

ing resources on a group of highly motivated, cross-trained individuals, responding agencies can reap rewards not typically seen in pre-hospital response.

Few EMS systems have the necessary funding to equip and continuously train all of their staff in the specialized response to large-scale events. A Chemical, Biological, Radiological, Nuclear, and Explosive (CBRNE) Response team, Heavy Urban Search-and-Rescue (HUSAR) team, and Tactical Response team, which includes tactically trained paramedics (TEMS), can quickly send an expertly trained and equipped team of individuals into an austere environment.

The continuous, multi-agency training within these teams provides strong communication channels that are far superior to typical day-to-day responses. Yearly, on a rotating basis, and in conjunction with the local teaching hospitals, each special team participates in a mass casualty training exercise to simulate patient care from onset of injury to definitive care within the hospital setting. A website is created to incorporate the benefit of online education into the pre-exercise portion of these events. Each agency has input into the educational content so as to maximize the training potential of everyone involved.

The use of special teams in hot and warm zones should minimize the unnecessary exposure of front-line workers to events that are beyond their level of training.

**Keywords:** chemical, biological, radiological, nuclear, and explosive (CBRNE); disaster; emergency medical services (EMS) systems; special training; teams

*Prehosp Disast Med* 2007;22(2):s34–35

### Case Study of Issues Related to Emergency Rescue Efforts in Engineering Disasters under Low Temperature Conditions Based on Experience from the Chorzow Disaster

P.G. Gula,<sup>1</sup> W. Brachaczek,<sup>1</sup> C. Kijonka,<sup>1</sup> K. Sosada,<sup>2</sup> I. Mazur,<sup>2</sup> W. Zurawski<sup>2</sup>

1. Specialist Hospital No. 5 in Sosnowiec, Sosnowiec, Poland
2. Emergency Medicine, Silesian University of Medicine, Sosnowiec, Poland

On 28 January 2006, an engineering disaster occurred at the exhibition hall of the International Katowice Fair. The roof of the exhibition hall buckled under the weight snow accumulated on top it. More than 700 participants in a pigeon racing exhibition were inside the hall, and upon the collapse of the room more than half were trapped and immobilized. Furthermore, there was a sudden change in the victims' thermal exposure, from about 20°C to as low as -19°C. Many of those victims suffered crush-types of trauma. The toll of the incident came to a total of 65 dead (including two deaths in the hospital) and 173 injured who were hospitalised. Autopsy results characterised the injuries suffered by the victims as severe trauma and suffocation

caused by the inability to breathe due to being crushed under the structure. Most of the wounded suffered from various degrees of hypothermia. Those trapped under the rubble were evacuated within between 15 and 330 minutes.

The consequences of the low temperature's impact on the victims were characterized, as well as the specific problems related to carrying out rescue operations under extreme temperature conditions. The main conclusions drawn from the almost 31-hour rescue effort have been analysed. The rescue efforts involved elements of Urban Search and Rescue and emergency medicine in mass-casualty incidents under extreme weather conditions. The rescue was exceptionally technical and challenging, since it was necessary to search for people confined by the collapsed metal and glass structure blanketed by snow.

**Keywords:** collapse; crush syndrome; extreme weather rescue; hypothermia; Poland

*Prehosp Disast Med* 2007;22(2):s35

### The Okaloosa Experience: Developing an Evidence-Based Emergency Medical Services System, Based on Common Sense

K. Waddell,<sup>1</sup> J. Herndon<sup>2</sup>

1. ThinkSharp, Cheyenne, Wyoming USA
2. USA

As a major tourist destination and an area that routinely entertains mass gatherings and often is hit by hurricanes and floods, the Okaloosa County Florida Department of Public Safety and the Division of Emergency Medical Services (OCEMS) began looking for functional solutions to their disaster risks. They sought solutions that brought forth tangible, long-term methods that facilitated greater EMS system development as well as disaster preparedness and response.

In doing so, the OCEMS implemented the first 100% evidence-based, casualty and disaster triage methodology and resource management process in the world. This award winning EMS service piloted the methodology as part of its ongoing efforts to continually improve the value of EMS provided to their residents and guests.

The pros and cons the OCEMS encountered in implementing measures beyond routine chaos reduction, currently called "disaster triage" will be discussed. The OCEMS looks towards a national standard for patient outcome-driven triage and disaster resource management.

At the end of this presentation, the participants will be able to: (1) identify two or more issues related to advancing EMS, especially when it goes against the national psyche; (2) contrast current EMS practices with evidence-based EMS practices; and (3) demonstrate how validated operational protocols eliminate many of the subjective variables common in the provision of emergency care.

**Keywords:** emergency medical services; evidence-based system; floods; hurricanes; tourism

*Prehosp Disast Med* 2007;22(2):s35