Preface

Pediatric Infectious Disease

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Guest Editors

This issue of the Infectious Disease Clinics of North America includes topics that are of current interest and importance in pediatric infectious diseases. We are delighted to have engaged a group of authors who are accomplished and widely published in each of their topics. It has long been recognized that from the medical standpoint, children are not simply small adults. Many diseases are specific to this age group, and illnesses that occur in both children and adults frequently have manifestations that are unique when they occur in the young. This is especially true for infectious diseases.

The topics discussed in this issue can be roughly categorized into three groups. The first describes the clinical appearance of emerging pediatric infections. Among these is Williams’ article on newly defined viral respiratory tract pathogens in infants and children. Most prominent among these is metapneumovirus, although severe acute respiratory syndrome and the Netherlands coronaviruses and avian influenza virus in children also are described. Dennehy extensively reviews viral, bacterial, and parasitic causes of pediatric diarrheal syndromes, which together prompt an enormous number of sick child visits in industrialized nations and which remain among the most frequent causes of mortality in infants in the developing world. Massei and colleagues collate the many protean manifestations of Bartonellosis in children, from typical cat-scratch disease to the more
unusual syndromes that are beginning to emerge now that the accurate
diagnosis of this infection is widely available. Kaplan presents recent data
on the explosive occurrence of community-acquired methicillin-resistant
*Staphylococcus aureus* in children and on the increasing breadth and severity
of this infection in pediatrics, drawing on his extensive personal experience
in Houston and data culled from other areas of the country.

Other articles concentrate on issues surrounding antimicrobial use in
children. The incidence of fungal infections in very low birth weight
newborns continues to increase as modern neonatal intensive care allows the
survival of infants of younger and younger gestational age. Benjamin and
colleagues offer the most current data on the use of the amphotericin
preparations and the newer azoles and echinocandins in this population.
Schaad discusses the use of quinolones in pediatrics, offering a reasoned
analysis of the strength of the data suggesting a connection between their
use and the incidence of arthropathy in young children, and describing their
application in selected pediatric populations. As in adult HIV infection,
highly active anti-retroviral therapy has transformed pediatric HIV
infection into a chronic disease in which the side effects of the therapies
often supercede the symptoms from the disease; Leonard and McComsey
review the small but growing body of data examining the effects of long-
term use of anti-HIV drugs in children. Finally, Markenson reviews the
treatment of agents of bioterrorism in children, highlighting the aspects of
these treatment schedules that differ from those applied to adults.

A third group of articles discusses epidemiologic issues pertinent to
pediatric infectious diseases. Few recent events in pediatrics have been as
important as the introduction of the conjugate pneumococcal vaccines in the
routine pediatric immunization schedule, but has it made a difference?
The review by Toltzis and Jacobs describes how this vaccine has changed the
epidemiology of invasive and noninvasive pneumococcal infection in young
children and their adult contacts. Asthma remains one of the most prevalent
causes of morbidity in pediatrics; the link between infectious bronchiolitis in
infancy and the incidence of reactive airway disease in later childhood has
been debated for over a decade. The article by Ruuskanen and colleagues
discusses the underlying pathophysiology that makes this association
credible and catalogs and critiques the many studies purporting to show
this connection. Coffin and Zaoutis offer a primer on infection control in
a pediatric hospital, emphasizing the differences between the epidemiology
and containment of nosocomial infections in children and adults.

These articles reflect many of the most topical issues that have appeared
in pediatric infectious diseases over the past several years. They frequently
draw together information that heretofore has not been presented or critiqued in a single publication. Together they should provide the reader with current information to confront some of the most important issues emerging in pediatric infections diseases today.

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