(P2-23) Attempted and Completed Suicides: A Two-Year Analysis from a German Helicopter Base

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Introduction: In Germany, emergency physicians in the prehospital rescue system ensure primary care. The rescue helicopter in Dresden covers the city of Dresden (population 517,000), surrounding areas with distances up to 70 km. Typical reasons for alerting the rescue helicopter are heart diseases or injuries during accidents. There also is a high number of patients with attempted or completed suicides. The goal of the study was to analyze cases associated with suicide.
Methods: Data of all emergency transports from the German Air Rescue (DRF-Luftrettung) Helicopter Base Dresden between January 2008 and December 2009 were recorded on a standardized protocol and transferred to a central computer database. Subsequently, all cases were analyzed with special regard to suicides.
Results: There were a total of 3,051 cases during the study period. Fifty-nine cases (1.9%) were related to suicide. The helicopter was on the scene within 10.9 minutes. The mean NACA Score was 4.9. The mean age was 51.6. A total of 52.5% of patients were male. In 15.2% of the cases, the patient called for emergency help; in 37.3%, bystanders contacted authorities. The reason for attempted suicide was unknown in 57.6% of the cases. In 16.9%, it was related to partnership, in 20.3% to health problems, in 5.1% to financial problems. The main method of attempt was the use of medical pills (47.4%). Other frequent methods were strangulation (18.6%), stab wounds and gunshots (8.5%), intoxication (3.4%), or unknown (16.9%). Six patients received cardiopulmonary resuscitation, four reached a Return of Spontaneous Circulation, and 10 patients died.
Discussion: Helicopters often transport suicide victims. This study demonstrates the need for better prevention as well as an improvement of education for emergency physicians working in the prehospital setting.

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(P2-24) The "Oxygen Bus": Retrofitting a City Bus with Oxygen Resources to Respond to Hospital Evacuations and Other Disasters

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Evacuation/Oxygen Bus The Chicago Fire Department (CFD) identified a need to treat multiple stable fire/inhalation victims who require oxygen, whether due to a previous medical condition or as the result of an acute event, such as evacuation of or fire in any building, hospital, or treatment facility. As a partner with the Chicago Department of Public Health (CDPH) and an active participant in the "Chicago Healthcare System Coalition for Preparedness and Response", the CFD determined that a bus could be an adjunct in city responses and emergencies. With the support of the Coalition, the CFD approached the Chicago Transit Authority (CTA) to obtain a bus. Once the actual bus was given to the CFD, an operations order was written and the appropriate equipment was purchased. The Evacuation Committee of the Coalition identified equipment and supply needs. Supplies purchased and retrofitted for the bus include modulators for patient oxygen use, oxygen tanks, masks, nebulizers, automated external defibrillators (AEDs), first line advanced life support (ALS) medications, evacuation chairs for moving patients, and special emergency lighting. The bus is able to accommodate thirty five people who require treatment simultaneously. The use of the bus includes but not limited to: (1) hospital evacuation and treatment of stable patients with oxygen and nebulizers prior to transportation to an alternate facility; (2) long-term care facility evacuation and treatment of stable patients with oxygen needs prior to placement and transport to another facility; (3) responding to building fires to treat victims who may need oxygen and nebulizer treatments on site; (4) assisting with the evacuation of home-based, at-risk oxygen dependent patients; and (5) treating evacuated children from specialized treatment facilities who may be oxygen dependent. The outside of the bus has both CFD and CDPH logos to identify that this is a collaborative effort between city agencies and a Healthcare Coalition.

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(P2-25) Evaluation of the Apache III Grading System in Predicting the Prognosis and Mortality of Patients Admitted to Emergency Room, in Need of Intensive Care Unit Admission

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Objectives: Many of critically ill patients are being cared for prolonged periods in ED just because of limited number of ICU beds and utilize of ED as the entry point to the health care system. The aim of this study is evaluation efficiency of APACHE III scoring system in predicting mortality rate of the mentioned patients.
Materials and Methods: This cross-sectional, observational, analytic study was performed in one year period. A hundred patients remaining in ED and necessitating ICU hospitalizing were enrolled by the convenience type of non-probability sampling. Then, the APACHE III scores, predicted and observed mortality rates were calculated using of information obtained from patients' files, interview with the patients' family and performing required physical exams and lab tests.
Results: In the assessment of 100 patients, men group were 56% (56) and women group 44% (44). The age of patients and the ED lengths of stay were 66.07 ± 19.92 years and 5.11 ± 3.79 days respectively. The average (± SD) of APACHE III score of the enrolled patients was 58.89 ± 18.24 and the predicted mortality rate calculated 32.73%; while, the total of observed mortality rate was 55%. The average (± SD) of APACHE III score of survivors and non-survivors were 48.63 ± 16.35 and 67.63 ± 14.84 respectively. So, there was a significant deference ($p < 0.001$). Also, there was a significant deference in the ED lengths of stay

between survivors and non-survivors (3.20 ± 1.34 and 6.57 ± 4.40 respectively, $p < 0.001$).
Conclusion: In our study, APACHE III score and ED lengths of stay were higher versus other studies in Iran and other countries; which show more critical patients presenting to our hospital and limited ICU beds versus patients. This study results nevertheless there was significant difference between predicted and observed mortality rates, the APACHE III scoring system is applicable to evaluating care, treatment and prognosis of ED patients, as is used in ICU.
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(P2-26) EMS-Assessed Mass Casualty Incident: A Pilot Surveillance

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Background Recently the number of disaster and mass casualty incident (MCI) is increasing in Korea, but there have been few administrative reports or technical reports for disaster and MCI. An ad hoc basis data collection method is usually incomplete and outdated. This study was conducted to investigate the new surveillance system composed of EMS based real time survey and medical records based in-depth survey.
Methods: A retrospective review was conducted of the 119 fire department call center database and ambulance running sheets in one metropolitan city. The data on all transported patients with non-medical reasons (fire, rescue and others) between May 2006 and December 2008 was reviewed. We selected all data from the accidents which had more than 2 casualties to exam the feasibility and conducted in-depth surveillance based on medical records.
Results: The total number of accidents was 2,027 with 2,625 patients. The number of accidents which had more than 2 patients was 307 (total 898 patients) and more than 6 patients was 19 (total 176 patients). Among the "MCI" events, 15 cases were traffic accidents (125 patients, 71.0%), 4 cases were fire (51 patients, 29%). Total 142 medical records (80.7%) were reviewed. Admission rate was 32.4% (46 patients) and overall mortality was 3.5% (5 patients).
Conclusion: This nationwide public EMS system could contribute to the establishment of the systematic disaster database.
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(P2-27) Simulation of Transport During a Major Incident

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Transportation capacities belong to the key factors of the response to a major incident. Available resources, both in terms of personnel and equipment, must be transported, usually by ambulances, to the incident location. In the other direction, casualties must be transported to hospitals and other health care facilities for further treatment. For this reason, the efficiency of the response is greatly determined by ambulance travel times and the ability of health care facilities to absorb large numbers of patients. We propose methods to compute the travel times to and from the incident location based on a classified road network. The methods take into account different attributes that depend on ambulance type and capacity, road quality, time of day, weather or actual traffic density. Correctly computed travel times are crucial not only for optimal deployment of all resources within the analyzed region, but also for the evaluation of the readiness of the emergency health care system for a major incident. We have included the methods in an agent-based simulation of transport during the response. From the simulation outputs and with the help of geographical information systems and information visualization methods we have synthesized maps that represent the capability of a region to absorb a major incident defined by a scenario. When combined with risk maps and maps of population density the synthesized maps allow emergency management authorities to find critical points and gaps in the emergency health care service.
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(P2-28) Collaboration Between Nurses and Physicians in the Emergency Department: An Indonesian Study

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Background: Positive collaboration between nurses and physicians is essential in all areas of care especially in emergency practice. This is because it has a significant relationship with the quality, safety, accountability, and responsibility of care. Three areas are positively related to collaborative interaction between nurses and physicians: provider outcomes, patient outcomes, and organizational outcomes.
Aim: To examine nurses' and physicians' attitudes towards nurse-physician collaboration in the Emergency Department of Dr Saiful Anwar General Hospital, Malang, Indonesia.
Methods: The study was a comparative descriptive quantitative study using a modified Jefferson Scale of Attitude towards Physician-Nurse Collaboration. Data were collected from 47 nurses and 24 physicians who participated in the study. Descriptive statistics, parametric and non-parametric inferential statistics were used to determine group scores and to examine differences between groups, as well as to determine the relationship between demographic characteristics and participants attitudes.
Results: Emergency nurses had significantly more positive attitudes toward collaboration than emergency physicians ($p < 0.001$). Emergency nurses had significantly higher scores in three of four underlying factors of the instrument: "physician dominance", "nurse autonomy", and "caring as opposed to curing". The effects of gender, age, education, and experience in other hospitals on nurses' and physicians' attitude towards collaboration were not statistically significant. However, experience in the Emergency Department of Dr Saiful Anwar General Hospital was significantly related to participants' attitudes towards collaboration ($p = 0.023$).
Conclusions: The findings of this study indicate that both organizational and individual strategies should be developed to enhance the nurse-physician collaborative relationship. Interprofessional education may enhance health care professionals'