



Maryland
**EMS
NEWS**

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The 894-foot USNS Comfort is equivalent to a 10-story building. The distance from the mast to the water line is 124 feet when the ship is fully loaded. (Photo courtesy of US Navy)

'Trauma Center' Ship Ready for Duty

The USNS Comfort, a floating trauma center, was welcomed to its home port of Baltimore in ceremonies at the Dundalk Marine Terminal on June 17. The Navy's hospital ship will be docked here for the next 5 years. With 1,000 beds and an armamentarium of diagnostic and monitoring equipment, the ship is dedicated to providing emergent medical care during military conflicts and in relief efforts after natural disasters.

Comfort joins the USNS Mercy in the fleet of ships owned and operated by

the US Navy Military Sealift Command. It is the third ship to be named "Comfort." Its two predecessors, AH-3 and AH-6, served in the first and second World Wars, respectively.

Before its conversion to a hospital ship in 1987, the USNS Comfort (T-AH 20) was a supertanker, the SS Rose City. The six holds of the tanker were fitted with modular units to create the hospital environment. Instead of the narrow passageways and steep steps that are common among ocean vessels, Comfort has wide ramps between decks and large,

open patient treatment areas.

The crew that maintains and operates the ship has both military and civilian members. During reduced operating status, 13 civilian mariners will secure and maintain the ship, and 40 military medical technicians will be responsible for the medical equipment and supplies. When called into service, the Comfort can shift to full operating status within 5 days. The civilian mariner crew is then increased to 70, and the military crew expands to 1,160. Medical and food supplies are also taken aboard during that transition.

On the eight decks of the 894-foot ship are all of the facilities needed for efficient transport and medical treatment of traumatically injured patients. The landing area on the top level can accommodate the CH-53, the largest helicopter in military use, or two smaller helicopters. Patients can also be brought aboard from boats; metal frames are lowered over the side to hoist patients on litters onto Comfort's open deck.

Adjacent to the receiving deck are two decontamination bays for patients exposed to chemical, biological, or radioactive agents. Across the hallway are elevators on which patients are moved to definitive care areas. Triage is conducted in a 50-bed casualty receiving area. The ship is designed to accept an average of 200 casualties every 24 hours. The 12-station operating complex is located in the very center of the vessel, where the ship's movement is felt the



An average of 200 patients per day can be stabilized and triaged in Comfort's 50-bed casualty receiving area.

(Continued on page 5)

Nurses in the Neurotrauma Center . . .



Nurses in the Neurotrauma Center care for a patient. The Center consists of 41 beds.

"Nurses are the 'eyes' for the health care team. We are with patients every hour of the day. Through our careful monitoring, we can detect subtle physical changes that mean a patient is making progress or is in need of additional intervention." Karen McQuillan is speaking from her experience as the clinical nurse specialist in the MIEMSS Neurotrauma Center (NTC). She is one of the group of dedicated nurses who face the daily challenges and share the successes on the unit.

The NTC, on the fourth floor of the MIEMSS Shock Trauma Center, opened eight years ago. Since then, it has evolved from a two-bed unit into acute and subacute units with a total of 41 beds. It is a busy place, where nurses and other health team members move quickly among the patient care areas.

In the 19-bed acute care unit, one nurse is responsible for one or two patients. The patients are connected to ventilators and tubes that support them as they heal.

Using sophisticated equipment and expert assessment skills, nurses monitor patients for subtle physical changes such as alterations in pupil size, blood pressure, or level of consciousness. Recognized changes are communicated to the physician, and appropriate measures are then taken to avert serious complications. Sue Roberts, nurse supervisor in the NTC, notes, "We have an excellent working relationship with the physicians on the unit. There is a great amount of

trust between us. Nurses relay their observations to the physicians, who can utilize this information in planning patient care."

A short distance down the hall is the 22-bed subacute care area, where patients are more stable. They have progressed beyond the need for constant respiratory and intravenous support. These patients are encouraged to participate in their therapy and personal care as much as possible. Here one nurse cares for three or four patients. A primary nurse plans the care for the patient; other nurses then carry out the plan.

Approximately 60 percent of the patients who are admitted to the Shock Trauma Center are assessed by the Neurosurgery Service for neurologic injuries. MIEMSS clinicians take an aggressive approach to the early treatment of head and spinal cord injuries, which is believed to result in improved ultimate outcomes for these patients. Patients with multiple system injuries are usually sent to the critical care recovery unit. Those whose primary injury is to the head or spinal cord are taken to the NTC. Patients may also come to the NTC after their nonneurologic injuries have healed but neurologic deficits remain.

Ms. Roberts and Mary Louise ("Weasle") Fine, nurse supervisor on the subacute unit, described some of the challenges for nurses on the unit. "This is the most difficult patient population," said Ms. Fine. "When patients become alert enough to understand the magni-

tude of their injury, the usual response is anger. Nurses are the sounding boards for the patients to vent their feelings and frustrations."

Ms. Fine pointed out that nurses' work in the NTC is emotionally and physically draining. "We help patients adapt to the radical changes in their lives. We help them through the difficult stage of gaining independence in a world that is totally different than the one they knew before they were injured." Ms. Fine explained, "It is often difficult for the nurses to care for patients their own age, whose lives have been so drastically altered."

Ms. Roberts noted, "The patients are very scared and they often just want the nurse to be in the room with them. They want to talk about their injury and about the changes that it has made in their lives."

Efforts that are being made to provide an emotional outlet for nurses in this demanding environment were described by Ms. Fine. "Nurses frequently get together over mealtime to 'vent' their experiences on the unit. We are providing a place where nurses know it is acceptable to complain about a trying situation. The NTC nurses are very supportive of each other. That support is one of the reasons that nurses stay on the unit."

Despite the rigors of the job of a nurse in the NTC, there is a tremendous sense of commitment among the nursing staff. "We know that we make a difference in peoples' lives," stated Ms. Roberts. "The aggressive treatment that is given in the NTC can have amazing results. Sometimes people wonder why we bother with the very sick people who are admitted here. Some people feel that there is no hope. But we have seen people recover many abilities that appeared to be lost when the patient arrived. We realize the possibilities for recovery."

This is the time of year when the number of traumatic injuries peaks. Summer recreational activities put people in motion and therefore put them at greater risk for injury. "When the weather starts to warm up — around Memorial Day — anxiety starts to build," explained Ms. Roberts. "We know that our patient load is going to increase during the summer. To plan for this influx, we begin to increase supplies." Ms. Fine noted that "the summer peak also affects our staffing patterns. More nurses are needed on the unit, so there is a decrease in the

(Continued on page 3)

... Provide Multifaceted Patient Care

(Continued from page 2)

amount of vacation time that can be taken."

The Shock Trauma Center is never on fly-by for spinal-cord-injured patients, because the NTC is the statewide referral center for patients with those injuries. When the unit becomes full and more room is needed for new admissions, the intensive care unit or critical care recovery unit accepts the neurotrauma patient. The most stable patients progress to their next level of rehabilitative care — to a rehabilitation facility, their home, or a nursing home.

Working with Families

Nurses are involved in educating families about the changes that have occurred as a result of the traumatic injury. The injured person's life may have been changed forever. Nurses, together with family services personnel, help the families cope with their loss.

Family conferences, involving physicians, primary nurses, nurse practitioners, social workers, and other members of the treatment team, are held to keep family members informed of the patient's condition. The nurse often has the role of "translating" the discussions for family members. The nurse also teaches the family how to interact with the patient. Sometimes family members and friends are afraid to touch the patient, for fear of setting off an alarm or disturbing the elaborate machines that are connected to the patient. The nurse has to explain that touching the patients and talking to them is very beneficial. Unsure of what the comatose patient actually perceives, the nurses talk to all the patients as if they are aware of the activities at their bedside, and they encourage family members to do likewise.

Nurses also maintain communication with the family during the hours when the family cannot be on the unit. They might call early in the morning and in the evening to let the family know that the injured person is stable and has not experienced any changes since their most recent visit. Knowing that someone at the hospital is really involved with their loved one helps the family rest during the night, which is so important during this stressful time.

Educational Opportunities

Many educational opportunities are available to nurses in the NTC. Training is done both on the unit through in-ser-

vice programs and in the classroom. The NTC nurses collaborate with the MIEMSS Field Nursing program to prepare and present educational sessions for nurses throughout the state. Their expertise is shared with a national audience as well through conferences such as the National Trauma Symposium held each fall.

A professional model of nursing is being developed within the NTC. This gives nurses more opportunity to participate in decisions about schedules, education, quality assurance, evaluations, and nursing care. Ms. Roberts stated, "The staff has had a positive response to the new educational components of our program and to the degree of professionalism that we maintain here."

One of the facets of Ms. McQuillan's position is to coordinate and initiate nurs-

ing research projects on the unit. In conjunction with the University of Maryland School of Nursing, Connie Walleck, associate director of clinical nursing at MIEMSS, is examining the effect of nursing interventions on the cerebrovascular status of head-injured patients. The nursing research committee is beginning a study of skin care issues. Further ideas for research projects are being solicited from the nursing staff.

In summation, Ms. Roberts noted, "Nurses in the NTC need to be knowledgeable in neurotrauma, critical care, trauma, and rehabilitation. Our close involvement with the patients makes us very critical in the course of recovery and gives us the ability to affect the patients' ultimate outcome."

—Linda Kesselring

'Call for Papers' Announced

MIEMSS speech-communications disorders program announces a "Call for Papers" for the 5th National Traumatic Brain Injury Symposium to be held March 15-17, 1989, at the University of Maryland at Baltimore.

Trauma Nursing Book Published

Trauma Nursing: From Resuscitation Through Rehabilitation is a 900-page reference book for trauma nurse specialists. Its publication in May by W.B. Saunders Company was the culmination of 3 years of planning, writing, editing, and compiling by the 5 editors and 43 contributors. The editors — Ginny Cardona, Patty Hurn, Paula Bastnagal Mason, Ann Scanlon-Schilpp, and Susan Veise-Berry — are nurses currently or formerly affiliated with the MIEMSS Shock Trauma Center. Many of the contributors are also associated with MIEMSS.

The book is organized in four sections: general concepts in trauma nursing, clinical management concepts, single system injuries, and unique patient populations. Injury and recovery are presented as a cyclical process, beginning with prevention and continuing through resuscitation, critical care, rehabilitation, and reintegration into the community. Ms. Cardona noted the book is unique in its coverage of more than physiology: "We have included topics such as administrative issues, legal concerns, and the needs of special patient populations, which gives a very comprehensive text."

The focus of the symposium is the comprehensive management of patients with traumatic brain injuries, including all aspects of medical intervention, rehabilitation evaluation and treatment, family involvement, legislative concerns, and medicolegal issues.

Presentations will include miniseminars, platform sessions, and poster sessions. In addition, the 1989 Shock Trauma Speech-Communication Disorders Research Award will be presented to an individual who has made a significant contribution to head injury rehabilitation.

More than 500 professionals from 40 states attended last year's symposium. Participants included professionals from speech pathology, psychology, occupational therapy, nursing, medicine, physical therapy, and law.

All abstracts must be received by the Program Review Committee no later than September 15, 1988. For more information, contact Roberta Schwartz, director of the MIEMSS speech-communication disorders program, at 301-328-6101 or 301-328-2478.

EMS Week

will be celebrated
throughout Maryland
September 18-24

For additional information
contact your regional
administrator.

Helmet Use Urged for Bicycle Safety



In 1986, 377,000 children younger than 15 years of age were treated in US hospital emergency departments for bicycle-related injuries, according to estimates from the Consumer Product Safety Commission. And every year, about 600 children die from injuries sustained in bicycle accidents; according to an article in the *American Journal of Public Health*, this figure exceeds the number that die from accidental poisonings, falls, firearm injuries, and many important medical illnesses. The leading cause of death is head trauma — but less than 2 percent of children riding bicycles wear protective helmets.

"Now that we are making some progress in getting children buckled up in car safety restraints, it is time to realize that while motor vehicle accidents are the leading cause of accidental deaths among children, with approximately 50 percent of the injuries occurring to children inside cars, the other 50 percent occur to children who are pedestrians or are riding bicycles, scooters, or skateboards," says Margaret Widner-Kolberg, MIEMSS field nursing pediatric nurse coordinator. "Broken arms or legs can be mended; it is much harder to deal with head injuries sustained if a child's head strikes the pavement, even at a slow speed." Survivors of such head injuries have only a 33 percent chance of recovery without disability.

Occurrence of Bike Accidents

Most bicycle accidents occur to boys between the ages of 8 and 14, on straight roads in the middle of the block, in daylight between 3 and 5 pm, with good weather conditions. Many occur within blocks of the child's home.

The state of Washington is a leader in encouraging children to wear helmets while riding bikes. "If 600 kids were killed each year playing football, the sport would have been outlawed years ago," says Abraham Bergman, MD, of the Harborview Injury Prevention and Research Center in Seattle. Harborview is a founding member of the coalition of organizations that coordinates the Washington State Bicycle Helmet Cam-

paign. "Protective helmets have reduced serious head injury for football, baseball, ice hockey, and car racing participants. And helmets are already worn by experienced adult cyclists. They are required in sanctioned races and for outings by most bicycle clubs." Leather-only helmets worn by some bicyclists offer little protection.

When Buying a Helmet

Protective helmets should have the following features:

- Bright colors for good visibility
- Hard plastic or fiberglass outside, to resist impact
- Lining of polystyrene foam, not spongy to the touch
- Adjustable to the child's head size. The chin strap should hold the helmet securely so it can't be pulled forward over the face.
- Approval sticker from the American National Standards Institute (ANSI) or the Snell Memorial Foundation

Helmets are available at bicycle or sporting-goods shops. A helmet should be adjustable with various size liners so it will fit the child for 4-5 years. It will probably cost from \$30 to \$50; a helmet costing less than \$20 will not be adequate for the job.

Funding for Helmets

Funding for buying helmets can come from various sources. In Australia, where bicycles are often the main form of transportation to school, it was suggested that the Department of Education should consider organizing bulk purchases of helmets for distribution at low cost. In Washington, helmets were sold by nonprofit organizations for \$20 plus tax, and discount coupons were offered by a local helmet manufacturer. Parents, relatives, and friends were encouraged to purchase helmets. Retailers were enthusiastic about the discount coupons because they brought people into the store who often purchased other items. A health clinic in Seattle received a grant to subsidize low-income families. It is hoped that as the demand grows, more manufacturers will produce low-cost sturdy helmets and that every store that sells bicycles will also sell helmets.

Problems regarding bicycle safety helmets include making parents aware of the risks involved and the need to wear helmets and having parents convince their children to wear them. The Washington plan suggests that incentives be provided, such as starting a

helmet loaner program; raffling off or giving helmets at special events; acknowledging children who wear helmets by giving them stickers or badges; publishing free coupons in the newspapers or circulars; and providing parents with suggestions on getting children to wear them. Information should be given to show that wearing a helmet is the "cool" thing to do.

Bicycle helmet use should be encouraged in school safety and community traffic safety programs. School programs in Washington feature "Sprocket Man," who wears a red cape and a bicycle helmet. Pediatricians and family physicians should be educated on the importance of helmets and should provide information to patients. Helmets should also be worn by babies riding on the back of their parent's bicycles and by children riding skateboards or scooters.

Suggestions for Helmet Use

Among the suggestions Harborview provides for getting children to wear safety helmets are the following:

- Help your children establish the helmet habit by getting them helmets as soon as they start riding, even for tricycles. However, it's never too late.
- Wear one yourself; provide a role model. Show your children that you hold yourself and your brains in high esteem.
- When you first get your children helmets, explain why you want them to protect their heads. Let them know that their bikes are not toys, but their first vehicles; that you love your children and value their intelligence; that they can hurt their heads permanently or even die from a head injury; and that most professional athletes wear helmets while participating in sports.
- Reward your children for wearing helmets. Praise them and give them special treats when they wear them without being reminded.
- Don't let them use their bicycles without wearing their helmets. Be consistent. Tell them they will have to play some other way or find another mode of transportation if they won't wear helmets.
- Make sure all family members wear helmets during bicycle outings.
- Encourage your children's friends to wear helmets. Peer pressure can be used in a positive manner.

(Continued on page 5)

'Trauma Center' Ship Ready for Duty



Patient wards are fitted with bunk beds.

(Continued from page 1)

least. Additional medical treatment is provided in a 20-bed recovery room; an 80-bed ICU; and 16 intermediate, light, and limited care wards.

Comfort and Mercy are the first seagoing vessels to be equipped with computerized tomography scanners. Other support resources include a blood bank, pharmacy, laboratory, prosthetics department, and a medical equipment repair facility. Comfort has a four-chair unit for dental care; two oral surgery bays are also available. The surgical staff includes cardiac specialists, ophthalmol-

ogists, otolaryngologists, gynecologists, urologists, and plastic surgeons. Medical care is also provided by anesthesiologists, internal medicine specialists, psychologists, dermatologists, physical therapists, and respiratory therapists.

The Comfort will be undergoing testing procedures during the summer, after which it will be open for scheduled tours. To make arrangements for a tour, contact the Commander of the Military Sealift Command, Office of Legislative and Public Affairs (M-OOD), Department of the Navy, Washington, DC 20398-5100.

—Linda Kesselring

Bridge Closes; EMS Responds

When the Thomas Johnson Bridge over the Patuxent River was closed on June 21, access to ALS services for southern Calvert County was seriously jeopardized. The bridge connects lower Calvert County with St. Marys County. Its shutdown prevents response by the ALS unit in St. Marys County that answered emergency calls in Calvert County on a mutual aid basis; in addition, the bridge closing makes the trip to the nearest hospitals — St. Mary's Hospital in Leonardtown or the hospital at Patuxent Naval Air Station — prohibitive because of travel time, leaving ambulances to take patients a longer distance to Calvert Memorial in Prince Frederick.

A meeting was convened by a concerned group including Leon Hayes of the Region V EMS Advisory Council; Harry Koehler, of the Region V EMS Advisory Council and also the St. Marys Rescue Association; Warren Gott, Fire/Rescue EMS coordinator of Calvert County; Marvin Riddle, director of Public Safety Services of Calvert County; Kenneth Carnes, chairman of the Calvert County EMS Advisory Council; Paul Wible, EMS coordinator for St. Marys County; and Ray Lankford, president of the Calvert County Fire and Rescue Association. They conferred with Maj. Warner Sumpter, commander of the Maryland State Police Aviation Division; Sgt. Morris Jones, of the Maryland Department of Natural Resources; Ameen I. Ramzy, MD, state EMS director; and Marie Warner-Crosson, MIEMSS Region V administrator.

Plans were formulated by Maj. Sumpter to expand coverage by Helicopter #7 from the Patuxent Naval Air Sta-

tion to two shifts during the period the bridge is closed for emergency repairs, making it available 16 hours a day through Labor Day. The Department of Natural Resources made available its ALS hovercraft for peak periods, such as the July 4th weekend, upon request.

State EMS Director Ameen I. Ramzy also worked to make ALS service available to Calvert County on a temporary basis. He said that "an ALS unit has been established in the affected area through the cooperation of more than a dozen trained volunteers from Calvert, St. Marys, Prince Georges, and Anne Arundel counties." Solomons Island Volunteer Fire Department and Rescue Squad lent a utility vehicle to be converted to a "chase unit"; the Charles County medic unit lent a medical kit; and MIEMSS lent an ALS radio and monitor/defibrillator and installed them in the temporary ALS unit.

As stated by Dr. Ramzy, "The response to the unanticipated transportation problem by expanding helicopter hours, making available the ALS hovercraft, and establishing the temporary ALS unit is a credit not only to recognition of the problem by the local community and the regional EMS advisory council but also to the local, regional and state organization that worked together to respond to this situation."

Repairs on the bridge are proceeding. Steel bars and reinforcing plates must be added across the cap of each cracked pier of the bridge. It is estimated that by having crews work 24 hours a day during the week and 18 hours a day over the weekend, repairs can be completed sometime in September. —Erna Segal

Bike Helmet Use Urged For Children, Parents

(Continued from page 4)

- Remember: Accidents causing head injuries can occur on sidewalks, driveways, bike paths, and in parks, as well as on streets. A bicycle accident occurs unexpectedly; therefore, helmets should be worn whenever one is riding a bicycle, even if it is "just down the street."

Some parents say, "My child wouldn't wear a helmet." Mrs. Widner-Kolberg points out that parents are responsible for their child's well-being, and they should set the rules that apply to their child's safety.

For further information about bicycle safety helmets or starting a campaign in your community, call Margaret Widner-Kolberg, 301-328-3930.

—Erna Segal

Readers Take Note!

If you're receiving more than one copy of the newsletter, please let us know. Send the mailing labels that you want to have deleted to the Editorial/Publications Office, MIEMSS, 22 S. Greene Street, Baltimore, MD 21201 or call 301-328-3248.



Disaster Simulator Used for Training

A new training tool for disaster response preparedness is being developed by MIEMSS Field Operations Computer Support Services and the Charles McC. Mathias, Jr., National Study Center for Trauma and Emergency Medical Systems. The sophisticated network of the disaster simulator enables students at computer stations to practice and study the roles of incident commander, dispatcher, EMS officer, triage officer, and transportation officer. Positions for a fire commander, rescue operations, and hospital personnel are being designed.

The project was conceptualized two years ago by William E. Clark, who is now an emergency medical systems specialist with the National Study Center, and Frank Altobelli, manager of Field Operations Computer Support Services. Mr. Clark states that "this system provides a new dimension to training EMS personnel in the dynamics of dealing with a multiple or mass casualty situation. The program is able to localize the portrayed incident to specific geographic situations. One of its assets is transferability to the training technology in other states. Inquiries from other training offices have already been received."

From a screen depicting a state map, trainers select a disaster site. The dispatcher calls up a map of the county where the incident occurred, which depicts major highways and the disaster location. (A display of the location of fire and rescue companies will be added.) Also accessible is a list of ALS units, BLS units, fire engines, rescue boats, and other specialized vehicles, even coffee wagons. This list identifies the unit's station and indicates its availability. The dispatcher selects the first units to be sent to



(L-r) Frank D. Altobelli, Jr., and William E. Clark, co-developers of the computer simulation training program, discuss a new electronic patient tracking system.

the scene. An internal clock calculates the travel time to the incident site.

The incident commander directs the response to the crash by using various screens of information. One list gives the number of people involved in the crash, their locations, and their injuries. Another tells the hospitals in the area and their number of available beds. The commander can ascertain the number of medics and firefighters at the site (based on the number of response vehicles that have arrived) and can assign them to specific locations — at the crash, in the triage area, or in the patient transport sector. In addition to the list of response vehicles in the immediate area, the commander can use descriptions of units in neighboring jurisdictions to bring more units or specialized equipment to the scene and to request backup units for stations near the incident site. These screens are based on actual mutual aid agreements within Maryland.

The triage and transport sectors are managed by the EMS officer. The triage officer has access to detailed information about patients' conditions. Through "patient diagnosis" screens, the program describes each person's skin, breathing, pulse, neurologic status, blood pressure, pulse rate, and electrocardiographic reading and notes the presence of Medic Alert tags on some patients. Treatment/transport priorities are assigned by the triage officer. As time passes, some patients' conditions will deteriorate and their priority will be changed by the computer if medical care is not given.

The treatment officer also has access to descriptions of the patients' injuries. Beyond the patient diagnosis screens are treatment options that can be selected by prehospital care personnel. "Help screens" can be tapped if the medical provider needs assistance. The "help" area of the system contains the text of *Maryland Medical Protocols for Cardiac Rescue Technicians and Emergency Medical Technician-Paramedics*. Future plans include the addition of more BLS protocols and of screens for treatment by hospital physicians.

The transport officer uses screens of patient information, vehicle availability and capacity, and hospital bed status to make patient transport assignments. The computer's elapsed time clock on the patients influences the decisions that need to be made by this officer.

The program allows only the inci-

dent commander to communicate with personnel away from the scene (the dispatcher and hospital contacts). The other officers can "talk" with each other and with the incident commander. As Mr. Altobelli explains, "Many of the tensions associated with a real disaster are built into the simulator. The communications patterns are the same as in an actual incident. Every decision that one officer makes affects the information available to the others. If the incident commander assigns a firefighter to carry patient litters, that is one less person on the team that is freeing victims from the wreckage. When the transport officer puts a medic in an ALS unit going to a hospital with a Priority 1 patient, the number of treatment personnel on site decreases."

Adding to the complexity of the simulation program is the role of an evaluator. This person, at another computer terminal, can "watch" the evolution of the response and monitor the decisions being made by the officers. The evaluator also has the ability to intervene in the scenario: a patient's condition can be worsened, an ambulance can be made to have a breakdown between the scene and a hospital, and weather conditions can be changed.

The simulator was first demonstrated at the 1987 Maryland State Firemen's Association annual convention in Ocean City. When the system is completed, it will be set up in Dunning Hall on the campus of UMAB, the new office space for Field Operations Computer Support Services. It will also be taken to Maryland EMS conferences and special events.

Funding for the creation of the simulator has been provided by MIEMSS, the National Study Center, the Maryland Department of Transportation (for the treatment station), and a Fulcrum Grant through the University of Maryland (providing equipment for the development of the treatment station).

For more information about the simulator, contact Mr. Altobelli at 301-328-2370. —Linda Kesselring

Revising ALS Manual

If you want to suggest any revisions for the *Maryland Medical Protocols for Cardiac Rescue Technicians and Emergency Medical Technicians-Paramedics*, please send them to your local program coordinator. A revised protocol manual is planned, with protocols to go into effect next summer.

ATLS Class Trains MDs for Trauma

"We want three surgeons to each group of six physicians." The physician/students wearing blue scrub suits, gloves, and masks mill around, splitting up into three groups. Seemingly oblivious to the overwhelming odors of formaldehyde and death, each group clusters around a cadaver on a gurney. Three physician/instructors ask questions that challenge everything the students learned in medical school. "You're absolutely right according to the usually preferred method, but . . ." "Who has a different way?" "Don't forget that this is a high-pressure situation — the patient is about to die . . ." What makes this different from medical school or everyday practice is that these physicians are learning about trauma medicine, where every minute of the Golden Hour counts.

"Don't forget there will be a lot of activity around the head, neck, and chest. If vascular access is truly an issue, where else can you find it?" The students begin a saphenous vein cutdown at the ankle. "What are your other options? The groin? A percutaneous stick?" The instructor encourages new approaches. Students practice peritoneal lavage, chest tube insertion, pericardial centesis, needle cricothyroidotomy, and surgical cricothyroidotomy. This hands-on cadaver lab is one of the reasons that physicians came from 11 states and from foreign countries to take MIEMSS advanced trauma life support (ATLS) course in March. Most ATLS courses use pigs, dogs, and sheep instead of cadavers in their labs. The unique relationship between MIEMSS, the State Anatomy Board, and the University of Maryland School of Medicine make the cadaver lab possible.

MIEMSS ATLS instructor courses, which are given twice a year, as well as the ATLS provider courses, which are given monthly, are directed by Roy A.M. Myers, MD, FRCS, director of the MIEMSS hyperbaric medicine department and the state ATLS program. "We've done it so often, our lecturers are good," Dr. Myers says. "They are involved in trauma all the time. Faculty for this course should be at least half surgeons; our faculty is 75 percent surgeons." After several MIEMSS personnel took the first ATLS instructor course in 1978, it was decided that all MIEMSS attending physicians should be ATLS-certified instructors. The ATLS course is promoted and produced by the Ameri-



Physicians practice various trauma procedures in the hands-on cadaver lab at an ATLS course.

can College of Surgeons.

In addition to the cadaver lab, physicians in the ATLS instructor course have 8 hours of instruction specifically oriented toward teaching adults how to teach other adults. This includes courses in teaching techniques and a micro-teaching course in which the student must prepare a short lecture and deliver it to a group of his peers. The lecture is videotaped, and it is critiqued. It comes as a shock to many of the physicians to find that in delivering their lectures they sway from side-to-side, speak too quietly, block off their slides, speak too fast, or try to say too much in their allotted time, going over their time limits. They will be better lecturers for having seen themselves in action.

Students in both the ATLS provider and instructor courses participate in practical skills stations, dealing with "Mr. Hurt," on whose rubber head they must find eight injuries; cervical spine injury x-rays; spinal immobilization; or extremity immobilization. Two students, one acting as criticizer and one as student, examine a moulaged "patient" while the instructor gives them a scenario and answers questions. Students must determine the injuries, present the investigations, and describe the treatment at all of the skills stations. They are challenged by the instructor: "What size is the IV? 18 gauge? No, make it 14 gauge." "What do you want your nurse to be doing at this time?" "That could prove to

be a fatal error."

More than one physician from overseas has expressed a wish that this course were available in his/her country. Mr. Robin Touquet, FRCS, who is the consultant (director) of the accident and emergency medicine department of St. Mary's Hospital in West Central London, England, said: "This is an extremely well-run and informative course. There is considerably less trauma in England than in the United States, and trauma medicine is not systematically taught. However, because we get less practice, it is even more important that it be taught well."

Physicians who take ATLS courses represent a variety of specialties and subspecialties. Most are surgeons, emergency medicine specialists, family practitioners, and anesthesiologists. For further information about ATLS instructor or provider courses, contact Melody Nelson, ATLS secretary, at 301-328-2919.

—Erna Segal

Correction

The May issue of this newsletter incorrectly stated that Region II's first paramedic program would be certifying nine EMT-Ps from Washington County in June. The honor of having the first paramedic program in Region II belongs to Frederick County ALS, which currently has 21 certified EMT-Ps, who have been certified for two years. We regret the error.



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MIEMSS Region IV Conference Slated

A 2-day continuing education conference for Region IV EMTs and CRTs will be held on Saturday and Sunday, October 1 and 2. The conference is sponsored by the Memorial Hospital at Easton, the Talbot County Advanced Life Support Services, and the MIEMSS Region IV office. Participants who attend both days of classes will earn 12 hours of continuing education credits toward their recertification requirements.

Registration will begin on Saturday from 8:30 to 9:00 am at Memorial Hospital at Easton (Education Wing), 219 S. Washington Street. Registration fee (\$10) includes coffee and danish Saturday and Sunday mornings; lunch on Saturday, courtesy of Memorial Hospital; and soft drinks in the afternoon.

Sunday's program will convene at 7:30 am in the cafeteria of Memorial Hospital. There will be a forum on current topics in EMS. Attendance is optional. Registration for Sunday's program will be from 8:30 to 9:00 am. Lunch on Sunday is on your own.

Registration must be received by September 15. (No walk-in registration will be accepted.) For additional information call the Region IV Office at 301-822-1799.

Speakers and topics at the conference will be:

- *Ameen I. Ramzy, MD*
MIEMSS Deputy Director and State EMS Director
TRAUMA
- *Julie Ann P. Casani, MD*
Francis Scott Key Medical Center Emergency Department
PATIENT ASSESSMENT
- *Charles Schoenfeld, MD*
ALS Medical Director, Memorial Hospital at Easton
MEDICAL EMERGENCIES
- *Nancy Hoyt, MA, CIC*
MIEMSS Infection Control Officer
CONTROL OF INFECTIOUS BLOOD-BORNE DISEASES
- *Patricia Epifanio, RN, MS, CEN*
Emergency Nurse Coordinator, MIEMSS Field Nursing
Barbara Siebelt, RN, BA
Risk Management Consultant
MOCK TRIAL
- *Maryland State Police Aviation Division*
HELICOPTER SAFETY AND PACKAGING OF PATIENTS

MIEMSS Region IV Conference • Registration Form • October 1 and 2, 1988

Name _____ EMS Affiliation _____

Address _____ Phone (Work) _____

_____ Phone (Home) _____

EMT-A CRT Social Security Number _____

- Registration must be received by September 15, 1988.
- Registration fee of \$10 is required in advance. No reduction in fee for partial attendance. Make checks payable to Margie Callahan, RN, c/o Memorial Hospital. Please put name and social security number on checks.
- **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 Margie Callahan, RN, c/o Memorial Hospital of Easton, Inc., 219 S. Washington Street, Easton, MD 21601.