

Training Medical Personnel in Techniques for Proper Motorcycle Helmet Removal

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The lack of training, inadequate training or incorrect training in the techniques for proper helmet removal from motorcycle accident victims by emergency care providers has grown to such national proportions that it has been identified by the Federal Department of Transportation's National Highway Transportation Safety Administration (NHTSA), as a key issue in its recently released *National Agenda For Motorcycle Safety*. Within this report, released in December 2000, in the section entitled "EMS and Motorcycling," NHTSA mentions several times either the need for training or for proper training. The report goes on to cite a need for a better understanding of the techniques necessary to correctly remove a helmet from a motorcycle accident victim. A better understanding of those injuries more prevalent to motorcyclists involved in collisions was also cited as lacking among those emergency care providers who would be first to respond and render initial care to those victims.

I am not only saddened, but embarrassed to say, as both a life long motorcyclist and a paramedic with over 38 years of experience in prehospital emergency care, to have to admit that my own emergency medical service system, the largest and busiest in the United States and in all probability the world, is amongst this group.

After questioning emergency medical techni-

cians (EMTs) and paramedics that I work with on a daily basis, I have found that although most were introduced to these skills during their basic emergency medical training and education, which could have been as much as thirty years ago. Many have never received updated training in regard to this, even though they are required to attend formalized refresher courses and recertification testing every three years. **Note: refresher/recertification training varies on a state by state basis.** This lack of training is not due to a lack of available equipment, i.e.: helmets. As of March 2000, I personally had arranged for our training academy to have received as many as four dozen helmets that had been donated by various helmet manufacturers for just this purpose.

I have spoken to dozens of EMTs and paramedics from many different states and emergency medical services and they too have much the same to say in regard to this lack of training. The vast majority of them had no awareness whatsoever of the new style or type of helmet that has become more popular in recent years. This new helmet is called, depending on the manufacturer, an opening full face, swing up chinbar or a modular helmet. Although it appears to be a full face helmet, it is not and should not be removed using the same technique as a conventional full face helmet. This is because in many cases when in the closed position, the chinbar will not clear the victim's chin and therefore must first be opened. If emergency care providers (including emergency medicine specialty doctors and nurses, who must also receive additional training) are not familiar with either this type of helmet or how it is

removed, and attempt to remove it as a full face helmet, it can cause additional pain and injury to the victim and confusion amongst those attempting to render care. This leads to lost or wasted time which could then result in a negative outcome for the victims.

Why then, one would ask, are these all important skills not being taught to emergency care personnel? Within the emergency medical community there is still controversy as to whether or not to remove helmets from accident victims, unless they are unconscious and/or have compromised airways. This unfortunately, is archaic thinking. **There are no contraindications for removing a motorcycle helmet from an accident victim** (barring of course the impaled object, such as a deer antler).

The old wives' tale about not removing the helmet because it might be the only thing holding the victim's head together, is just so much **HOGWASH!** Consider this: if there were going to be that much kinetic energy transmitted through the helmet to the victim's head, so as to cause that type of massive head trauma, then there would not be an intact helmet on the victim's head to begin with.

More importantly, leaving the helmet on the victim and transporting the patient strapped to a spinal immobilization board (commonly referred to as a longboard), with the helmet taped to the board is just poor patient care for the following reasons:

1) Leaving the helmet on makes it impossible to apply a cervical collar to stabilize the patient's cervical spine

2) Many helmets do not properly fit the wearer (almost exclusively the fault of the wearer). The head is not held securely within the helmet, allowing for it to move around inside of the helmet, partially defeating the purpose of the helmet. This leads to the potential for exacerbating the spinal injuries you are trying to prevent.

3) Leaving the helmet on the head of the victim and securing the patient supine to the longboard causes unnecessary flexion of the cervical spine. Again, this too can cause further cervical spine injury.

4) It is almost impossible to monitor a

patient's airway while they are wearing a full face helmet. Generally speaking, you would want to treat such a patient with supplemental oxygen. It would be extremely difficult, if not impossible, to properly apply an oxygen mask to the patient while wearing a full face helmet.

5) If the need arose while treating a patient wearing a full face helmet to have to clear their airway of foreign matter, such as vomitus or other fluids, it would again be almost impossible to properly insert a suction catheter into the patient's mouth.

Again, one would ask why then is this still being done? After asking a representative from NHTSA's Department of Emergency Medical Services and asking where they had acquired their information and data to determine the need for better training and understanding of motorcycle related injuries, I was given some very interesting as well as disturbing information.

I was told that the Emergency Medical Service Department had queried a panel of physicians who serve as advisors to the department and are supposed to be experts in the field of emergency medicine. Even among these experts there still seems to be some disagreement or controversy in regard to the subject of whether or not to remove helmets from accident victims in the field. One doctor was quoted as saying he "didn't feel his paramedics were competent enough to perform the procedure." My response upon hearing this was to ask if the doctor recognizes that his paramedics are not competent in these techniques, why then hasn't he done something. It is his responsibility to ensure that they do receive the training necessary to make them proficient and competent in this procedure or any other area of prehospital care that he found them lacking.

Helmet removal techniques are now and have been for many years included within NHTSA's training curriculum for EMTs and paramedics. It is also included as part of individual states' training curriculums. However, as I have come to find, in most states it is included within optional training modules such as Critical Trauma Care (CTC), Basic Trauma Life Support (BTLS) and Pre Hospital Trauma Life Support (PHTLS).

If the lead instructor, instructor co-ordinator

or program director chooses not to include this in the course curriculum, then the student either doesn't receive this training at all or may become aware of it only through the independent reading of their course text books. Most EMT text-books today include a section specifically dealing with helmet removal procedures.

Again, through my research I was able to find much more literature specifically dealing with sports other than motorcycling, such as football and the topic of helmet removal. The basic principles of helmet removal remain the same regardless of which sport the helmet is used for. The biggest difference between football helmets and most of the others, including motorcycle helmets, is with football helmets there is universal agreement about removal. Unless there is airway compromise or cardiac arrest, it is best to leave the football helmet on the patient until they are brought to the emergency room to be x-rayed and evaluated before removal of both the shoulder pads and helmet at the same time. In the field it is recommended to just remove the facemask of the helmet only.

It is time for the emergency medical service community as a whole to recognize the need for mandatory training of its emergency care providers, regardless of what level they may be trained to, in the techniques necessary to develop the skills to treat our needs as trauma victims. Recently while attending a regional Fire, Rescue and EMS Exposition in the northeast, I talked with a representative from the Connecticut State Fire Academy. After he told me that they also provide EMT training I attempted to discuss the subject of helmet removal training. His response to me was "since Connecticut does not require motorcyclists to wear helmets, we don't bother with that." I immediately realized that any further discussion with this individual was pointless and walked away.

Now is the time for not only NHTSA and the individual states related agencies, as well as national organizations such as the National Registry of EMTs and the National Association of EMTs, to realize that this training is way past due for all EMTs as a mandatory part of the curriculum. We can no longer sit idly by while our needs are not

being met. We need to be heard by the governing bodies that oversee these training programs, that we are not only entitled to the same level of care, but also expect to receive it, just as any other accident victim should and usually does receive at the hands of the men and women of our nation's emergency medical services organizations, regardless of whether or not they are volunteers or paid.

The next time you have an opportunity to speak with an EMT or a paramedic, after thanking them for doing a thankless, often misunderstood and overlooked job, ask them if they are familiar with how to properly remove a helmet from an accident victim. Ask them where they received their training. If you have an opening full face helmet available, show it to them in the closed position and ask them if they found this on a victim, would they know how to properly remove it? You might be surprised at the answers.

Ric Remz and the Motorcycle Association of New York State have produced a training video to teach helmet removal techniques to emergency care providers. Ric will also conduct seminars on helmet removal for emergency care organizations at local, state, regional and national conferences. To inquire about how to obtain a copy of the video or to arrange for a seminar, contact:

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