Maryland
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NEWSLETTER

Vol. 15, No.8 | For All Emergency Medical Care Providers | February 1989

Dr. Andrew Munster, codirector of the Burn Center at Francis Scott Key Medical Center, consults during the whirlpool therapy for a severely burned patient.

New Skin Transplant Procedure Offers Hope To Burn Patients

Four matchstick-sized pieces of skin were removed from the burn patient and sent to a laboratory where they were chopped and put on culture material. Weeks later there were 81 pieces of cultured skin and the burn patient was undergoing a successful skin transplant procedure.

A new skin transplant procedure used by the Baltimore Regional Burn Center enabled a badly burned patient, who was admitted with a seemingly 10 percent chance for survival, to go home after only 10 weeks of hospital care.

Steven Kovios, a painter, was cleaning brushes with a flammable liquid when it spilled near the water heater and ignited. He was burned over 75 percent of his body; he did not have enough undamaged skin to use for skin grafting. Because he was young enough and had a good health history, Andrew M. Munster, MD, codirector of the Burn Center at Francis Scott Key Medical Center, considered him to be a good candidate for the experimental skin transplant procedure.

Four matchstick-sized pieces of Mr. Kovios's skin were removed from his groin and armpits and sent to a laboratory in Cambridge, Massachusetts. The four tiny pieces of skin were chopped up and put on culture material. Eighty-one small pieces of tissue were grown and were placed on 1-inch gauze squares for easy

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handling. This was the first time the laboratory, which developed the technique of culturing skin for transplants under the auspices of Harvard University scientists and private investors, allowed the procedure to be used outside the Boston area.

While the skin was being cultured, Mr. Kovios was being prepared to accept the transplant. The transplant area needed 3 weeks of preparation including excising the burn and covering it with allograft. When Dr. Munster was informed that the cultured skin was on its way, the burns had to be reexcised and the allograft removed.

The laboratory put each gauze square holding a piece of tissue into a petri dish for shipment. The petri dishes were placed in an incubator with a carbon dioxide "sauce" cylinder, a precisely balanced pH, and carefully controlled temperature. Two individuals from the laboratory accompanied the shipment to ensure the accuracy of the process. The incubator was placed on two coach seats on a Piedmont Airline flight from Boston to Baltimore; the flight was met by Maryland State Police, who escorted the precious cargo to the Burn Center.

At this early stage of development, the recommended mode of application is to staple the gauze square onto the patient with a sterile, hand-held stapler. Two transplant teams worked 2½ to 3 hours to complete the procedure. Theoretically it is painless. Dr. Munster would like to see some other method in use, however, because it is difficult to remove the staples. It is important to keep the pieces wrinkle-free, so they can "take."

The cultured skin itself is too fragile to be handled. Using a special pipette, the skin is floated off the bottom of the petri dish. A space of one-eighth of an inch is left between stapled squares.

About 80 percent of the skin transplant was successful, far beyond what was expected. Mr. Kovios's left arm "took" almost 100 percent; his right leg between 60 and 70 percent. His right arm became infected and it was feared that the transplant would be unsuccessful because the cultured skin could not be seen. About 3 weeks after the arm was cleaned and debrided, however, 50 percent of the transplant became visible.

It is customary procedure to use an antibiotic dressing to prevent infection. In this case, the procedure is so new that the laboratory had not yet concluded tests to see if antibiotics would harm the cultured tissue.

Successful transplantation is seen after 3 or 4 weeks as a jelly-like consistency at the transplant site. Mr. Kovios will have to wear elastic clothing on his chest, arms, legs, and hands, to exert gentle pressure on the transplants to prevent scarring.

Each year about 1,000 patients nationally are burned badly enough (70 percent of the body surface area) to fit the present criterion for using this procedure, which is expensive and is being reserved for life-threatening burns. At this time, a number of insurance carriers have agreed to pay for the procedure. Francis Scott Key Medical Center agreed to assume the cost of treatment for the first few patients while they negotiated with the insurance companies. It is hoped that a national pilot program will be implemented to prove the efficacy of the procedure and that eventually it will be available for those with smaller burns, for children, or for cosmetic purposes. Wider usage may bring the cost down. To date, four such procedures have been performed at the Burn Center.

Dr. Munster is optimistic about the future of this procedure. "Skin grafts from donor sites are disfiguring," he says. "Why should a patient with a 40 percent burn end up with a 60 percent scar (20 percent being caused by taking donor skin) when a little biopsy will do? Only the future will tell. At this point it [the procedure] is being watched with interest."

◆ *Erna Segal*

Because of a successful new skin transplant procedure, Steven Kovios was back at home 10 weeks after being admitted to the Baltimore Regional Burn Center with severe burns.

Baltimore Reg'l Burn Center Emphasizes Quality of Care

"We're keeping at the cutting edge of the science of burn care, with intensive research into the prevention of infection and the transplantation of cultured epidermis," says Andrew M. Munster, MD, codirector of the Baltimore Regional Burn Center at Francis Scott Key Medical Center. Burn injuries are cyclical. The most severely injured patients are brought in during December, January, and February, with burns from house fires or space heaters. Spring is usually a slow season, depending on the weather; if it is cold, there are burns from fires and woodstoves. During the summer, injuries are from boating and charcoal grill accidents. Autumn burns are usually from house fires or from burning leaves.

When a patient is brought to the Burn Center, from either the field or another hospital (approximately 50 percent each), he/she is met at the ambulance or helicopter by members of the burn team. Once upstairs, the patient is converged upon by Burn Center staff, including physicians, nurses, physician assistants, occupational therapists, physical therapists, dietitians, social workers, a psychologist, and nutrition support services. All work specifically for burn patients.

Patients are given the necessary IVs, intubation, and ventilators, and fluid resuscitation is begun. Then they are debrided to cleanse their burns.

Skin grafting is begun as early as 3-5 days post-burn because the most important part of burn treatment is to get the wound covered. Human skin allografts are used. They resist infection; hold in water, electrolytes, and protein; decrease energy requirements because there is less evaporation through the wound; and make the wound less painful.

While the allograft process continues over a period of time, the greatest risk is from infection where the burn is not covered. To combat infection, topical antibiotics are applied, dressings are changed twice daily, and the skin is debrided to remove dead tissue where bacteria can form. Dr. Munster has done major research in immunology to prevent this infection.

Robert J. Spence, MD, founder and director of the Maryland Tissue Bank, Inc., at the University of Maryland Medical System, says, "Human skin allograft is the closest to ideal dressing a burn or trauma wound can have." Dr. Spence is now codirector of the Burn Center with Dr. Munster.

Physical therapy and occupational therapy begin almost immediately after arrival and intensify after grafting. Patients are followed on an outpatient basis for up to 2 years after discharge.

Since approximately 93 percent of patients survive their burns, a well-validated study was conducted on the quality of life of burn patients after their discharge from the Burn Center. Patients considered themselves physically recovered about 9 months to a year post-discharge—their scars were softer, they had full motion, and they were back at work. But data revealed that although they were healed physically, they did not feel healed psychologically until about 18 months post-discharge. These data resulted in the addition of a psychologist to the staff to meet the patients during their course of treatment and to follow through after their discharge.

James Scheulen, former burn coordinator, at the hydrotherapy tub.

The Burn Center provided education in burn care to prehospital care providers and local emergency department personnel over the years, and the results are paying off. With the new awareness by attending physicians, nurses, physician assistants, and prehospital care providers, patients are given a better basis for their burn treatment. "There has definitely been an improvement in the quality of care that patients are receiving before their arrival at the Burn Center. The proper IV lines and tubes are usually in place. Nowadays it is seldom necessary to fly out a burn team on an Army helicopter for every major interhospital transport, as was done for many years. Now the Burn Center personnel can be deployed more efficiently," says James Scheulen, PA-C, former burn coordinator. Mr. Scheulen is now working in Massachusetts with Bio-Surface Technology, Inc., a laboratory that is working to culture skin for transplants.

"Over the past 2-3 years, with the support of the Metropolitan Firefighters Burn Center Committee and the Baltimore Regional Burn Center Foundation, the Burn Center has launched some exciting community programs, including education for prevention, a summer camp for burned children, a school reentry program for children, and an active support group for adult burn victims," says Dr. Munster.

"A major burn changes your life," Mr. Scheulen says. "Burn injury can be devastating physically and psychologically. The patient experiences pain, guilt, fear, anxiety, and physical changes. But with the proper care, most patients do get better."

◆ *Erna Segal*

National Study Center Makes Trauma, EMS Information Available

The concept was simple. EMS information was available through several different agencies and several different departments throughout the country but not **one** agency controlled enough of the pieces to make one comprehensive database. There was no **one** telephone number for use by physicians, paramedics, EMTs, students, or concerned family members who had an interest in emergency medicine — that is until Dr. R Adams Cowley, founder and director of MIEMSS, developed the concept for the National Study Center for Trauma.

The National Study Center for Trauma gained momentum under Dr. Cowley's leadership with sponsorship by trauma physicians through funds available from the Shock Trauma Attending Physicians Association (STAPA). These doctors realized the importance of compiling analyzed trauma data to make it available to those involved in EMS care. These physicians were willing to contribute funding as well as clinical expertise and have in the past several years donated thousands of dollars as the initial support for the center. In 1986 the National Study Center was officially renamed the Charles McC. Mathias, Jr., National Study Center for Trauma and Emergency Medical Systems (NSC) by an act of the 99th Congress. This designated the NSC as a repository for the nation's information on trauma and emergency medical services. From this original component two-and-one-half years ago, three major divisions emerged.

The first was the Trauma Information Exchange System (TIES). TIES established the trauma information library and database that are the source of information you need at a moment's notice. In addition to drawing from resources at other library facilities, TIES accesses abstracts from more than 33 emergency medical journals, periodicals, and magazines; these are available to participating members through the TIES Alert System.

The Emergency Health Services Research Center (EHSRC) was established last fall by a consortium of MIEMSS researchers, epidemiologists, and trauma physicians to study major areas affecting EMS personnel. Presently grants help fund most of the EHSRC research projects. Issues such as AIDS, admission outcomes, and hazardous materials handling have all come under the review of EHSRC.

A third component of the NSC relates to special services — consultation, conferencing, and education. Staff experts from NSC are available to consult with local business, professional and non-profit organizations, and hospital services. Conferences are offered on topics as diverse as the establishment of a trauma registry to legal issues in trauma care. The NSC also works in cooperation with the Trauma Nurse Network (TNN) to distribute the TNN newsletter and to disseminate information on conferences and workshops for nurses.

A primary function of the NSC and their staff specialist is to assist local and federal legislators in establishing laws dealing with prehospital and hospital care concerning the nation's number one killer of young adults — trauma. This year alone, the NSC has reviewed over 700 legislative bills introduced in Annapolis.

The NSC is a resource available to all Marylanders, and we urge you to take advantage if its services.

An 800 number (1-800-872-2820) allows both national and international telephone inquiries regarding issues in hospital and prehospital care.

◆ *Susan Kaskie*
Assistant to the Director, NSC

NORA'S DREAM

WIN a free log home! To benefit the Shock Trauma Center and Montebello Rehabilitation Hospital.

"We want to thank all the people who saved my life and got me walking again," says Nora Schneider. Her family's unique way of giving thanks is by donating a $200,000 contemporary-designed 3-bedroom log home with such amenities as beamed cathedral ceilings, a fireplace, and a whirlpool — the prize in a raffle called NORA'S DREAM.

The raffle will benefit the research, treatment, and rehabilitation of spinal cord injury victims at the Shock Trauma Center and Montebello Rehabilitation Hospital. The Schneider family owns Cedar Log Homes, Inc., in Jarrettsville.

Nora's accident happened the day before Thanksgiving, November 25, 1987, when her car hydroplaned on a wet road. Nora was thrown from the car, sustaining lower back and spinal cord injuries. She was taken to the Shock Trauma Center by Med-Evac helicopter. After 3 weeks there and 1½ months at Montebello, Nora was walking again. "My goal was to walk out without a wheelchair—and I did it! She is now using just a cane.

Nora's determination and hard work are also evidenced by her maintaining her 4.0 average in her studies at North Harford High School. "I was doing homework while I was still in the Shock Trauma Center," she says.

Tickets for NORA'S DREAM cost $5 each. The log home will be on display at the Home Show, March 9-12, at Baltimore's Festival Hall. The winning ticket will be drawn in a pregame ceremony at the Oriole's game on May 20 at Memorial Stadium. For information and tickets, call NORA'S DREAM, 301-557-9315 or 301-477-6133.

Physician Focus

Trauma Surgeons Form EAST

The charter date for the establishment of the Eastern Association for the Surgery of Trauma (EAST) was November 17, 1986. EAST was founded to fill a void in the academic world of trauma surgery. With the rapid growth of trauma centers, the emergence of new diagnostic and patient management equipment and techniques, and an ever-increasing body of clinical and laboratory research, a new forum was required for the dissemination of knowledge.

For the past 50 years, the American Association for the Surgery of Trauma (AAST) has been the primary academic organization in trauma surgery. Despite expanded programs at its annual meeting, AAST could not fulfill the increasing educational needs of the trauma surgery community.

Initially, some viewed EAST as a rival to the "old guard" AAST. Such is clearly not the case. EAST complements the senior organization. Its bylaws are modeled after those of AAST and a significant number of EAST members are Fellows of AAST. A key figure who helped to establish EAST is Dr. Kimball I. Maull, professor of surgery at the University of Tennessee in Knoxville. Dr. Maull, a prominent and respected Fellow of AAST for 10 years, is the current president of the executive board of EAST. The *Journal of Trauma,* which has been the official journal of AAST, this year also became the official journal of EAST.

Numerous current and past alumni of the Shock Trauma Center have played important roles in the establishment of EAST and are members of its executive board. They include Dr. Andrew Burgess, chief of orthopaedic surgery at the MIEMSS Shock Trauma Center; Dr. Michael Rhodes, chief of the trauma service at Lehigh Valley Hospital Center in Allentown, Pennsylvania; Dr. Alasdair K.T. Conn, chief of emergency services at Massachusetts General Hospital; and Dr. Howard R. Champion, chief of trauma at Washington Hospital Center in Washington, DC.

The targeted membership of EAST is the younger trauma surgeon, actively involved in the day-to-day care of trauma patients—that is, those working "in the pits." A primary goal of EAST is to allow these younger surgeons to gain experience and exposure in the presentation and publication of important trauma-related research. Recently EAST has decided to accept individuals 50 years of age or older as members. In order to keep the leadership in the hands of the "young," the "older" members cannot hold office or serve on the executive board.

EAST held its second Scientific Assembly, January 11-14, 1989, at Longboat Key, Florida. The quality of the papers was even better in overall quality compared to the fine presentations of a year ago. Two of the presented papers were from the Shock Trauma Center in Baltimore, and Shock Trauma Center alumni were authors or co-authors of 7 other

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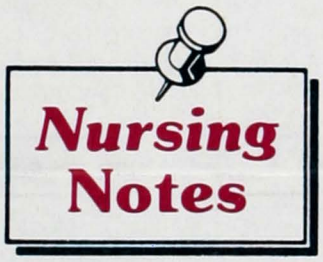


This column is for the exchange of information for all nurses participating in EMS in Maryland — for example, those who work in emergency, occupational, obstetrics, rehabilitation, surgery, and recovery specialties, and many others. You know who you are, so let us hear from you if you have news to share or questions to be answered.

A few notes from the past several months . . . *Field Nursing has a new name.* Confusion regarding what the department title meant led us to retitle the department "EMS Nursing and Specialty Care."

A few notable honors: Mary Beachley, the trauma nurse coordinator for the state, was appointed as a member of the National ENA Task Force on Trauma Nursing, and Pat Epifanio was appointed as chairperson of the education committee for the National ENA Committee.

On the topic of *special projects,* we've heard the concept of modifying the CRT program for RNs who are already EMTs has been approved by the Board of Physician Quality Assurance. Expect to see a pilot soon from MIEMSS Prehospital Training and Certification Office.

Trauma nurses from across the country met at the 11th National Trauma Symposium in December to discuss the future of their network. The group voted to pursue developing as a Society of Trauma Nurses. This should help nurses from many specialties speak through the society regarding issues of trauma nursing.

To request an inservice on the new Med-Evac helicopter, call Cindy Raisor at EMS Nursing (301-328-3930). See the article on page 6 for more details.

Pediatric aspects of the EMS system are still getting close attention by MIEMSS pediatric nurses because of the grant given to 12 states to evaluate this part of our system. If you have any points to make regarding pediatric equipment, training, protocols, etc., get them to Pat Malony-Harmon (301-328-3930) quickly!

The neonatal component is hard at work raising money for a replacement neonatal ambulance. We're two-thirds of the way there, but still looking. Johns Hopkins and a grant from the National Emergency Medical Association have contributed so far. To date, the high-risk maternal and neonate system have each managed over 300 patients.

Plans are progressing regarding a feedback process to nurses in referring hospitals sending trauma patients to MIEMSS. We hope to try some new computer technology and strive for 100 percent feedback probably beginning late summer. Let us know what's important for you to know. We'll be circulating a draft of the format and process for your input, too, so watch for more.

The protocols for interhospital transfer revisions are close to completion. We'll get those reprinted and distributed within a few months. Call us *now* if you want to make suggestions. There's still time.

Nursing workshops have been attended by almost 2000 participants. (Look at your monthly calendars for new ones coming up.) We'll be sending out needs assessment letters in April. It's not too early to be asking around to find out what your nurses need for continuing education.

◆ *Peggy Trimble, RN, MS*
Director, EMS Nursing and Specialty Care

EAST (cont.)

papers. The paper that was considered the most significant by many present involved a study on preexisting chronic medical conditions (for example, hypertension, diabetes) and length of hospital stay for trauma victims. The principal authors were Ellen MacKenzie, PhD, from Johns Hopkins, and John A. Morris, MD, from Vanderbilt University in Nashville, Tennessee. The authors' abstract noted that "20 percent of trauma victims have PECs which increase their length of hospital stay. With regionalization, trauma centers treat the majority of these patients and potentially suffer disproportionate financial losses when reimbursement is based on DRGs."

At this year's annual meeting, the board of directors elected three "Hall of Famers" in trauma care as its first honorary members. They were Dr. R Adams Cowley, founder and director of MIEMSS; Dr. John H. Davis, long-time editor of the *Journal of Trauma;* and Dr. Jonathan E. Rhoads, of the University of Pennsylvania. The total years of membership (and *leadership*) of these individuals in the AAST equal 83 years.

As of its last meeting, the membership of EAST had grown to 260. From the quality of the research presented, the enthusiasm of its members, and the learning experiences that it offers, EAST is firmly established as the "new kid on the block."

◆ *Carl A. Soderstrom, MD, MIEMSS (Member of EAST '87)*

The MIEMSS Shock Trauma Center
presents a
Preakness Celebration Gala
May 13, 1989
7 pm to midnight
at the
Towson Center
of
Towson State University
featuring
Music of Gene Donati Orchestra
Gourmet Food by Great Occasions

Tickets for the black-tie event, which benefits Shock Trauma's endowment fund, cost $150 per person. For information, call Michelle Duquet, 301-328-8976.

Inservice Offered On 'Packaging' Med-Evac Patient

During 1986 and 1987 approximately 1400 interhospital transfers were made by the Maryland State Police (MSP) Med-Evac helicopters. Over the past several years emergency services personnel in hospitals around the state have expressed the need for an inservice on packaging the patient for Med-Evac transport. To meet this need, MIEMSS EMS Nursing and Specialty Care Department and the MSP Aviation Division developed a one-hour inservice "Packaging the Patient for Med-Evac Transport." From July through October, Cindy Raisor, MIEMSS Med-Evac Nurse Coordinator, and TFC Guy Glendenning, a nationally registered flight paramedic, provided this inservice to over 700 participants in 39 Maryland hospitals. Attending were staff members in critical care, neonatal, pediatric, obstetrical, emergency department, and prehospital care specialty areas.

Comments and evaluations from the participants were very positive. The Maryland Department of Transportation has awarded a small grant to continue the inservices statewide since new helicopters will be placed into service during the upcoming year. The newly acquired Dauphin helicopters will allow more rapid transfer of patients from roadside to hospitals as well as from hospital to specialty referral centers.

Ms.Raisor is a former flight nurse from North Carolina who served as a member of the Maryland helicopter procurement team. Her background in aviation as well as EMS and critical care has enabled her to collaborate with MIEMSS Clinical Nursing, the MSP Aviation Division, and the MIEMSS Aeromedical Director in anticipating equipment and service required during critical transport. Guiding this comprehensive assessment are the newly adopted standards of care of the Association of Air Medical Services (formerly ASHBEAMS). Maryland meets these standards for high-risk neonatal patients (and has met them since 1972) because specially trained transport nurses accompany the neonate during transport by ground or air. The MIEMSS EMS Nursing and Specialty Care Department will be assessing the needs of other patient populations (such as high-risk maternal, pediatric, and adult critical care interhospital tranfers) regarding the level of care and make recommendations concerning staffing, protocols, and procedures. The results of this assessment will be presented to the Maryland Executive Helicopter Advisory Committee for their consideration and recommendations in the near future.

To initiate a request for the inservice "Packaging the Patient for Med-Evac Transport," call Cindy Raisor at 301-328-3930. This inservice is provided without charge.

Physical Therapy Conference

The fifth annual physical therapy symposium, "Physical Therapy for Trauma/Critically Ill Patients," will be held March 29 - April 1, 1989 on the UMAB campus. Sponsored by MIEMSS, the symposium will provide an overview of physical therapy management, including the latest techniques in the care of ICU patients and key issues related to head- and spine-injured, multitrauma, and orthopaedic patients. Research and advanced-level discussions on respiratory physical therapy will be included.

Participants attending the entire course will earn 2.2 CEUs. The symposium will be held at the Medical School Teaching Facility on the UMAB campus.

For further information, call Christie McDonald, symposium coordinator, at 301-328-7667.

EMS Response to Bleacher Collapse

Early in September, eleventh graders at McDonough High School in Pomfret, Charles County, were gathered in the school gym for an assembly when part of the bleachers collapsed. Approximately 120 students suddenly tumbled on top of one another, causing bumps, bruises, fractures, and more serious blunt injuries requiring hospitalization. The all-volunteer EMS system in this rural area met its challenge well.

When Incident Commander Chief James R. Ellis, Jr., of the LaPlata Volunteer Fire Department arrived, he found a mass of students, teachers doing first aid, and many individuals bewildered and in pain. Chief Ellis realized he would need additional help, so he put the Charles County Emergency Master Plan in operation. This brought more units and alerted nearby hospitals that their services would be needed.

"The bleachers collapsed in a domino fashion, leaving the kids sitting in each other's laps—five deep," says CRT David LeJeune of Charles County Medical Unit, the only ALS unit in the county. "They looked like they were down in a hole, with the bleachers suspended above."

Units responded from the LaPlata, Potomac Heights, Bryans Road, Waldorf, and Marbury volunteer fire departments and from the Charles County, Bryans Road, Potomac Heights, Indian Head, Hughesville, Prince Georges County, Accokeek, Allentown Road, Silesia, and Brandywine rescue squads. Helicopters from Maryland State Police Sections 2 and 7 and the US Park Police provided medical evacuation. The Charles County Sheriff's Department was there to assist and to conduct an investigation, control traffic, and help the teachers keep a list of students taken to each hospital. They were assisted by the Maryland State Police.

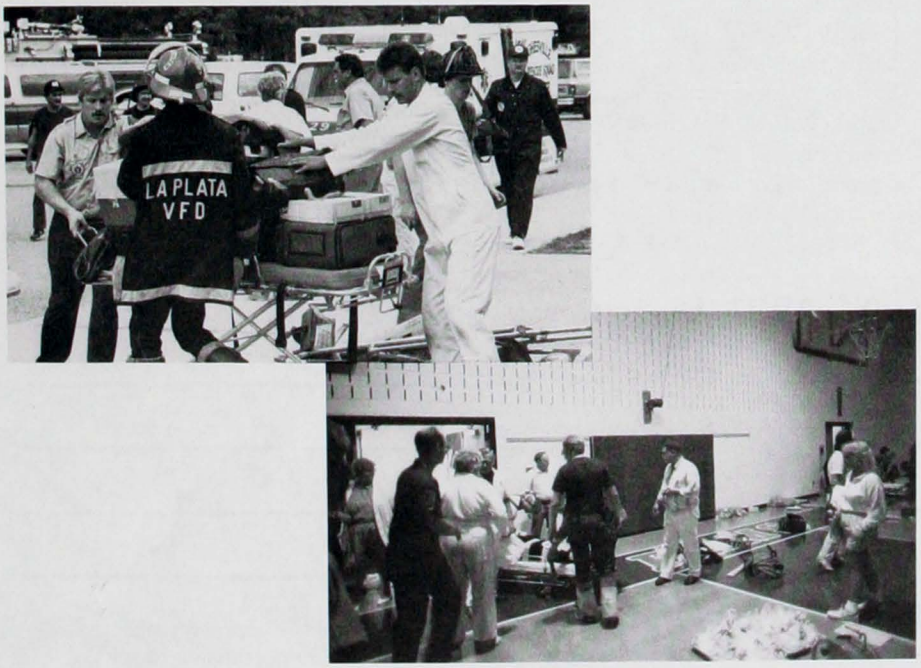
Physicians Memorial Hospital (PMH) sent a medical team to the school to evaluate and assist. Some children were treated by the PMH team on the scene; others, who were not hurt, signed releases and left. A bus was provided by the Board of Education to transport about 20 students with minor injuries to Southern Maryland Hospital Center for treatment. More than 70 combined fire and rescue personnel triaged, treated, and transported 58 students by ambulance; three students were sent by helicopter to Prince George's Hospital Center because of possible cervical spine injury.

Ray Dunn, who was then captain of the Charles County Rescue Squad, the first due BLS company says, "It was not chaotic. There was a little crying and people did as they were asked. But every time we thought we had it cleared up, some more kids came forward."

It has not yet been determined what caused the bleachers to collapse. According to Linda Dent-Brown, spokesperson for the Charles County Board of Education, Superintendent of Schools John Bloom appointed a 5-member committee to review the findings. Their report has not yet been issued. Among other areas of concern they are trying to determine whether there are similarities to bleacher collapses that happened in other parts of the country.

"The volunteers did an outstanding job," says Chief Ellis. In fact everything went so well it was decided to cancel the Charles County Disaster Drill, which had been scheduled for just 2 days later.

◆ *Erna Segal*



Some of the more than 70 combined fire and rescue personnel who responded to the bleacher collapse at McDonough High School in Charles County. (Photos courtesy of the Maryland Independent)

Getting a New Look

A *new* trauma center, *new* helicopters, and a *new Maryland EMS Newsletter*. The newsletter, as you can see from this issue, has a new look and a new mission. We want to provide information to *all* providers of emergency care, from the emergency scene through rehabilitation. Hence, some articles will be targeted to specific professionals. We want to keep the Maryland EMS community and its friends informed of happenings locally, regionally, and nationally. We invite your suggestions concerning articles and features to expand our educational mission.

◆ *Carl Soderstrom, MD, Editor*

DATED MATERIAL

Address Correction Requested
MIEMSS, *Maryland EMS News*,
22 S. Greene St., Baltimore, MD 21201-1595

Director: R Adams Cowley, MD
Editor: Carl A. Soderstrom, MD (301-328-5537)
Managing Editor: Beverly Sopp (301-328-3248)

University of Maryland at Baltimore
22 S. Greene St., Baltimore, MD 21201-1595

Emergency Medical Services Systems
for
Maryland Institute

Published Monthly

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'Promoting Excellence in EMS' Conference Slated at Ocean City

A 2-day continuing education conference will be held on Saturday and Sunday, April 8 and 9. The conference is sponsored by the Ocean City Paramedic Foundation, Town of Ocean City EMS Division, EMS Region IV Advisory Council, and MIEMSS. Participants who attend both days of classes will earn continuing education credits toward their recertification requirements.

Registration will begin on Saturday from 8:00 to 8:30 am at the Ocean City Fire Department (2nd floor), 15th Street and Philadelphia Avenue. The registration fee ($15) includes coffee and danish Saturday and Sunday mornings; lunch on Saturday; and soft drinks in the afternoon.

Registration must be received by March 31. (No walk-in registration will be accepted.) For additional information, call Debbie Patterson, Ocean City Division of EMS (301-289-8295).

Speakers and topics at the conference will be:

- *Julius Zant, MD*
  Peninsula General Hospital Medical Center
  SPINAL TRAUMA AND CASE REVIEW
- *Paul McClelland, MD*
  University of Maryland Medical System, Department of Psychiatry
  BEHAVIORAL EMERGENCIES
- *John Smialek, MD*
  Chief, State of Maryland Medical Examiner
  FORENSIC MEDICINE & EMS
- *Captain Gary Warren*
  Baltimore County Fire Department
  HAZARDOUS MATERIALS & EMS
- *J.P. Isaacs, MD*
  Retired, Private Practice
  EMS AND THE ELDERLY
- PANEL PRESENTATIONS AND DISCUSSION
  Maryland State Police Aviation Division, Salisbury Section
  Maryland Natural Resources Police
  Maryland State Park Service
  National Park Service
  US Coast Guard
  Delaware State Police, Aviation Division

PROMOTING EXCELLENCE IN EMS • Registration Form • April 8 and 9, 1989

Name _____ EMS Affiliation _____

Address _____ Phone (Work) _____

_____ Phone (Home) _____

EMT-A ☐ CRT ☐ EMT-P ☐ Social Security Number _____

- Registration must be received by March 31, 1989.
- Registration fee of $15 is required in advance. No reduction in fee for partial attendance. *Make checks payable to Ocean City Paramedic Foundation.* Please put name and social security number on checks. Only certified checks, money orders, or Fire Department issued checks will be accepted.
- No walk-in registration will be accepted. Space is limited and will be allotted on a first-come, first-serve basis.
- Conference schedule will be forwarded upon receipt of registration.
- Mail forms and checks to Ocean City Paramedic Foundation, PO Box 1228, Ocean City, Maryland 21842.