Poster Session II
Wednesday, 12 May, 11:00–11:45 hours

P-5
Experience with an Indoor Telephone Exercise on Disaster Preparedness Training: A Preliminary Report

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Objectives: The experience with an indoor telephone drill for disaster preparedness in Taiwan is limited. To assess and compare emergency medical technicians' (EMTs') attitudes toward an indoor telephone drill and field drill in order to determine the effects of these exercises on the disaster preparedness and management.
Method: A nine-item questionnaire modified from the disaster evaluation guide questions No. 2271–2282 published by American College Emergency Physicians (ACEP), then was completed by 29 EMTs before and after participating in a 6 hour, mass casualty incident training program (including a one hour telephone drill).
Results: The results of the survey indicated that a field operation exercise could not provide adequate experience to link results of disaster exercises to appropriate changes in terms of training, equipment, supplies, and plans. Field operation failed to demonstrate the ability to fill in the absence of key executives. A telephone drill provided better performance relative to these two issues (41.4% vs. 65.5% and 41.4% vs. 62.1% respectively, $p < 0.05$). Indoor telephone exercises also provide a better chance than do field exercises to evaluate the response without relying on use of telephone, which may be damaged or jammed in a real disaster (72.4% vs. 517 %, $p < 0.05$).
Conclusions: For disaster exercises, limitations of field operation drills such as communication, coordination, assignment of responsibilities, post-event mitigation priorities were noted, and telephone drills provide additional benefits for these settings. Large-scale evaluations of different drills may be necessary to design future disaster preparedness programs.
Keywords: disaster; drills; emergency medical technicians; exercises; field exercises; mitigation; telephone exercises

P-6
The Role of the Internet in Earthquake Disaster

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The Internet is a highly disaster-resistant computer network that straddles the entire globe. It originated from the ARPANET developed in the 1960s. With the capacity to transmit information anywhere in the world, the Internet functions to disseminate information and forge partnerships and interactions between user and computer without regard to geographical location.

It also is an effective tool for disaster research and disaster preparedness. In disaster response, it is of the utmost importance to share all disaster information among the central and local governments, fire departments, polices, armed forces, hospitals, volunteers, and other organizations. However, it is difficult to dispatch information on casualties and damage from the stricken area in the earthquake disaster. In an area with heavy damage, the lifelines such as power and telephone lines are cut off, and there is insufficient manpower.

This presentation will discuss the role of the Internet in earthquakes and the effective transmission of information.
Keywords: disaster; disaster-resistance; earthquakes; information; Internet; research

P-7
"Solitary Deaths" in Temporary Housing Units in the Areas Affected by the Southern Hyogo Earthquake

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Introduction: The Southern Hyogo Earthquake (the Great Hanshin-Awaji Earthquake) of 1995, inflicted heavy damage on the southern part of Hyogo Prefecture. In total, 6,430 persons died and 43,773 were injured, and three persons still were missing as of 24 December 1997.

After the earthquake, the local governments set up 48,300 temporary housing units for the affected people who lost their houses. In the housings, unnoticed deaths due to illness and suicide of people living alone have become a social problem known as "solitary death".
Methods: We investigated the age, disease history, drinking habits, and causes of death of the victims of solitary death, based on autopsy records of Medical Examiners of Hyogo Prefecture and police reports.
Results and Discussion: As of 30 November, 1998, a total of 246 such solitary deaths had occurred in Hyogo Prefecture: 207 due to illness, 30 to suicide, and nine to accidents. Seventy percent of all victims (174 of 246) were male, and nearly half of the victims (111 of 246) were males between 50 and 69 years old.

The main cause of death for males was heart disease, which accounted for 38.6% of male deaths due to illness, followed by liver disease (31.7%). More than half of the cases with liver disease cases (28 of 46) had alcoholic cirrhosis of the liver, and five cases were assumed to be alcoholic liver disease other than alcoholic liver cirrhosis. Most of men who died of liver disease were alcoholics or habitually heavy drinkers, and/or had a history of disease related to alcohol. The rate of alcoholic liver disease causing the deaths of middle-aged males living alone in temporary housing was higher than that of those living alone except in the case of temporary housing in Kobe (20.6%).

On the other hand, 66.1% of female deaths were due

to heart disease (mainly ischemic heart disease), while liver disease accounted only for 4.8%.

Conclusions: These results highlight the vulnerability of men with alcohol problems living alone, and the difficulty of providing adequate medical treatment and social support after a disaster.

Keywords: alcoholism; deaths; disaster; liver diseases; post-disaster deaths; psychosocial; solitary deaths

Panel Discussion (5)

Who Is a Trauma Surgeon?

Wednesday, 12 May, 13:00–15:00 hours

Chair: ***Ahmed Sabry Ammar, Kazuhiko Maekawa***

PN5-1

Who Is a Trauma Surgeon? What Does He Do?

Mu-Shun Huang MD
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The Trauma Team of was organized and first implemented in the Veterans General Hospital-Taipei, Taiwan in 1989, which is responsible for patient-care services, research, and education focused on all phases of the injury event. Its philosophy is based on that the concepts that trauma is a surgical disease, that injured patients need specialized care, and that an integrated system is essential for the care of patients with multiple traumatic injuries. There are four full-time trauma surgeons who are dedicated to the service of all of the traumatized patients in the Surgical Emergency Room. In order to achieve the best patient outcomes, trauma surgeons should be involved in the prehospital Emergency Medical Services (EMS), Trauma Resuscitation Room, Operating Room, Surgical Intensive Care and Trauma Unit (SICU), Trauma Ward, Rehabilitation Department, and Trauma Outpatient Clinic.

Our Surgical Emergency Room serves more than 17,000 Triage Level I or II trauma patients annually. Upon notification of a patient with major traumatic injuries, the Emergency Department staff alerts the Trauma Team consisting of trauma surgeons and surgical residents who prepare for the arrival of the trauma patient. The Trauma Resuscitation Room contains all the necessary equipment to manage multiple trauma patients. Emergency procedures are performed as needed including endotracheal tube intubation, tube thoracostomy, pericardiocentesis, ultrosonographic evaluation, and peritoneal lavage.

Usually the trauma surgeons initiate the contact with the Operating Room when an urgent surgical procedure is needed. Sometimes, several surgeons may operate simultaneously because of multiple injuries. The trauma surgeons should determine the priority of operations. After initial emergency room resuscitation and operations, the trauma surgeon still should follow the patient to the SICU, and conduct daily bedside round.

After the general conditions of the trauma patients are stabilized, they are transferred to Trauma Ward to continue the comprehensive plan of care and prepare for discharge. Commonly, the Department of Rehabilitation would be consulted to provide physical and occupational therapy services if needed. After discharge, the trauma patients regularly are followed-up at Trauma Outpatient Clinic, which is specialized for multiple trauma patients.

In conclusion, according to our experience and research, a trauma surgeon should accomplish the following conditions successfully:

1) Avoid preventable prehospital early trauma death;
2) Normalize hemodynamic status during resuscitation;
3) Determine the operative priority and adjust interdepartmental collaboration;
4) Decrease severe complications during the intensive care; and
5) Rehabilitate and facilitate the patient back to the community.

Keywords: emergency department; emergency procedures; injuries, trauma-induced, multiple; priorities; resuscitation; surgeons; trauma management; trauma service; trauma surgeon; trauma team

PN5-2

Who Is a Trauma Surgeon in The Philippines?

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In 1989, as the new chair of the Department of Surgery at the Philippine General Hospital, I established the Division of Trauma. This was the very first organized trauma team in our country. I appointed a senior general surgeon to head the Division and recruited two young surgeons who had just finished their general surgery training in this Department. Surgical residents were rotated through this Division: 3 months in their first year, 3 months in the fourth year, and 3 months in their fifth year. Their assignment was to take care of torso trauma and to be the head of a multi-disciplinary team responsible for managing victims of poly-trauma. This was their only job in the charity wards of the University Hospital. However, we allowed them to do private practice general surgery in the pay wards of the hospital and other hospitals as an incentive, and in order to provide them with income to support their families. Our hospital pays our attending surgeons very little (about US$250 a month) and no salary for young recruits.

We do not look forward to making trauma surgery a specialty, nor do we envision a specialty board for trauma. This Department has a one-year, post-residency fellowship program to help those young surgeons planning to set up trauma divisions in other Metro Manila hospitals and those who will be practicing in the provinces.

Keywords: support, financial; surgeons; surgery; team, torso, trauma to; trauma; trauma