

County of Los Angeles Department of Health Services
Emergency Medical Services Agency
Disaster Medical Services

Disaster Training Unit Course Description

Topic: CBRN Medical Management-Clinical Personnel

Course Hours: 4

Course Description: This course emphasizes the signs and symptoms of exposure to Chemical, Biological, and Radiological contaminants, the evaluation of victims, triage of casualties, therapeutic regimens for treatment and prophylaxis. **THIS COURSE DOES NOT COVER DECONTAMINATION TECHNIQUES.**

Target Audience: Physicians, Nurses, Paramedics and any other clinical personnel.

Objectives: At the conclusion of this course the student will be able to:

- Describe reasons why a terrorist might use CBRN weapons.
 - List ways that CBRN incidents are different from an industrial Haz-mat incident.
 - Describe the most likely method of dissemination to be used by a terrorist.
 - Describe the different mechanisms that toxic substances can enter the body and cause harm.
 - Identify unique characteristics of a CBRN event.
 - Describe the impact of toxic chemicals as it relates to mortality and morbidity.
 - State the sources of harmful chemicals.
 - List the major categories of chemical agents as described in this class.
 - Describe how a first responder/receiver might best utilize the knowledge of what toxic agents smell like.
 - Review normal physiological effects of the release of acetylcholine and the effects nerve agent on that process.
 - Describe the signs, symptoms and treatment of selected chemical agents that might be weaponized.
 - Compare and contrast between a communicable and a non-communicable disease.
 - List attributes of a pathogen that would cause it to be weaponized.
 - Describe the cluster of symptoms that most biological weapon agents initially create in the earliest stages of illness.
 - Describe what makes atoms “radioactive”.
 - Differentiate between non-ionizing and ionizing radiation.
 - Discuss various ionizing particles and waves and their potential for harm.
 - Name a device that detects radiation.
 - Describe the most important asset in responding to or providing aid at a radiological event.
 - Explain the relationship of different radiation measurements and conversions.
 - Describe the concept of background radiation.
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- Define the term ALARA.
 - Describe and apply the four principles of radiation protection.
 - Differentiate between exposure, contamination and incorporation.
 - Describe the immediate actions of potential radiological terrorism incidents likely to result in mass casualties.
 - Explain OSHA exposure limits and how they apply to responders/receivers.
 - Identify the major pharmacological agents used to treat patients with radiological injury following a mass casualty radiological terrorism incident.
 - Identify the key principles involving triage of patients with potential radiation injury (Acute Radiation Syndrome).
 - Describe the key components of treating patients with combined injury (trauma and radiation injury).
 - Describe the acronym RAPIDCare.
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