Abstracts for the Scientific and Invited Papers

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Building Connecticut's Clinical Laboratory Surge Capacity to Mitigate the Health Consequences of Radiological and Nuclear Disasters

Joseph Albanese;[1] Virginia Kristie;[1] Elaine Forte;[1] Katherine Kelley;[2] Nicholas Dainiak;[3] Jeffrey L. Arnold[1]

1. Office of Emergency Preparedness, Yale New Haven Health System and the Yale New Haven Center for Emergency Preparedness and Disaster Response, New Haven, Connecticut USA
2. Connecticut Department of Public Health, Hartford, Connecticut USA
3. Bridgeport Hospital, Bridgeport, Connecticut USA

Introduction: Biodosimetry, based on the analysis of dicentric chromosomes in circulating lymphocytes, is considered the "gold standard" for estimating radiation injury, and is used to make informed decisions regarding the medical management of irradiated persons.
Objective: This presentation describes the development of biodosimetry laboratory surge capacity for the health consequences of radiological and nuclear disasters in Connecticut, including: (1) establishment of the Biodosimetry Laboratory for the timely assessment of radiation dosage in biodosimetry specimens; (2) identification of clinical laboratories qualified and willing to process biodosimetry specimens from a large number of victims; (3) training of clinical laboratorians in initial biodosimetry specimen processing; and (4) conducting a functional drill that evaluated the effectiveness of these elements.
Methods: Descriptive information was obtained from: (1) personal observations; (2) a needs assessment of clinical laboratories in Connecticut; (3) records from a training program of clinical laboratorians in biodosimetry specimen processing that was developed and provided by the Office of Emergency Preparedness, Yale New Haven Health System; and (4) records from a statewide functional drill in biodosimetry specimen processing that was developed and conducted by the State of Connecticut Biodosimetry Laboratory.
Results: A Biodosimetry Laboratory was established at Bridgeport Hospital in a collaborative program between the Office of Emergency Preparedness, the Yale New Haven Health System, and the Connecticut Department of Public Health. A needs assessment of clinical laboratories in Connecticut identified 30 of 32 clinical laboratories qualified and willing to perform initial biodosimetry specimen processing. Currently, 79 clinical laboratorians in 18 of these qualified clinical laboratories have been trained in biodosimetry specimen processing. A functional drill was conducted, involving 37 of these trained clinical laboratorians in 18 qualified laboratories, as well as the Biodosimetry Laboratory. The average turn around time for biodosimetry specimen processing in this drill was 199 minutes. Drill participants provided feedback which will be used to further optimize biodosimetry specimen processing protocols in Connecticut.
Conclusion: Substantial progress has been made in the development of the necessary elements of clinical laboratory surge capacity for radiological and nuclear disasters in Connecticut.

Keywords: biodosimetry; biodosimetry specimen processing; Connecticut; drill; laboratory
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Modifying the Advanced Disaster Life Support Course's DISASTER Paradigm for In-hospital Emergency Response

Jeffrey L. Arnold;[1] Vivek Parwani;[1] Nicholas Dainiak;[2] Phil Fidler;[2] Joe Albanese;[4] Mark Russi;[3] John Foggle;[1] Carl Baum;[1] Louise-Marie Dembry;[3] Seth Powsner;[1] James Paturas[4]

1. Yale University School of Medicine, New Haven, Connecticut USA
2. Bridgeport Hospital, Bridgeport, Connecticut USA
3. Yale New Haven Hospital, New Haven, Connecticut USA
4. Yale New Haven Center for Emergency Preparedness and Disaster Response, New Haven, Connecticut USA

Introduction: According to the American Medical Association's (AMA) Advanced Disaster Life Support (ADLS) course, the word "D-I-S-A-S-T-E-R" may be used as a mnemonic for listing the elements of emergency response. The AMA DISASTER paradigm emphasizes out-of-hospital emergency response and includes the following elements: (1) detect; (2) incident command; (3) scene security and safety; (4) assess hazards; (5) support; (6) triage and treatment; (7) evacuation; and (8) recovery.
Objective: This presentation describes the modification of the ADLS DISASTER paradigm for in-hospital emergency response and its application to hospital emergency preparedness.
Methods: Descriptive information was obtained from observations and records associated with this project.
Results: In 2005, a consensus group of clinical experts in disaster medicine at the Yale New Haven Center for Disaster Preparedness and Emergency Response modified the ADLS DISASTER paradigm for in-hospital