## Health Incident Command: An Educational Program Darren Walter

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Introduction: In the UK, the command structure for a major incident is based on a medallion system within each emergency service, working together. At the incident site, the health response is managed by the ambulance service, with a Silver Ambulance Officer. The emergency planning guidance also recommends a Medical Incident Commander to work alongside and aid clinical decision-making. Currently, there are no defined competencies for this role and a three-day "short course", the Major Incident Medical Management and Support (MIMMS) program, is the only education available. There is a clear need for a formal program to ensure scene commanders, both ambulance and medical, are "fit for purpose".

Methods: A collaboration of the 14 UK ambulance services has worked to perform a training needs analysis, creating the basis for an educational program. Using national subject matter experts, with governmental financial support, a program is being written.

Results: Manchester Metropolitan University has accredited a tiered Masters program in Health Incident Command. The first class of students, consisting of ambulance officers and medical personnel, will enter the program in September 2009.

Through a blended distance learning program, these commanders will complete modules in command theory and practice at tactical and strategic levels, incident investigation, legal enquiry and personnel management, followed by a period original research to achieve full academic recognition.

Conclusions: There is now an academically accredited standard for Health Incident Command in the UK. The Department of Health has stated that this should be mandatory for the role within a short period.

Keywords: distance learning; education; Health Incident Command; Masters program; United Kingdom Prebosp Disast Med 2009;24(2):s119

## National Disaster Life Support Programs—A Model for Standardized, All-Hazards Disaster Medicine Training Jack A. Horner;<sup>1</sup> Phillip L. Coule;<sup>2</sup> Richard B. Schwartz<sup>3</sup>

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Introduction: The development of the [US] National Disaster Life Support (NDLS) programs (Advanced, Basic, and Core Disaster Life Support) began prior to 11 September 2001, but in its aftermath, the NDLS programs have become a leading all-hazards disaster medicine training program in the US. The NDLS programs are taught through a training center model. The curriculum is revised via the National Disaster Life Support Education Consortium (NDLSEC), a multi-disciplinary, multi-specialty consortium.

Methods: The National Disaster Life Support Foundation (NDLSF) is a not-for-profit organization developed by the academic medical centers and partners that developed the NDLS programs. The founding institutions are the Medical College of Georgia, the University of Georgia, the University of Texas Southwestern, the University of Texas-Houston, and the American Medical Association. The NDLSF has the responsibility to oversee, certify, and monitor a network of training centers. The NDLSEC consist of individual members and 75 representative stakeholder organizations.

Results: The training center network overseen by the NDLSF consists of 70 training centers in the US and 10 developing international training centers. The NDLSEC has >150 members with representatives from virtually every medical discipline and specialty. More than 70,000 individuals have been trained.

Conclusions: The NDLS programs have employed a training center network model to deploy standardized, all-hazards disaster educational programs. The NDLS programs have been successful in bridging the gap in disaster medicine education programs in the US and may represent a useful model for other countries to provide disaster medicine education.

Keywords: all-hazards approach; disaster medicine; education; National Disaster Life Support; standardization; training Prebosp Disast Med 2009;24(2):s119

## Grounded Development of a Ubiquitous Learning Environment for First Responders

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Introduction: In order to cope with the new challenges they face every day, first responders (e.g., police, firefighters, medical support troops) must become more flexible and self-directed in adopting the newest innovations on disaster management (e.g., network-centric operations). A ubiquitous learning environment could support learning anywhere and anytime, facilitated by a flexible mix of mobile technologies (e.g., personal digital assistants, game consoles) and interactive, adaptive didactical strategies. In this study, a grounded foundation is provided from which a ubiquitous learning environment can be designed.

Methods: First, a systematic meta-review on self-directed learning was performed to define the elements that stimulate self-directedness (PsycInfo, 1967–2007). Using these elements, ubiquitous learning environment scripts were developed and presented to first responders (n = 62) using a story in pictures, combined with questionnaires.

Results: Five elements were identified from the literature: (1) learner control; (2) self-regulating learning strategies; (3) reflection; (4) interaction with the social world; and (5) interaction with the physical world.

Next, four different ubiquitous learning environments were designed: (1) practicing at quiet moments during regular work; (2) enrichment of team exercises for individual learning; (3) last minute learning during a crisis; and (4) virtual reality simulating a crisis. Data analyses showed that the designs were considered supportive for preparation for