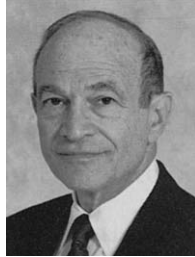


Preface

Antibacterial Therapy and Newer Agents



Donald Kaye, MD
Guest Editor

The discipline of infectious diseases is one of the most rapidly changing in medicine. In most specialties of medicine, diseases remain relatively stable, and diagnostic and therapeutic approaches evolve slowly. In infectious diseases, new syndromes occur with the emergence of new organisms, development of resistant organisms, and resurgence of infections that previously had all but disappeared. Clearly, the diagnostic and therapeutic approaches must also change rapidly. In no area of medicine does the knowledge and art of clinical practice change as rapidly as in the use of antimicrobial agents.

In 2000 I edited an issue of the *Infectious Disease Clinics of North America* entitled “Antibacterial Therapy: Pharmacodynamics, Pharmacology, Newer Agents.” During the years since that publication, there have been many new developments. Among these is the increasing emergence of antimicrobial-resistant bacteria. Pneumococci, enterococci, and gram-negative bacilli have continued to become increasingly resistant to existing antimicrobial agents. In addition, methicillin-resistant *Staphylococcus aureus* strains have spread to the community, and strains of *S aureus* with complete resistance to vancomycin have been isolated. There has also been the development of new beta-lactam antibiotics, fluoroquinolones, the ketolides, daptomycin and agents still in clinical trials. These new agents supplement existing beta-lactams, linezolid, quinupristin/dalfopristin and vancomycin in dealing with resistant bacteria.

This issue reviews various aspects of in vitro testing of antibacterial agents, pharmacokinetics, and pharmacodynamics. Problems with resistant bacteria as well as specific use of antibacterial agents in pediatrics, the elderly, central nervous system infection, and renal insufficiency are covered.

The current status and potential use of selected important older antibiotics are summarized. Newer antibiotics are described, as is the use of topical agents.

In choosing authors to address the different topics, an effort was made to select individuals who are experts in the areas assigned. Most of these authors also contributed to the 2000 issue. The end result of their efforts is a state-of-the-art review on the subject of the use of antibacterial agents and their interactions with bacteria.

Donald Kaye, MD
Department of Medicine
Drexel University College of Medicine
3300 Henry Avenue
Philadelphia, PA 19129, USA
E-mail address: donjank@aol.com