

Emergency Situation

MERI training scenario prepares medical personnel for disasters

By Aisling Maki

In a dimly lit building, surrounded by emergency sirens and the loud hum of a waiting military transport aircraft, Memphis medical personnel adjusted their headlamps and checked their radios before navigating through the post-earthquake rubble to prepare their patients for evacuation.

It was the final simulated scenario in a two-day Civilian Aeromedical Evacuation Sustainment Training that took place at the nonprofit Medical Education & Research Institute (MERI) at [44 S. Cleveland St.](#) in the Memphis Medical District.

It was the kickoff to a series of seven such trainings – funded by a grant from the U.S. Department of Defense – scheduled to take place between January and April.

MERI has collaborated with the University of Memphis and Wright State University National Center in Dayton, Ohio, to develop a training program to ensure effective interface between civilian and military medical personnel in the event of a disaster requiring aeromedical evacuation.

“We’re all trying to get on the same page, so that in the event of a true disaster, we can work together effectively,” said registered nurse [Brenda Belk](#), MERI’s simulation training manager. “The military speaks their own kind of language, so when you’re handing off a patient you need to know how to give a report as to what the status of your patient is. A lot of this training, too, is about medical evacuation, so there are things you have to consider as you’re preparing your patient to be evacuated.”

The preparedness trainings are open to all types of clinical staff, including physicians, physicians’ assistants, nurses, paramedics and emergency medical technicians.

“Anyone you can think of who would have to interact in a disaster situation – all those different types of allied medical field personnel can come and participate,” Belk said.

After learning transport techniques and military terminology Tuesday, Dec. 6, trainees spent the first part of Wednesday, Dec. 7, working with donor cadavers in an anatomy procedure lab, where they studied techniques such as intubation and the use of intraosseous lines, used in emergency situations when intravenous access is difficult.

The latter part of the morning was spent evacuating high-fidelity patient simulation mannequins across the street in another MERI property, set up as a simulated hospital with an emergency room, medical surgical unit and intensive care unit.



Emergency personnel train for a mass casualty situation at MERI on Wednesday using medical personnel, military and civilians. Participants learned using real cadavers and simulated live disaster areas.

(Photo: Lance Murphey)

The ICU had been manipulated to appear as if it had been badly damaged in an earthquake, complete with smashed computers on the floor and wires and insulation hanging from the ceiling. Lighting was sparse and sporadic, with the premise being the unstable hospital was running on a generator.

“We chose an earthquake because that would be the most likely thing to happen in Memphis, of the things that could happen,” said [Diana Kelly](#), MERI’s manager of institutional development. “And if it were a bombing or another kind of emergency, the end result would be the same.”

A significant portion of the training involved teaching civilian medical personnel how to determine whether a patient is stable enough to fly at high altitudes and how to prepare patients in varying conditions for transport to other regional medical facilities.

Many civilian medical personnel, especially those who work in office practice environments, are not trained in regards to what type of equipment can be used at high altitudes, as in an airplane or helicopter.

Col. [Cassandra Howard](#), a flight surgeon, medical route commander and commander of medical forces for the Tennessee Air National Guard in Memphis, said it’s vital to “train civilian providers or nurses to be sensitive or at least be aware of air-related problems.”

“We’re trying to inject a little challenge there, where they’re trying to hand off patients to us,” said Howard, also an emergency room physician at Methodist Le Bonheur Germantown Hospital. “Also very important are the key clinical issues when you aeromedically evacuate a patient and add altitude to the situation. There are key concerns, such as the way you would manage a cast or a patient that’s intubated on life support. There are some things that need to be done on the ground before patients are presented to us for flight.”

The hope is that the Memphis training, which was filmed, can be used as a model that can be replicated in cities around the country to improve disaster-time communications between civilian and military medical personnel.