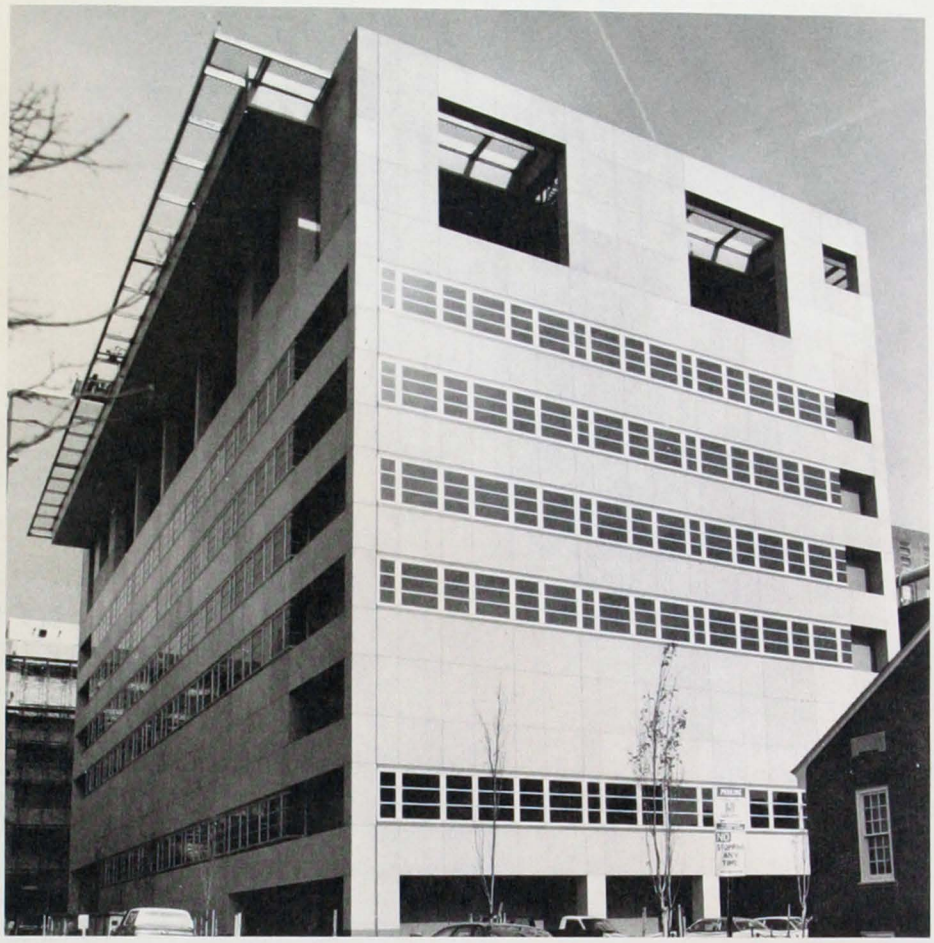
Maryland
EMS
NEWS

Vol. 15, No. 7 JANUARY 1989



The new R Adams Cowley, MD, Shock Trauma Center (photo by Lightner Photography)

New Shock Trauma Building to Open

February 13 is the date set for the new R Adams Cowley, MD, Shock Trauma Center to receive its first patients. The staff anticipate that when they begin moving acutely ill patients from the existing Shock Trauma Center to the new building, there will be no disruption of services. New patients transported that day will be admitted to the new facility.

The new building is named after Dr. R Adams Cowley, the founder and director of MIEMSS, who pioneered the Shock Trauma Center and Maryland's EMS system. The MIEMSS Shock Trauma Center is the hub of the Maryland EMS system, which treats the most critically injured in the state and also serves as specialty referral centers for head and spinal cord injured patients and for patients needing hyperbaric medicine.

The new state-of-the-art Shock Trauma facility with equipment designed specifically for the care of critically ill and injured patients will open after more than eight years of planning and three years of construction. Part of the University of Maryland Medical System and located at Penn and Lombard streets, the $44 million building, which was funded by the State of Maryland, has 190,000 square feet of floor space distributed over 11 levels (see box for specific features).

Reflecting on the cramped quarters of the existing Shock Trauma Center, which includes hallways resembling obstacle courses filled with assorted equipment, laundry racks, and other items, Dr. Cowley said that the new building "will be heaven." But more importantly, the new facility "will expand our capability to handle the increasing number of severely injured trauma patients." More than 2,900 admissions from roadway crashes, falls, smoke inhalation, and other life-threatening incidents were treated at the Shock Trauma Center in 1988; this number is expected to increase in 1989.

In addition, Dr. Cowley says that vital minutes of the Golden Hour will be saved by having a rooftop heliport and an ambulance entrance easily accessible to patient-dedicated elevators leading directly to the admitting area. (Previously the Med-Evac helicopters landed atop a parking garage, where patients were off-loaded and put into an ambulance, driven down seven floors of the garage and down the street to the back entrance of University Hospital, off-loaded from the ambulance, wheeled down a long basement hallway to two general-use elevators, and taken to the first floor admitting area. This process took about 8 minutes.)

The admitting area has 10 resuscitation/stabilization self-contained cubicles plus an isolation room (five more beds than in the current center). Each cubicle has access to overhead x-ray equipment. On the same floor as the admitting area are five operating rooms (the current center has three) plus an organ procurement room, as well as the recovery area which consists of six beds, plus an isolation room (three more beds than the existing center). A radiology suite with full-service capabilities, including CT scanning and angiography, is on the same floor as the admitting area, operating rooms, and recovery rooms.

Patient care areas, including the

(Continued on Page 2)

Director of MIEMSS Dr. R Adams Cowley gives the media a briefing on the new Shock Trauma Center facility.

(Continued from Page 1)

neurotrauma acute area, are on the fourth, fifth, and sixth floors. Each has 12 critical care recovery and 12 intensive care beds on the outer perimeter of the building, with patient information stations at the center of the floor. (This brings the total number of beds in the building to 72.) The new center is physically connected to University Hospital, affording easy access to the fourth floor of the hospital, where the existing Shock Trauma intermediate care unit is located. These 66 intermediate care beds, which will eventually be renovated, bring the total number of Shock Trauma patient beds to 138 (31 more than in the existing center).

All patient cubicles in the new building are identical in configuration. A power column in each room offers maximum flexibility in the upgrading and downgrading of care and thus minimizes the need to move patients among the units. Currently patients are often moved to as many as six different units as their conditions improve. When the new building opens, patients will be taken to the acute care area and moved to the intermediate care area as they improve.

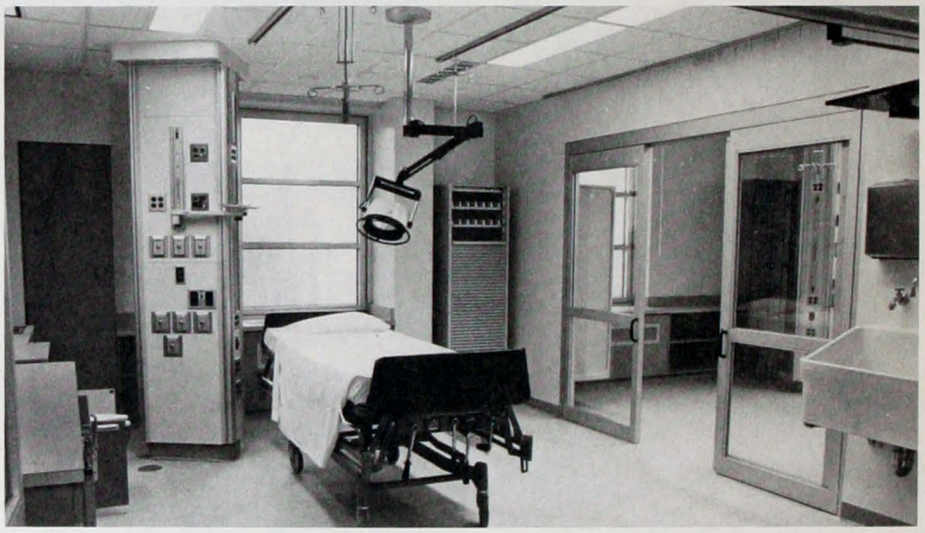
The new building is the embodiment of the ideas of the Shock Trauma Center staff. User groups consisting of the unit physicians, unit nurses, representatives from ancillary services and support services, clinical administrators, project managers, and the architects provided specific information on their needs — for example, equipment requirements and room configuration. But according to Alfred Reid, Jr., chairman of the architectural firm Reid and Stuhldreher, PC,

(Continued on Page 8)

Features of the R Adams Cowley, MD, Shock Trauma Center

- A rooftop heliport, with room for four Med-Evac helicopters. The heliport also includes an automatic foam fire extinguishing system; snow-removal equipment and a melting pit; and drainage system for fuel spills
- 10 resuscitation/stabilization cubicles, plus an isolation room
- 5 operating rooms, plus an organ procurement room
- 6 recovery cubicles, plus an isolation room
- 72 critical care/intensive care beds (linked to 66 adjacent intermediate care trauma beds)
- Full-service radiology capabilities
- 7 examining rooms in the clinic/outpatient area
- Waiting rooms for families on all patient care floors
- 9 patient information stations
- 3 rooms for respiratory, physical, and speech therapies
- High technology bedside monitoring combined with sophisticated computers and data processing
- A 24-hour STAT lab
- A modern pharmacy
- Materials management area
- Biomedical engineering area

Architects: Reid & Stuhldreher, PC, and Jacob J. Gzesh & Associates, a joint venture. Construction Manager: Whiting-Turner Contracting Company. Mechanical/Electrical Engineer: Gipe Associates, Inc.



Each patient cubicle is identical in configuration. The power column (at left) allows nurses to administer patient care while monitoring physiologic parameters and to have 360 degree access to the patient. Break-away glass doors (at right) can be opened to allow two patients to be cared for by one nurse or can be closed for privacy.

Each 12-bed unit, as well as the admitting, recovery, and outpatient areas, has a patient information center.

The heliport atop the new building (at left) is larger than the heliport currently used and can accommodate up to four helicopters.

New Computer Network Serves STC

The computer network that serves the new Shock Trauma Center is Ethernet. In addition to linking the clinical support system throughout the center, Ethernet connects the new center to other computers and networks, including those at the University of Maryland Medical System, University of Maryland at Baltimore County, University of Maryland at College Park, the Health Sciences Library at the University of Maryland at Baltimore, the National Study Center (TIES), ARPANET, and Bitnet. Ethernet is a digital communications system that will carry clinical information, electronic mail, research data, library resources, updates of the EMS system status, financial information, and clerical support services.

"Ethernet provides a standard transport medium and protocol," says Jay Guenon, director of the MIEMSS Computer Center. "The network has more flexibility, speed, and capacity than the system that we had been using."

Each of the 110 workstations in the center — at each bedside and in the admitting area and operating rooms — has three times the power of the one computer that ran the entire clinical computer system in the previous building. A wallplate in every room in the center provides a connection to Ethernet; 420 wallplates have been installed. The collective computing power of the new workstations is 200 to 400 times that of the old clinical system. The network can move data into and among the workstations, terminals, PCs, and VAXs at a rate in excess of half a million characters per second.

Two goals have been foremost in the development of the bedside workstations. The first is to increase the degree of computer-assisted care, which is achieved by the system's delivery of more information about the patient. With more data available in less time, clinicians are better able to anticipate the patient's needs and make decisions regarding appropriate interventions. The second goal is to get patient information to clinicians when they need it, which is usually within seconds of when it is requested. As the network continues to develop, its color graphics capabilities will be enhanced to provide powerful display formats such as x-ray images.

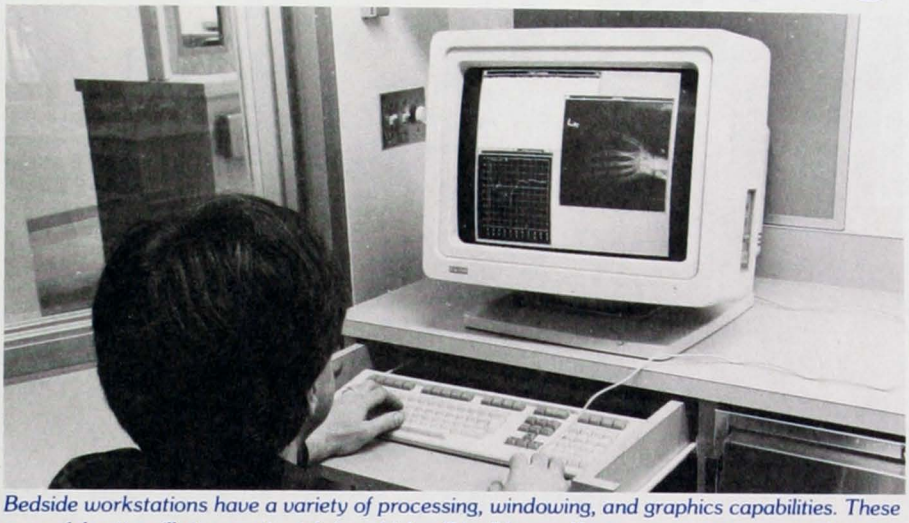
In comparison with MIEMSS' former computer system (a traditional late 1970s system, according to Mr. Guenon), the new network is connected to more devices, uses time-saving input methodologies, employs automated flow sheets and flexible reprint mechanisms, and facilitates cross-references to historical statistical information. Training in the use of the network will be provided by the vendors supplying the various programs.

The new system continues MIEMSS' emphasis on the accuracy of data and the security of the system against accidental loss or unauthorized attempts to extract information. The network's operating system has a C2 rating from the US Department of Defense, which is the highest rating of any commercially available system.

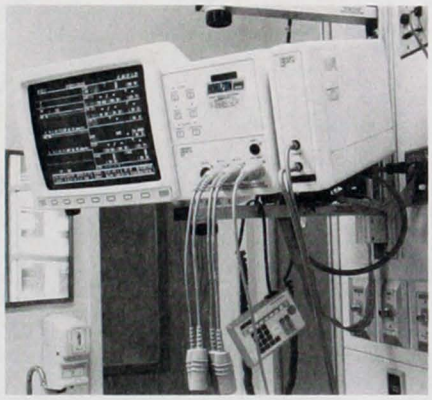
The transition from the old to the new system was implemented over the past 2 years. "Our goal has been to minimize the downtime for the clinical staff," stated Mr. Guenon. "We wanted it to seem as though the system was down for only a few hours for routine maintenance instead of interrupting the workflow for any significant time." Data processing systems have already been changed "behind the scenes." Users saw the same menus on their screens but actually had been switched to a much more powerful system. The physical move to the new center occurred in a 2-month sequence (from September to November) in a carefully planned order of events.

The potential exists for MIEMSS' Field Program to tie into Ethernet for monitoring helicopter and hospital status, clerical support, runsheet management, and use by the training and certification office.

— *Linda Kesselring*



Bedside workstations have a variety of processing, windowing, and graphics capabilities. These powerful units will store patient data, which will be "dumped" to permanent storage in the computer center at planned intervals.



The power columns in patient cubicles are equipped with monitors that display physiologic parameters such as blood pressure, heart rate, and respiratory measurements. The information collected about each patient is transmitted to the bedside computer workstation.

(Top) PCs to be installed for the secretaries in the new building are lined up in front of two VAX 11/780 units already in operation. (Bottom) In the drawers of this hierarchical storage controller are disk drives containing disks on which information is stored. Disks can be removed and replaced, similar to floppy disks on a PC.

April 28-30, 1989

at the Colony South Hotel in Clinton, Maryland

Sponsored by
Maryland Institute for Emergency Medical Services Systems and the Region V EMS Advisory Council

Hosted By
Prince Georges County Fire Department

The Program

EMS Care '89, Maryland's sixth annual statewide EMS provider conference, will be bigger and better than ever. In response to your requests, there will be more "hands-on" workshops in addition to the more traditional lecture/discussion programs. Many presentations will cover aspects of an important issue in prehospital care: protecting the rescuer as well as the patient.

Continuing Education Credits

This program is accredited to fulfill the 12 hours of continuing education for Maryland EMT-As. To receive credits you must attend 4 hours in the trauma category, 4 hours in the medical category, and 4 hours of your choice — either local option, trauma, or medical (designated as L, T, or M in the program). For your convenience, you may obtain all 12 hours on Saturday and Sunday, but we encourage you to attend one of the outstanding preconference programs on Friday.

Credits are also available for CRTs and EMT-Ps. Categories of credits (ALS and BLS) are noted below each workshop or lecture. All credits are subject to approval by your local jurisdiction.

Hotel Accommodations

We have obtained a special rate of $57 per night for single or double occupancy ($67 for three or four people). You should make your reservations early because room availability is limited. Use the reservation form or call the Colony South Hotel, 7401 Surratts Road, Clinton, MD, at 301-856-4500.

Social Events

Sharing ideas, information, and conversation is part of what EMS Care is all about. Saturday evening's reception, dinner, and informal dance as well as the breaks during the conference should all provide some time for informal socializing and exchange. A new addition to our program is a Sunday buffet brunch, which will be served immediately following the panel discussion on ethical and legal issues in EMS.

Directions

From the Capital Beltway (Route 95), take Route 5 (Branch Avenue) south through Clinton. The Colony South Hotel is on the left at the intersection of Surratts Road and Branch Avenue and is adjacent to Southern Maryland Hospital Center.

Cancellation Policy

Refunds, excluding a $10 processing fee, will be mailed for cancellations received prior to April 12, 1989.

Fees

A $65 registration fee will cover the following:

- Workshops and lectures on Saturday and Sunday
- Continental breakfast both days
- Lunch on Saturday and brunch on Sunday
- Refreshment breaks
- EMS Care workbook
- Saturday evening reception
- Saturday dance

Preconference programs on Friday, April 28:

- There is no charge for the half-day program on Behavioral Emergencies.
- Registration for the full-day programs includes luncheon and materials: Hazardous Materials, $10; Management Workshop, $10.

The Saturday dinner, which is underwritten by donations from Region V hospitals, will cost $10 per person.

Early Bird Special

Free EMS Care '89 tee shirts will be reserved for those who register prior to March 25, 1989.

Additional Information

For further information, contact the Region V Office at 5111 Berwyn Road, College Park, MD 20740, 301-474-1485.

EMS Care '89 Program Preconference Options Friday, April 28, 1989

7:30 **Registration**

8:30-4:30 **Level 1 Hazardous Materials**
A basic introduction to the hazardous materials problem from the first responder perspective. A certificate of completion will be awarded. (BLS, 4 hours category L; ALS, 4 hours category 2) Fee: $10. Lunch is included.

8:30-4:30 **Volunteer Agency Management Workshop**
Co-sponsored by the Maryland State Firemen's Association and the Maryland State Ambulance Association and supported in part by Maryland Department of Transportation Highway Safety funds, this workshop focuses on management techniques and operations to strengthen the volunteer system. Open to EMS, fire, and rescue officers and those wishing to become officers. (BLS, 4 hours category L; ALS, 4 hours category 2) Fee: $10. Lunch in included.

12:00 **Registration**
Vendor Displays Open

1:00-4:30 **Behavioral Emergencies**
This program will cover roles and responsibilities of prehospital care providers, legal issues that affect intervention in behavioral emergencies, recognition and assessment of these emergencies, as well as basic principles for the management of mentally disordered and/or dangerous persons. (BLS, 4 hours category L; ALS, 4 hours category 2) No fee.

Saturday, April 29, 1989

7:30 **Registration**
Vendor Displays
Continental Breakfast
(Compliments of Suburban Hospital Emergency Department and Trauma Center)

8:30 **Opening Ceremonies**
Chief M.H. "Jim" Estepp, Master of Ceremonies

9:00 **Maryland EMS:**
What Have We Done?
Ameen Ramzy, MD
State EMS Director

10:00 **Break (Vendor area)**

10:30 **Workshops and Lectures**
(Select one workshop. Two hours credit in the category specified.)

A. EMS and Hazardous Materials
A review of the role of the emergency care provider at a hazardous materials incident. Emergency care procedures will be presented. (BLS credit L; ALS credit 2) (Repeated as Workshop S.)

B. Over-the-Counter Drugs and Their Side Effects
Interactions and side effects don't apply only to prescription and illegal drugs. Learn what to look for when the patient has administered self-treatment. (BLS credit M; ALS credit 1A)

C. Communicating with the Deaf Patient
Your body language can be used to communicate with deaf patients and their families. We'll show you how. (BLS credit L; ALS credit 2)

D. Helmet Removal
This workshop will give you practical, hands-on experience. (BLS credit T; ALS credit 1B)

E. Facial Trauma — Before and After
See what is done for the patient with devastating facial injuries and how your initial care can affect outcomes. (BLS credit T; ALS credit 1B)

12:30 **Luncheon**
Stress Protection for the Rescuer: Relief Is Just a Laugh Away
Marge Duchano, RN, BSN
(Sponsored by the Maryland Chapter, American College of Emergency Physicians)

2:00 **Workshops and Lectures**
(Select one. Two hours credit in the category specified.)

F. HazMat Practicum
Review the techniques for personnel/equipment protection prior to involvement and the decontamination operations for personnel and equipment after the HazMat incident. Prerequisite: Workshop A (EMS & HazMat). (BLS credit L; ALS credit 2) (Repeated as Workshop X.)

G. Case Studies in Pregnancy and Trauma
A high-risk situation that requires special handling. Learn what you can do to minimize that risk. (BLS credit T; ALS credit 1B)

Saturday, April 29, 1989 continued

H. Trauma and the Elderly
We're all getting older, but the elderly trauma patient may need special assessment. (BLS credit T; ALS credit 1B)

I. Spinal Immobilization
A hands-on workshop for the action-oriented. KED, backboard, and Sherman board will be demonstrated. Then you will use them on one another. (BLS credit T; ALS credit 1B)

J. Street Drugs
The latest in street drugs and the names they go by today. Prehospital management of drug-intoxicated individuals will be explained. (BLS credit M; ALS credit 1A)

4:00 Break
(Sponsored by the Trauma Center, Children's Hospital National Medical Center)

4:30 Workshops and Lectures
(Select one. Two hours credit in the category specified.)

K. S.T.A.R.T.
"Simple Triage and Rapid Treatment" for the management of mass casualty incidents. Use of the Maryland triage/treatment tag will be reviewed. (BLS credit L; ALS credit 2)

L. Penetrating Trauma — Accidental and Criminal
A trauma surgeon and an emergency physician will discuss how your management makes their job easier. (BLS credit T; ALS credit 1B)

M. Aiding the Injured K-9 Officer
Get control of the scene from the dog standing between you and your patient. (BLS credit L; ALS credit 2)

N. The EMS Response in Trench Rescue
How to be part of the solution. (BLS credit L; ALS credit 2)

O. Care and Maintenance of Emergency Care Equipment
Oxygen delivery equipment and suction devices won't do their job if you don't do yours. Learn how to clean it, maintain it, and keep it working right. (BLS credit L; ALS credit 2)

7:00 Reception
(Hosted by Southern Maryland Hospital Trauma Center)

8:00 Appreciation Dinner
(Provided with the support and assistance of Region V hospitals, emergency department physicians, and medical directors)

9:30 Dance to Live Music
(Compliments of Dimensions Healthcare Corporation)

Sunday, April 30, 1989

8:15 Continental Breakfast
(Sponsored by Physicians of Shock Trauma, MIEMSS)

9:00 Ethical and Legal Issues in Emergency Medical Services
A panel of authorities in medicine, psychology, religion, philosophy, and the law will explore the difficult issues confronting EMS providers today. No solutions are promised, but a lively eye-opening debate can be expected. (2 hours local option)

11:00 Buffet Brunch

12:30 Workshops and Lectures
(Select one. Two hours credit in the category specified.)

P. Biomechanics of Trauma — Mechanism of Injury
Find out how injury occurs and how you can assess and minimize the damage. (BLS credit T; ALS credit 1B)

Q. High Tech and Handicapped Kids
Management of these special patients' medical emergencies or trauma is a special challenge. Assessment and management skills that can help you will be taught. (BLS credit M; ALS credit 1B)

R. The EMS Provider and the M.E.'s Office
Your observations at the scene may provide the missing piece to the medical examiner's puzzle: the cause of death. (BLS credit L; ALS credit 2)

S. Repeat of Workshop A

T. EOA
Lecture and practicum for esophageal obturator airway insertion. State certification will be awarded for successful completion. (BLS credit M; ALS credit 1A)

2:30 Break

3:00 Workshops and Lectures
(Select one. Two hours credit in the category specified.)

U. Blunt Trauma
It may not look bad, but it may be more threatening to life or limb than an ugly injury. Mechanism will be linked to the possible trauma that can result. (BLS credit T; ALS credit 1B)

V. Pediatric Trauma
The special needs of the injured child will be taught. Effective assessment and resuscitation will be outlined. (BLS credit T; ALS credit 1B)

W. Infection Control
This workshop will help you reduce the risk of infection to you and your patient. (BLS credit M; ALS credit 1A)

X. Repeat of Workshop F
(Prerequisite: Workshop A or S "EMS & HazMat")

Y. MAST
Lecture and practicum for medical anti-shock trouser application. State certification will be awarded for successful completion. (BLS credit T; ALS credit 2)

EMS Care '89 Registration Form

NAME _____

ADDRESS _____

_____ ZIP _____

AFFILIATION _____

DAY PHONE _____ HOME PHONE _____

CERTIFICATION LEVEL (Circle one.): EMT-A CRT EMT-P ATT Other S.S. # _____

Please circle the programs you wish to attend:

Friday HazMat Management Workshop Behavioral Emergencies

Saturday

10:30	A	B	C	D	E
2:00	F	G	H	I	J
4:30	K	L	M	N	O

Sunday

12:30	P	Q	R	S	T
3:00	U	V	W	X	Y

Payment

_____ **Friday (HazMat, $10; Management, $10; Behavioral Emergencies, no fee)**

_____ **Saturday and Sunday ($65 for both days)**

_____ **Saturday Dinner ($10 per person)**

Total Enclosed: $ _____

Make check payable to EMS Care '89 and send to:

Region V MIEMSS, 5111 Berwyn Road, College Park, MD 20740

EMS Care '89 • Hotel Room Reservation Form

Colony South Hotel, 7401 Surratts Road, Clinton, MD 20735

301-856-4500 or 1-800-537-1147

Name _____ Phone _____

Address _____

City _____ State _____ Zip _____

Arrival Date _____ No. of Nights _____

Room Rates: Single or double occupancy — $57 Triple or quadruple occupancy — $67

One night's deposit by check or credit card guarantee must accompany your room reservation form.

Check enclosed for $ _____

Charge my credit card account _____ VISA _____ Master Card _____ American Express

Account No. _____ Exp. Date _____

I understand that I am liable for the cost of a room for one night (covered by my deposit or credit card account) if I do not arrive or cancel on the arrival date indicated.

Signature _____

_____ I request a room equipped for handicapped persons.

Check-in time is 3:00 pm on the date of arrival. Mail the completed form to the Colony South Hotel as early as possible, but no later than March 17, to ensure your reservation. Requests received after that date will be accepted based on room availability.

See EMS Care '89 Program Inside.

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

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Managing Editor: Beverly Sopp (301-328-3248)

Maryland Institute
for
Emergency Medical Services Systems
University of Maryland at Baltimore
22 S. Greene St., Baltimore, MD 21201—1595

Shock Trauma Building To Open in February

(Continued from Page 2)

"the users had to go beyond the negative aspects of what they were dealing with [at the existing Shock Trauma Center] and attempt to conceive of how it could possibly best be done." This made visualization difficult. So a "mock" patient room and admitting area cubicle were built to full scale. "Everyone could participate in a three-dimensional sense and know what the constraints of the physical environment would be." Physicians, nurses, and allied health personnel "tried out" the "mock" rooms, moving the patient's bed and equipment around for the best placement, seeing where supplies would go, noting where lights and controls would go. After going through the "mock" rooms, staff often suggested changes.

The resulting R Adams Cowley, MD, Shock Trauma Center is a more functional building than the existing facility, and it will better serve the needs of patients, families, and staff. It is the only free-standing facility of its kind expressly dedicated to the critical care of traumatic injuries. It reflects the dream of Dr. Cowley: "I want the very best for the citizens of Maryland. I want all of the critically injured to survive — and that's my goal." — *Beverly Sopp*

Note: An article and photos on the operational aspects of the new building will appear in a future issue of the newsletter.

Nat'l Brain Injury Conference Scheduled for March 15 -17

MIEMSS Speech-Communication Disorders Program will present its 5th National Traumatic Brain Injury Symposium on March 15-17 on the UMAB campus in Baltimore. Aspects of medical intervention, rehabilitation, family involvement, and medico-legal considerations will be discussed by researchers, clinicians, and educators in the field of brain injury rehabilitation. A presymposium workshop on recent advances in stroke rehabilitation will be offered on March 15.

Featured are more than 30 exhibitors and 150 presenters including State Senator Francis Kelly; Aizik Wolf, MD; Connie A. Walleck, MS, RN; Gerald Bush, PhD; Brenda Adamovich, PhD; Chris Hagen, PhD; R Adams Cowley, MD; Roy A. M. Meyers, MD; and Belavadi Shankar, ScD.

Special tracks have been developed that will be of interest to speech-language pathologists, occupational therapists, psychologists, school-based clinicians, special education personnel, physical therapists, psychosocial clinicians, vocational counselors, physicians, nurses, audiologists, case managers, therapeutic recreation specialists, administrators, insurance industry representatives, and other allied health professionals.

In the preceding four years, over 1400 professionals from 40 states and 3 countries have attended the National Traumatic Brain Injury Symposiums. Registration for the 1989 symposium is $149 for the two-day symposium and $40 for the presymposium workshop.

For further information, contact Roberta Schwartz, Conference Chair, Speech-Communication Disorders Program, MIEMSS, 22 S. Greene Street, Baltimore, MD 21201, or call (301) 328-6101 or 328-2478.

Promoting Excellence In EMS Care

April 8 & 9

Workshops (1-1/2 days cont. ed.) for Prehospital Care Providers

Ocean City Fire Headquarters

Contacts:

Marc Bramble (301-822-1799)

Clay Stamp (301-289-4346)

More information will appear in the February issue of this newsletter.