

Maryland Institute for Emergency  
Medical Services Systems (MIEMSS)  
R Adams Cowley, M.D., Director

## MILESTONES IN EMS

MIEMSS had its origin in the late 1950s, with Dr. R Adams Cowley (Chairman of Thoracic and Cardiovascular Surgery at the University of Maryland School of Medicine) and a team of medical, engineering, and mathematical professionals carrying out studies in shock on laboratory animals. This pioneering research was made possible by funding from the U.S. Army.

1961

The Army's initial grant provided funding for the first shock-trauma unit, a 2-bed clinical research unit.

1963

The substantial research data background in shock and trauma enabled the awarding of an \$800,000 National Research Center Grant to build a "Center for the Study of Trauma" - a 5-floor, self-contained facility devoted exclusively to the critically ill and injured patient. This was the only award ever given for such a facility.

1964

An experimental hyperbaric oxygen chamber for research was acquired through NIH grant funding. This chamber was used mainly to treat patients with gas gangrene. With the opening of a new, larger hyperbaric facility in the Center in 1969 and with continued research in hyperbaric therapy in the 1970s, use of the chamber for hyperbaric oxygen treatments has greatly expanded. A special program involving hyperbaric oxygen treatments for smoke-inhalation patients was begun in 1979.

1967

While continued research and patient care were being carried out in the mid-60s, plans were being developed for a statewide emergency care system.

Negotiations began with the Maryland State Police regarding helicopter transportation of critically ill or injured patients which would make both the State Police helicopters and the emergency medical care facility cost-effective. This system is now recognized as a national model.

1969

The "Center for the Study of Trauma" was completed and officially opened.

State funding was acquired for the Center program for the first time; previously, the entire program was funded through grants. DOT funding was obtained for the Med-Evac program.

An immediate autopsy program was developed in conjunction with the Maryland State Medical Examiners Office. This is the only institution in the country where this procedure is performed.

1970

The heliport on top of Redwood Street Garage was completed to provide a permanent landing site for State Police Med-Evac helicopters.

In March, the first Med-Evac helicopter transfer was made by the Maryland State Police Aviation Division.

By acquisition and installation of an IBM 1620 computer to assist in patient care, a low-cost, on-line automated system for the acquisition and management of physiological data from patients was established. This system has since been updated.

Programs were begun for educating ambulance personnel, establishing "standards of care," and developing transportation and communication systems - all steps toward the implementation of a statewide emergency care network.

1971

A formal plan to coordinate emergency medical resources across the state of Maryland was submitted to the Governor.

The first tri-state EMS Council (involving Maryland, Pennsylvania, and West Virginia) was established and received financial support from the Appalachian Regional Commission.

1973

An Executive Order was issued by the Governor which established the first statewide EMS system in the country by the creation of a Division of Emergency Medical Services (DEMS) within the Department of Health and Mental Hygiene. At the same time, the Center was given autonomous status within the University of Maryland as the Maryland Institute for Emergency Medicine (MIEM).

A Mid-Atlantic EMS Council was formed - the first regional council where State EMS Directors meet to resolve common problems and develop a compatible six-state EMS system.

1974

Patient care area expanded to include the 14-bed 4C wing of University of Maryland Hospital which provided a step-down Intensive Care Unit for shock-trauma patients.

1975

The first system of specialty referral centers within an EMS system was established for the treatment of life-threatening injuries. Centers now include:

- MIEMSS Adult Shock Trauma Center (1969)
- MIEMSS Hyperbaric Oxygen Center (1969)
- Baltimore City Hospitals Kiwanis Burn Unit (1970)
- Johns Hopkins Pediatric Trauma Center (1971)

- Maryland State Neonatal Program with Units at City, Hopkins, and University of Maryland hospitals (1971); Sinai and St. Agnes (1979); and Mercy (1980)
- Raymond M. Curtis Hand Center at The Union Memorial Hospital (1975)
- Perinatal Centers at University of Maryland and Johns Hopkins hospitals (1978)
- Wilmer Eye Institute and Georgetown University Center for Sight (1979)
- MIEMSS Neuro Trauma Center (1980)

Dr. Benjamin Trump, Professor and Chairman of the University of Maryland Department of Pathology and a nationally recognized researcher, agreed to head the MIEMSS research program. Under his direction, a Research Committee was established to encourage both clinical and basic research.

**1975-76**

MIEMSS received HEW EMS funding for all five Maryland EMS Regions (1203 planning money for Regions I, II, IV, and V and 1204 advanced-life-support funding for Region III).

**1976**

MIEMSS sponsored the First International EMS/Traumatology Symposium, which was attended by 3000 people.

The first Harbor Disaster Exercise Program in the country was conducted in conjunction with the EMS/Traumatology Symposium.

Additional patient care space on the 4B wing of University of Maryland Hospital was acquired and provided 22 additional beds.

**1977**

The passage of Senate Bill 852 by the Maryland Legislature amalgamated the statewide EMS program and the Institute program into the Maryland Institute for Emergency Medical Services Systems (MIEMSS).

**1978**

Initiation of the state's Echelons of Trauma Care program occurred in three regions of the state. Areawide trauma centers were established at Suburban Hospital in Bethesda, Prince George's General Hospital in Cheverly, and Peninsula General Hospital in Salisbury.

MIEMSS dedicated the first operating statewide EMS communications system in the country - a system that links together Med-Evac helicopters, specialty referral centers, 48 hospital emergency rooms, and over 350 ambulance units into a telecommunications network that features ECG telemetry.

The Maryland State Police helicopter program added a new base in Salisbury and eight additional Huey helicopters as backup vehicles.

Medical control groups were established in each of the five Maryland EMS regions.

MIEMSS conducted an Airport Disaster Exercise at Baltimore-Washington International Airport.

A special program was initiated with Goddard Space Flight Center and the Maryland Center for Public Broadcasting to test the EMS capabilities of a new briefcase satellite transceiver. A video test of the transceiver was a major part of the disaster exercise. Brooke Army Medical Center in San Antonio and the airports at Chicago and Boston were involved in the test.

MIEMSS received HEW EMS funding for the Maryland Regions IV and V (1204 advanced-life-support funding).

**1979**

MIEMSS was instrumental in the passage of legislation establishing a 9-1-1 statewide system.

An "Emergency Medical Guide" was developed for the Baltimore Metropolitan Yellow Pages with the aid of Congresswoman Barbara Mikulski and in cooperation with G&P Telephone Company. The Emergency Medical Guide will appear in all Maryland county directories.

A MIEMSS Committee of the Board of Regents was approved to provide governance autonomous from the University of Maryland Hospital.

The concept of an Emergency Health Services program (a four-year college program awarding a bachelor of science degree) was proposed and endorsed by the University. This program was proposed to meet the growing need for professionals in EMS Systems.

MIEMSS initiated a statewide voluntary ambulance inspection program.

## 1980

The Echelons of Trauma Care was instituted in Baltimore City involving the University of Maryland Hospital, Johns Hopkins Hospital, Sinai Hospital, and Baltimore City Hospitals.

Hagerstown's Washington County Hospital, the areawide trauma center for Maryland Region II, was dedicated.

The first course in the Emergency Health Services program was offered by MIEMSS in collaboration with University of Maryland, Baltimore County.

The first Maryland Emergency Medical Services Week was celebrated November 16-22. This special week was proclaimed by Governor Harry Hughes to recognize the state's EMS system.

The first regional trauma days were held at Peninsula General Hospital in Salisbury and Suburban Hospital in Bethesda.

The Neonatal Nurse Transport program began with specially trained nurses providing consultation and medical care for infants needing transport to a neonatal center.

## 1981

The Memorial Hospital in Cumberland was designated the areawide trauma center for Maryland Region I (Allegany and Garrett counties).

The Maryland State Police Med-Evac observers were designated Aviation Trauma Technicians after completing a special training course.

The Maryland Regional Neonatal Program dedicated an ambulance devoted exclusively to the transport of infants at risk.

To expedite the proper placement of patients with psychiatric emergencies, MIEMSS began a program of maintaining a psychiatric bed registry.

The Emergency Health Services program accepted 26 students as its first majors and began the 1981 academic year with a full curriculum.

The Center for Living, a community-based program for post-rehab patients, opened as a cooperative venture between MIEMSS and the Easter Seal Society, Central Maryland Chapter. The non-medical, comprehensive "bridge" facility helps trauma patients and their families to readjust to their new roles.

The first EMS Olympics, highlighting a basic life support medical skills competition, was held to launch EMS Week.

An International Society for EMS was established at the recommendation of MIEMSS Director, R Adams Cowley, M.D. The Board of Directors is composed of 10 members, each representing a different country.

The Maryland Comprehensive Trauma Registry was established in conjunction with the Department of Epidemiology and Preventive Medicine. This will make Maryland the first state in the nation to have a rapidly reporting computerized registry of all serious trauma. This year's target is development of an accurate, rapid registry for Baltimore City.