

**Bio-terrorism
preparedness and
response module 3
slp mhe 507**



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Of Bioterrorism Preparedness and Response: An Attempt for a Resolution

The program involving bio-terrorism is a direct response of the U. S. ities to the 2001 anthrax attack (Perkins, Popovic, & Yeskey, 2002); shortly after the attack, clinicians in particular and the public health officials in general “ were overwhelmed” by the numerous requests for suspicious powders to be evaluated in the laboratory (Bravata et al., 2004). It was (and is) widely believed that terrorists, whoever they are, will essentially utilize biological weapons in spreading chaos and fear to their enemies. Deeply troubled with this gloomy forecast, the public health officials in particular attempt to develop and refine a “ new methods of surveillance” (Buehler, Berkelman, Hartley, & Peters, 2004). These surveillance methods or systems -- also known as syndromic surveillance -- are principally intended to detect “ early manifestations of bioterrorism-related disease.” The ultimate goal of syndromic surveillance is the earlier detection of bioterrorism-related disease before it exponentially spread to the community. However, few have questioned (if not attacked) the efficiency and/or accuracy, among other things, of the current surveillance systems. Researchers, working for the bioterrorism preparedness and response, admit openly that the attainability or feasibility of the syndromic surveillance’s goal “ remains unproved” (Buehler et al., 2004).

No doubt, it is very important to fully learn the fundamental component, in the epidemiologic level, of the “ biological agents used as weapons” (Pavlin, 1999). In grasping their basic principles, public health officials -- such as those in the Centers for Disease Control and Prevention (CDC) -- will be able to determine and detect the symptoms and/or prodromal illnesses generally characterized by bioterrorism-related diseases. According to Buehler et al. <https://assignbuster.com/bio-terrorism-preparedness-and-response-module-3-slp-mhe-507/>

(2004), the early signs of people contaminated with anthrax are “ nonspecific symptoms” that last for a few days and followed by a “ severe disease.” Fortunately, scientists and medical practitioners understand the essential framework or nature of inhalational anthrax. It is only a matter of time (and technology) before one can truly detect the onset of the severe disease.

One of the reasons why the goal of syndromic surveillance is difficult to be achieved is because of the nature of the inhalational anthrax itself.

Syndromic surveillance basically aims to determine the bioterrorism-related disease in the earliest possible time -- that is, before clinicians or medical professionals provide diagnosis to their patients. On the other hand, it takes eighteen (18) hours for a blood culture to yield a correct diagnosis for the inhalational anthrax (Buehler et al., 2004). In theory, this implies that presumptive diagnosis can only be applied to a patient a day after seeking an outpatient care. In practice, however, early detection of disease associated to bioterrorism attack is much more complicated. Nonetheless, there are attempts from CDC to attain the objectives set for the syndromic surveillance; new opportunities are created (Elliot & Wartenberg, 2004). One of them is the creation of hypothetical cases in which a patient is treated before the bioterrorism-related disease spreads out rapidly. At an early stage (in one hypothetical case), the patient’s condition is evaluated by a clinician. As the number of cases increase -- at the point of reaching the syndromic threshold -- the health department comes into the scene and investigates the alarm. In the process, the epidemic can be prevented in early and real time

References

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Bravata, D. M., Sundaram, V., McDonald, K. M., Smith, W. M., Szeto, H., Schleinitz, M.

D., & Owens, D. K. (2004). Evaluating detection and diagnostic decision support

systems for bioterrorism response. *Emerging Infectious Diseases*, 10 (1).

Retrieved from <http://www.cdc.gov/ncidod/EID/vol10no1/pdfs/03-0243.pdf>

Buehler, J. W., Berkelman, R. L., Hartley, D. M., & Peters, C. J. (2004).

Syndromic

surveillance and bioterrorism-related epidemics. *Emerging Infectious*

Diseases,

9 (10). Retrieved from [http://www.cdc.gov/ncidod/EID/vol9no10/03-0231.](http://www.cdc.gov/ncidod/EID/vol9no10/03-0231.htm)

htm

Elliot, P., & Wartenberg, D. (2004). Spatial epidemiology: Current approaches and

future challenges. *Environmental Health Perspectives*, 112 (9), 998+.

Pavlin, J. A. (1999). Epidemiology of bioterrorism. *Emerging Infectious Diseases*, 5 (4).

Retrieved from <http://www.cdc.gov/ncidod/EID/vol5no4/pavlin.htm>.

Perkins, B. A., Popovic, T., & Yeskey, K. (2002). Public health in the time of bioterrorism. *Emerging Infectious Diseases*, 8 (10). Retrieved from

<http://www.cdc.gov/ncidod/eid/vol8no10/02-0444.htm>