

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

prehospital medicine should be acquainted with the complications of the MI and their management.

Keywords: arrhythmias; emergency; myocardial infarction; prehospital medicine

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(158) Modeling Multidimensional Networking as a Braided Cascade for Medical Capacity Sharing during Disasters

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Introduction: The “chain concept” in medical treatment resembles an automobile assembly line. It improves overall coordination and bottleneck management. In emergency and disaster medicine, however, this concept lacks both efficiency and flexibility. For obvious reasons, demand can only be forecasted and met here in terms of probability. Modern logistics provide the “network concept” in which passengers, containers, information packets, etc. are being routed using the online fastest path calculation. Is this concept feasible in emergency and disaster medicine as well?

Methods: Amsterdam hospitals started simulation modeling, for trauma department routing and inter-hospital routing in 2002. This year, students from the Amsterdam School of Technology modeled a combination of inter- and intra-hospital networking, using ED graphical simulation software for fastest path calculation.

Results: The study showed a significant improvement in both speed and efficiency, under three conditions: (1) online capacity information availability; (2) sufficient transport capacity; and (3) cooperative attitude.

Conclusions: The development and testing of network simulation models, such as the cascade model, will contribute to the understanding, and hence improvements of patient flow in emergency and disaster medicine. Development towards professional gaming can reduce disaster drill costs. Discussion is needed to learn more about views on the socio-organizational aspects.

Keywords: hospital; management; model; multidimensional network; simulation

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Oral Presentations—Theme 10: Nursing and Paramedic Issues

Session 1

Chairs: TBA

The Global Status of Nursing Research in Emergency Planning and Response

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Issues of nursing/midwifery research in emergency planning and response often lag behind exploration of other,

more easily identifiable concerns. The purpose of this presentation is to describe the global status of nursing research in the area of emergency planning and response.

An increased emphasis on mass-casualty education led to the development of the International Nursing Coalition for Mass Casualty Education (INCMCE). Hosted by Vanderbilt University, the INCMCE has met annually with funding from the US Department of Health and Human Services. This presentation is based on reports from the research subgroup of the INCMCE over the last three years, as well as an invitational consultation at the World Health Organization (WHO) held in November of 2006 at their Geneva headquarters.

Recommendations for nursing research include the: (1) design and implementation of a knowledge repository available through the Internet; (2) identification of focused research areas; (3) development of a tool for use in the field during and following emergencies; (4) promotion of funding for research in the priority areas; (5) support of a network for nurses who research emergency planning and response; (6) development of policy guidelines that would influence the nursing and midwifery research globally; and (7) consideration of the Utstein Style (as endorsed by the World Association of Disaster and Emergency Medicine (WADEM)) as a standardized framework for evaluation and research.

Nurses play an important role in successful emergency planning and response. Their contributions can be strengthened through an implementation of a global research agenda.

Keywords: global research; midwives; nurses; nursing research; planning and response

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Ambulance Crew Work: An International, Qualitative Examination of Work Flow and Patient Care

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Popular conceptions of prehospital emergency medical response conjure up images of ambulances with sirens screaming, speeding to patients with acute, life-threatening conditions. Once at the patient's side, ambulance staff perform heroic, life-saving procedures. This research looks behind such popular images and examines the day-to-day work of ambulance crews.

The first phase of this research project examines the delivery of prehospital emergency medical care of several ambulance services in the United States and United Kingdom. A social science researcher accompanied ambulance crews throughout their shifts, paying close attention to work activities, work flow, the needs and expectations of patients, and the place of prehospital care within a larger healthcare infrastructure. Ambulance crews are providing patients with chronic conditions, multiple conditions, and limited access to health care with care and entry into the healthcare system. There is a growing disconnect between the traditional focus of ambulance services (life-saving, acute care need) and the current needs of patients and care-