Anesthesiology Leadership in Medical Preparedness for Biological and Chemical Atrocities

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The events of September 11, 2001, have made the often neglected topic of biological and chemical terrorism vitally important. To most civilian health care providers, this medical topic received little serious attention. On the other hand, out of practical necessity, the need for a firm knowledge related to the recognition, diagnosis and treatment of biological and chemical attack casualties is not a new or neglected topic to health care providers who are involved in military medicine. Not only are military physicians the primary researchers in the field, most military physicians are required to spend several weeks of intense study on the topic.

Unfortunately, the months of October and November 2001 served to demonstrate just how unprepared the civilian medical community was for the types of threats we are facing. This situation proved to be simultaneously embarrassing, tragic and frightening! The symptoms of our unpreparedness were present early. Doctors, nurses and health care institutions found that they were asked questions by both patients and media for which they were terribly unprepared to answer. For some, the discomfort and embarrassment of not having appropriate answers served as a wake-up call to pursue a more informed position. Others resorted to the age-old practice of the ostrich as their way of coping.

On October 21, 2001, Thomas Morris, Jr., came in direct contact with the buried-head technique of handling the unknown. While many medical professionals at least had a nightly news-level of knowledge about medical issues surrounding the anthrax attacks in the Washington, D.C., and New York areas, this dedicated and hard-working postal worker found himself surrounded by employers, doctors and a system that was entirely unprepared to address his concerns. He must have felt as if he was living in a nightmare. Here he was in a high-risk occupation, with symptoms compatible with pulmonary anthrax and having been present during the handling of a suspicious letter. He was without support from his postal supervisors, and he presented his symptoms and situation to his health care system, telling them point-blank that he was concerned that he may have been exposed to and infected with anthrax. His health care system had not yet caught up with the media, which had in fact educated this postal worker about the symptoms he was experiencing. We are all left with the legacy of his recorded 911 call in which he vividly described his frustration prior to his death.

Concurrent with the anthrax attacks, many organizations and hospital systems organized various lectures and continuing medical education programs designed to update physicians about the medical issues related to the anthrax threat and occasionally to other potential biological and chemical threats. Unfortunately, the subject matter of the updates rarely went beyond what the media covered. Rarely were people given the perspective that the use of anthrax as an agent was a part of a continuum that included the use of smallpox against Native Americans. It escalated with the use of chlorine, phosgene and mustard agents during World War I, when the wrath of chemical weapons was initiated in Ypres, Belgium. Other equally lethal biological and chemical agents were seldom covered with a degree of depth and emphasis comparable to that of the recent anthrax topic. This is surprising given that the world has experienced multiple incidents of biological and chemical weapon usage within the last two decades. Recently publicized use of these agents against civilian populations includes the 1995 release of the nerve agent sarin in a crowded Japanese subway. In 1978, a Bulgarian assassination involved the use of ricin-laced umbrella in London, and more recently, the slaughter of Iraqis and Iranians via mustard gas and other lethal chemical agents were hardly reported. Given the current international climate, it would seem logical that all physicians should be compelled to learn about the entire range of biological and chemical weapons known to be within the armamentarium of potential terrorists.

ASA, the Society of Critical Care Medicine (SCCM) and members of the Washington/Baltimore anesthesia and critical care communities recognized their front-line status in the event of a biological or chemical attack. They quickly formed a coalition that is focused toward educating health care providers about the medical management of biological and chemical weapons.

This Medical Preparedness Alliance consists of The
Greater Washington Society of Anesthesiology, The Maryland/D.C. Society of Anesthesiologists, The Washington, D.C. Area Critical Care Society, The Johns Hopkins Department of Anesthesiology & Critical Care Medicine and The Walter Reed Army Medical Center Department of Anesthesiology. During the month prior to Roger Morris’ untimely death, the Medical Preparedness Alliance was planning a comprehensive, multidisciplinary meeting to educate health care professionals about the recognition and diagnosis of all the categories of chemical and biological threats that terrorists have prepared as weapons against human life.

On December 8, 2001, the Medical Preparedness Alliance hosted the Baltimore-Washington area’s first live, comprehensive, all-day multidisciplinary symposium, “Medical Preparedness for Biological and Chemical Atrocities.” The program was intense but well-received by doctors, nurses and health care providers. Participants from as far away as Ohio joined the effort to become knowledgeable about the medical management of anthrax, nerve agents, smallpox, hemorrhagic viruses, vesicants, cyanide and other toxic agents. There were expert speakers from the United States Army Medical Research Institute of Chemical Defense, the United States Army Medical Research Institute of Infectious Disease, Johns Hopkins Medical Institutions and Walter Reed Army Medical Center.

Anesthesiologists and intensivists are often accused of taking a back seat in addressing medical issues relevant to the medical community at large. In the event of any large-scale biological or chemical attack, both anesthesiologists and intensivists can expect to be directly involved in the operative and critical care of patients who have been exposed to agents that may be deadly to both the patient and the practitioner. Therefore the anesthesiology and critical care communities should take a leadership position to educate the medical community about how to be medically prepared for potential biological and chemical attacks.

It is our ethical duty to prepare for these proven risks well ahead of time, not just after the media has sensitized our patients to ask us questions. It is my hope that the Medical Preparedness Alliance and other national chapters of ASA and SCCM will form collaborative partnerships designed toward educating health care providers about the safest and most efficient ways to recognize and manage civilian casualties of biological and chemical weapons.

The History of Bioterrorism: An Overview

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6. The letters of Sir Jeffery Amherst were microfilmed and preserved by the Library of Congress as part of a project to preserve English documents at risk during World War II. The story of Amherst and smallpox, along with links to the documents may be found at <www.nativeweb.org/pages/lega/amherst/lord_jeff.html>. Accessed on January 25, 2002.