



Preface  
Asthma



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*Guest Editor*

Asthma prevalence and mortality have been increasing over the past several decades. During this time significant advances have occurred in understanding the pathogenesis of asthma and improvements have been made in the treatment for this common condition. This issue of the *Medical Clinics of North America* aims to assist the practicing physician in providing the best possible care for asthmatic patients. It is hoped that further advances can lead to reductions in morbidity and mortality from asthma.

Of the topics in this issue, the pathogenesis of asthma provides a foundation for the understanding of the treatment of asthma. Both environmental and genetic factors contribute to the development of asthma and its severity. Although a specific gene associated with asthma has not yet been identified, significant advances in the understanding of genetic factors in this disease are occurring at a rapid pace. Environmental factors play a significant role in the pathogenesis of asthma in adults. This can occur both in the workplace and in the home. Specific approaches to the evaluation and management of occupational asthma are presented. A fundamental, but often overlooked, approach to the treatment of asthma includes reducing exposure to allergens, which are important contributors to the chronicity of this disease. Methods to reduce or control environmental exposures to some of these common allergens are discussed.

Pharmacotherapy remains the center of asthma research. New long-acting beta-agonists have enhanced the armamentarium of physicians caring for asthma patients and are discussed in detail. A new class of medications, leukotriene modifiers, has supplemented more traditional asthma therapies,

and they can play a significant role in the management of selected patients. Because airway inflammation is a basic part of the asthma process, inhaled corticosteroids and oral corticosteroids in more severe cases represent one of the most effective treatments available. Despite new treatments, some patients may continue to have difficulty in managing asthma. Approaches to these challenging patients are presented in the article on refractory asthma.

Because the immune system is central to the pathogenesis of asthma, immunomodulatory therapies are discussed. Traditional immunotherapy, although controversial, has been shown to be effective in the management of selected patients. Because traditional immunotherapy entails the risk of anaphylactic reactions, new therapeutic modalities have been developed that may soon enter the clinical arena. Among these is anti-IgE that uses monoclonal antibodies to reduce circulating and mast cell bound levels of IgE. Several clinical studies have shown benefits of this treatment. Additional developments include DNA-based vaccines, which have successfully skewed the Th2 immune response to a Th1 response in both animals and human trials. Anticytokine therapy directed against molecules involved in the asthma diathesis has also been investigated and holds promise for the future. Clearly, we are entering an exciting new era of research that holds great promise for patients.

I wish to thank the contributors to this issue of the *Medical Clinics of North America* for their dedication both as clinicians and as research scientists. Their contributions will ensure continuing progress toward the treatment of this common clinical condition.

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