

Preface

Emerging Infections and Their Causative Agents



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Guest Editor

Why another issue on emerging infectious diseases? It seems that we hear the term constantly. There is a journal devoted to the subject [1], and international conferences [2] and symposia [3] are held yearly. A Google search yields approximately 122,000 “hits.” Furthermore, an earlier issue in this series has already addressed emerging infectious diseases [4]. What more is there to learn?

When asked to edit this issue, I considered what I, as a practicing clinical microbiologist and pathologist, would like in a single, user-friendly source. When I peruse the table of contents, it strikes me that just about anything can be considered an emerging infectious disease. This issue considers antibiotic resistance of the *Salmonellae* and the causative agent of Pogosta disease—quite a varied and at times overwhelming menu. When I turned to the previous issue of the *Clinics in Laboratory Medicine*, I found that it dealt with very specific infectious agents in great detail, both from clinical and research viewpoints. What I felt was needed was essentially a primer that looked broadly at this astronomically expanding field and helped bring a basic understanding of these diseases to the bench technologist, interested layperson, pathologist, or other clinician who does not specialize in infectious agents. Hopefully this issue successfully meets those needs.

The first article considers the many factors that underlie the emergence of new infectious diseases or the reemergence of known infectious agents. Church stresses the international nature of the threats posed by these diseases and the need to address them globally. Subsequent articles focus on specific groups of microorganisms. Diseases caused by *Staphylococcus aureus*, coagulase-negative staphylococci, and beta-hemolytic streptococci are considered by Elsayed and Laupland in the second article; many of these infections are well known to laypersons, toxic shock syndrome and “flesh-eating” bacteria in particular. In the third article, Church and Pitout cover the organisms associated with gastrointestinal diseases, which are responsible for major morbidity and mortality in developing nations. Next, the roles of intracellular pathogens—*Mycoplasma pneumoniae* and *Chlamydia pneumoniae*, *Ehrlichia* and *Anaplasma* species, and selected *Rickettsia* species—are described, with particular regard to chronic diseases, by Waites and Katz. The fifth article, by Herdman and Steele, covers the microbiology and clinical significance of the many “new” species of mycobacteria described or better appreciated in the past decade. In the next article, Procop and Roberts consider fungal infections in the immunocompetent and in the immunocompromised host, then address a number of medically important mold and yeast infectious agents. The seventh article, by Baddley and Moser, complements the previous article by describing current antifungal agents and known mechanisms of resistance to each, followed by a discussion of the usual susceptibility of yeast and molds of current and emerging clinical significance. In the eighth article, Christie and Garcia provide a thorough coverage of parasitic diseases common or endemic in the United States, in the developing world, in the blood supply, and in travelers to endemic areas. Su then tackles the emerging viral infections: severe acute respiratory syndrome, West Nile virus, hantavirus, influenza, and other less well-known viruses.

The final two articles complement the survey of the microbial world nicely. Fiebig and Busch consider the impact of emerging and other infections on the blood supply. The agents and risks of transfusion-transmitted viruses and the increasingly important issue of bacterial contamination of banked products are discussed in detail. Finally, Torres-Vélez and Brown give us a glimpse into what the future may hold for human infections by describing emerging infections in animals and the potential for new zoonoses in man.

Regretably, two articles could not be completed in time to be included in this issue. Missing are discussions of emerging bacterial resistance and emerging spirochetal infections. It is hoped that the interested reader will find adequate coverage of these topics in the microbiology literature or that a future issue will revisit the subject of emerging infectious diseases. To all the authors who completed their articles, I extend my sincere thanks and

appreciation. They have surpassed my hopes and I look forward to working with them in the future.

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