Explosion and Blast Injury

Explosions can produce unique patterns of injury seldom seen outside combat. When they do occur, they have the potential to inflict multi-system, life-threatening injuries on many persons simultaneously. The injury patterns following such events are a product of the composition and amount of the materials involved, the surrounding environment, delivery method (if a bomb), the distance between the victim and the blast, and any intervening protective barriers or environmental hazards. Because explosions are relatively infrequent, blast-related injuries can present unique triage, diagnostic, and management challenges to providers of emergency care.

Few health professionals in the United States have experience with explosive-related injuries. Vietnam-era physicians are retiring, other armed conflicts have been short-lived, and until this past decade, the United States was largely spared of the scourge of mega-terrorist attacks. As the risk of terrorist attacks increases in the U.S., disaster response personnel must understand the unique pathophysiology of injuries associated with explosions and must be prepared to assess and treat the people injured by them. This online course introduces information relevant to the care of casualties from explosives and blast injuries. Nursing CEU’s (2.4); Board of Nursing CEU’s (2.9); Social Work CEU’s (2.4)

Learning Objectives

- Describe the epidemiological characteristics of bombings in the United States
- List and briefly describe major bombing incidents
- Distinguish the different types of explosives
- Describe the different types and clinical aspects of blast injuries
- Discuss the specific medical management of blast injuries

Competencies

- Describe the public health role in emergency response in a range of emergencies that might arise.
- Describe his/her functional role(s) in emergency response and demonstrate his/her role(s) in regular drills.
- Recognize unusual events that might indicate an emergency and describe appropriate action (e.g., communicate clearly within the chain of command.)

* Bioterrorism and Emergency Readiness

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