

pain relief was placed in 49% of thoracic trauma patients. The mean length of hospital stay was eight days.

**Conclusions:** A majority of thoracic trauma patients can be managed non-operatively by simple emergency room procedures such as tube thoracostomy. A high index of clinical suspicion is required to diagnose thoracic trauma in poly-trauma patients.

**Keywords:** poly-trauma; thoracic epidural; thoracic trauma; traffic crashes; tube thoracostomy

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### (N63) Emergency: A Ward with Potential Independency

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**Introduction:** The emergency ward always has been financially dependent on the government. A lack of income has arisen due to the high cost of emergency services. As a result, emergency beds have been considered as non-approved and overcharged beds by human resources and financial aspects.

**Methods:** The aim of this study is to collect information on emergency ward income and human resource management in order to calculate income.

Financial analysis was mapped based on process mapping, documentation procedure, and documents collected before being submitted to insurance parties.

**Results:** The following problems must be solved: (1) poor documentation in medical and nursery sections; (2) poor collection of para-clinics; (3) poor coding of services; (4) poor supervision in patients' release; (5) inadequacy in registration of consumables; (6) lack of obedience in special insurance regulations; (7) insurance extraction; and (8) errors in sending the document within a specified time.

Defects in the official staff were observed in the analyses. These weak points have been resolved by 30 hours of training, adding three new staff positions, designing emergency services registration forms, and more intra-ward coordination between the discharge, accounting, and insurance sections.

The most noticeable changes have been a 325% surge in emergency income, more admissions, and qualitative and quantitative growth of services.

**Conclusions:** Due to high workload and poor management, the emergency ward is not receiving 60% of its clinical charges, which hopefully can be solved by some manipulations. If the moneymaking potentials of emergency ward are improved, there might be a possibility of undertaking quality management plans, which are expected to result in more financial benefits.

**Keywords:** coding; emergency management; emergency wards; financial; human resources

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### (N64) Firearm Injury, A Clinical Profile Study

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**Introduction:** Due to modernization and rising civilian violence, there has been an increase in firearm injuries. Approximately 2.4% deaths per 100,000 are recorded in the US. It is a modern day epidemic with a mortality of 35–50%. **Objective:** To study the clinical profile of firearm injuries presenting to the emergency department of the JPN Apex Trauma Center, All India Institute of Medical Sciences New Delhi, India.

**Methods:** Patients presenting to the emergency department with a history of firearm injuries were recruited for the study. The clinical details were recorded in a specifically designed performa.

**Results:** A total of 25,928 patients presented to the emergency department, including 42 cases of firearm injuries. Of the patients, 90% were brought by relatives and 10% by police. Thirty-three (78.58%) cases were due to homicide, six (14.28%) were suicidal, and three (7.14%) accidental. The age range was 5–68 years with a male:female ratio of 3.2:1. The number of patients between the ages of 0–15 years was 2 (4.8%), 15–60 years was 39 (92.9%); and >60 years was 1 (2.4%). The number of patients with neurotrauma was 19 (45.2%), seven had spinal injuries (16.7%), six experienced abdominal injuries (14.2%), three had injuries to the extremities (7.1%), five had chest injuries (11.9%), and two experienced polytrauma (4.8%). Exit wounds were present in 12 (28.6%) cases.

**Conclusions:** Young males (64.3%) had a higher incidence of firearm injuries. Homicidal cases were the most common. Pediatric patients and accidental injuries were not rare. Neurotrauma was the predominant mode of presentation.

**Keywords:** clinical profile; emergency health; firearms; homicidal; neurotrauma

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### (N65) Violent Patients in the Prehospital Setting

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**Introduction:** Emergency medical services (EMS) providers may be exposed to violent behavior.

**Objectives:** To determine the prevalence of violence against EMS providers in the prehospital setting and factors associated with such violence, and to identify the methods used to manage violent patients.

**Methods:** Consecutive medical calls to the Falck Rescue System in Slovakia were analyzed prospectively in the period of 15 July to 31 December 2008. Following each call, prehospital personnel recorded information about any episodes of violence.

**Results:** There were 48,228 calls available for analysis. Overall, some sort of violence occurred in 0.42% of EMS interventions. Of this reported violence, 88.2% was directed against staff, while 11.8% was directed against the patient or relatives. Therefore, the incidence of violence directed against prehospital care personnel was 0.37% (179/48,228). Patients accounted for most of this violent behavior (76.8%). The type of violence varied, with 45.8%

being verbal only, 5.4% being physical, and 48.7% constituting both verbal and physical attacks. Only one minor staff injury was observed. The mean age of violent individuals was 43 (range 16–87) years with men representing 76%. Of the patients, 32.5% had a psychiatric diagnosis, 9.4% had various medical problems, and alcohol was involved in 64.3% of the cases. Dispatchers did not inform the ambulance staff about possible violence in 51.5% of the cases. Police were present in 76.3% of cases, and were considered efficient in all but 2.5%. Of the violent patients, 63% only needed verbal support, 31.5% had to be restrained, and police used handcuffs in 42%. Drugs were used in 26% of the cases, most often diazepam, haloperidol, and phlegomazine.

**Conclusions:** The incidence of violent events in EMS in Slovakia is relatively low, with virtually no injuries to EMS staff. Alcohol is the main cause of violent behavior. Most patients can be managed by reassurance. In many situations, police assistance is considered effective.

**Keywords:** emergency medical services; prehospital; responder risks; violence; violent patients

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#### (N66) Emergency Medicine as a Specialty in Iran: The Experience of Strategic Management Plan Development of Emergency Department in a University General Hospital

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**Introduction:** The medical system in Iran recently has begun to implement emergency medicine as a specialty training system. This study introduces the first experience of the design and implementation of a strategic management plan in the Imam Hossein University General Hospital, which has an annual patient load of 150,000 patients.

**Methods:** A team including six assistant professors, one assistant, an intern (as educational client), a nurse, a head nurse, and a hospital supervisor was composed. Data were gathered via the RAND method, in which data are collected through questionnaires accompanied by summaries of articles, followed by distribution, marking, redistribution of marked materials, and the finalization of the above-mentioned in a group discussion.

The mission statement was established and extracted by means of the “SWOT” method. After a situational analysis, the proposed strategy was offered in accordance with the institutional situation.

**Results:** Overall, the main strategies included: (1) emergency management; (2) research branch; and (3) educational branch. The strategies for emergency management included: (1) integrating emergency service care providing units (moving from a divided “specialty-based care” to two subdivisions of the emergency department: acute and sub-acute care); (2) objective-oriented strategies in resource

allocation by business plan design; (3) university-level development strategies; and (4) facilitation of emergency medicine implementation of Iran, implementing legislative, insurance funding, and special pricing system at the national level. University level development strategies included: (1) integrating other hospitals under coverage of the University Health System; and (2) a special collaboration plan with city emergency medical services.

Other than strategies, special challenges both at the “intra-hospital” and “outside” levels shall be presented.

**Conclusions:** The introduction of Emergency Medicine as specialty care in the general settings must include well-defined strategies that can manage the challenges of integrating divided emergency care in a coordinative, developmental plan. Legislative and administrative policies at the national level are key factors to guarantee survival of these systems.

**Keywords:** emergency management; Iran; RAND method; strategic plan; training system

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#### (N67) Are Polish Rescuers Prepared for the Wide Implementation of Automated External Defibrillators?

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The aim of the poster is to evaluate the basic life support-automated external defibrillator (BLS-AED) skills provided by the rescuers of the National Fire and Rescue System. There were 158 rescuers representing various types of rescue organizations, as well as volunteer professionals that participated in the study (representing 40 rescue units). The group that evaluated the results included experienced physicians, nurses, and paramedics all being advanced life support (ALS) and BLS-AED instructors. The following skills were evaluated: initial assessment, ventilation, chest compressions, and AED use. The quality of the BLS-AED was correlated with the professional experience of the rescuers and frequency of training. The results demonstrated an overall, good theoretical background, yet insufficient practical skills.

**Keywords:** advanced life support; automated external defibrillator; basic life support; emergency medical services; Poland; rescue workers

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### Oral Presentations—Pandemics

#### Comparing Training for Dealing with Pandemic Influenza to Performance Assessment

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**Introduction:** Comprehensive training and realistic drills are important components of the preparedness for pandemic influenza. This study investigated the quality of training programs for health professionals for pandemic