Role of Microbiology Laboratories and Specialists in Bio-Passive Defense

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Abstract

Background and Objective: Biological weapons, like other weapons of mass destruction such as chemical, nuclear and radiological are very dangerous. In recent years, they are employed in biotterrorist attacks by many countries because of some properties such as: the ability to make massive injury, having latent period, creating a prolonged illness, potential outbreaks and epidemics and more important because of having nonspecific symptoms and difficulty in diagnosing.

Material and Methods: The objective of this study was to describe the role of microbiology laboratories and their experts in the interventions of bio-passive defense. In this study, we use CDC, Medline, Google Scholar, Pubmed and World Health Organization (WHO).

Result: Detection of biological agents is difficult and sometimes impossible due to features such as lack of odor, color and other physical characteristics. The most important measures for defense against biological agents are rapid detection and intervention. Thus, the laboratories should highly be equipped and the personnel be extremely sophisticated to deal with the crisis.

Conclusion: Regarding the presence of highly advanced molecular procedures, Microbiology laboratories have to be updated to deal with the potential threats .in addition, the Laboratories professionals must be trained for the latest guidelines and specific diagnostic techniques to work with biological agents.

Keywords: Bioterrorism; Biological Warfare Agents; Biological Defense; Clinical Medical Laboratory