

# Bio-terrorism

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Bioterrorism Introduction: Anthrax as a Weapon of Mass Destruction in Bioterrorism “ Anthrax is a deadly biological weapon with the potential to cause significant destruction and loss of life” (Katz, 2001, p. 1835).

Anthrax is not a communicable disease in its active state. The anthrax spores can be stored for decades and can be spread over large areas. Hence the greatest danger by anthrax lies in its inhalation which is the most lethal, and also the most difficult to detect and treat making it the “ preferred portal of entry for biowarfare and bioterrorism” (Trippon, 2002, p. 18). As an excellent weapon of mass destruction, the spores can enter the body in one of three ways: by inhaling it into the lungs, by ingesting it into the digestive tract, or by cutaneous exposure through contact with the skin. If anthrax were disseminated by the explosion of a missile and billions of anthrax spores were in the air, only one or two deep breaths would be sufficient to inhale enough organisms to cause serious infection (Katz, 2001). The purpose of this paper is to identify a documented bioterrorism incident, comment on its outcome, public reaction, level of preparedness, and general management. The reason for selecting this incident, its location, severity and the group responsible will be presented.

#### Terrorist Use of Anthrax in 2001

The most recent incident of the use of anthrax in bioterrorism occurred in 2001 in the United States of America. The reason for selecting this event of bioterrorism consisting of anthrax attacks through the mail is for examining the extent to which mortality and morbidity was caused through these incidents. The evidence indicates that refined anthrax spores in the form of a highly concentrated dry powder were sent to a variety of media institutions and governmental offices. The anthrax attack caused 22 confirmed cases of <https://assignbuster.com/bio-terrorism/>

infection, out of which 11 were due to inhalation, 5 resulting in casualties. Anthrax powder was identified in at least five letters sent to Florida, New York City and Washington, DC. All the contaminated letters were mailed from Trenton, New Jersey. The fatalities resulting from the mailed anthrax spores extended to other states such as Virginia and Connecticut besides those given above (Zubay, 2005).

The first letter dated September 18, 2001 containing anthrax spores was addressed to television newsman Tom Brokaw and the New York Post. The next recipient in Florida was an employee of American Media, Inc. and the letter was addressed to him at that building. “ On October 5, 2001 he became the first fatality attributed to the anthrax attacks” (Zubay, 2005, p. 135). In Washington, DC-Virginia area were postal workers who evidently became infected when contaminated mail passed through the Brentwood postal facility in Washington, DC. It remains unclear how the infection occurred to a hospital worker in New York City and a retired woman in Connecticut who became the final fatality on November 21st, 2001. They had no connection to the tainted mail eventually recovered, similarly mail facilities around them showed no evidence of anthrax spores on testing. Additionally, twenty other victims developed some form of anthrax infection, revealing “ the ease with which even a small amount of anthrax spores can be spread across half a nation and cause widespread fear” (Zubay, 2005, p. 136).

The group or individual who sent mail containing anthrax spores have not claimed responsibility, or been identified as yet. Individuals with access to laboratories with anthrax cultures were also investigated, and Steven J. Hatfill, a medical doctor and virologist received the most attention, though <https://assignbuster.com/bio-terrorism/>

unnamed as a suspect in the case. The Ames strain of *B. anthracis* was used in the attacks. “ Interestingly, this strain was not developed on foreign soil, but rather by scientists associated with the USAMRIID” (Zubay, 2005, p. 136) the United States Army Medical Research Institute of Infectious Diseases. This information and the fact that the perpetrator was operating from Trenton, resulted in the investigators focusing on domestic suspects rather than on foreign terrorists.

From the outcome of these postal attacks, it is clear that the severity is limited, and only a few fatalities and morbidities have resulted from the mailed anthrax spores. Alcabes (2004, p. 39) reiterates that “ three characteristics of that outbreak are of note: very few people became ill; very, very few died; and it was almost certainly not produced by a stranger”. The public reaction to these postal attacks has been anxiety in relation to using postal facilities and mail.

The Centers for Disease Control and Prevention (CDC) were given the responsibility several years ago to prepare a public health bioterrorism preparedness plan for the United States. The plan was prepared in collaboration with individuals and agencies, and it “ outlined responsibilities of federal, state and local government agencies, nongovernmental organizations, and individual citizens” (Brachman, 2003, pp. 109-110). The anthrax bioterrorist event was the first application of the CDC plan. To assess the public health response to the anthrax bioterrorist event in 2001, the different components of the plan have to be taken into consideration. These include detection, diagnosis, investigation, therapy, communication, and training. An individual plan will be required for each bioterrorist event, because of differences in the events.

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## Conclusion

This paper has investigated the anthrax bioterrorism incident, examined its outcome, and studied various aspects of the postal attacks through transmitting anthrax spores through the mail. It has impacted several states in America, but the total number of fatalities and illnesses resulting from the attacks have been limited. Extensive measures have been implemented by the CDC to protect the health of the public, with the cooperation of the citizens.

## References

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