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

(SAR) service, as designed by the United Nations, so that "wherever you sail or fly, there will be a SAR service available for when needed".

This presentation will give a brief oversight of the UN SAR system, as well as the specific challenges encountered when working in the harsh environment of the sea.

Keywords: education; maritime rescue; Maritime Rescue Institute; search and rescue; training
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Medical Services Curriculum Beyond Borders

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Introduction: Medical Teams International's (MTI) Emergency Medical Services (EMS) program began in 2001 with a focused training and educational effort to reduce secondary injury resulting from traumatic incidents in the developing world.

Methods: The EMS educational program has three goals:

1. Provide EMS curriculum contextualized and translated into the languages(s) of the country;
2. Utilize a Train-the-Trainer method of adult education to increase local capacity and provide a foundation for program sustainability; and
3. Standardize and integrate the EMS curriculum into the national health education system.

Results: The primary aim of the EMS training program is to provide access to EMS educational materials to project areas where they previously have been non-existent. The *MTI Emergency Medical Pre-Hospital Care Worker International Basic Level Text* was written following the US National Highway Traffic Safety Administration's guidelines for the emergency medical technician-basic level. It is designed for caregivers of all levels to gain an understanding of basic prehospital emergency medical care concepts. Medical Teams International encourages others to copy, reproduce, or adapt any or all publications, provided that the parts reproduced are distributed free or at-cost.

Conclusions: Currently the textbook has been translated into: English, Russian, Uzbek, Spanish, Vietnamese, Khmer, Tamil, Sinhalese, and Romanian.

Keywords: curriculum; education; emergency medical services; international; training
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An Evidence-Based, Comprehensive Triage and Resource Management Process

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Introduction: The National Incident Management System was developed to ensure that a comprehensive preparedness and response system was available for natural and human-made mass-casualty incidents. Unfortunately, the triage and resource allocation processes remain subjective and based in dogma. The need for a comprehensive and inclusive system requires development if lives are to be saved and valued resources are to be utilized effectively.

Methods: The various aspects of disaster preparedness and response components were determined and evaluated with the focus remaining on patient outcome. Resource allocation, type of trauma, burns, patient age, transport mode (ground or aircraft), destination determination, definitive care needs, and medical co-morbidity factors were measured.

Results: A comprehensive triage methodology and decision-support process has been developed within the constraints of evidence base and patient outcomes. This comprehensive methodology not only provides a solution to the shortcomings of current triage protocols and processes, it provides a measurable and reproducible system specific to local and regional medical and physical resources.

Conclusions: Comprehensive triage is modeled precisely as an evidence-based, outcome-driven method that maximizes expected the number of survivors in consideration of resources. This methodology provides life-saving, resource conserving, and operational advantages over current methods.

Keywords: disaster; patient outcome; resource management; triage
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A Literature Review of Disaster Nursing Competencies in Japanese Nursing Journals

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Introduction: Competency is an important concept used for determining health professional capability. This paper investigates evidence of the development of this concept in disaster nursing through an analysis of Japanese professional journals between 2001 and 2008.

Methods: The literature research was conducted using the database Ichu-shi version 4. Keywords were sought that captured the concept of competency, a term not in common use in Japanese literature. Twelve keywords were chosen: disaster; capability; education; practice; licensure; ability; function; prevention; response; planning; emergency; and disaster nursing.

Results: One hundred and twenty articles were found through combinations of the keywords. Articles not discussing the disaster nursing context were excluded. As a result, 46 articles were chosen for analysis. Only one article was found that discussed core competencies for disaster nursing. The 46 articles were categorized into seven themes: practice capability; professional preparedness; community preparedness; curriculum for training; establishing discipline; and investigating logistics issues.

Conclusions: The themes demonstrate how disaster nursing competency is being conceptualized in the Japanese scientific community. Nursing curricula must address these concepts to establish disaster nursing competency in nursing education. The similarity of competency concepts with those of other health professionals was noticeable and inter-disciplinary approaches to curriculum development should be considered.

Keywords: accreditation; competency; credentialing; disaster nursing; Japan; literature
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