Antimicrobial Pharmacodynamics in Theory and Clinical Practice, Second Edition

Edited by Charles H. Nightingale, Paul G. Ambrose, George L. Drusano, and Takeo Murakawa

New York: Informa Healthcare USA, 2007. 536 pp., Illustrated. $299.95 (hardcover)

The second edition of Antimicrobial Pharmacodynamics in Theory and Clinical Practice is designed to review and synthesize the scientific and medical literature on antimicrobial pharmacodynamics in an easily understood manner to allow readers to apply the theories and concepts discussed. The intended audience for the text includes infectious diseases physicians; pharmacy specialists and other clinical and staff pharmacists; clinical microbiologists; medical, pharmacy, and microbiology students; college educators; and other health care decision makers. The editors and individual chapter authors are recognized experts in the field of pharmacodynamics.

The book is divided into 9 general sections, beginning with introductory chapters on general aspects of antimicrobial pharmacodynamics and the application of pharmacodynamics for susceptibility testing and breakpoint determination. These chapters are followed by individual chapters on the pharmacodynamics of various antibacterial, antiviral (in particular, antiretroviral), antifungal (e.g., amphotericin B, azoles, and echinocandins), and antimalarial agents. The chapters on older generic antibacterials, including clindamycin, metronidazole, and tetracyclines, as well as the chapter on antimalarial agents, are unique. However, the book does not contain a chapter on the pharmacodynamics of sulfonamides or other folate antagonists (outside of a brief discussion in the antimalarial chapter), which would have added value to the text. The remainder of the book is devoted to sections on pharmacodynamics in drug development, the association of pharmacodynamics and resistance, and the application of pharmacokinetics and pharmacodynamics to clinical and formulary decision-making.

Readers interested in expanding their general knowledge of pharmacodynamics, as well as readers who are interested in more focused areas of pharmacodynamics, will appreciate this text. The book provides expansive, in-depth content to allow readers to become more sophisticated in their ability to interpret pharmacodynamic data and literature. Chapters tend to be uniform and balanced, typically providing both historical perspectives and the state of the art with respect to different applications of pharmacodynamics, yet also often including identification of limitations of certain pharmacodynamic data analysis and research techniques. Unfortunately, the chapter on β-lactam pharmacodynamics is difficult to read and could have benefited from more rigorous editing.

Most chapters contain a nice blend of text, figures, and tables and are easily navigated. Each chapter can largely stand on its own; however, chapter placement in the book is thoughtful and logical. The addition to more of the chapters of case studies and/or hypothetical scenarios involving the application of pharmacodynamic principles may have enhanced the readers’ ability to be able to apply the pharmacodynamic theories and concepts that are discussed so thoroughly in the book. However, this text is an authoritative, highly informative, and useful compilation of material that would otherwise be difficult for clinicians, researchers, or educators to locate and assimilate.

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Foodborne Diseases

Edited by Shabbir Simjee

New Jersey: Humana Press, 2007. 540 pp., Illustrated. $149.00 (hardcover).

Foodborne Diseases, edited by Shabbir Simjee, provides a comprehensive review of selected bacterial, parasitic, and viral foodborne pathogens, toxins, and pathogen-control strategies. This book would be a useful resource for technical food industry professionals, food scientists, government researchers, government regulators beginning their careers, public health professionals working on foodborne disease surveillance or outbreak detection, public health veterinarians, and those in academia.

The pathogen-specific chapters generally follow a format that covers clinical characteristics, virulence factors, outbreaks, treatment guidelines, antimicrobial resistance, epidemiology, and prevention and control strategies. Chapters on the topics of botulism, foodborne viral hepatitis, Shiga toxin–producing Escherichia coli O157, and foodborne pathogenic vibrios are particularly useful and extensive. The mycotoxin aflatoxin and scombroid fish poisoning, which is related to improper storage of fish, are covered in short chapters.

In addition to pathogen-specific chapters, the book covers a number of topical issues in food safety in special chapters dedicated to antimicrobial resistance,