

the administration of IV fluids, antibiotics, and analgesia. Radiographs of specific sites and trauma series were used to rule out bone injuries. There was lack of documentation in most of the medical charts.

**Conclusions:** The emergency department was overwhelmed with the number of patients that it received. Therefore, an updated disaster plan and regular disaster drills are required. Rapid and accurate triage could minimize mortality among bombing survivors significantly. The majority of patients were discharged home.

*Prehosp Disaster Med* 2011;26(Suppl. 1):s6–s7  
doi:10.1017/S1049023X11000355

### (A23) Mass Casualty Incident and Terrorist Attack Preparedness of German Hospitals and Physicians Compared to Austria, Switzerland, the USA and a Worldwide Collective

P. Fischer,<sup>1</sup> C. Nitsche,<sup>2</sup> K. Kabir,<sup>3</sup> A. Wafaisade,<sup>4</sup> S. Müller,<sup>5</sup> M. Rohner,<sup>5</sup> T. Kees<sup>6</sup>

1. Orthopaedic and Trauma Surgery, Bonn, Germany
2. Trauma Surgery, Bonn, Germany
3. Department of Orthopaedic and Trauma Surgery, Bonn, Germany
4. Bonn, Germany
5. Department of Anaesthesiology and Intensive Care, Bonn, Germany
6. Tübingen, Germany

**Context:** Because of worldwide increase of catastrophes and recent terrorist attacks, hospitals and physicians are devoting increased attention to disaster and mass casualty incident (MCI) preparedness not only outside but also inside hospitals. In case of a terrorist attack physicians have to cope with injuries caused by conventional, biological, chemical, or radioactive weapons.

**Objective:** The aim of this study was to evaluate the current state of preparedness of German hospitals and physicians in case of an MCI or terrorist attack and to compare those results to the preparedness of hospitals and physicians from Austria, Switzerland, the United States of America and a worldwide collective.

**Materials and Methods:** Using an online questionnaire, we interviewed 1343 physicians in Germany, Austria, Switzerland, the US and a worldwide collective. The replies were analyzed statistically with the Shapiro-Walk test and the Mann-Whitney-U test.

**Results:** in Germany physicians are less prepared than their colleagues worldwide for disasters inside and outside hospitals. 48,4% of German physicians (37% worldwide) did not know their area of responsibility as a physician in case of an “internal” emergency (fire, water pipe burst, power cut), even though 30,2% of German physicians (29,1% worldwide) have already had a real emergency in their hospital. Only 65,3% of physicians in Germany (75,5% worldwide) knew their area of responsibility in case of an MCI; MCI training was given less often in Germany (42,7%) than worldwide (64,3%). Most physicians in every country were unaware of injury patterns and treatment strategies in patients following bombings or nuclear, chemical and biological contamination.

**Conclusions:** Hospital Physicians are insufficiently prepared for internal emergencies and MCIs. There is a need for more drills in hospitals. In spite of the recent threat of terrorist

attacks, the physicians’ emergency training should be modified to accommodate the increased risk of catastrophes and terrorist attacks.

*Prehosp Disaster Med* 2011;26(Suppl. 1):s7  
doi:10.1017/S1049023X11000367

### (A24) An Disaster Education Framework to Bridge Natural Disaster Medical Response and Primary Care Development in Developing Countries

E.Y.Y. Chan,<sup>1</sup> S.Y. Wong,<sup>2</sup> S.M. Griffiths,<sup>3</sup> C.A. Graham<sup>4</sup>

1. CCOC, School of Public Health and Primary Care, NT, Hong Kong
2. Division of Primary Care, School of Public Health and Primary Care, Hong Kong, Hong Kong
3. School of Public Health and Primary Care, Faculty of Medicine, Hong Kong, Hong Kong
4. Accident and Emergency Medicine Academic Unit, Hong Kong, Hong Kong

**Introduction:** Natural disasters cannot be prevented but their human impact can be mitigated. Effective medical and public health mitigation and responses require multidisciplinary efforts and appropriate training. Whilst Asia is currently ranked as the most natural disaster prone area globally, limited disaster medical and public health response training opportunities are available in the region. Our paper reports efforts to identify the training gaps and ways to fill them to prepare frontline practitioners and academic researchers in disaster and medical humanitarian emergency relief efforts in Asia.

**Methods:** Grounded on the disciplinary principles of academic training in public health, emergency & disaster medicine and primary care, our paper reviews the current disaster related academic training offered in these disciplines and maps out the training and knowledge gaps in disaster mitigation and response for frontline practitioners and academic researchers. We suggest ways to fill such gaps.

**Results:** A two-dimensional (clinical versus non-clinical), three-tier education training framework (Entrant level, Continuous medical education needs and Expertise level) is developed. Experiences and key training needs in Asia are highlighted.

**Conclusion:** The proposed framework identifies areas for comprehensive training for medical and public health practitioners who are interested to engage in medical disaster relief. The proposed framework also aims to strengthen mitigation and response capacities in health systems.

*Prehosp Disaster Med* 2011;26(Suppl. 1):s7  
doi:10.1017/S1049023X11000379

### (A25) Does Community Emergency Care Initiative Improves the Knowledge, Skill And Attitude of Healthcare Workers and Laypersons in Basic Emergency Care in India?

S. Bhoi,<sup>1</sup> N. Thakur,<sup>1</sup> S. Chauhan,<sup>1</sup> R. Kumar,<sup>1</sup> D. Aggarwal,<sup>2</sup> V. Gulati,<sup>1</sup> C. Sawhney<sup>3</sup>

1. Department of Emergency Medicine, Trauma Centre, 110029, India
2. Neurosurgery, 110029, India
3. Anaesthesia, 110029, India

**Background:** Basic emergency care at primary, secondary and tertiary health care level in India is in its infancy. Lack of

training in emergency care is an important factor. We designed AIIMS basic emergency care course (AIIMS BECC) to address the issue.

**Objective:** To improve the knowledge, skill and attitude of healthcare workers and laypersons in basic emergency care and to identify and train instructors.

**Methods:** Prospective study conducted over a period of one and half years. The target groups were medical, police, fire fighter, paramilitary forces, teachers, school children of India. Provider AIIMS BECC is of one day duration. The contents of the course are cardio-pulmonary resuscitation, choking and special scenarios like trauma, electrocution, drowning, hypothermia, pregnancy, etc. Course was disseminated via lectures, audio-visual and hands on training. The participants were evaluated by pre and post test questions. Subjects had to score 80% to be successful and those who scored more than 90% were eligible for instructor course. The confidence levels at baseline and at the end of the course were evaluated in police courses were evaluated on course clarity, course delivery and trainers quality on a likert scale (1 = worst, 5 = excellent).

**Results:** 1614 subjects were trained. 99.81% became providers and 2.6% were trained as instructors. 83.1% were non-medical and 16.9% were medical persons. 76.14% were police, paramilitary 0.8%, teachers 1.6%, students 2.1% and mixed groups were 2.6%. The average and modal increase in confidence level among police were 66.14% and 62.49%. Likert scale of  $\geq 4$  was observed in 90.7% in course clarity, 91.28% in course delivery and 95.26% in trainer quality.

**Conclusion:** Knowledge, skill and attitude of healthcare care and laypersons in providing basic emergency care improved by community emergency care initiative. Instructors were identified for further dissemination of the course. The confidence levels increased among police.

*Prehosp Disaster Med* 2011;26(Suppl. 1):s7–s8  
doi:10.1017/S1049023X11000380

### (A27) Traumatic Wound Management by Bystanders – Myths

V. Raju

Trauma & Orthopaedics, Hyderabad, India

**Objective:** To receive trauma victims from site of incidence to the emergency department without mauling with adjuvant by first aid managers.

**Material:** Poor dressing techniques practiced for first aid in industrial, domestic, traffic, calamity, etc. inflicted wounds. Dressing with copious amounts of cotton on traumatized parts that are open or exposed. Wrong wrapping, storage, transport of amputated parts for attempt of salvage / reimplantation.

**Methods:** Assessment of increased rate in sepsis and rise in rate of risk of complications or loss of traumatized body part or even life in cases of trauma in which primary / incident manager with poor awareness / skills, shortage of first aid material.

**Discussion:** Need of training of general public on skills of first aid. Maintaining First Aid Kits for Emergencies as per stipulation and need based.

**Observation:** Improved results in management of trauma that were properly attended to from time of incidence to casualty.

**Results:** Improved ratio of post traumatic sequel like sepsis,

delayed amputations, revisions, graft rejections, co morbidities, expenditure, etc.

*Prehosp Disaster Med* 2011;26(Suppl. 1):s8  
doi:10.1017/S1049023X11000409

### (A28) A Matter of Degree: Teaching “Disaster” and “Emergencies” to Public Safety Executives

J.J. Carroll

School of Adult and Continuing Education, Pembroke Pines, United States of America

What is the difference between a “disaster” and an “emergency”? One can safely say that for the victim of an event, it is always a disaster. But what about the first responders who are tasked with returning conditions to normal as quickly as possible? What about the executives who must direct the first responders, as well as coordinate resources? The difference is a “matter of degree” because it depends on the amount of resources that are required to respond to the incident. For example, an overturned gasoline tanker truck may only be an emergency for a major metropolitan area, but a disaster in a more rural region. American public safety is a mirror image of the government system of federalism that developed during the founding of the United States. Public safety entities are attached to the various local, state, and federal government agencies. There are almost 18,000 local law enforcement agencies across the US. Only 47 agencies have more than 1,000 sworn officers, while almost 90 percent have less than 50. There are more than 30,000 fire departments, yet only about one-quarter of all firefighters are full-time professionals. The rest are volunteers. The author, a 30-year law enforcement veteran, has developed a college-level course for public safety executives to help them understand the “matter of degree.” The intent of the course is to challenge executives to conduct a careful self-examination of their own public safety agencies to determine what they are capable of doing in an event. An executive only gets one chance to do it right, so being able to distinguish between a disaster and an emergency response will be critical to success. When the event occurs, a public safety executive will be better prepared to make key decisions.

*Prehosp Disaster Med* 2011;26(Suppl. 1):s8  
doi:10.1017/S1049023X11000410

### (A29) Effect of Institutional Education and Exercise Programs on Knowledge, Views, and Compliance during Unusual Biological Events

O. Benin-goren,<sup>1</sup> E. Miller,<sup>2</sup> I. Dallal,<sup>2</sup> J. Abu Hanna<sup>3</sup>

1. Nursing Division Management, Tel Aviv, Israel

2. Emergency Preparedness, Tel Aviv, Israel

3. INF. Disease, Tel Aviv, Israel

**Background:** Unusual biological events (UBEs) pose a distinct challenge for emergency preparedness. Not only are these events rare and difficult to detect, but they also pose clear hazards for both medical personnel and their families. Distinct skills include identifying UBEs and activating institutional and national response. Staff attendance and confidence in the health system play a vital role in effective management of UBEs. The Israeli Ministry of health conducts yearly drills on the personal, institutional, and national response to UBEs.