Handbook of Zoonoses: Identification and Prevention

Joann Colville and David L. Berryhill
Mosby, St. Louis, Missouri, USA, 2007
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In “Handbook of Zoonoses: Identification and Prevention,” authors Joann Colville and David L. Berryhill laud their book as an ideal reference for veterinarians, veterinary technicians, and professional students, and as a general resource for healthcare professionals to help them understand and manage zoonotic diseases. Information on common, and currently topical, zoonoses are included; the book addresses diseases caused by bacteria, viruses, parasites, fungi, and prions. For each disease, a common set of concepts are covered: the degree of illness and death associated with the disease; the etiology, hosts, and routes of transmission; a brief description of the disease manifestation in various animal species and in humans; general guidance for treatment in both animals and humans; and recommendations for prevention. Although the authors present some information on diseases that occur outside the United States, this handbook focuses more on diseases in the United States that readers may come into contact with or hear about on the news.

The terminology used to cover zoonotic diseases may be useful to healthcare professionals because basic information is provided in easily understandable language for lay patients and clients. As an actual source of information for healthcare professionals, however, this handbook is not as useful as other available texts. The book covers aspects of many of these diseases somewhat superficially and makes generalizations that could be misleading when examined in greater depth. This weakness is exacerbated by the fact that no references are provided, either as source data for citation or as pointers for readers looking for more information on a particular disease. Given the lack of overall detail in the handbook, this is a significant shortcoming. And, while an overall goal of the book is to provide information to help healthcare professionals manage zoonotic diseases, the authors do not present specific treatment guidance or common differential diagnoses for the diseases covered. Instead, the authors provide the occasional piece of trivia about certain diseases covered in the handbook that a lay reader may find engaging—that Ted Nugent wrote a song called “Cat Scratch Fever” and that rumors exist of a “Hollywood Tapeworm Diet.” Overall, this handbook may be best suited for the lay person who has an interest in zoonotic diseases and some preexisting knowledge of disease transmission and pathogenesis.

M. Kathleen Glynn*
*Centers for Disease Control and Prevention, Atlanta, Georgia, USA
Address for correspondence: M. Kathleen Glynn, Bacterial Zoonoses Branch, Centers for Disease Control and Prevention, 1600 Clifton Rd, Mailstop C09, Atlanta, GA 30333, USA; email: mkg6@cdc.gov

The Microbiology Bench Companion
J. Michael Miller
ASM Press, Washington, DC, USA, 2007
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Pages: 120; Price: US $36.90

Diagnostic testing for infectious diseases is an increasingly complex area of laboratory medicine. The microbial community continues to evolve and adapt to changing environmental influences, and the distribution of human pathogens has become more global. Our recognition of the spectrum of microorganisms that cause invasive human disease has exploded with the use of culture-independent methods to detect and characterize pathogens. Clinicians, epidemiologists, and public health officials can benefit from consultative interactions with laboratory professionals to assist with optimizing diagnostic test options and interpretation of test results. For technologists without access to board-certified laboratory professionals who can guide the work-up of infectious agents in a microbiology laboratory, a concise guide can be extremely beneficial.

In this handbook, J. Michael Miller, a highly experienced clinical microbiologist, distills a great deal of information into 120 pages, largely formatted as tables and flowcharts. Molecular methods for detecting or identifying microorganisms are notably absent, which may reflect the author’s intent to address readers who perform conventional diagnostic tests only. The handbook is divided into 3 sections. Section 1 focuses on routine laboratory bench algorithms for identifying bacteria, fungi, and parasites. Although most of this information can be found in clinical microbiology textbooks, the flowcharts are an easy reference, especially for medical technologists. Section 2 is entirely formatted
with tables listing clinical syndromes (e.g., cellulitis, pneumonia, gastroenteritis) and their possible infectious causes. The lists of etiologic agents are extensive, yet practical, and would be of most benefit to infection control practitioners, nurses, and laboratory technologists. Section 3 is devoted to therapeutic choices for various microorganisms and is intended to inform laboratorians of treatment options; it is not a guide for therapeutic decision-making by clinicians. Although certain taxonomic classifications and susceptibility guidelines do not reflect the current standard, most information, such as annotated remarks for pathogens classified as select agents, is timely.

The author valiantly furnishes us with pearls and nuances of clinical microbiology in this clear and concisely written handbook. The task was Herculean. As the author aptly notes in the introduction, no handbook can capture every parameter or indication for identification of all clinically relevant microorganisms and describe these microorganisms in public health or patient-centered contexts. Overall, the author delivers a wealth of information that can benefit technologists and healthcare practitioners in regions with limited access to professionals who specialize in clinical microbiology or infectious diseases.

Cathy A. Petti*

*University of Utah School of Medicine, Salt Lake City, Utah, USA

Address for correspondence: Cathy A. Petti, University of Utah School of Medicine, 50 N Medical Dr, Salt Lake City, UT 84132, USA; email: cathy.petti@aruplab.com

**Bioviolence: Preventing Biological Terror and Crime**

Barry Kellman

Cambridge University Press, Cambridge, United Kingdom, 2007

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Even before the anthrax attacks in 2001, public health agencies and partner sectors had begun intensifying efforts to detect and respond to the specter of biologic agents used as instruments of terror. The events in 2001 highlighted the substantial preparedness gaps and needs in multiple dimensions, particularly the requirements for coordinating the work of public health and law enforcement, sectors that operate under different jurisdictional configurations and legal regimes. This book is written by a law professor who begins by positing the thesis that humanity is vulnerable to bioterrorism because current international legal regimes are inadequate to support preventive policies. The author may thus be overly ambitious by attempting to cover this topic on a global scale, rather than through the prism of 1 or a few governance systems.

This book may be particularly helpful to persons who want to learn more about basic concepts regarding the methods of bioterrorism. For example, the second chapter provides an overview and description of biologic agents identified as candidates for use by terrorists, and the third chapter presents a synopsis of historical milestones in the use of bioweapons. The second part of the book offers a conceptual treatment of the author’s beliefs about factors accounting for the global failure to effectively confront the threat of biologic agents by multiple actors, and combines this with a focused discussion of 4 categories of measures to reduce bioterrorism. These categories are interdiction (a practically framed summary), denial of access to methods of bioterrorism, preparedness (i.e., detection and response), and nonproliferation regimes. The author concludes with a call for the establishment of “a global governance architecture for preventing bioviolence.”

The book’s utility for practical applications seems constrained, in part, by a limitation common to single-authored books on topics with myriad and complex technical dimensions. In particular, examining bioterrorism must take into account the convergence of numerous and complex fields, including forensic and laboratory sciences, public health, law enforcement, and behavioral sciences, to name only a few. In addition, although some chapters provide information helpful for shaping readers’ understanding of particular issues, in many instances the text falls short of being practically relevant. For example, within the chapter on public health preparedness, the author devotes only 3 paragraphs to the critically important issue of “law enforcement–public health cooperation,” which, since the 2001 anthrax attacks, has been the focus of several major initiatives within the United States.

An additional point is that the author appears to be coining a new term, bioviolence (“...the infliction of harm by the intentional manipulation of living microorganisms or their natural products for hostile purposes”), for which he also provides a rationale. Yet to be determined is whether this term truly is helpful or possibly confusing because of the already well-established lexicon and conceptions surrounding bioterrorism. On balance, however, this book can be recommended because it helps to address a void in the literature, particularly in relation to concepts of preventing bioterrorism, and because it represents another step