Defense against the Radiological Threat

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This course will address the nature and likely sources of the radiological threat and briefly review the basic relevant parameters of radiation physics. The characteristics, pathophysiology and prognostic criteria of various radiation threats will be discussed with specific strategies for incident management and individual therapeutics outlined. The issue of “Radiophobia” will be discussed in its historic context to provide insight into the mass population psychodynamics of attack with weapons of mass destruction and casualty estimation rates suggested. A useful approach to the prevention of psychological casualties in victims and responders will be offered. The topics covered in this course include:

Learning Objectives

- Identify elements of the radiological threat
- Distinguish principles of ionizing radiation
- Recall types of radiological weapons
- Identify types of radioactivity units
- Explain the effects of exposure to radiation
- Identify mechanisms of radiological injury
- Describe psychological factors and effects in radiation threats
- Identify symptoms of acute radiation syndrome and clinically estimate dosage and the prognosis of victims
- Describe the principles of management of patients with internal radiological contamination

Competencies

- Recognize unusual events that might indicate an emergency and describe appropriate action (to activate response plan)
- Describe the public health role in emergency response in a range of emergencies that might arise.

* Bioterrorism and Emergency Readiness

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