and illnesses. Notwithstanding the presence of mold in some THUs, the majority of the complaints were linked to the presence of formaldehyde in ambient air within THUs.

The scientific literature confirms that formaldehyde is capable of causing a variety of symptoms and problems, including skin and mucosal irritation, sensitization, decrements in pulmonary function, and the development and aggravation of asthma.

The US Agency for Toxic Substances and Disease Registry (ATSDR) has set a Minimum Risk Level (MRL) for formaldehyde of 8 parts per billion (ppb) for exposure beyond 365 days. The National Institute of Occupational Safety and Health (NIOSH) has established a Recommended Exposure Level (REL) of 16 ppb (time weighted average) for occupational exposure. Formaldehyde also is classified by the International Agency for Research on Cancer (IARC) as carcinogenic to humans (Group I).

Air quality studies of FEMA-supplied THUs measured formaldehyde concentrations between 3.0 to 4,480 ppb. Some occupants of THUs were probably exposed for many months to levels of formaldehyde exceeding 100 ppb, with excursions up to 500 ppb. Many medical symptoms and problems reported by DPs probably were related to formaldehyde exposure while living in THUs.

This unfortunate US experience should be a lesson to other countries that provide THUs to displaced persons following a disaster, or in non-emergency situations. Temporary housing units should be tested for formaldehyde before providing them for human inhabitation.

Keywords: displaced persons; formaldehyde; Hurricane Katrina; symptoms; temporary housing units; toxic
Prehosp Disaster Med

All-Hazards Approach to Emergency Preparedness

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Introduction: Medical institutions are required to maintain preparedness to various emergency scenarios, including conventional mass-casualty events (MCEs), chemical or toxicological mass-casualty events (MTEs), and biological events. The aim of this study was to examine the relationship between preparedness to one emergency scenario to the level of preparedness to other emergency scenarios.

Methods: The emergency preparedness levels of all general hospitals were evaluated based on a structured tool that includes measurable parameters. The evaluation encompassed the various elements of emergency preparedness, including standard operating procedures (SOPs), infrastructure and equipment, training and drills, and levels of knowledge. The emergency preparedness levels for MCEs, MTEs, and biological events were evaluated and compared.

Results: Moderate correlations were found between the levels of overall preparedness to the various emergency scenarios: MCE; MTE (0.548; 0.006); MCE; biological event (0.541; 0.009); MTEs; biological event (0.458; 0.032). Significant correlations were found between SOPs of MCEs and MTEs (0.704, 0.001); between training and drills for all scenarios: MCEs; MTEs (0.626; 0.003), MCEs; biological event (0.658, 0.002), and MTE; biological event (0.586; 0.008); and between infrastructure and equipment for MCEs; MTEs (0.458; 0.032). No other significant correlations were found.

Conclusions: The emergency preparedness of hospitals positively correlates with the emergency preparedness to other scenarios, such as MTE and biological events. This relationship does not systematically characterize all elements of emergency preparedness, and is evident especially in the area of training and drills.

Keywords: all-hazards; emergency; preparedness
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Confronting Large-Scale Sudden Disasters: Prehospital-In; Hospital-Out

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Large-scale sudden disasters (LSSDs), due to both natural and technological hazards, are low probability, high-impact events that inflict injury or relocation upon hundreds of thousands or even several millions of people per incident. Many of the affected require medical, physical, and mental treatment.

"Hospitals" are institutions where the real medical treatment is administered. The ambulance services and community-care clinics nicknamed "prehospital" are tasked to provide prompt life-support, stabilization, and transfer of patients—"Scoop and Run"—to a hospital, to be released as soon as possible to "post-hospital", recovery care.

In contrast to ever-ready operational capacity that corresponds to daily emergencies, there is an unbridgeable gap between standing-ops capabilities and what is essential to be done during LSSDs to save lives and reduce damage to health. Instead of hospitals, to call patients for refrain from coming to hospitals—they should extend their proficiency, ethics, personnel, and materiel to "prehospital" systems. In responding to emergencies, laypeople play the decisive role and institutions a secondary one; in preparedness and mitigation, institutions play the decisive role.

As part of preparedness and mitigation measures, hospitals should enhance the participation of every individual, every group, and every community in the emergency management process by improving the methods of coping with perilous circumstances within the family unit and the community.

Hospitals are resourceful and privileged during the preparedness phase, but ineffective during the response phase when it is imperative to call for a shift of duties. Hospitals should contribute to trim Criteria and Standards for the Level of Medical Treatment, one of the realistic methods to augment operational capacity. Only hospitals are capable of granting professional legitimacy to such approach.

Large-scale sudden disasters specifically natural hazard and technological disasters, create dilemmas that crush tra-

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 magintude 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
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Pediatric Mass-Casualty Events

Family Presence during Pediatric Reanimation: Additionnal 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
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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