

**Conclusion:** Additionally, a good cultural understanding of the situation and the adult's feelings are needed in order to provide assistance. The one providing help as well as the one receiving bio-psychosocial help are both part of the link created to overcome the impact of violence, committed to build bridges in the adversity. To prevent post-traumatic stress they are trained in facing disturbing anxiety when facing catastrophes produced by nature or men.

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### (A137) Prediction of Short-Term Functional Outcomes of Older People in the Emergency Department

P. Kumar, A.B. Dey  
Medicine, 110029, India

**Background:** Advancing age and co-morbid illness result in loss of the ability to perform activities for daily living (ADLs), and are important determinants of loss of independence and autonomy among older persons. Acute illness reduces the functional status of previously healthy older persons. The aim of the current study was to determine the change in ADLs due to acute destabilization in old age one month following discharge.

**Methods:** Older subjects admitted to the General Medical Wards from the emergency services of the All India Institute of Medical Sciences were included between August and February 2008. The Barthel index of ADL was assessed in a longitudinal design at the time of admission and one month post discharge. The values of the indices were compared using paired samples t-test.

**Results:** Of 108 subjects who presented to Emergency Geriatric Services at the hospital, 11 were excluded due to incomplete records, inability to trace on follow-up, incorrect telephone numbers, or had since died. Advancing age did not show a significant correlation with pre-morbid ADL score ( $r = -0.040$ ;  $p = 0.749$ ) or post-morbidity ADL score ( $r = -0.65$ ;  $p = 0.636$ ). A 45% decline in ADL score was noted one month following discharge after acute illness in older subjects (pre-ADL = 15.85; post-ADL = 8.78).

**Conclusions:** Older subjects are at a higher risk of poor functional outcome because they are less likely to recover function lost before admission and more likely to develop new functional deficits during hospitalization and after discharge.

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### (A138) Duration of Emergency Department Stay and Injury Profile of Homeless Patients in a Level-1 Trauma Center

S. Chauhan,<sup>1</sup> S. Bhoi,<sup>1</sup> D.T. Sinha,<sup>1</sup> M. Rodha,<sup>2</sup>  
L. Alexander,<sup>2</sup> R. Kumar<sup>2</sup>

1. Department of Emergency Medicine, Trauma Centre, 110029, India  
2. Emergency Medicine, Delhi, India

**Background and Objective:** Immediate resuscitation and early disposition to definitive care improves outcomes. Homeless patients are neglected in emergency department (ED). The duration of ED stay and profile of injury of homeless patients at a Level-1 Trauma center were measured.

**Methods:** The study was performed from October 2008 to September 2009. Homeless patients were defined as patients

who had no attendant and did not have any shelter. Duration of ED stay was noted from the ED arrival time to entry time at the definitive care (intensive care unit/ward). Clinical and demographic details were recorded. Subjects who had: (1) an attendant; (2) were discharged from the ED; or (3) expired in the ED were excluded.

**Results:** Forty-one homeless patients were admitted. The mode of injury was road traffic crash in 73.2%; assault in 7.3%; fall from height in 7.3%; and in 12.2%, the mode of injury unknown. The average Injury Severity Score (ISS) was 6.76, with a maximum of 34 and minimum of 1. A total of 24 subjects (59%) had a Glasgow Coma Scale (GCS) score of  $\leq 8$  (severe head injury), 10 patients (24%) had GCS score 9–12 (moderate head injury), and seven subjects (17%) had GCS score 13–15 (minor head injury). Breath alcohol test was positive in 13%. The average duration of ED stay was 35 (3–173) hours in the homeless group and 12 (0.5–18) hours for patients with an attendant. Twenty-one subjects were admitted to neurosurgery (51.2%) with an average ED stay of 22.4 hours, five to surgery (12.20%) with average ED stay of 56.6 hours, and 15 to orthopedics (36.6%) with average ED stay of 45.3 hours.

**Conclusions:** The emergency department stay of homeless patients was 35 hours. Orthopedic trauma subjects had a prolonged disposal time. This addresses serious patient safety concerns and immediate remedial measures.

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### (A139) Profile of Likely Needs in a Disaster Alternate Site Care in Honolulu, Hawaii

K. Qureshi  
Nursing, Honolulu, United States of America

**Background:** In the US, a system has been developed to provide disaster sheltering for persons with special needs in what are now termed alternate care sites (ACS). As in many other developed countries, as the population ages, the rates of people with chronic diseases that require complex health care management in the home setting has increased. The aim of this study was to identify the key chronic diseases, conditions, and therapies that should be planned for in ACS operations.

**Methods:** A convenience sample ( $n = 402$ ) of senior citizens ( $\geq 65$ ) who resided in Honolulu, Hawaii were interviewed and completed a 15-item survey that asked about demographics, existing health conditions, activities of daily living abilities (ADL), and requirements for ongoing care.

**Results:** The mean age was 68 years; 56% were female. The most common health issues included: hypertension (53.4%), heart disease (24.6%), diabetes mellitus (23.3%), and asthma (15.1%); while 11% ( $n = 47$ ) reported they required daily physical assistance ADLs, including: getting up from a chair (15.1%), walking (8.1%), taking medications (8.1%), dressing (5.2%), and toileting (4.2%). Of these 47 people, most (81%) had someone who would help them in a disaster shelter, while nine (19% of the total who required assistance) had no one to help them. On average, of the respondents who reported they took medication daily, 14% had less than a seven-day supply of medication for their chronic disease.

**Conclusions:** As the population ages, the burden of chronic disease in the population increases. During a disaster with large numbers of displaced persons, accommodations for such persons must be accounted for in order to prevent a second disaster related to de-compensation of those with chronic health problems in the ACS shelter. Understanding the population needs beforehand can mitigate the effects of displacement on this population.

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#### (A140) An Analysis of National Survey on Disaster Drill by Emergency Medical Centers in Korea

S.J. Wang

Emergency Medicine, Seoul, Korea

**Introduction:** Disaster drills have been performed officially for disaster medical preparedness by wide regional emergency medical centers in Korea. Government evaluates these disaster drills every year, but this evaluation is performed based on administrative aspect not disaster medical aspect. Also there are insufficient number of research on disaster drill not on disaster itself, especially national level. So these disaster medical drills were analyzed and reevaluated.

**Methods:** Disaster drills performed by wide regional emergency medical centers in Korea were evaluated and analyzed from August 2006 to July 2008. Disaster drill planning, performance, kinds of disaster drill, contents of drill and resources of drill were collected and analyzed in medical aspect based on the disaster drill report and additional compensation of incomplete data by direct contact with the participating institutions. The appropriateness and evaluation results referred to the guideline of National Emergency Medical Center of Korea.

**Results:** All the wide regional emergency medical centers had their own disaster drill planning and resource application planning for drills and real disasters. Most of disaster drill planning were appropriate, but disaster facility was the weakest point in the planning. Types of disasters in disaster drills were fire and structural collapse(44.4%), special disaster(13.7%), natural disaster(1.7%). Average duration of disaster drills were 6.12 hours and 1.26 days. Real field drill rate was 80.3%. Sixty five percent of drills were connected to multiple institutions or organizations other than hospitals. Number of participating persons from wide regional emergency medical centers were 21 on average.

**Conclusions:** Medical situation on disaster drills is that there are various levels and kinds of disaster drills done by wide regional emergency medical centers, so the quality and quantity should be enforced in low level centers. It is recommended that international situation or database can be extracted based on this research.

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#### (A141) Hospital Preparedness for a Large Scale Biological Drill

O. Benin-Goren,<sup>1</sup> E. Miller,<sup>2</sup> I. Dalla<sup>2</sup>

1. Nursing Division Management, Tel Aviv, Israel
2. Disaster Preparedness Team, Tel Aviv, Israel

**Background:** During the past four years large scale biological exercises took place in several districts of the state of

Israel. The drills included hospitals, Health Maintenance Organizations (HMOs), Emergency Medical Services (EMS), public health district offices and interface agencies such as Israel Defense Forces (IDF) Home Front Command (HFC).

**Discussion and Observations:** On January 2010 a comprehensive biological exercise was conducted in Tel Aviv. Tel Aviv Sourasky Medical Center (TASMC) together with the agencies mentioned above practiced the hospital competing with Exceptional Biological Event. New elements, which had never been inspected before, were evaluated in this drill:

- Activating of a triage point at the hospital gate.
- Opening a special registration point.
- Staff protection from biological agents.
- Activating a separate Emergency Department (ED) for bio- threat.
- Detection and Containment ward.
- Protected elevators and passageways
- Interface agencies in and out the hospital.

Designated physicians, nurses and paramedical team, that practiced other events in the past, needed to be trained and practiced in order to be ready for a biological event. Wards that usually did not participate in such drills, needed to take part in this particular drill, while the routine work continued. This paper presents the hospital preparation for the drill, the methodology of training and preparedness, as well as the outcome of the drill.

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#### (A142) Simulated Evacuation of Three Critical Hospital Departments: A Comparison

E.L. Dhondt,<sup>1</sup> D. Lauwaert,<sup>1</sup> C. Hendrickx<sup>2</sup>

1. Department of Emergency and Disaster Medicine, Brussels, Belgium
2. Leuven, Belgium

**Background:** According to the Belgian Hospital Disaster Planning Act, all hospitals are required to have written disaster plans and to routinely conduct annual disaster drills. In 2010, three neighboring hospitals organized independently from each other an evacuation exercise of a critical care department (CCD): two university hospitals of a Dialysis Center and a One-day Surgery Clinic respectively and the military hospital of a Burn Unit.

**Aim:** To compare these CCD's evacuation plans and drills and the overall hospital emergency incident response and command system.

**Methods and Results:** Conducting an evacuation exercise in a CCD, moving vulnerable highly dependent people towards an alternative shelter site is challenging, causing an important burden to ongoing medical specialist care, working staff and critical infrastructure. In all three CCD, it was decided to conduct a simulated evacuation exercise following an internal fire, thereby deploying fashioned simulated patients and visitors but bringing into action the regular attending medical, nursing and logistic staff. In each hospital a multidisciplinary design team was launched, consisting of the hospitals disaster preparedness coordinator, the EMS-staff, external emergency incident management and operational engineering experts. The appointed objectives for evaluation were the knowledge of the regular