

ditional “proved” paradigms and force endorsement of paradigms that seem unreasonable to common human logic, at least at first glance.

Fundamental reform is urgent, involving appropriate approach, mechanisms, legislation, tools, and leadership measures to managing LSSDs.

This presentation will attempt to fuse reality into myth; calibrating paradigms for risk management by knowledge from past LSSDs.

Keywords: hospitals; large-scale sudden disasters; myths; prehospital care; reform

Prehosp Disaster Med

National and International Experiences of the Associazione Regionale Emergenza Sanitaria E Sociale-Regional Association Medical and Social Emergency: An Italian Specialized Association in Disaster Medicine

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Introduction: During emergencies, there are evident deficits between the health needs of the affected population and the local health system capacity. The causes of disasters are various and often are not predictable, and medical structures usually cannot completely provide for the needs of the population.

Knowing that disaster medicine has different protocols and materials from ordinary medicine structures, and that improvisation during the acute phases is not good practice, an emergency operating health group, the non-profit ARES Association, was created.

Methods: The ARES is comprised of approximately 600 members, and configured as a supplementary health resource that is activated by the National Civil Defence Operations Centre, in accordance with the Regional Centre of Marche, in situations in which the healthcare needs of a disaster-affected population overburden the capabilities of that area, at the national and international levels.

The main objectives of ARES are the training and organization of medical staff and structures. Knowledge and expertise come from several missions during major events, including:

1. Earthquake in Molise, 2002;
2. Tsunami in Thailand, December 2004—the ARES was the first Italian medical team to intervene;
3. 7.6 magnitude Earthquake, Pakistan, October 2005;
4. Earthquake in Indonesia, May 2006.
5. Earthquake in Abruzzo, Italy, April 2009—The field hospital was ready 22 hours after the first earthquake.

Keywords: international; Italy; national

Prehosp Disaster Med

Pediatric Mass-Casualty Events

Family Presence during Pediatric Reanimation: Additional Stress Factor for Emergency Nurse?

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Having the family present during cardiopulmonary resuscitation is a new concept in France. An inventory was made of the

French practice in this special circumstance. This new care concept was not used in the French Emergency Scene. International literature about this topic, including the increased stress factors for caregivers will be presented. The role of nurses is key to this issue, as they can provide psychosocial support. This special topic is important to the field of nursing, as it gives the family a last chance to say “Goodbye”.

Keywords: emergency; family; nurse; pediatrics; reanimation; resuscitation; stress

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School-Based Program for Traumatized Children following Violent Experiences

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The role of school in times of violence and terrorism is of utmost importance. In 1999, bombing of Yugoslavia by North Atlantic Treaty Organization (NATO) forces lasted 78 days and caused the massive traumatization of civilians. The exposure differed in types of stressful events, intensity, and frequency. As parents and other adults were under heavy stress, and they were unable to provide stress relief assistance to their children. Therefore, it was felt that schools should take an active part in the process of recovery.

Immediately following the cease-fire, a psychosocial support program was implemented in a number of elementary schools. The program was conceived specifically for the purposes of this project. It consisted of a number of group therapy sessions to be administered in a class. The aim of the program was to facilitate the expression of traumatic experiences, be a means to share feelings, and strengthen coping skills.

Training was offered to school psychologists and school pedagogues, and they were expected to further train teachers in the schools in which they were employed. The evaluation of the program was highly favorable. In addition to the pupils, who showed considerable relief from their post-traumatic symptoms and anxieties, the staff members administering the program also benefited.

The same program could be used, with minor modifications, as a preventative program for building resilience and coping skills among elementary school-age children. Those modifications will be discussed.

Keywords: children; school; stress; traumatization; violence

Prehosp Disaster Med

Mass-Casualty Events and their Toll on the Pediatric Population

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Introduction: Mass-casualty events (MCEs) are universal, affecting the young and the old, females and males. These unexpected events come in various forms, from train and

road collisions to terrorism-related shootings and bombings. The aim of this study was to characterize childhood injuries resulting from different types of MCEs in Israel.

Methods: A retrospective study of MCE-related injuries among hospitalized children (0–17 years) between the years 1998–2007 and recorded in the Israel Trauma Registry (ITR) was conducted. For this study, a MCE included any event in which ≥ 10 persons were injured. Study parameters included demographic characteristics, injury type and mechanism, hospital utilization, and injury outcome. Findings were compared with non-MCE pediatric hospitalizations during the same period.

Results: During the study period, 158 MCEs were recorded in Israel, of which, 75 (47%) involved children (mean age 11.3 years, 52% girls). The majority of MCEs were terrorism-related (63.4%); followed by motor vehicle collisions (buses or trains) (32%); a collapsed building (2.6%); and other mechanisms (2%). Teenagers (ages 10–17 years) were injured twice that of younger children (ages 0–9 years), (67% and 33%, respectively; $p = 0.05$). Head and neck were the most common body regions to be injured (67%). Most children sustained mild injuries (55%; Injury Severity Scale Score (ISS) 1–8), however, a significant percentage had severe to fatal injuries (29%; ISS > 16). In comparison to non-MCE injuries, MCE-related injuries were more severe: ISS > 16 (8% vs. 29%, respectively; $p < 0.0001$); in-hospital mortality (0.4% vs. 3.4%, respectively; $p < 0.0001$); underwent surgical procedures (20% vs. 50%, respectively, $p < 0.05$); and intensive care unit admission rate (6% vs 31%, $p < 0.0001$), and longer hospital stay (median length of stay 3.5 vs. 8.9 days, respectively; $p < 0.0001$).

Conclusions: Morbidity and mortality are significantly higher among children injured in MCEs than by other mechanisms. In an effort to improve future pediatric MCE-related injuries, medical staff should be better prepared and resources should be improved for dealing with pediatric pre-hospital and hospital care following a MCE.

Keywords: injury severity; mass-casualty incident; pediatrics; traffic collision; terrorism

Prehosp Disaster Med

Plan for Increasing Pediatric Critical Care Surge Capacity in New York City

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Introduction: A mass-casualty event may result in an overwhelming number of critically ill pediatric victims that exceed available pediatric critical care (PCC) capacity.

Therefore, the New York City Department of Health and Mental Hygiene (DOHMH) has sponsored a Pediatric Disaster Coalition (PDC) comprised of representation from New York City (NYC) pediatric hospitals and city agencies involved in disaster preparedness and response. One of the PDC's tasks was to develop guidelines for hospitals in NYC to increase their PCC bed surge capacity. The ultimate goal was to increase NYC's total pediatric critical care capacity during disasters by 200 beds above baseline.

Methods: The PDC members met twice monthly for 10 months. They first defined a PCC "surge bed" as a unit that requires the following: physical space to accommodate a bed or a stretcher; staffing required for continued critical care; and equipment and supplies to manage critical care pediatric victims of CBRNE events. The PDC developed guidelines to address the aforementioned "surge bed" requirements and reached a consensus on their merits.

Results: The PDC established the following PCC surge guidelines for: (1) using existing clinical space in pediatric intensive care units to accommodate more patients on stretchers than originally intended; (2) modifying tools for "rapid patient discharge" and for "PCC rapid expansion", enabling more admissions to the PCC, as well as to other clinical and non-clinical areas within a hospital; (3) developing an efficient process for enlisting additional staff and assigning them specific roles; and (4) developing processes for obtaining the necessary equipment and supplies to self sustain for 96 hours.

Conclusions: The PDC guidelines for a pediatric critical care surge plan now is ready for a pilot study to ascertain whether it enables hospitals with PCC services to increase their bed capacity by developing their own surge plans.

Keywords: critical care; New York City; pediatrics; preparedness; surge capacity

Prehosp Disaster Med

Trauma in a Child's World—An Asian Perspective: A Case Series of Three Hospitalized Singaporean Children with Post-Traumatic Stress Symptomatology Post-Accidental Injury

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Studies in America and Europe have consistently found that a significant proportion (10–15%) of children and their families develop post-traumatic stress disorder (PTSD) after accidental injuries. Despite important socio-cultural differences, there currently are no published studies in Singapore or other Asian countries examining the prevalence of distressing emotional symptoms among children hospitalized for accidental trauma injuries or the emotional impact on their parents.

This presentation describes the cases of three Singaporean children who were hospitalized in a Pediatric Tertiary Hospital for accidental trauma and were identified as having developed PTSD symptomatology upon a follow-