

Author: DEVINDER SINGH, MD

Institution: YALE UNIVERSITY SCHOOL OF MEDICINE

TITLE: Bioterrorism: Preparing the Plastic Surgeon

BACKGROUND & PURPOSE:

Many other medical disciplines, including emergency medicine, trauma surgery, dermatology, psychiatry, family practice, physician assistance, dentistry and nursing have all documented attempts at assessing the level of bioterrorism preparedness in their own community. There is neither such an assessment nor an existing review of bioterrorism agents and their effects as they specifically relate to the plastic & reconstructive surgeon. The purpose of this paper therefore is to better prepare the plastic surgeon for a potential bioterrorism incident.

METHODS:

A systematic review of peer-reviewed literature on bioterrorism agents as well as a review of the Center for Disease Control (CDC) online resources was conducted. So-called “category A” agents were identified and highlighted. Specific attention is paid to the management issues that plastic and reconstructive surgeons may face for each CDC category A agent.

RESULTS:

Disease entities reviewed were Anthrax, Smallpox, Plague, Viral Hemorrhagic Fever, Tularemia, and Botulinum toxin. For each agent, microbiology, pathophysiology, presentation, potential for weaponization, antibiotic & medical management, vaccination, and surgical issues related to the plastic surgeon are presented. A brief history of biological warfare is also included.

CONCLUSIONS:

This paper represents the first attempt at addressing bioterrorism preparedness amongst plastic & reconstructive surgeons. A brief glance at peer-reviewed resources indicates that many other fields have already started a similar process. A pilot assessment survey to determine the perceived level of preparedness amongst plastic surgeons is underway. Eventually, leadership in our field will be called upon to develop evidence-based consensus guidelines and recommendations for the management of biological terrorism, and this paper represents a first small step in that direction.