A vs. O (p = 0.0018) and B vs. O (p = 0.039) groups, but not for A vs. B or C vs. O groups. A total of 246 radio calls were qualitatively classified according to contents.

**Conclusions:** The integration of data enables a combination of qualitative and quantitative data to link treatment and outcomes to patient management. On that basis, it is possible to consider agency-specific evacuation protocols, poor resource utilization, and different education levels among rescue personnel.

Keywords: assessment; disaster drills; explosion; treatment and timing; triage

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## Pediatric European Network for Treatment of AIDS (PENTA): Development of a Pediatric Trauma Registry in Flanders, Belgium

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Funded by the Flemish Fund for Scientific Research FWO "Levenslijn Kinderfonds".

Objective: To collect epidemiological data on trauma and trauma care among children and adolescents in Flanders, Belgium, as available data are fragmentary and out-of-date. Methods: The Pediatric European Network for Treatment of AIDS (PENTA) network prospectively collected data in a representative sample (n = 18) of Flemish emergency departments (ED). All children (age 0-18 years) who presented at the ED in 2005 or died prehospital due to trauma were included. The basic "A" registry consisted of 30 variables, the more exhaustive "B" registry (defined for severe trauma as the length of hospitalization exceeding 48 hours, including all non-survivors) consisted of 291 variables. Results: The incidence of pediatric victims of trauma presenting at a Flemish ED was approximately 110/1000/year. Additional data were collected in a random sample of 7,875 cases (24% of all patients). The mean age of the cohort was 9.6 ±5.5 years; 59% were male. The majority of injuries were minor in severity. Hospital admission was needed for 6.6% of patients, mostly for <48 hours. Of all cases, 0.8% were considered severe and included in the "B" registry (median injury severity score = 9, Interquartile range = 13). Of these patients, 10% were discharged eventually with moderate to severe disability, and 6.1% died.

**Conclusions:** The epidemiological data collected by PENTA on pediatric trauma in Flanders will be used for specific research, will aid prevention initiatives, and guide decision-making. Eventually, they will be used for auditing trauma care.

Keywords: epidemiological data; Flanders; pediatric; registry; trauma Prebosp Disast Med 2007;22(2):s148

## Research on Increase of Effectiveness of Prehospital Triage in Mass Casualty Incidents with Application of the WASKOs Command Center Support System

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The Polish rescue system is forced to react to an increasing number of Mass-Casualty Incidents (MCIs). In such extreme situations, correct prehospital triage plays a key role in the organization of emergency care both at scene of the event and at the Emergency Departments (EDs). The Polish rescue system uses popular methods of triage based on START, JumpSTART, and Triage SIEVE (sort) systems. The objective of the research was to evaluate the opportunities for using digital technologies currently available in management support systems and telemedicine to increase the effectiveness of prehospital triage.

The research was conducted at the 2<sup>nd</sup> Polish Winter Championships in Emergency Care that were held in Szczyrk and participated by 40 ALS teams. An MCI was simulated in which 30 people were injured. After the first triage, re-triage effectiveness, transport priorities, and casualties allocation to local EDs were evaluated using the Command Centre Support System (CCSS). A subjective assessment of digital technology implementation opportunities was made based on survey.

Digital technology implementation resulted in the provision of more effective emergency care both from patients triage accuracy, transport priority, ED allocation, and from the point of view of time required to perform triage and emergency care management compared to methods based on traditional procedure and transmission of patients information and particulars.

Implementation of digital technology increases the effectiveness of emergency care in MCIs. A subjective assessment of digital technology skills implementation explicitly correlates with availability of technology in everyday rescue and medical practice.

Keywords: digital technology; mass-casualty event; simulator; triage Prehosp Disast Med 2007:22(2):s148

## Earthquake Preparedness for Foreign Residents in Sendai

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Introduction: Earthquakes frequently occur in Sendai, Japan. There exists a 99% probability that a strong earthquake will occur in Sendai within the next 10 years.

**Objectives:** This survey sought to answer several questions about the knowledge of foreign residents regarding earthquake preparedness and their response to the earthquake that occurred on 16 August 2005 in Miyagi. It also addresses the difficulty in accessing relevant information on earthquake preparedness.