquiries about drug usage, drug interactions and other medical information.

Following past trends, pediatric calls, especially those involving children under five years of age, represented the majority of calls in 1974. However, the percentage of calls in the less than five year old age group continued to drop as it has since 1972. The annual report states this decrease may reflect a stable, but large public awareness of poison dangers to this population.

An increase in 1974's calls involving adolescents and young adults was attributed to increased knowledge of hazards particular to this population (drug abuse, petroleum products, etc.). It was noted that the gasoline shortage produced a large number of accidental ingestions of gasoline via siphoning in both the 12-24 and over 25 age groups.

Since the MPIC call rate increased so dramatically over the past two years, it was hoped that a decrease in the number of emergency room visits due to poisoning would be recorded. The report states that in 1973 this was not the case, and in fact a small increase in visits occurred. However in 1974, there was a 6.1 percent decrease in emergency room visits.

The Maryland Poison Information Center is one of the largest (in terms of calls received) in the United States, according to the National Clearinghouse for Poison Control Centers. The MPIC has two phone numbers: 528-7701 for those in the metropolitan Baltimore area; and a State toll-free number, 1-800-492-2414 for those outside metropolitan Baltimore.

by
Terry Capp, Editor, "Happenings", The University of Maryland at Baltimore

Dr. R Adams Cowley, DEMS Director, was recently interviewed by Morton Dean, C B S Morning News correspondent, during a film segment describing the Maryland EMS System. This feature inaugurated a week-long CBS series on "New Trends in Medicine" which was seen both nationally and locally during July.

RESCUE!

The Primary & Secondary Survey

Every call is different–some serious, some not so serious. Medical emergencies, heart attacks, drug overdoses, attempted suicides, multiple injuries – you've seen them all. There are cooperative patients and difficult ones; some conversant, others unconscious. There are those emergencies that require slow and cautious transport to the hospital to prevent further injury, and those you've got to rush to the hospital in no time flat.

The Emergency Medical Technician has to be ready for anything. Regardless of what may confront him in the field, the EMT can feel confident in his approach to any emergency situation if he remembers and practices the principles of the primary and secondary surveys.

PRIMARY SURVEY

Is the patient breathing? Is his heart beating? Is he bleeding profusely? Basically, if the EMT can answer these questions he has performed a primary survey.

Don't allow anything or anyone at the scene, from gory injuries to hysterical bystanders, to prevent or distract you from performing your primary survey. If your patient is not breathing, he has only 4-6 minutes before irreversible brain damage occurs. So the very first priority in your approach to any patient is to CHECK THE AIRWAY. Look, listen and feel for breathing. Hyperextend the head if necessary to prevent the tongue, in an unconscious patient, from obstructing the airway. Be ready to begin mouth-to-mouth resuscitation if respiration is absent.

The second major priority is circulation which can be checked by feeling for the carotid pulse on either side of the Adam's apple. (It is usually the most convenient and easiest pulse to find.) Be prepared to initiate cardio-pulmonary resuscitation (CPR) if a pulse is absent.

Third, after establishing that the victim is breathing and his heart is beating, quickly check for and control bleeding. The patient should not be moved during the primary survey any more than is necessary to sustain life. Any adverse movement could aggravate yet undetected fractures or spinal cord damage.

The primary survey can often be accomplished in a matter of seconds – but it shouldn't end there. The patient could stop breathing or go into cardiac arrest at any time – while you are attending to other injuries or during transport to the hospital. Make sure that an airway is maintained at all times and that the patient is breathing. THAT IS YOUR NUMBER ONE PRIORITY.

SECONDARY SURVEY

The secondary survey is your search for additional, unseen injuries that can cause serious complications if mishandled. It consists of a head to toe check for specific injuries.

Beginning at the head, gently feel the scalp for wounds and skull depressions which may indicate fractures. Ears and nose should be observed for blood and clear, water-like fluid indicating a possible skull fracture and brain damage.

Feel the neck for lumps and deformities, signs of cervical spine injury. If any of these signs are present, immobilize the neck immediately with a cervical collar or sandbags and then proceed with the survey.

Moving down the trunk, check the chest for movement on both sides and for rib fractures. Palpate the abdomen to detect muscle spasms or tenderness which are symptoms of internal bleeding or peritonitis. Proceeding downward, examine the pelvic area for fractures. Moving to the extremities, examine for fractures and symptoms of spinal cord injury if suspected. Paralysis or a lack of response to stimuli, numbness or a tingling sensation in the patient's extremities indicate spinal cord damage. If any of these signs are present, immobilize the patient's entire body immediately on a long spine board or acceptable substitute. Take great care in all maneuvers, as any adverse movement could result in permanent paralysis or death. If there is no evidence of spinal cord injury, complete the secondary survey by turning the patient toward you on his side and examine the back and buttocks for injuries.

The information gained in the secondary survey, combined with information from other sources, e.g., bystanders, the patient himself, and the mechanics of the injury, will determine treatment and transportation priorities. The primary and secondary surveys should become second nature to the EMT. They are his most effective emergency tools in the management of any emergency situation.

PRIMARY SURVEY

* Breathing
* Heartbeat
* Bleeding

SECONDARY SURVEY

* Scalp
* Ear, Nose and Neck
* Chest
* Abdomen
* Pelvis
* Extremities
* Back and buttocks

Recent EMS GRANTS

Funds have been granted to the State of Maryland, through the Division of Emergency Medical Services, from the U.S. Department of Health, Education and Welfare (H.E.W.), the U.S. Department of Transportation and the Appalachian Regional Commission to further improve Maryland's statewide emergency medical services system.

Five emergency medical service regions have been defined by an Executive Order to encompass the entire State. These regions were formed on the basis of jurisdictional patient flow patterns, medical capability and geographical factors.

An H. E. W. grant of $1,095,112 was awarded to assist each region to achieve at least a basic life support capability; the Metropolitan Baltimore area, which has already developed most elements included in basic life support, is developing an advanced life support capability. The Division's ultimate goal is to achieve advanced life support statewide.

Region I (Western Maryland), which consists of Garrett and Allegany Counties, will receive a total of $104,824. The funds will support communications equipment and will assist in the establishment of two Ambulance/Fire Central Alarms. These funds will also be allotted for the purchase of ambulance and rescue equipment and cardiac resuscitation equipment for hospitals in the area. In addition, first aid equipment and medical training programs will be provided to the Region's police and county health department personnel. Region I will also receive additional funds from the Appalachian Regional Commission (ARC). These funds will enable the Region to: purchase personnel instructional training and equipment for a Pre-Hospital Cardiac Monitoring System ($26,250); complement the statewide communications system by providing two-way radios in all Garrett County Health Department vehicles ($59,982); and aid in the further development and completion of the statewide communication system in Washington, Garrett and Allegany Counties.

Region II (Mid-Maryland), which includes Frederick and Washington Counties, will receive $37,905. The funds will be used to purchase isolettes for the transportation of critically-ill newborn infants to specialty referral centers and equipment for analyzing blood gases will also be supplied to hospitals. Ambulance equipment, including electronic pulse and blood pressure monitors and other general rescue equipment will be obtained.

In addition to federal funding in Region II, $27,103 has been designated through ARC funding for the purchase of Emergency Rescue Equipment in Washington County.

Region III (Metropolitan Baltimore), which encompasses Baltimore City and the counties of Baltimore, Anne Arundel, Harford, Howard and Carroll, is slated to receive $406,277 to assist in the further development and improvement of their advanced life support capability. The funds will aid in the improvement of the emergency medical communications system currently being implemented in Metropolitan Baltimore. This system is designed to assure rapid movement of persons with life threatening injuries or illnesses with appropriate in-transit care, to the most appropriate source of care within the Region. To accomplish this, reliable voice communication and cardiac telemetry units to transmit electrocardiograms (EKG) between hospitals and other numerous medical resources have been established and will be further improved.

Region IV (Eastern Shore), composed of Cecil, Kent, Queen Anne's, Caroline, Talbot, Dorchester, Somerset, Wicomico and Worcester Counties will receive $61,667. This will enable the Region to purchase cardiac resuscitation equipment for hospital emergency departments, general hospital equipment and highway directional signs locating emergency medical resources such as hospital emergency departments, ambulance and rescue squad companies.

Region V (Metropolitan Washington), including Montgomery, Prince George's, Charles, Calvert, and St. Mary's, has received $284,865. This money will enable Region V to hire an additional Emergency Medical Services Coordinator, obtain additional mobile intensive care units and rescue boats, and provide for the construction of helicopter landing pads at the Region's hospitals.

In addition to the Regional funds, the Division has received $161,574 to develop statewide programs including: a statewide triage (sorting of patients by severity of injury) system for victims of major disasters anywhere in Maryland; a multi-media audio visual resource center for the advanced training of

. . . and provide for the construction of helicopter landing pads at the Region's hospitals . . . .

(Recent EMS Grants continued)

health care personnel throughout the State: a three-day Emergency Medical Services Conference (a continuing educational program for allied health professionals, volunteers, etc.); a traveling emergency medical services system program.

The Maryland Department of Transportation has made available $290,000 through its Federal Highway Safety Programs. Funds will be used for the improvement of statewide ambulance/rescue services, statewide EMT-A Training Programs, and EMT-A Certification. These funds will be allocated throughout the State on a regional basis. Each region has been asked to establish its priorities as to what rescue services/equipment, ambulances and EMT-A training are necessary.

CALENDAR

STATE

Nov. 15 & 16 — Elevator Rescue Short Course - Maryland Fire and Rescue Institute (MFRI)

Nov. 22 — Gas Leak Emergency Workshop (MFRI)

Dec. 18 — Medical Management Consultant Group
201 W. Preston Street, Baltimore, MD
Contact: Sandy Bond , (301) 528-6846

Pre-registration is required for all MFRI schools and normally closes two weeks prior to the school. Contact: Mr. John Hoglund, Director, Maryland Fire and Rescue Institute, College Park, MD 20742, 454-2416.

NATIONAL

Nov. 3 - 7 — Emergency Medical Services: Evaluation. Philadelphia. Center for Study of Emergency Health Services, University of Pennsylvania. Fee: $200. Contact: Martha Ledger, 4219 Chester Avenue, Philadelphia, PA 19174

Nov. 6 - 8 — Advances in Pre-Hospital Emergency Care. New York City, NY—Brooklyn Committee on Trauma of the American College of Surgeons, Regional Emergency Medical Services Council of New York City, American Trauma Society, New York State Division. Fee: $85/$125. Contact: Walter F. Pizzi, M.D., 11 E. 68th St., NY 10021

Nov. 11 - 13 — Pediatric and Adolescent Aspects of Orthopedic Trauma. Palm Springs, CALIF AAOS Committee on Injuries. Contact: Saul M. Bernstein, M.D., 1200 N. State Street, Los Angeles, CALIF 90033

Nov. 11 - 13 — National Symposium on Emergency Medical Services Patient Care Systems Design and Implementation. Grand Rapids Civic Auditorium, Grand Rapids, MICH. Contact: Dr. Earl Kennemer, Emergency Medical Services Division, 6525 Belcrest Road, Suite 320, Hyattsville, MD 20872

Nov. 13 - 15 — The Critically Injured Patient: Emergency Surgical and Medical Care. Cleveland. American College of Surgeons Committee on Trauma and Case Western Reserve Medical School. Fee: $50/$150. Contact: Mark A. Mandel, M.D., University Hospitals of Cleveland, 2065 Adelbert Road, Cleveland, OHIO 44105

Nov. 14 - 15 — Regional Burn Seminar. Birmingham, ALA American Burn Association. Contact: Alan R. Dimick, M.D., University of Alabama, University Station, Birmingham, ALA 35294

Nov. 16 - 20 — American Fracture Association. Miami, FLA Contact: Herman W. Wellmerling, M.D., 600 Livingston Bldg., Bloomington, ILL 61701

Nov. 17 - 21 — American Heart Association. Anaheim, CALIF Contact: William W. Moore, 44 E. 23rd Street, New York, NY 10010

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Address Correction Requested