Maryland
EMS News
For All Emergency Medical Care Providers
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Emergency Responders Urged to Report Injuries from Vehicle Safety Devices

Recently there has been increased media attention about the potential dangers of extrication-related deployments of automotive safety equipment (i.e., airbags, seat belt pretensioners, etc.) to emergency personnel during rescue and EMS operations. The safety of emergency services personnel is of paramount importance to MIEMSS and, at the national level, to the National Highway Traffic Safety Administration (NHTSA). While there have been reports of injuries to rescuers, the exact prevalence of these types of incidents is not known.

For several years, NHTSA's Special Crash Investigation Program (SCI) has investigated reports of injuries from safety devices, including malfunctions and/or inadvertent activations of air bags during rescue operations. In the few reported cases of deployments occurring during rescue operations, it was found that the vehicle's electrical system was either not properly deactivated or the responders had inadvertently damaged the vehicle air bag control module.

NHTSA's Special Crash Investigation Program and its Emergency Medical Services Division will continue to monitor and analyze the problem. However, to determine the extent and nature of any hazard and to design appropriate countermeasures, it is crucial that NHTSA receive information on as many of these incidents as possible. Emergency services providers are reminded to report all unintentional deployments of automotive safety equipment, whether or not the rescuer is injured, by one of the following methods:

- By phone, 202-366-2545 or 877- 201-3172
- By e-mail, SCI@nhtsa.dot.gov
- By facsimile, 202-366-5374, Attention: SCI Program
- By mail:
  U.S. DOT-NHTSA
  Special Crash Investigation Program (NPO-122)
  Attn: Thomas Roston
  400 Seventh St., SW
  Room 6213
  Washington, DC 20590

After taking safety precautions—placing the vehicle in PARK, turning off the ignition, disconnecting the battery and grounding it—first responders still treat the undeployed air bag as if it were live and able to deploy. They assess and treat the crash victim outside the vehicle.

NHTSA will carefully review all reported hazards involving vehicle safety equipment and, in concert with its national partners, take action to ensure emergency responders' safety.

If you need additional information, please contact Thomas Roston, Special Crash Investigator, at 202-366-5395, or by e-mail at Thomas.Roston@nhtsa.dot.gov. You may also contact David Bryson, Highway Safety Specialist, at 202-366-4302, or by e-mail at Dave.Bryson@nhtsa.dot.gov.

EMAIS Update

Kathy Paez, from the MIEMSS Information Technology Department, helps EMS providers in Garrett County with EMAIS.

On March 1, Region I (Allegany and Garrett counties) began using the Electronic Maryland Ambulance Information System (EMAIS). These Region I counties became the third and fourth jurisdictions to enter the EMAIS pilot program, joining Cecil and Washington counties. During the first three days of EMAIS implementation in Region I, MIEMSS staff traveled throughout both counties and assisted providers with completing reports at stations and hospitals. On March 17-18, additional training classes were held at Allegany and Garrett colleges.

On March 12, 13, and 14, MIEMSS staff trained providers in Dorchester County who will begin using the EMAIS system on April 1. After training in Dorchester County is completed, MIEMSS personnel will concentrate on addressing any outstanding issues with participants in the pilot program before additional training is conducted. Following Dorchester County, MIEMSS will move the EMAIS training program to Calvert and Somerset counties. The current schedule allows for the completion of EMAIS training and implementation by July 31, 2004 in all seven counties that received funds through the rural access grant.

During the EMAIS training classes, instructors noticed that there seemed to be confusion regarding the Glasgow Coma Score. The version in the EMAIS program requires the provider to complete the scoring system for trauma patients only. The format for the section was taken directly from the back of the current MAIS form. Each score consists of a verbal, motor, and eye response.

Another question that often generated some confusion among EMS providers occurred when a provider answered "yes" to the "Defibrillation," "Cardioversion," or "Pacing" question on the "Cardiac Management" button of the Medical Procedures screen and the pop-up box appeared and asked "Defibrillation Successful?" The system wants to know if the patient was successfully converted to a viable rhythm, but some providers have interpreted this question to mean "Did the device discharge?"

The next phase of the EMAIS system involves developing the report generator for the EMAIS software. During the next few weeks, the MIEMSS Department of Information Technology will gather sample reports used to disseminate information about EMS responses from around the state. A meeting will then be held to discuss the development and standardization of the EMAIS generated reports.

To answer questions regarding EMAIS, please contact Kathy Paez at 410-706-7798.

During Consultation: Request Physician Early If You Need Orders

When an EMS provider requests an online consultation, the consulting facility is required by the Code of Maryland Regulation to have a physician available to answer the radio. However, some hospitals use a non-physician heath care provider to take the initial patient care report. This individual relays the EMS provider's information to the appropriate staff and physician to facilitate the preparation for the patient's arrival.

When an EMS provider is going to request orders during a consult, he/she should state: "XYZ Hospital, I will be requesting orders for this patient." Types of orders include: medication administration, destination determination, and extraordinary care measures.

Over the past year, quality improvement committees have identified delays when a provider was asked to repeat his/her complete report because the physician was not online to receive the request for orders. Delays have resulted in frustration on the part of the provider, hospital staff, and the 9-1-1 centers establishing the consult.

At the time of initial contact with the consulting facility, EMS providers should first request a physician if they intend to request orders during the consult. This simple step will reduce at-the-scene times and the time it takes to get the patient to definitive care.

Awards for Ice Rescue

During the December 15, 2003 Ocean City Mayor and Council meeting, Firefighter/Paramedics Del Baker and Ken Braniecki, Firefighter Brian Winter, and Police Officer Greg Williams were presented "Ocean City Commendations" by Mayor Jim Mathias. Paramedics Baker and Braniecki were also given "Emergency Services Lifesaving Medals." These awards were given for their heroic efforts during an ice rescue.

(Pictured from left to right: Ocean City Volunteer Fire Department Firefighter Brian Winter, Ocean City Police Department Officer Greg Williams, Ocean City Emergency Services Firefighter/Paramedic Ken Braniecki, and Firefighter/Paramedic Del Baker.)

On January 19, 2003, Ocean City paramedics, police, and volunteer firefighters responded to a call at Northside Park where two young boys had fallen into frozen water. Responders were able to safely rescue one of the boys immediately. After a 65-minute search, the other young boy was pulled from the icy water. In spite of heroic attempts to save his life, the young boy was pronounced dead at Atlantic General Hospital in Berlin, Maryland.

According to Clay Stamp, then Director of the Ocean City Department of Emergency Services, "the actions taken by these devoted people are a clear example of their deep dedication to make a difference."

Ambulance Safety Progress Report

Increasing attention is being focused on ambulance safety, largely in response to collisions resulting in patient and provider injuries and fatalities. Industry research and reports in the popular press indicate that this subject is under-recognized. MIEMSS is working collaboratively with a number of partners to address the subject of ambulance safety.

Few peer-reviewed studies exist documenting the magnitude of injuries resulting from ambulance collisions. However, the existing knowledge base reveals disturbing trends. For instance, one source reports that EMS personnel have a fatality rate of 12.7:100,000 workers, more than twice the national average for the public and comparable to that of police and firefighters (Maguire et al. *Annals of Emergency Medicine*, December 2002).

Estimates vary, but "there may be as many as 10,000 [providers], patients, and innocent citizens injured or killed each year" in ambulance collisions throughout the United States (Anderson, L. in *Prehospital Care Administration*, 2nd ed., pending publication).

Those studying the issue agree that it is stems from many causes. Three areas of focus have been identified through stakeholder groups; these are human factors, systems/technology, and vehicle design. Some recommendations stemming from these efforts include:

1. Reinforcing the use of safety restraints, since survey results document low use of safety restraint systems by EMS providers while in the patient compartment (Becker et al, *Accident Analysis & Prevention*, 35 [2003]);
2. The use of technology such as video recorders to reveal and correct behaviors such as excessive speed and hard braking; and
3. Facilitating consensus on advancing vehicle design standards.

Some of these recommendations, such as increasing the use of safety restraints, can be instituted immediately. Others, such as vehicle redesign, are longer term.

The issue of ambulance safety is clearly of interest to the EMS community, and significant attention is being paid to it at the local, state, and national levels. MIEMSS will continue to actively participate in these discussions and communicate findings and recommendations to Maryland EMS providers.

◆ *John Young, MIEMSS*

Grandparents & Consent Issues

When families begin to disintegrate, the children are generally the first to suffer. For some, a grandparent or elderly family member is able to offer the love and concern every child needs to stabilize his/her life, but this frequently creates new issues that need resolving.

One of these issues is consent to health care. Generally, these older caregivers have little or no knowledge about legal rights and responsibilities. The State of Maryland has become very aware of the barriers many older caregivers face when attempting to take a child to the doctor, when faced with making medical decisions, and particularly when giving consent for treatment.

The Maryland Legislature in 2003 passed SB31 in an attempt to address the issue of consent. This bill authorizes a relative providing informal kinship care to consent to health care on behalf of a child. An affidavit needs to be submitted by the caregiver to the Department of Human Resources, Social Service Administration. This affidavit is free and can be obtained at the Department of Human Resources, Social Service Administration. The form includes specific information, such as demographic information (name, address, relationship), and the nature of the serious family hardship that resulted in the informal kinship care. When all the criteria are met, a copy of the affidavit would be given to the health care provider who treats the child, and it is recommended that a copy be kept by the caregivers for emergency situations such as medical transport. This affidavit has to be filed annually with the Department of Human Resources.

If you would like to view this bill in its entirety, it can be downloaded from http://mlis.state.md.us or you may contact the Maryland Dept. of Aging at 410-7671100, ext. 0705 for more information.

◆ *Frances C. Stoner*
Maryland Department of Aging

Older Americans Month: May 2004

The theme for this year's Older American Month is "Aging Well, Living Well." This theme was selected to recognize older Americans who are living longer, healthier, and more productive lives, according to the Administration on Aging. Additional information will be available during the next few months, including kits that may be obtained from the Administration on Aging. For more information, visit their website at www.aoa.gov/, then click on Press Room and then on Older Americans Month.

EMS
THERE WHEN YOU NEED US

National EMS Week
May 16-22, 2004

Contaminated Equipment: What to Do

EMS providers and hospitals work together every day in Maryland and share an obligation to provide quality emergency medical care. We also share responsibility for protecting our employees and volunteers against exposures to blood or other potentially infectious materials (OPIM).

One potential source of exposure is non-disposable patient care equipment left at hospitals by EMS providers. This equipment is usually retrieved later after being removed from the patient by hospital personnel. An OSHA opinion letter (http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=INTERPRETATIONS&p_id=24609) addressed the shared responsibility that EMS providers and hospitals have to protect their employees and volunteers from exposure to the blood or OPIM that may be present on this equipment. Here are important points from that letter:

- Both the hospital and EMS provider must protect their employees in compliance with OSHA Bloodborne Pathogens Standard, 29 CFR 1910.1030.
- Hospitals must either clean and decontaminate equipment being returned to EMS providers, or place it in durable, leakproof, and labeled or color-coded containers similar to that prescribed for contaminated laundry and contaminated laboratory equipment.
- Contaminated equipment that is to be cleaned must be cleaned promptly – it cannot be left in hallways or storage areas where it exposes hospital or EMS personnel to possible exposure to blood or OPIM.
- EMS providers are responsible for ensuring that their personnel take proper precautions when retrieving

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Improving Pedestrian Safety

Pedestrian safety in Maryland is an issue gaining attention— and rightly so. On average every year, nearly 3,000 pedestrians are injured, and more than 100 are killed, accounting for about 17 percent of Maryland's total traffic-related fatalities. This problem is particularly serious for children. Nearly 30 percent of pedestrian injuries are children under 16. At the other end of the spectrum, while only 6 percent of pedestrian crashes involve the elderly, they account for 16 percent of total pedestrian fatalities. Finally, alcohol use is involved in a significant proportion of fatal pedestrian crashes, especially among pedestrians. These casualty figures place pedestrian safety among the top three most prominent highway safety areas, alongside impaired driving and seat belt use.

In an effort to improve pedestrian safety, last year the Maryland Legislature made an important change to Maryland's law regarding the requirement of drivers to stop for pedestrians in crosswalks. The law now states that a driver must stop for a pedestrian in a crosswalk when the pedestrian is on the driver's half of the roadway, or when the pedestrian is approaching and within the adjacent lane to the driver's half of the roadway. Previously, the latter part of the law required drivers to stop for pedestrians approaching from the other half of the roadway only when they were "so close as to be in danger" to the driver's half of the roadway. Removing this vague and subjective determination strengthens the law and makes it more straightforward to enforce.

The change in the law coincides with several new activities across the state to address pedestrian safety. In April, the Washington DC region will be blanketed by safety messages aimed at drivers and pedestrians as part of the "Street Smart" Pedestrian and Bicycle Safety Campaign funded by DC, Maryland, and Virginia. Messages telling drivers to respect pedestrians' right of way and for pedestrians to use crosswalks, obey signals, and look "left, right, left," will be aired on TV, radio, in the newspaper, as well as on and in Metro buses. A similar campaign will be aimed at the Baltimore region in June.

But these campaigns will not only be about educating motorists and pedestrians. An old adage in traffic safety says that enforcement is often the best education. During the campaigns, local police departments, funded by grants from the State Highway Administration, will be mobilized to aggressively enforce laws that protect pedestrians. Several counties, cities, and towns will be conducting targeted crosswalk enforcement, often nicknamed "Crosswalk Stings." This enforcement technique features a plain-clothes police officer using a crosswalk in a controlled setting to see if drivers will stop. Drivers who do not stop can face a fine of up to $500 and one point on their license. And pedestrians who never saw the harm in crossing against the "don't walk" signal and disrupting traffic may find themselves the recipients of words of advice, or worse, $35 tickets, from concerned officers.

It is important to remember that we are all pedestrians at one time or another. So whether we are driving, walking, or cycling, we need to look out for each other. After all, crashes are no accident.

◆ *George Branyan*
Pedestrian & Special Programs
Coordinator
Maryland Highway Safety Office

Websites with Resources on Pedestrian Safety

http://www.cdc.gov/ncipc/pedestrian/default.htm
National Strategies for Advancing Child Pedestrian Safety. Offers ideas for encouraging children to explore their environments by walking while reducing their risk of pedestrian injury.

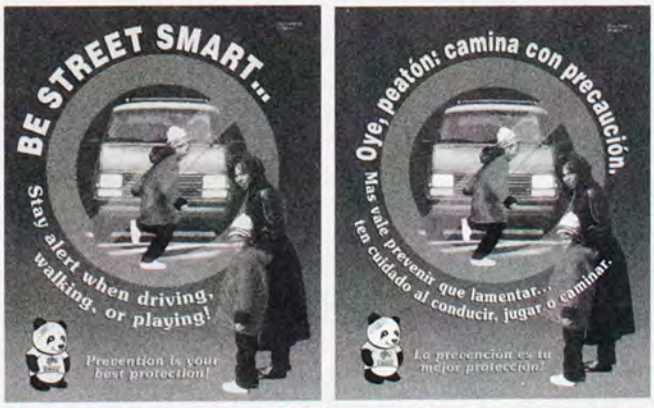
http://www.walkinginfo.org
Pedestrian and Bicycle Information Center (PBIC). The PBIC serves anyone interested in pedestrian and bicycle issues, including planners, engineers, private citizens, advocates, educators, police enforcement, and the health community. As an information clearinghouse, the PBIC offers a network of technical professionals and experts to field any of your questions concerning pedestrian issues. If you are interested in how walkable your community is, click on the "Walkability Checklist" link on the home page.

http://www.nhtsa.dot.gov/people/injury/olddrive/SteppingOut/index.html
Stepping Out: Mature Adults—Be Healthy, Walk Safely is a campaign from the National Highway Traffic Safety Administration. This web page will tell you how to maintain your safety while walking—whether you are walking for exercise or to run errands.

http://www.safekids.org/ (under Safety Tips—Pedestrian)
"The National SAFE KIDS Walk This Way" program includes information on surveys, developmental risks, safety committees and taskforces, and the annual Walk Your Child to School Day every October through a partnership with Federal Express. Included are ***"A National Survey of Speeding in School Zones"*** (October 2000) and ***"Report to the Nation on Child Pedestrian Safety"*** (October 2002).

http://www.nfpa.org/riskwatch/topbike.html
The **National Fire Protection Association RISK WATCH** program has many resources for parents, teachers, and advocates to promote "Wise Walkers." Curriculum resources are available for children preK through grade 8.

Compiled by Cyndy Wright-Johnson, MSN, RNC
EMS for Children Program Director, MIEMSS



For copies of these posters (English and/or Spanish), please contact cwright@miemss.org

Maryland Emergency Medical Services for Children—
"The Right Care When It Counts"

30 million children will receive emergency care this year . . .

Most parents feel they are prepared for emergencies because they know when and how to call 9-1-1. But often that is not enough. Being prepared can assure your child is not further harmed by doing the wrong thing.

10 Ten ways to be better prepared if your child has an Emergency:

1. Check if 9-1-1 is the right number to call
2. Keep a well – stocked First Aid Kit on hand
3. Make a list of Emergency Phone Numbers
4. Teach your children who to call and what to say
5. Make sure your house number is visible from the street
6. Keep a clear and up-to-date record of Immunizations
7. Write down medical conditions, medications and dosages
8. Make a list of allergies and reactions
9. If you have health insurance, check your emergency coverage
10. Take First Aid Classes

Emergencies Do Happen. The first moments after an injury or onset of an illness are often the most critical. The key is remaining calm, knowing what to do, and making a decision to act.

Ten steps to take in an Emergency:

1. Call 9-1-1 Immediately
2. Call Poison Control Immediately
3. If you think your child has been seriously injured, do not move your child
4. Know how to treat your child in case of a burn
5. Be prepared if your child has a seizure
6. Know what to do if your child is bleeding
7. Know how to help a child with a broken bone
8. Do not administer the Heimlich maneuver or CPR unless you are trained
9. Have your emergency plan on hand
10. Make it easy for emergency personnel to find you

Credits: "Ten Ways to be Better Prepared If Your Child Has an Emergency" and "Ten Steps to Take in an Emergency" by the Federal EMSC Program, Health Resources and Services Administration.

Produced by the Maryland Institute for Emergency Medical Services Systems, Maryland EMS-Children Program Office, 410-706-1758. This flyer may be reproduced and distributed for EMS for Children Day, open houses, or other occasions.

EMS Plays a Vital Role in Managing TBI

An Open Letter to Prehospital Providers

Traumatic Brian Injury (TBI) is a leading cause of death and disability in the most productive years of a victim's life. An estimated 1.6 million brain injuries occur every year in the United States. Approximately half of these patients have relatively minor injuries and can be treated in emergency departments. The other 50 percent have injuries that are substantially more serious. Each year 52,000 deaths occur from TBI and approximately 100,000 patients are left with permanent neurologic disability. The cost to society exceeds $30 billion annually. Thus, TBI is a serious health problem. (See "Guidelines for Prehospital Management of Traumatic Brain Injury" by Gabriel, Scalea et al. Brain Injury Foundation, New York, New York, 2000.)

EMS providers are the first to begin care for patients after TBI and often provide life-saving interventions. While only injury prevention strategies can alter the structural damage caused at the time of impact, much can be done to prevent secondary brain injury. Secondary brain injury from inadequate cerebral oxygen delivery or swelling after injury can substantially worsen neurologic outcome. For instance, a singular episode of hypoxia (oxygen saturation < 90%) or hypotension (systolic blood pressure < 90mmHg) is associated with substantial decreases in neurologic outcome and increase in mortality. Thus, early care to a patient's traumatic injury may have a substantive effect on long-term outcome.

We are rethinking treatment algorithms that have been in place for years. For instance, early airway control and hyperventilation were thought to be at the cornerstone of patients with TBI. However, recent accumulated data mandate that we rethink these treatment schemes. (See "Adverse Effects of Prolonged Hyperventilation in Patients with Severe Head Injury: A Randomized Clinical Trial" by JP Muizelaar, A Marmarou, JD Ward, et al. in *Journal of Neurosurgery* 75:731-739, 1991, as well as "Guidelines for Prehospital Management of Traumatic Brain Injury" cited above.)

Last year the Maryland EMS protocol was changed to reflect evidence-based guidelines. Hyperventilation should be reserved for patients with severe brain injury who demonstrate signs of impending herniation. In fact, routine hyperventilation may decrease cerebral blood flow and worsen outcome in patients without herniation. Ventilation rates listed in the new protocol are being modified to reflect the guidelines established by the Brain Trauma Foundation.

While this may seem like a minor point, we believe that it can have substantial impact on the outcome of patients with traumatic brain injury. We urge you to take time to review the changes in the protocol and to modify your clinical care to reflect these changes. Managing brain injury is a real team effort. No one component of the system is more important than any other. Together, we can continue to refine care and keep Maryland at the forefront of injury management.

The care begins with you. Thank you for your commitment to the citizens of Maryland.

- *Thomas M. Scalea, MD, FACS*
  Physician-in-Chief
  R Adams Cowley
  Shock Trauma Center
- *Bizhan Aarabi, MD, FACS, FRCSC*
  Associate Professor &
  Director of Neurotrauma
  University of Maryland
  Medical System

Contaminated Equipment

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and decontaminating equipment.

The Centers for Disease Control has commented that communication between the involved parties in these situations is of the "utmost importance" to reduce the risk of exposure to an infectious disease. Maintaining an ongoing dialogue, with both the hospital and EMS service that can promptly raise and resolve issues of concern, is essential to protecting the health and safety of both hospital and EMS personnel.

New Paramedic Units Arrive in Ocean City

The Ocean City Department of Emergency Services has received two 2004 Navistar International Horton Medium Duty Ambulances. The new units are white with red striping and feature "Horton Inteleplex Systems."

Each ambulance was placed in service in February 2004 and designated as Shop #'s 7 and 8. These state-of-the-art units replaced two outdated ambulances. One of the old units will go to the Ocean City Police Department to be used as a "Mobile Evidence Collection Unit," and the other will go to the Ocean City Public Works Department

MIEMSS, *Maryland EMS News*
653 W. Pratt St., Baltimore, MD 21201-1536
RETURN SERVICE REQUESTED

Governor Robert L. Ehrlich, Jr.

DATED MATERIAL

3-Point Plan to Reduce Fire Deaths in Maryland

Maryland's fire service leaders, public fire and life safety educators, code enforcers, fire investigators, and other interested participants from Maryland, DC, and Northern Virginia met on March 3, at the Maryland Fire and Rescue Institute. They addressed the recent volume of fire activity and the consequences, specifically the number of fire fatalities and injuries. U.S. Fire Administrator R. David Paulison addressed the gathering, urging a rededication to educating the public about this serious—and largely preventable—tragedy in our communities.

Typically the winter months are the busiest for area fire and rescue departments; however, this season has seemed even more so. Twenty-eight Marylanders have been reported killed by fire since January 1, 2004, while 71 Marylanders died during all of calendar year 2003. The disturbing trend began in October 2003, and since that time, 54 Marylanders have died from fire. Nationally, the death toll and fire loss in the latter months of 2003 and the beginning of 2004 seem unusually large.

Participants shared ideas, programs, and "out-of-the-box" strategies that led to a three-point action plan to create a "culture of preparedness and safety."

- *Implementation of the "Every Family, Every Home, Everywhere"* statewide program. This program will ensure that a smoke alarm will be provided to any Marylander who cannot afford to purchase one, regardless of where he/she lives. Local fire departments, unable to fulfill the citizen's request, are urged to contact the Office of the State Fire Marshal for assistance in obtaining smoke alarms.
- *The Launch of "Spring into Action"* on Saturday, March 20, 2004. This program of fire and life safety education will see firefighters from all across Maryland going out on the first day of Spring into their communities, neighborhoods, shopping centers, and shopping malls. Firefighters equipped with valuable fire and life safety information will seek out citizens, encouraging them to install working smoke alarms, develop and practice home fire escape plans, and take steps to prepare themselves and protect their families from fire.
- *Maryland's Fire Service will redouble its efforts in support of local initiatives to install residential fire sprinkler systems in newly constructed one- and two-family homes.* Fire sprinklers have proven to be the most effective life-saving fire protection device, and Maryland's record of fire sprinkler "saves" continues to grow.

◆ *W. Faron Taylor*
Deputy State Fire Marshal

William E. Barnard, State Fire Marshal, addresses the audience at the Fire Summit at MFRI.