

increased likelihood of accidental over dosage. Deaths have been reported as a result of all of these drugs.

The current literature, guidelines, and trends of use of these drugs were reviewed, and recent research identifying their pharmacodynamics, as well as potential novel methods of treatment, will be discussed. Experiences in providing prehospital medical support at music festivals and the morbidity associated with the use of such drugs at these events will be reported.

The aim of this report is to guide hospital and prehospital healthcare providers in managing such patients, informing their clinical decisions, and enabling the best use of limited resources.

Keywords: club drugs; gamma-hydroxybutyrate; hospital; music festivals; prehospital

Prehosp Disast Med 2007;22(2):s67–s68

(113) Planning for Waves: Is It the Same as Preparing for a Disaster?

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The World Life Saving Championships were held on the Coast of Victoria, Australia in February 2006. Four thousand competitors representing 29 nations competed at three different venues over 16 days. The primary location of the beach events was Lorne, a rural, beachside community of approximately 1,200 residents. A small community hospital offers basic radiology and pathology services during business hours and staffs a volunteer ambulance. The different levels of vulnerability associated with such an event creates the need for proper planning and preparedness.

Limited health services in combination with security, transport and logistics, shelter, water, and medical supplies—not to mention temporary structures supporting an expected 20,000 spectators—were just a few of the potential emergency. In total, 350 patients were managed with only three patients transferred out of the event.

This presentation will review the planning and preparation that went into running the medical and water safety teams, with particular focus on the unpredictable variations in meteorologic conditions, satellite event locations, and limited routine health resources. Risk assessment of potential emergencies from sporting injuries, mass water casualties, and drug- or alcohol-affected patrons attending evening functions also are discussed.

The use of a generic scoring system to assess the health risks at such a mass gathering will be illustrated. The integration of statistics and experience allowed for the implementation of strategies that reduced the impact of the event on the local health services.

Keywords: local health services; mass gathering; planning; preparedness; strategies; World Life-Saving Championships

Prehosp Disast Med 2007;22(2):s68

(114) Plans for Management of Mass Losses from Airplane Show: Air Demonstrations “Archangel” and “Red Arrows”

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The Military Aviation undertook the organization of an International Air Demonstration called “Archangel” in the Airport of Tanagra from 16–18 September 2005. Planes from many countries participated in the event, with dynamic (acrobatic) and static exhibitions. There was a large attendance.

On 09 June 2005 and 06 January 2006, the British air demonstration “Red Arrows” took place in the region of P.Faliron, also drawing a large attendance. According to the international definition (>1000 individuals), the event constituted a mass gathering, which required the application of special sanitary support rules. However, the development of a plan that covered all of the possible emergency situation of sanitary support was impossible due to the lack of previous experience.

Mass-gathering in open-air locations have shown that the most common medical problems mainly are pathological (69%) and surgical (31%). The medical personnel will recognize immediately the health status of every patient and mobilize the services of sanitary support. No serious problem occurred and the preparedness and collaboration of all involved institutions was very good. The existence of a common coordinative center was absolutely essential.

Keywords: air demonstrations; airplanes; mass-gathering; preparedness; sanitary support

Prehosp Disast Med 2007;22(2):s68

(115) Emergency Medical Services Personnel Training in Weapons of Mass Destruction Casualties Management

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The aim of this study was to identify difficulties regarding the training of emergency medical service (EMS) personnel in non-conventional trauma.

This training was part of the special training for the Athens 2004 Olympic Games for the doctors, nurses, and paramedics, who were members of the weapons of mass destruction (WMD) response team of the Hellenic National System for Emergency Care. The training was organized by EKAB and provided to 225 participants.

There were no differences observed between physicians, nurses, and paramedics, regarding the specialized knowledge in nuclear, biological, and chemical (NBC) environments. Only 37.6% of the participants had no basic knowledge of mass-casualty incident management. The vast majority of

the participants had severe lack of knowledge regarding the basics in management of nuclear (69.3%), biological (72.4%), or chemical (98.7%) incidents. Training difficulties were experienced in the areas of radiation damages (by 93.3% of participants) and the differences in the effects of contamination (90.7%) between radiation exposure and of other agents, weaponization (99.1%), the ability to differentiate between biological warfare agents and common biological agents (86.7%), and the different chemical warfare agents (100%) and their effects (80.5%) in combination with treatment (84.0%) and contamination/decontamination (87.6%). The potential number of mass casualties following the use of NBC warfare agents could not be estimated by 182 participants (80.9%).

Near the end of each course, different tabletop exercises were practiced. The average results of these exercises revealed: (1) 3.3% of the participants of each course were unable to launch correct early warning for the warfare agent used; (2) 4.1 % could not apply the proper treatment for a given warfare agent; (3) 2.7% were unable to decontaminate accordingly; and (4) procedures and algorithms regarding management and safety were not followed by 53% and 2.1%, respectively.

Keywords: emergency medical services (EMS); mass-casualty incident; nuclear, biological, and chemical (NBC) warfare; training; weapons of mass destruction (WMD)

Prehosp Disast Med 2007;22(2):s68–s69

(116) Mass-Casualty Triage in the Chemical, Biological, Radiological, or Nuclear Environment

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Field trauma triage systems currently used by emergency responders during mass-casualty incidents and during disasters do not account adequately for the possibility of patients contaminated with chemical, biological, radiological, or nuclear (CBRN) material. A system is needed that can help healthcare personnel assess whether there has been exposure to or involvement of CBRN agents (detection), protect themselves from secondary contamination, account for the clinical implications of the contamination in the triage algorithms, and still provide accurate, rapid, and reproducible triage of large numbers of patients using minimal resources.

The objective of this study was to propose CBRN-compatible trauma triage algorithms based on a review of the literature and the input of recognized content experts. It is presupposed that this system will be applied to a disaster with a single discrete scene (e.g., a building collapse due to a bombing with a large radiation dispersal device) or multiple discrete scenes (e.g., several, simultaneous, chemical weapons releases in a city), and not to an event with widely dispersed patients and no specific scene (e.g., multiple smallpox patients scattered around country).

The primary focus of the system shall be on the triage of physically injured patients, with less emphasis on those whose sole source of injury is a CBRN agent. It is recog-

nized that work is needed in the latter area. Emphasis will be placed primarily on the actual triage of victims and less on detection and provision of protection from contamination.

Keywords: algorithms; chemical, biological, radiological, or nuclear (CBRN) agents; emergency responders; mass-casualty incident; triage

Prehosp Disast Med 2007;22(2):s69

(117) Emergency Physician-Managed Triage at a Rock Concert Avoids Overload at the Local Emergency Department

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Introduction: The organization of an on-site medical care system at music festivals aims to provide emergency medical care and treatment (EMCT) according to the principles of Basic Life Support, Advanced Life Support, and timely evacuation. In the case of a mass-casualty incident (MCI), EMCT also must prevent disruption of the local EMS system.

Methods: The composition of patient cases presenting during four-day outdoor summer concert, Rock Werchter, during the 10-year period, 1995–2004 was identified. The mean daily attendance at this event was 80,000, primarily teens and young adults.

Results: The overall patient presentation rate (PPR) was 220/10,000 attendees (2%). Emergency physician involvement at first aid stations (60/10,000) occurred in 27% of presentations. Only 12% of patients triaged by an emergency physician (EP) required transport to a hospital. The hospital transfer was 7/10,000. Patients transported to a hospital consisted of 80% trauma, 13% internal pathology, and 7% intoxication. Medical imaging was used in 70% of the patients transported to hospitals. Although PPR and the hospital transfer rate might be high compared to relevant literature (12/10,000 compared to 4/10,000), the systematic triage by an on-scene emergency physician reduced the eventual patient load to the local ED to 3.2%.

Conclusion: The benefit of a prehospital medical team at the scene of the event is illustrated by the effectiveness of triage of the on-site population and adequate regulation of patients transport to a hospital. A prehospital medical team is especially beneficial in situations likely to involve a high patient load, as may occur at a rock concert with a large young audience that is likely to use drugs and alcohol.

Keywords: emergency physician; music festival; on-site medical care; patient presentation rate; triage

Prehosp Disast Med 2007;22(2):s69

(118) Azienda Sanitaria Locale 10 Medical Services at the Olympic Village Polyclinic of Sestrires during the Torino 2006 XX Olympic Winter Games and IX Paralympic Winter Games

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Introduction: The Azienda Sanitaria Locale (ASL) 10, in agreement with the TOROCs Medical Service, coordinated the basic and emergency medical assistance at the alpine venue of Sestrires. This represented the integration between