



ELSEVIER  
SAUNDERS

Anesthesiology Clin N Am  
22 (2004) xiii–xv

---

---

ANESTHESIOLOGY  
CLINICS OF  
NORTH AMERICA

---

---

## Preface

# Infectious Disease and Bioterrorism



Samuel C. Hughes, MD



James D. Marks, MD, PhD

*Guest Editors*

The dual issues of infectious disease and bioterrorism seemed far from our lives as many of us in practice today began our careers some years ago. Tuberculosis was “in a cage” and smallpox and anthrax were of interest only in a historical context. Ever-improving antibiotics managed just about everything, it seemed, although the thoughtful among us were ever mindful of viral diseases and their potential for acute disease and long-term health consequences. Bioterrorism remained an obscure topic until even more recently and was thought of only in historical terms—if at all—by most physicians. Wasn’t chemical warfare something from World War I and certainly not our concern? However, as HIV crept quietly into our population in the early 1980s, the winds of change were beginning and a significant chain of events was set in motion. Serious and potentially lethal infectious diseases were back in the news and in our medical practice—as well as our operating rooms, whether or not we were aware of it.

Since the first handful of cases of *pneumocystis pneumonia*—which were ultimately determined to be AIDS—were reported in 1981, there have been more than 900,000 reported cases in the United States and an estimated 40 million worldwide. This epidemic has profound implications, not unlike the bubonic plague or “Black Death” that swept through Europe in 1348–1349, which entered the continent in Sicily from Asia in 1347 and reached epidemic proportions in Sweden by 1350. In some communities, 30% to 50% of the population died, changing the political map for generations. AIDS moves more

slowly, but it is having a similar effect in Africa, where 25% to 40% or more of the women in some urban centers are HIV-positive.

In the practice of anesthesiology, the arrival of HIV made anesthesiologists aware of the risk of other viral diseases, including hepatitis B and hepatitis C. Our infectious control practice had been poor if not foolhardy in many facets. A significant number of our colleagues had been infected with hepatitis B over the years, the infection rate rising with years in practice. Hepatitis C remains a grave concern. Hepatitis B was a marker for the potential of HIV infection in health care workers and a signal for the need to change our practice. These topics and related issues are presented in this issue. From the most basic—and vital—infectious control issue of hand washing to the broad concerns of what techniques we use to draw up and administer drugs, we are and must continue to change our practice to protect our patients and ourselves.

The appearance of new diseases such as severe acute respiratory syndrome (SARS)—as well as older concerns such as smallpox, botulism, and anthrax—which can threaten our lives and our very societies, must now be considered. The rapid means of travel around the world allow infectious agents to spread quickly. SARS, a recently recognized infectious illness rapidly spread from Asia to North America and Europe through just a few air travelers. While it took 3 years or more for the plague to spread throughout Europe in the 1300s, SARS took only a few months to circle the globe and become a major health threat despite our attempts to stop it. Between November 1, 2002 and late July 2003, more than 8000 people in 29 countries developed probable SARS despite a major worldwide health alert. The concept of infectious agents as weapons of war is even more frightening. Although it is an old concept, it is now a new, terrifying possibility, and one that we must prepare for now.

This issue of the *Anesthesiology Clinics of North America* presents these topics and related concerns for the anesthesiologist. Whether it be routine patients in the operating room, prophylaxes against more common infections, lethal viral infections that must be contained, or the ultimate horror of bioterrorism, there is vital information for the practicing anesthesiologist and others to be found in this issue. We hope that readers make use of the material presented here as well as the many resources referenced for further information and education. We are indeed living in challenging times; the best way to manage them is to learn about and prepare for the challenges to our patients' health as well as our own—and perhaps that of our very society.

Samuel C. Hughes, MD

*Departments of Anesthesia and Perioperative Care*

*University of California—San Francisco*

*Director of Obstetric Anesthesia*

*San Francisco General Hospital*

*1001 Potrero Avenue, Room 3C-38*

*San Francisco, CA 94110, USA*

*E-mail address: hughess@anesthesia.ucsf.edu*

James D. Marks, MD, PhD  
*Departments of Anesthesia and Perioperative Care, and  
Pharmaceutical Chemistry  
University of California San Francisco  
San Francisco General Hospital  
1001 Potrero Avenue, Room 3C-38  
San Francisco, CA 94110, USA  
E-mail address: [marksj@anesthesia.ucsf.edu](mailto:marksj@anesthesia.ucsf.edu)*