

**Conclusions:** Coordination of all involved institutions is essential, as is the existence of Coordinating Center in the region and a Center of Information and Psychological Support for the relatives and friends of victims. The existence of plans and the training of special teams for coping with mass destructions also is important, as is rapid decision-making and activation of corresponding infrastructures.

**Keywords:** airplane crash; Greece; injury; mass casualties; psychology; sudden-onset incident

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### (152) Escape from a Skyscraper during a Disaster

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**Introduction:** Recently, there has been an increasing trend in the worldwide construction of skyscrapers. After the 2001 World Trade Center terrorist event, the disaster or safety-related problems associated with skyscrapers have become important issues in several countries. Research on the escape, transport, and emergency medical support of victims in skyscrapers is lacking. This study was conducted on the conditions of victims that escaped from a 63-story building. **Methods:** After medical check up, 33 volunteers participated in the study. Each was assigned into one of six groups. These groups were categorized as the following: Group 1—sprint application; Group 2—stretcher; Group 3—vision loss; Group 4—piggyback; Group 5—free personal escape; and Group 6—group escape. The escape was made from the 54th floor to the ground and various times were checked. During the escape, video was recorded at several important places and the recording was analyzed after the experiment. Every participant responded to a questionnaire after the experiment.

**Results:** The average escape time was 13 minutes and 55 seconds. The vertical escape velocity shows group 5, 6, 1, 2, 3, 4 in the order of the fastest velocity. The velocity in 40th floor was faster than 20th floor. The questionnaire results indicated the many differences from the routine escape patterns.

**Conclusion:** Escape from a disaster in a skyscraper has different patterns from other disaster conditions. Victims feel more difficulties and the escape velocities depend on the various conditions.

**Keywords:** disaster; escape; skyscrapers; velocity; vertical

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### (153) Vision-Restoring Project in an Area of Natural Hazards and Political Instability

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**Introduction:** The Japanese Red Cross Society (JRCS) coordinated with the Sri Lanka Red Cross Society (SLRCS) to launch a vision-restoring project in Trincomalee, Sri Lanka after the Sumatra Earthquake and Tsunami in 2004. However, security in the northeast area of Sri Lanka

has destabilized from 2005. This presentation reports on the activities of this project and the challenges of operating in an area of natural hazards and political instability.

**Methods:** The local staff of the SLRCS (two administrators and four caretakers) and volunteers (one ophthalmologist and one optician) were involved in the project since the planning stage, while the JRCS functioned primarily for coordination. Activities included vision screening, providing glasses, and referring appropriate patients for cataract operations. Data from September 2005 to June 2006 were analyzed and key issues in the successful operation of the project were identified.

**Results:** A total of 5,634 people (male 2810, female 2,824) visited the vision screening camp. Of these, 857 (15%) were diagnosed with cataracts and 410 were referred for cataract surgery. By emphasizing the involvement of the SLRCS, the project was able to continue even after security became unstable.

**Conclusion:** During a disaster caused by natural hazards, vision impairment deprives people of a chance to reconstruct their lives. Because treatable diseases cause most visual problems in developing countries, it is important to conduct a vision restoration project as a health relief activity. Coordination and cooperation with local structures from the planning stage increased the chance for the continuation of the project, even when the situation unexpectedly changes.

**Keywords:** cataract; disasters; natural hazards; political instability; vision restoration

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### (154) Comparison between the Public and Private Ambulance Systems in Bucharest

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**Introduction:** Bucharest is the largest city in Romania and has 2.5 million permanent inhabitants plus students and temporary national and international workers. The demands of such a big city are difficult to fulfill and the task of rescuing people in an emergency are difficult. Ambulances and emergency teams can be found in both public and private systems. The aim of this study was to make an objective comparison between public and private systems in Bucharest.

**Methods:** The Ambulance Unit of Bucharest (SAMB) represents the public system and the PULS Ambulance is the oldest private ambulance station (1990).

**Results:** The Ambulance Unit of Bucharest (SAMB) has 30 emergency crews and 20 standard crews, while PULS has five emergency crews and six standard crews. Emergencies (grade 0 and 1) represent 35% of the total cases for the public ambulance and 10% for the private one. The average arrival time during an emergency is 20 minutes for public ambulance and 10 minutes for the private one. During 2005, the public ambulance registered 350,000 cases and the private ambulance registered 25,000 cases.

**Conclusions:** Although the public ambulance is paid from national funds and provides medical care to all persons irrespective of their nationality and/or payment of health

insurance, the paid for medical care from the private sector individuals demonstrates a higher level of efficiency.

**Keywords:** ambulance; efficiency; public sector; private sector; Romania

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### (155) Suicide Attempts and Prehospital Medicine

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**Introduction:** Prehospital personnel often confront suicide. The aim of this study was to examine the epidemiological characteristics of the patients who committed suicide and the emergency management of the patients.

**Methods:** A total of 108 suicide cases were examined retrospectively. The mean value for the age of the patients were 36.7 years; 52 of the victims (48%) were female.

**Results:** The majority of the patients (72 cases), chose to attempt suicide by poisoning themselves with drugs or chemicals. Falling from heights represented the second most common method of committing suicide (15 cases). Five victims hung themselves, and five attempted suicide by self-inflicted stab wounds to the chest, neck, and other major vascular structures. The rest of the victims chose drowning and gunshot to commit suicide. All of the hanged victims were dead when the emergency personnel arrived. A total of 55 victims reported a history of previous suicide attempts; 32 of the victims had psychotic disorders.

**Conclusions:** Supportive care remains the primary management for most poisoning victims. All of the hanging victims were dead by the time the prehospital team arrived. Among the suicide victims, interpersonal relationship disorders seemed to be more frequent.

**Keywords:** attempted suicide; emergency; epidemiology; prehospital; suicide

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### (156) Near Drowning and Prehospital Medicine

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**Introduction:** In Greece, near drowning is a common accident during the summer. Children and the elderly are more susceptible to drowning. Prehospital physicians should be prepared to treat victims of near drowning, especially in areas near the sea. The purpose of this study was to examine the epidemiology; characteristics, clinical presentation, and emergency management of near-drowning victims.

**Methods:** A total of 25 cases of near drowning were analyzed retrospectively.

**Results:** Among the near-drowning victims, there were three children with a mean value of the ages of 6.3 years. The mean value of the age of the adult patients was 64.6 ±9.80 years. There were 10 men and 15 women. All of the cases occurred in salt water during the summer months.

Profound hypothermia was not detected. All of the cases demonstrated mild or severe respiratory insufficiency. Tracheal intubation was required for four cases during the prehospital phase. Pre-existing medical illnesses were detected in 19 cases. Eight patients had previously consumed food and drinks. A total of 20 patients were stuporous, four patients were awake and alert, and four patients were comatose. Pulmonary edema was detected in six patients. Cardiac abnormalities were detected in 15 patients.

**Conclusions:** There were two age-peaks for the near drowning victims; children and the elderly. The majority of the near-drowning patients were elderly with underlying disease. Common findings were tachypnea and tachycardia. Tracheal intubation may be required during the transportation of the patient to the hospital.

**Keywords:** children; elderly; emergency; Greece; near drowning; presentation

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### (157) Complicated Myocardial Infarction in Prehospital Medicine

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**Introduction:** Cardiac arrhythmias, left ventricular dysfunction, cardiogenic shock, and thromboembolism represent the main complications of myocardial infarction (MI) that may be confronted by a physician in prehospital medicine. The purpose of this study was to examine the frequency and the kind and the severity of complications among patients with MI during the prehospital phase of their management.

**Methods:** The medical records of 285 patients with suspected MI were examined retrospectively. All the patients enrolled in the registry had electrocardiographic (ECG) changes consistent with acute ischemia. The patients' demographic and medical history characteristics, the frequency and the kind of complications, and the emergency management were examined.

**Results:** A total of 62 patients with suspected MI presented complications during the prehospital phase. Of these, 38 were male (61.3%) and the mean age of the patients was 62 ±7.9 years. Arrhythmic episodes were detected in 45 patients (72.6%). There were 17 cases of supraventricular tachyarrhythmias (27.4%), 15 cases (24.2%) of ventricular tachyarrhythmias (ventricular premature beats were included), and 13 cases of bradyarrhythmias and conduction disturbances (20.9%). Electrical cardioversion was required in six cases (9.7%). Twelve patients (19.47%) presented congestive heart failure resulting from systolic dysfunction and four patients (6.4%) presented cardiogenic shock, and one patient brain thromboembolism.

**Conclusions:** Arrhythmias represent the most important complication during the acute MI. During the prehospital phase, ventricular tachycardia and fibrillation probably account for the majority of sudden deaths. The physician of