

Living Weapons: Biological Weapons and International Security

By Gregory D. Koblentz

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In the summer of 1996, as a (much younger) Army infectious disease physician, I headed off to a new assignment with the US Army Medical Research Institute of Infectious Diseases (USAMRIID) at Fort Detrick, Maryland. It was a heady time to be entering the niche field of biodefense. Five years before the events of 9/11 and the subsequent “Amerithrax” attacks would become an integral part of the world’s consciousness, USAMRIID was (with the exception of a few veterinary laboratories studying anthrax, brucellosis, Q fever, and similar zoonotic diseases) the “only game in town.” The institute had quietly wrestled with issues of medical biodefense since the United States shuttered its old offensive biowarfare program in 1969. As an assignee to its division of operational medicine, I was enamored of my ability to master the sparse literature and science of the field and soon became an “expert.”

Such luxurious self-confidence is no longer warranted (if it ever was) or even possible. The field has, for better or worse, burgeoned in the decade since 9/11. Hundreds of texts and thousands of scientific articles now address every aspect of the daunting problems of biowarfare and bioterrorism defense, and mastery of such material is beyond the grasp of any one scientist, diplomat, or arms-control expert. Fortunately, several good reviews exist to guide those wishing to gain a basic understanding of these complex issues. Was yet another treatise thus necessary? My initial reaction was an

emphatic “no,” until I read Gregory Koblentz’s book, *Living Weapons*.

Koblentz, deputy director of a graduate degree program in biodefense at George Mason University, tackles the myriad issues surrounding biodefense from a policy perspective. In so doing, however, he puts forth a readable, succinct, yet thorough review of the field. After a crisp introduction to the history of biowarfare, he focuses on the seemingly insurmountable obstacles to nonproliferation efforts aimed at state-sponsored weapons programs: treaty compliance verification, program oversight, and intelligence. He then addresses the parallel problems posed by nonstate actors and terrorists and closes with a prescription for reducing the dangers of uncontrolled biology.

A tour de force of bureaucratic hurdles and treaty-compliance issues would hardly seem compelling reading for all but a few die-hard policy wonks. Not so in the case of Koblentz’s text. Even though his penchant for frequent summary makes for some redundancy, he provides an extremely readable, yet comprehensive, compendium of the implications for national security posed by wayward biology. Moreover, he does so without the ideological bias often found in other treatises on this subject. Specifically, Koblentz delivers a detailed review of the United Nations Special Commission inspections in Iraq and the lessons they provide. He similarly deals with the now-discredited 2002 National Intelligence Estimate, which provided much of the impetus for President George Bush’s decision to invade Iraq. Yet, he analyzes these efforts and their implications for diplomats, policymakers, and arms-control experts without descending into partisan politics or anti-US demagoguery.

In summary, *Living Weapons* is a thoroughly readable book, filled with enough anecdotes to capture the reader’s interest. But, more importantly, it provides a disturbing yet re-

freshing look at the myriad obstacles confronting those who would play a role—whether political, diplomatic, or scientific—in attempting to rein in the use of biology in war and terror. It is a must read for graduate students and experts alike.

Theodore J. Cieslak

Author affiliation: Centers for Disease Control and Prevention, Atlanta, Georgia, USA

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Address for correspondence: Theodore J. Cieslak, Centers for Disease Control and Prevention, 1600 Clifton Rd NE, Mailstop D44, Atlanta, GA 30333, USA; email: trc0@cdc.gov

Superbug: The Fatal Menace of MRSA

Maryn McKenna

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This book is an extensively researched and detailed review of methicillin-resistant *Staphylococcus aureus* (MRSA) by Maryn McKenna, a journalist and the former Centers for Disease Control and Prevention beat reporter for the Atlanta Journal-Constitution. Although McKenna has a background in science reporting, she infused this work with drama, an approach that will draw in some readers but be off-putting to others. To the reader familiar with MRSA, the use of hyperbole coupled with factual inaccuracies leaves one wondering where truth stops and fiction begins. These shortcomings may keep this work off scholarly reading lists.

Most chapters include case presentations that emphasize the emotional toll wrought by MRSA infections. The cases effectively introduce topics such as MRSA in athletes and other risk groups, MRSA in animals, and postinfluenza MRSA pneumonia. The chapter on infections caused by the 80/81 strain of *S. aureus* in the 1950s is particularly useful because it demonstrates parallels between the 1950s epidemic and the USA300 clone of MRSA today. However, McKenna infers that the 80/81 strain disappearance was caused by use of antistaphylococcal drugs and not natural events. Although 80/81 did disappear after the introduction of methicillin, the cause of the strain's disappearance is largely unknown.

The community-onset MRSA epidemic of the past decade is not presented with a clear timeline. As a result, the reader is unclear if the incidence of disease is still increasing, has leveled, or is decreasing and could further parallel incidence of the 80/81 strain.

The chapter on healthcare-associated infections is MRSA centric and misses excellent opportunities to frame these infections and problems such as antimicrobial drug resistance and overuse in a broader context. The challenges of MRSA prevention are not balanced with other infection prevention priorities such as control of multidrug-resistant gram-negative pathogens and *Clostridium difficile*. Active surveillance to identify MRSA carriers is emphasized more than hand hygiene. Legislation mandating MRSA screening is discussed without explaining why major infection prevention organizations believe such legislation is unwise.

Some of the physicians, researchers, and other heroes in the MRSA story are appropriately praised. Failings of physicians and the healthcare establishments are deservedly criticized. However, there is no call to arms over some of the most egregious medical failures, such as poor hand hygiene compliance and unwise antimicrobial drug use. The reader is left frustrated

about the inability of the medical establishment to control MRSA.

The book attempts to appeal to a broad audience, and although McKenna uses a lot of medical jargon, she effectively explains concepts such as antimicrobial drug mechanisms and molecular typing. Her style and the human interest stories will appeal to a lay audience, particularly consumer advocates. The historical background and scientific detail may appeal to healthcare professionals interested in infectious diseases or public health. However, the main goal of the book appears to be to scare the reader about the "Superbug." In this regard, McKenna succeeds.

James P. Steinberg

Author affiliation: Emory University Hospital
Midtown, Atlanta, Georgia, USA

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Address for correspondence: James P. Steinberg,
Emory University Hospital Midtown, 550
Peachtree St NE, Rm 5.4403, Atlanta, GA
30308, USA; email: jstei02@emory.edu

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