

Use of Video Documentation for Preparation and Evaluation of Disaster Management Exercises

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Introduction: Disaster drill preparation and evaluation may be hampered by logistics, language barriers, or unfamiliarity with format. The development of educational tools for use before an exercise, and for post-drill assessment, could increase the potential to prepare communities for real events, and allow organizations to organize drills with minimal outside support.

Methods: Prior to drills conducted in Sri Lanka and India, video from a previous drill was titled with evaluation questions from a published evaluation tool, and shown to participants. Three large-scale drills were then videotaped in late 2008: Prehospital, triage, and treatment zones and command centers were recorded. Video was edited into sequences highlighting aspects of drill performance.

Results: Approximately eight hours of footage were collected. Video of resuscitations was screened for participants in the trauma track of the courses, and sequences of all activities were shown during post-drill evaluations. Participants were encouraged to analyze their performance, while drill evaluators used information from the video to shape formal recommendations. Raw footage and edited sequences were made available to participants and to the emergency medicine community.

Conclusions: Videos of disaster drills proved valuable for planning and evaluation. Footage of a previous drill oriented participants and sensitized evaluators to key topics. Videos shown afterward provided immediate feedback and catalyzed the evaluation process. Future projects should incorporate data from video into formal, after-action reports. Immediate video feedback helped to foster participants' sense of progress, thus encouraging an ongoing process. Video sequences also helped to emphasize the drills' importance to local policymakers.

Keywords: disaster management; exercise; India; Sri Lanka; training; video

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Oral Presentations—Education

Australian Framework for Disaster Health Education

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Introduction: Recent events have heightened awareness of disaster health issues and the need to prepare the health workforce to plan for and respond to major incidents. The World Association for Disaster and Emergency Medicine has reinforced this at an international level, which has proposed an international educational framework. The aim of this paper is to outline a recent project to develop a national educational framework for disaster health, which aligns with the international approach. The aim of this presentation is to outline the framework for possible alignment for other jurisdictions.

Methods: The framework was developed on the basis of literature and previous experience brought together through a series of workshops. A modified Delphi technique was used to finalize the content at each level of the framework and to assign a value to the inclusion of that content at the various levels.

Results: The framework identifies seven educational levels along with educational outcomes for each level. The framework also identifies the recommended contents at each level and assigns a rating of depth for each component. The framework is not intended as a detailed curriculum but rather a guide for educationalists to develop specific programs at each level.

Conclusions: This educational framework will provide an infrastructure around which future educational programs in disaster health may be designed and delivered. It will permitting improved articulation for students between the various levels and greater consistency between programs so that operational responders may be armed with a consistent language and operational approach to the management of major incidents.

Keywords: competencies; Delphi; education; framework; training
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Development of the Diploma in Conflict and Catastrophe Medicine in the United Kingdom

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Introduction: The Diploma in Conflict and Catastrophe Medicine was instituted by the Society of Apothecaries in London in 1994 to develop a syllabus and an examination to prepare clinicians for various situations during disasters caused by natural or human-made events (whether these situations result from refugee health care, remote medicine, or the consequences of conflict). It is used by the UK and Dutch military as an exit examination for military medical

officers. In 2007, the syllabus and examination required review in line with other competency-based examinations in the UK.

Methods: A panel of experienced examiners examined the current syllabus and a core competency list was developed. External medical educationalists were involved in advising how the examination should be developed.

Results: The new format of the examination must be based on reliable and repeatable formats, rather than the viva voce format in the past. The results show the need for a Short Answer Question format together with an Objective Structured Clinical Skills Examination.

Conclusions: The new examination is being developed, and will replace the current examination held in the UK, Netherlands, US, and Philippines.

Keywords: competencies; education; examination; syllabus; training
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Resident Training in Disaster Medicine Using the *disastermed.ca* Emergency Department Simulator and an Expedited Problem-Based Curriculum

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Introduction: Disaster medicine is an increasingly important part of medicine. Emergency medicine residency programs have high curriculum commitments, and adding disaster medicine training to this busy schedule can be difficult. Development of a short disaster medicine curriculum that is effective and enjoyable for the participants may be a valuable addition to emergency medicine residency training.

Methods: A simulation-based curriculum was developed using the *disastermed.ca* Emergency Department Simulator. Curriculum design was centered on published guidelines for Canadian medical schools.

Results: As suggested by published guidelines, topics for residency training include (1) definition of terms; (2) philosophy of disaster medicine; (3) description of disaster management; (4) history of Canadian disasters; (5) risk analysis; (6) emergency medical services; (7) hospital disaster planning; (8) medical management of disasters; and (9) psychosocial aspects of disaster medicine. However, since all residents are in emergency medicine programs, the curriculum mostly focused on hospital disaster management. The teaching curriculum consisted of four, one-hour academic sessions each with a separate focus: (1) basics of disaster medicine; (2) hazard-vulnerability analysis; (3) command and control; and (4) triage. During each session, residents participated in an exercise that focused on the development of a hospital disaster plan for a simulated hospital, followed by a short tutorial on use of the simulator software. The overall goal was to have the participants develop a disaster plan for a simulated hospital, using facilitated discussions regarding hazard-vulnerability analysis, command and control, and triage. Following the four academic sessions, the participants would use this hospital disaster plan that they had created during subsequent disaster simulation lasting approximately four hours.

Conclusions: A simulation-based model of disaster medicine training, requiring only approximately eight hours of classroom time, may represent a time-effective manner for teaching disaster medicine to emergency medicine residents.

Keywords: curriculum; disaster medicine; education; residency; simulation; training
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Inter-Professional Disaster and Emergency Action Studies Project: Serious Games

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Five Toronto colleges and universities recently piloted an undergraduate curriculum in inter-professional collaboration and patient-focused care for medicine, nursing, allied health, police, emergency medical services, social work and media students. The challenge was to bring students from different locations together in a manner that was engaging, accessible, and did not disrupt their schedule. The result: a multi-player Internet game. Students self-schedule and play the game in real time for 60 minutes with others who could be located anywhere in the world. An online curriculum supports the game, allowing students the opportunity to explore team-building theories, media clips, and asynchronous discussions. At the conclusion of the course, participants meet face-to-face in a live, mass-casualty exercise where they play a patient, family member, or student professional assisting victims. Workshop participants will play a facilitated tabletop board game based on the innovative, multi-player Internet game.

The objective of the game is to work together as a team to protect the community. The scenario is based on real-world events. Workshop participants also will experience a “hot wash debrief” on critical lessons learned.

Keywords: disaster; education; emergency; game; Internet
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Specialized Training for Uncommon Circumstances

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Search and rescue in the waterborne environment is a specialized business. The Maritime Rescue Institute (MRI), based in Stonehaven, Scotland, promotes and advances education in maritime rescue by acting as an advisory center and by compiling specialized courses.

Many rescuers operating at sea or in the coastal zones have attended specialized courses at the MRI and benefit from the specific knowledge and skills gained with the help of this Institute. A good example is the Netherlands Sea Rescue organization KNRM, which found its way to the MRI in the 1980s and since then, a progressive cooperation has occurred.

As the demands for specialized waterborne search-and-rescue training still are inclining, due to cultural chances (less and less seafarers are available to act as lifeboat crew), opportunities for training in this specialized field must grow to establish the worldwide Global Search-and-rescue