



# STATE OF CONNECTICUT

DEPARTMENT OF PUBLIC HEALTH

## OEMS COMMUNICATION #13-03

**TO:** All EMS Care Providers

**FROM:** Raphael M. Barishansky, Director  
Office of Emergency Medical Services

**DATE:** 06/04/2013

**SUBJECT:** Patient and EMS Provider Safety during Ambulance Transportation

Occupational injuries and fatalities of EMS workers represent a serious issue that continues to receive inadequate attention. EMS worker fatalities related to transportation incidents account for approximately 75% of all EMS worker fatalities. During the period between 1992 and 1997, an EMS worker was estimated to have approximately a one in 10,000 chance of dying in an EMS accident in any given year. This was 50% more likely than for police or fire personnel during the same period and almost five times more likely than for all US workers.<sup>1</sup>

The following guidance is intended to assist EMS providers and agencies in developing policies and procedures that will improve the safety of patients and personnel in the ambulance patient compartment during transport. The Connecticut Office of EMS emphasizes that providers, patients and equipment need to be restrained in the patient compartment to reduce the risk of injury. EMS agencies should remain vigilant to the inherent risks to unrestrained personnel and be proactive in making the transportation phase of the prehospital environment safer for their personnel and patients.

The patient care compartments of ambulances are frequently not designed with the same rigorous engineering and testing standards to protect passengers in the event of a motor vehicle crash (MVC) as are the front driver's and passenger's compartments. It is thus not surprising that many fatalities and serious injuries in ambulance crashes involve unrestrained or poorly restrained passengers in the patient care compartment. The use of seatbelts, helmets and patient care device restraints have been recommended by emergency vehicle crash safety experts as a method of reducing injuries in ambulance crashes. Nonetheless, many EMS providers still do not use seatbelts or secure their equipment properly. One misconception for failing to follow this simple safety technique is the belief that EMS providers should be unrestrained in order to provide appropriate patient care. Only a very few prehospital care interventions are so essential they should be performed regardless of an EMS provider's ability to restrain themselves safely.

Whenever possible, EMS providers should perform patient care tasks when they are appropriately restrained, whether in a moving vehicle or when the vehicle is stopped during transport. Although there may be exceptions, it should be a rare occasion where an EMS provider is unrestrained in the back of a moving ambulance. As a matter of safety, EMS providers should plan their patient care so that essential interventions are performed prior to beginning transport and have ready access to patient care equipment that might be expected to be used during a transport while maintaining provider safety restraints.

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<sup>1</sup> Maguire, BJ, Hunting, KL, Smith, GS, Levick, NR. Occupational fatalities in emergency medical services: A hidden crisis *Annals of Emergency Medicine* – Volume 40, Issue 6 (December 2002)

Providers are reminded that patients being transported on a stretcher must be restrained securely with at least three transverse restraining devices (chest, hip, knee) as well as restraints that mitigate forward motion of the patient during severe deceleration (i.e. shoulder straps) unless there is an overriding safety or medical concern prohibiting their use. Pediatric patients must be secured in an age-appropriate car seat unless it is medically necessary to transport them in another manner. Whenever possible, equipment that would pose a hazard as a projectile must be safely secured or stowed so as to avoid preventable patient and provider injury.

Agencies should strongly consider technological adjuncts such as automated vital signs monitors and multiple control panels that will allow providers to continue to perform essential aspects of patient care while seat-belted. As an agency considers the purchase of new vehicles or is retrofitting current vehicles, design considerations such as access to sharps containers, the ability to secure equipment, rounded corners, radio access, and padded head strike zones should be considered and adopted as appropriate. Agencies should consider issuance and required use of helmets that could better protect the EMS provider from head injury in the event of head strike or MVC. Additionally, new technology that can improve provider safety, either directly or indirectly, should be evaluated for use (e.g. dynamic restraint systems, transport ventilators, etc.)

Regardless of the means by which provider and passenger safety is increased during the course of the provision of emergency medical services, the OEMS hopes that services and providers alike will remain dedicated to decreasing unnecessary injury and fatality.

*The Connecticut Office of EMS would like to thank the New York State Department of Health, Bureau of Emergency Medical Services for their policy regarding Patient Care in a Moving Ambulance (dated February 27, 2012) which this communication was adapted from.*