

Emergency medical services transport safety has become an increased focus in both developed and underdeveloped worlds with new innovations and developments. Identifying new initiatives and advances is complex. There is a need for communication between EMS research and development teams across environments and a need for enhanced communication with automotive safety and systems safety engineering.

Keywords: ambulance transport; emergency medical services; developed countries; developing countries; innovations

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Session 5: Resuscitation

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Strategies for Rescuing Patients from Building Collapses

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Introduction: A large number of different tools to extricate victims out of difficult positions after accidents or disasters is available. Therefore, sufficient instruction and training are necessary. Furthermore, the strategic use of these tools and the physical and psychological stress to victims and rescuers are important factors.

Methods: Different rescue team members who participated in international missions were interviewed. Reports from medical and rescue teams involved in urban search-and-rescue (USAR) activities were collected and analyzed. Further experience was gained during exercises and training courses.

Results: A structured approach is necessary in order to rescue injured persons or persons trapped after a building collapse. Safety issues are crucial because many victims and rescuers have been killed during USAR operations. Furthermore, the psychological stress to the rescuers is high, since in international disaster operations, the number of victims rescued alive is low. In many cases, when persons were rescued alive, an insufficient medical infrastructure to meet their needs finally resulting in their deaths.

Conclusions: These observations must have a bearing on the composition of rescue teams. To reduce the risks to victims and rescuers, specialized safety advisors are necessary. Standard procedures not always are sufficient. Flexible solutions and an accurate reconnaissance of the situation are vital for a safe operation. Cultural empathy is necessary, especially during disaster operations, when persons with different cultural background are affected. The medical treatment of the extricated victims must be organized in advance. The collaboration of USAR teams and medical teams must be standardized.

Keywords: building collapse; extrication; humanitarian crisis; rescue teams; search-and-rescue

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Evaluation Strategy in the Prehospital Emergency Care Coordination Centre in Crete

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Introduction: In addition to accepting calls, the coordination dispatch centre (DC) of the Emergency Care Department in Crete dispatches available resources and evaluates calls according to severity for efficient management. In Greece, the Crete DC is unique in using computerized information systems (IS) for triage, coordination and call management. The IS has been operational since 1997 replacing the use of handwritten cards.

Objective: The aim of this study was to evaluate the effectiveness and efficiency of the Crete DC regarding the quality of call management and triage. The questions investigated were: (1) how does the severity score of an incident evaluated by the DC correlate with the onsite physician's diagnosis?; and (2) how do the computerized triage protocols contribute to effective triage?

Methods: The severity color-coding of incidents (red, orange, yellow, green) was correlated with the Hector Emergency Score (HES), and the physician diagnosis. The HES is calculated based on the Glasgow scale, vital signs, arterial pressure, oxygen saturation, and cardiac and respiratory frequency.

Results: In a preliminary analysis of 1,052 incidents, >55% of the severity scores given by the DC agree with those calculated onsite. Categorizing calls using both the HES and physician diagnosis increases the specificity of evaluation taking into account severe incidents with normal vital signs.

Conclusions: In Crete, the quality of incident triage can be attributed to a variety of factors including computerized triage protocols, intensive continuing education, leadership and skills. Evaluation results contribute to the continuous improvement of the dispatch centre of the emergency care department in Crete and the application of similar methods in Greece and abroad.

Keywords: coordination; Crete; dispatch centre; emergency medical services (EMS); severity

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Multi-Disciplinary Special Teams Provide Emergency Medical Services Systems with the Capability to Handle Disaster Situations in a Reliable, Safe, and Economical Manner

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The formation of special teams within emergency medical services (EMS) and its allied agencies provides a solid foundation for responding to disaster situations. By focus-