Assessing the Effectiveness of an Emergency Medicine International Educational Program for Japanese Physicians

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Introduction: Emergency medicine continues to grow as a specialty and given the differences in its implementation internationally, collaboration and shared learning in the management of emergencies is imperative. An Emergency Medicine International (EMI) program was developed for Japanese physicians at Oregon Health & Science University and initial participants were surveyed for its effectiveness and areas for improvement.
Methods: The goals for participant education in the EMI program are: (1) leadership (administrative skills, residency development, national coordination); (2) EMS and trauma systems (implementation, responder training); and (3) research instruction (clinical, public health). The EMI structure includes four blocks: (1) emergency medicine clinical rotations; (2) emergency medical services (EMS)/trauma systems experience; (3) sub-specialty exposure (toxicology, public health, research); and (4) emergency medicine administration. Assessment of the program's success at meeting goals and for identification of areas of improvement was made using a survey distributed among prior participants. The survey examined the participant's background, specifics of their experience, and areas for improvement.
Results: The response rate was 93% (10/11). Fellowship participants were largely from community hospitals (64%) with 27% coming from university settings. The distribution of experience within rural (55%) vs. urban (45%) medical care settings was similar. The majority of participants had trained for >4 years (93%) and primarily in emergency medicine (93%). All respondents participated broadly in interdepartmental teaching rounds, EMS rotations, and attended key departmental operation meetings. Recommendations for improvement included the addition of night shifts and intensive care unit (ICU) rotations in medicine and surgery. Elements of the emergency medicine experience that participants planned to change or implement in their home institutions included: conference education (64%), EMS training, attending supervision, and quality improvement programs (18% each).
Conclusions: International emergency medicine educational programs can assist in the global development of the specialty.
Keywords: education; emergency medicine; international; Japanese; physicians
Prehosp Disaster Med

Who Knows What to do in a Major Incident? A Survey of United Kingdom Emergency Department Staff

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Introduction: Every emergency department in the United Kingdom has a major incident protocol. However, it is unknown whether every medical or nursing staff member in the emergency department is aware of the major incident protocol or their role in it.
Objectives: The objective of this study was to assess the level of awareness of medical and nursing staff of their trust/hospital major incident protocol and their individual role within this protocol.
Methods: A questionnaire was designed and distributed to a convenience sample of medical and nursing staff via e-mail, telephone, and by hand, in emergency departments of five hospitals in northwest England.
Results: There were 63 respondents, including 25 nursing staff: eight sisters and 17 staff nurses; 38 medical staff: nine consultants, 18 middle grades, and 11 Senior House Officers. Eleven of the 63 respondents were unaware of the major incident management protocol (MIMP) in their trust. A total of 18 did not know where to access the MIMP in their trust. Thirty-one had not been to major incident management/orientation courses. A total of 22 were not aware of their role on the major incident team. Twenty-three did not feel comfortable with their role on the major incident team. In the last five years, only nine respondents were involved in a major incident. A total of 39 respondents did not know how often their trusts conducted major incident drills. Awareness of MIMP and roles was much lower in junior medical staff than amongst consultants and staff nurses.
Conclusions: The apparent difference in levels of awareness of MIMP, particularly among junior medical staff, could affect team performance during a major incident. This has implications for training and, in particular, induction.
Keywords: emergency department; major incident; protocol; survey; UK
Prehosp Disaster Med

Survey of Emergency Preparedness in Michigan

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Introduction: The goal of this study was to assess emergency department (ED) preparedness in the state of Michigan.
Methods: A total of 139 EDs in Michigan were surveyed with a 25-item questionnaire. Emergency departments were identified using a directory provided by the Michigan College of Emergency Physicians. Initial contact was made by mail and then by phone to non-responders. Questions were related to chemical, biological, radiological, nuclear, and explosive (CBRNE) events and general preparedness. Demographic and geographic questions were included.
Results: Of the 139 emergency departments, 112 responded: 63 from EDs with <25,000 visits, and 45 from EDs with >25,000 visits. Four hospitals did not report ED volume. Michigan is divided into eight emergency response regions, all were represented in the responses.

When asked what EDs wanted for their future planning needs, 97 of 109 EDs reported they wanted more training for their staff; 68/109 EDs wanted more equipment; and 67/109 reported they wanted better coordination with local and regional resources.
Conclusions: Many EDs are substantially involved in emergency preparedness and many EDs actually have per-

formed decontamination. The percentage of staff to be trained remains high. Some EDs lack adequate respiratory protection. Antidotes supplies are limited in some EDs. The majority of EDs report needing additional training, equipment, and improved local and regional coordination. The survey method is limited by the lack of a method for independent verification of the results.

Keywords: chemical, biological, radiological, nuclear, and explosive; coordination; emergency department; preparedness; training
Prehosp Disaster Med

Assessment of Hospital Disaster Plans for Conventional Mass-Casualty Incidents following Terrorist Explosions Using a Live Exercise Based on Data from Actual Patients

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Introduction: The National Committee for Hospital Preparedness for Conventional Mass Casualty Incidents is in charge of preparing the details of live exercises held yearly in public hospitals in Israel. Our experience is that live exercises are limited in their ability to test clinical decision making and its influence upon incident management. A live exercise was designed upon real patient data and tested in several public hospitals. Impact on management of live exercises is presented.

Methods: A database of histories, physical examination findings, laboratory results, and imaging results for 420 patients treated following terrorist explosions was created using information derived from actual patient encounters. Information from the database was used to create victim profiles used during three exercises. Exercises were held in three different hospitals with 500-, 600-, and 800-bed capacity.

Results: Knowledge that injury profiles are based on real patients increased the interest and involvement of clinicians participating in the exercise. Conducting the exercise helped identify faults in the hospital disaster plan in triage, emergency department management, and in proper utilization of resources beyond the emergency department such as radiology, operating rooms, and secondary transfer of patients. Knowledge of patients' diagnoses and resource needs helped in quantifying these faults.

Conclusions: Live exercises based on real patient data promote interest and involvement by participating clinicians. Previous knowledge of patients' diagnoses and resource needs allows quantifying faults identified in clinical decision making, resource utilization, and incident management.

Keywords: data; disaster plan; drill; hospital; preparedness
Prehosp Disaster Med

Improving Emergency Preparedness by Ongoing Assessments of Readiness

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Introduction: The aim of assessing emergency preparedness is to promote effectiveness, raise professionalism, present status of preparedness, and serve as a basis for improving operations capabilities. The aim of this study was to determine if the assessment process affects the level of emergency preparedness of hospitals.

Methods: The levels of readiness of general hospitals for coping with mass casualty incidents (MCIs) and mass toxicological and biological events were assessed twice over a period of five years. A structured evaluation tool consisting of approximately 500 measurable parameters was utilized. Results of the two evaluations were compared in order to determine trends in emergency preparedness.

Results: Evaluation of hospital readiness for the three scenarios showed that there was a distinct improvement in most hospitals after the first evaluation. The number of hospitals rated as "very high" increased in the second evaluation compared to the first evaluation, (MCI: 17 vs. 6; biological: 12 vs. 9; and toxicology: 17 vs. 16). Fewer hospitals were rated as "problematic" in the second evaluation (MCI: 0 vs. 5; biological: 2 vs. 5; toxicology: 0 vs. 1).

Conclusions: Assessment of emergency preparedness appears to contribute toward improved emergency preparedness. An assessment process based on measurable benchmarks provides a basis for the development of ongoing programs for continuous evaluation and improvement of emergency preparedness. Training and exercises are the major elements that contributed to improved performance following the assessment process. The provision of feedback to hospital administrations on their strengths and weaknesses, together with a process of continuous supervision is essential. This process contributes to the ability of the hospitals to make improvements based on empirical data. The degree of improvement in level of emergency readiness is higher in hospitals that were initially found to have a lower level of emergency preparedness.

Keywords: assessment; preparedness; readiness
Prehosp Disaster Med