

How to Ensure the Health and Safety of Crews and Patients During Long Ground Transports

By Daniel Casciato

With the increasing regionalization of health care, many EMS agencies are transporting patients long distances, both from the scene and from one facility to another. Some of these transports can run up to 300 miles. How can agencies ensure the well-being of crews and patients under such conditions? Let's take a look.

The dangers of fatigue

One of the major dangers involved with long-distance transports is lack of rest for the crew. "Just think about your personal experiences driving your own vehicle when you're not well rested. What happens?" asks Rich Obertots, managing director of Peoria, Ill.-based Red Bike Medical Technologies, which develops and provides on-demand software, eLearning and advanced technologies for emergency medical response and transport services. "Lack of focus. Delayed reaction times. Mentally falling asleep at the wheel—that 'head drop/startle awake syndrome' or sneaking a nap at the wheel. Many of us are probably guilty of this at some time in our lives."

Now add the potential risks associated with patient care: not checking vitals as often as necessary, not observing the patient for changes and falling

into "just-get-this-trip-over-syndrome." Real-time situational awareness vanishes, Obertots says: "Caregivers are in the future, not in the moment." Not only are they at risk for crashing the vehicle, but letting the patient crash as well.

Documentation can also suffer, as it may not be done as frequently as needed—if at all, Obertots says, adding that he believes EMS agencies should clarify and implement an "I am ready for duty" doctrine.

"Readiness has to be part of the culture each minute of each day," he says. "Management and peers must encourage and promote all responders to be candid if they are not alert or rested. Being cavalier is criminal."

Ensuring your crews are well-rested

Will Dunn, clinical supervisor for the Eagle County Ambulance District in Vail Valley, Colo., knows how important it is to keep his crew members well-rested. Often, their transports run as long as 120 miles; winter-weather driving and two mountain passes that soar to 11,000 feet complicate matters. Needless to say, an alert driver is critical.

"The first line of defense is to limit our crews to 24-hour shifts," Dunn says. "It's sort of fashionable now to

do shifts where you are on for two days and off for four days. We don't allow that."

Carina Marzec, a former paramedic from New Jersey who is now an independent contractor for emergency services course research and development, consulting and emergency preparedness involvement, suggests switching drivers during long transports. "It's important for the driver and the EMT providing patient care to be vigilant and continue to reassess the patient throughout the transport," she says. "I always found it helpful for my partner and me to switch who was treating and who was driving from time to time during an extended trip so that neither one of us became fatigued with either aspect."

Buck Feris, clinical coordinator of EMS Academy of Louisville in Kentucky, would like to see at least three crew members on a long transport but realizes some agencies may be reticent because of the cost involved. He believes it would take a Health Department or OSHA (Occupational Safety and Health Administration) regulation for things to change. "If you're going to change behavior, you need some negative feedback at first," he says. "I don't see insurance companies or agencies breaking into their profit by adding a third person."

Joe Newton, operations ground manager for Life Link III in Minneapolis, says his agency often calls in extra troops for extended transports. "We usually have two crew members, depending on the level of transport," he explains. "For very long transports, we usually call in an extra crew to ensure that they are rested and ready to go. It could end up in a sleep-deprivation issue if we use the same crews."

Despite the fact that Life Link III will occasionally make a five-hour transport, the agency has never found

Eating on the run

Just as long-distance transports can make for a tired crew, it can make for a hungry one as well. Joe Newton of Life Link III encourages everyone to carry snacks and to have a lunch at the ready. "Many of them bring coolers or lunch bags daily," he says. "We encourage snacks like granola bars so they can get some nourishment to hold them over if necessary."

Will Dunn of Eagle County Ambulance District says his crews are allowed to stop at a restaurant and grab a bite to eat before making their return. "We also encourage them to carry a water bottle with them at all times," he says.

Ambulance amenities: fine or folly?

After installing flat-screen TVs and DVD players in some of its vehicles, an ambulance service in Oakland County, Mich., received criticism from health policy professionals who believed such amenities were unnecessary. But Will Dunn of Eagle County Ambulance District believes making the patient as comfortable as possible during a long transport makes sense—and Eagle County Ambulance has equipped its vehicles with portable DVD players and televisions as well.

“It’s a great idea,” he says. “The patients appreciate the distraction. We keep about a half dozen kids’ movies and adult TV shows on hand.”

it necessary for someone to stay over in a motel. “In those cases, depending on insurance coverage, we’ll do the transport by fixed wing,” he says.

Daily safety training

Red Bike Medical Technologies offers an Internet-based software training tool to help ground and air EMS organizations that routinely do long transports. With 365 Safety AMRM, originally developed for Air Medical Resource Management, crews engage in eight- to 10-minute educational lessons at the beginning of each shift. One key message or lesson is reinforced throughout the organization each day so everybody is talking and thinking about one specific scenario.

“We wanted sustainability and accountability versus the typical once-yearly safety course that fades away days later,” Obertots explains. “Our objective was to establish an EMS best practice in safety training that occurs 365 days per year.”

How does this apply to long transports? Crews, for example, are presented with a lesson about preparation for long transports. They are then given a scenario about a problem that happens on a long transport, after which they discuss what they would do in such a situation. Following that, they are provided with a “summary of effective action” that clarifies the ideal response and ideal outcome. The quizzes verify 100 percent agreement—which is then documented and saved electronically for records and QA/safety review.

“For managers, there is total transparency of the scores and topics covered by each crew member,” says

Obertots. “It drives accountability and consistency. Above all, this allows the opportunity to reward and recognize high performers.


“Managers can also provide electronic reports to accrediting agencies or any entity looking for proof of commitment to safety and AMRM in a wide range of topics that include situational awareness and fatigue, rest and duty readiness management.”

Prepare for the worst

Dr. Cesar Chavarria, director of the

Pediatric Transport Unit at Providence Tarzana Medical Center in California, recommends always thinking ahead when it comes to long-distance transports. “You have to think of the worst-case scenario,” he says. “There’s always something unexpected.”

Obertots agrees. “All kinds of circumstances can occur, like running out of oxygen or fuel,” he says. “Batteries can go dead. You can get caught in inclement weather or traffic jams. I recommend being well-stocked and prepared for double the miles and time planned. Definitely be weather-alert, from high heat to blizzard conditions or other weather events.”

Marzec says that when she was working as an EMT, she made a point of knowing the locations of various hospitals along the route she was traveling. Feris agrees. “Some of the most harrowing experiences I had were when a patient was crashing and I didn’t know where the nearest hospital was,” he says. “You also need to include spare cell phones, a credit card or fuel card and maps.” 

H1N1 to be addressed at Pinnacle EMS Executive Forum

Some observers have characterized the reaction to the H1N1 flu virus as overblown. But EMS leaders in Canada who experienced SARS might disagree. Even though the flu outbreak was less severe than initially feared, the crisis exposed how ill-prepared many EMS systems are for such an event.

What implications does H1N1 hold for your organization? What must you, as an EMS leader, do to prepare for its return? The Pinnacle 2009 EMS Executive Forum, August 3 – 9, in St. Pete Beach, Fla., will address these topics in a special session titled “Pinnacle Insights: Lessons Learned from H1N1” on August 4. The session, presented in “think tank” format, will focus on the implications of H1N1 from the EMS leader’s perspective and seek to identify how the H1N1 experience can lead to collaboration among emergency services, public health and community leaders.

The session will be facilitated by Brandon Graham, associate director of the Response to Emergencies and Disasters Institute (READI) at The George Washington University. Panel members include Alan Craig, deputy chief/director-at-large of Toronto Emergency Medical Services, Gary Wingrove, director of government relations and affairs for Mayo Clinic Transport, and others with expertise in dealing with pandemics.

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