Preface

Since the last comprehensive issues of the Infectious Disease Clinics of North America dedicated to medical mycology, edited by Drs. Walsh and Rex in 2002, this field has continued to see major advances in new therapies, diagnostic tools, and strategies for treatment and prevention. Despite these encouraging developments, large numbers of patients are at risk for infectious diseases, and the epidemiology of invasive mycoses continues to emerge. The diagnosis of these infections remains difficult, and treatment outcomes in highly immunosuppressed patients remain poor. Thus, this issue is devoted to state-of-the-art updates on fungal infections by internationally recognized authorities in this field.

The initial articles, by Drs. Pappas and Chayakulkeeree and by Dr. Perfect, address recent advances in invasive candidiasis and in cryptococcosis, respectively. Invasive candidiasis is the most common nosocomial infection worldwide and has been the focus of outstanding clinical and basic research efforts to improve outcomes in this ubiquitous pathogen. Cryptococcosis remains an important cause of meningitis worldwide.

Infections due to molds, including aspergillosis, reviewed by Drs. Barnes and Marr, have emerged as major causes of morbidity and mortality in immunosuppressed patients. Other previously rare molds, like Fusarium, with distinct epidemiological features and management strategies, are discussed by Drs. Nucci and Anaissie. Drs. Kontoyiannis and Lewis review the importance of Zygomyces, which have been particularly recognized as emerging pathogens in recent years, and infections due to darkly pigmented fungi—the phaeohyphomycoses—are addressed by Dr. Revankar.
Infections due to endemic fungi, coccidioidomycosis, and other endemic organisms, remain important pathogens in specific geographic regions and can now be managed with a variety of treatment options, which are discussed by Drs. Anstead and Graybill and by Dr. Kauffman, respectively. The epidemiology, presentation, and management of mycoses in pediatric populations can be distinct, as outlined by Drs. Steinbach and Walsh. Dr. Andes reviews important pharmacokinetic and pharmacodynamic properties of the growing antifungal armamentarium. Finally, the role of the laboratory is discussed, in terms of susceptibility testing by Ms. Fothergill and Drs. Rinaldi and Sutton and the use of non-culture-based assays by Drs. Mennink-Kersten and Verweij.

We hope this volume will provide a timely, comprehensive, and practical guide for the diagnosis and management of invasive mycoses.

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