



Editorial

Evolving paradigms for asthma management



It may be just me, but it seems that lately, rarely a day goes by that I am not seeing in print or online, or hearing in conversation, something new about asthma management. This information may relate to pathophysiology, environmental influences, diagnosis, phenotypes, endotypes, and, of course, the ever-increasing complexity of management decisions. These decisions are impacted by so many factors that can lead to frustration and even indecision at times—questions such as, “How severe is this patient’s asthma?” or “What biologic does this asthma patient need?” or even “Does this patient really need a biologic?”

This month’s issue of the *Annals of Allergy, Asthma and Immunology* features an emphasis on asthma and has several articles that address many of these topics. We have 3 perspectives that address problems commonly seen in both community and academic allergists’ offices when faced with a sick patient with asthma. The first offers a perspective about the line between worsening of asthma severity and actual acute exacerbation.¹ The authors provide an excellent case for the need for a uniform, widely accepted definition of *exacerbation*. There is discourse about whether clinical symptoms should be included in the definition of exacerbation. The latest Global Initiative for Asthma guidelines do include symptoms, but a recent National Institutes of Health definition focuses the definition on a need for systemic steroids (or increased dose, if already on systemic steroids). Careful consideration of the arguments made in this article will be useful to the clinician caring for these sick patients.

The second perspective addresses the issue of choosing the right biologic to improve asthma control, using precision medicine principles.² Unfortunately, no clinically accepted genetic biomarkers exist for selecting a specific biologic for a specific asthma patient. What is more typically relied on are such measures as serum immunoglobulin E levels of peripheral blood eosinophil counts. Other serum biomarkers have been proposed but have not gained widespread use among practicing clinicians because of availability and predictability issues. Understandably, attention is often turned to more patient-centered factors to make final selections. Factors such as home administration, dosing frequency, and route of administration, as well as financial factors such as insurance coverage or dosing copayments, often carry as much importance in this decision-making process as the clinical science for each product. This article provides a thought-provoking approach to this challenge for us and our patients.

The third perspective addresses challenges in medical management unique to children with asthma.³ These authors propose that lack of adherence to medical management plans is all too common in children, and they propose adoption of policies that address improvements in choice, use, and adherence to medical management programs for these pediatric asthma patients. The authors identify a number of common barriers to effective medical management, such as even access to medications for many children as well as lack of access to asthma specialists. The authors propose that we (as clinicians who care for these children) advocate for policies that will help with the socioeconomic and financial issues that plague so many of these children. This can include such measures as using generic medications, limiting formulary changes, and demonstrating cost effectiveness of better access to medical therapeutic choices.

This issue of the *Annals* also includes 3 review articles related to asthma. The first article reviews the now vintage concept of the yellow zone in asthma severity/control.⁴ Many of us remember when this concept was introduced more than 30 years ago and how it has become less used as fewer and fewer asthma patients routinely use and record peak flow readings. The authors point out that multiple “yellow zone” therapies exist and are differentially used based on patient age, specific agent to be used (eg, short-acting bronchodilators vs antileukotriene drugs) for exacerbation (or to prevent exacerbation), and the new ideas associated with dynamic dosing. This article provides an excellent overview of the strengths and limitations of the various yellow zone strategies and challenges the reader who cares for these patients to be willing to personalize yellow zone therapies for individual patients—something that can and should be done for all of our patients with asthma.

Another review article emphasizes the impact of viral infections on the clinical course of asthma and resulting therapeutic decisions, particularly in infants and children.⁵ The authors provide a comprehensive review of early rhinovirus infection, which likely plays a role in the inception of asthma as well as having an adverse impact on exacerbations. They point out that rhinovirus appears to have a significant risk factor only when atopy is present, whereas respiratory syncytial virus is more important in nonatopic asthma. These data have great potential in both assisting our understanding of different pathophysiologies between atopic and nonatopic asthma and possibly increasing our ability to develop better therapies, particular for patients, both children and adults, with nonatopic asthma.

The continuing medical education review article for this month discusses the management of the asthma–chronic obstructive pulmonary disease (COPD) overlap (ACO) patient.⁶ This article reviews the available data on ACO in terms of

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disease severity compared with patients with pure asthma or COPD. It further describes the spectrum of the ACO presentation from more asthma to more COPD and offers an approach to management of these patients. The authors point out that evidence of effective therapies for this patient population is largely anecdotal, because such patients are often excluded from clinical trials for either new asthma or new COPD therapies, because, by definition, these patients have both irreversible and reversible components to their airway obstruction. Given the severe nature of their airway disease, these patients must be aggressively and comprehensively treated as early as possible. This article gives very useful and pragmatic information about diagnostic and therapeutic considerations in the effective management of these patients.

The effective management of asthma is multifactorial, and careful assessment is needed to provide optimal strategies and approaches to achieve best care scenarios for our patients with asthma. This will include the intentional effort to keep abreast of the latest developments that build on current knowledge. This month's issue of the *Annals* is a good place to start.

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