

do not protect against aspirin challenge if one titrates the aspirin dose upward.<sup>4-6</sup> These studies showed that just the threshold dose of aspirin is altered, and it is still considerably below the standard dose of 325 mg in adults. Further, in the discussion of its use as adjunctive therapy with inhaled corticosteroids, the studies that have demonstrated greater efficacy of the long-acting  $\beta_2$  agonists as adjunctive therapy were left out of the references.

The chapter on theophylline and phosphodiesterase inhibitors covers much of the same territory covered in previous reviews by the same author. The discussions of the airway anti-inflammatory effects of theophylline are interesting, yet the clinical importance is still unknown, particularly when the selective phosphodiesterase 4 inhibitors (given short shrift at the end of the chapter), which are relatively selective for the anti-inflammatory activity, have shown little to no clinically important activity in asthma. On page 156 the author equates the addition of theophylline to inhaled corticosteroids similar to that of long-acting  $\beta_2$  agonists, yet studies show that it is no more effective than doubling the dose of inhaled corticosteroids, whereas the addition of long-acting  $\beta_2$  agonist generally provides better efficacy than doubling the inhaled corticosteroid dose. The statement on page 152 that theophylline can completely block exercise-induced bronchospasm is not supported by the referenced study, which shows that some patients with that level have no blocking effect. Other statements about theophylline attenuating exercise-induced bronchospasm are more accurate.

The sections on toxicity and pharmacokinetics are well written concise reviews of these topics. However, the author downplays the potential adverse effects and toxicities—a view not necessarily shared by others; the potential for serious toxicity is the main reason theophylline is seldom used anymore.

The chapter on the chromones, cromolyn and nedocromil, extensively reviews the basic mechanisms and the various in vitro and in vivo findings on inflammatory cells and mediators, and the chapter puts these findings in proper perspective by pointing out the limited efficacy in clinical asthma, compared to the inhaled corticosteroids. In section 7-VIII, "Allergen Challenge Clinical Trials," the authors discuss effects on other challenges, such as exercise and sulfur dioxide. On page 210 the authors reverse ref-

erences 98 and 99. On page 215 the authors state there has been only one study that compared nedocromil to inhaled corticosteroids, but then they discuss the Childhood Asthma Management Program (CAMP) trial,<sup>7</sup> which, although not designed as a double-dummy study, was a parallel trial that compared nedocromil and budesonide to their respective placebos, and so provided the best available perspective on how each compared to placebo over an extended period.

The chapter on omalizumab, which is the newest therapy for asthma, is very good. However, all of their selected figures reference the paper by Milgrom et al<sup>8</sup> that suggested that omalizumab is as effective in children as in adults, although the FDA thought the data insufficient to warrant an indication in children. Dykewicz wrote an excellent chapter on the broad category of alternative treatments. The balance between mechanisms and actual clinical efficacy is very valuable.

The final 2 chapters, on out-patient and in-patient asthma management, could also be called beyond the guidelines, as they address data more recent than the publication of the guidelines. They both provide balanced perspective on the potential therapies, and the chapter on in-patients provides some excellent information on asthma treatment in the intensive care unit that is missing from the guidelines.

In conclusion, the strength of this text is its discussion of the basic pharmacology mechanisms of asthma drugs. All of the authors wrote concise, easy-to-understand sections on complicated information. However, in a number of chapters the authors' zeal for certain therapies prevented a balanced discussion on how the basic mechanisms translate into relative efficacy. Thus, my recommendation about this book is limited to those interested in knowing the basic pharmacology for the specific chapters and reading the first and last 2 chapters for perspective on each of the agents for the general treatment of asthma.

#### H William Kelly PharmD

Department of Pediatrics  
University of New Mexico  
Albuquerque, New Mexico

The author reports no conflict of interest related to the content of this review.

#### REFERENCES

1. Murphy S, Roberts R. "Black box" 101: how the Food and Drug Administration

evaluates, communicates, and manages drug benefit/risk. *J Allergy Clin Immunol* 2006;117(1):34-39.

2. Nelson HS, Weiss ST, Bleecker ER, Yancey SW, Dorinsky PM; SMART Study Group. The Salmeterol Multicenter Asthma Research Trial: a comparison of usual pharmacotherapy for asthma or usual pharmacotherapy plus salmeterol. *Chest* 2006; 129(1):15-26. *Erratum in Chest* 2006; 129(5):1393.
3. US Food and Drug Administration. Medical officer review. Provided for meeting of Pulmonary-Allergy Drugs Advisory Committee, July 13, 2005. <http://www.fda.gov/ohrms/dockets/ac/05/briefing/>. Accessed March 11, 2006.
4. Pauls JD, Simon RA, Daffern PJ, Stevenson DD. Lack of effect of the 5-lipoxygenase inhibitor zileuton in blocking oral aspirin challenges in aspirin-sensitive asthmatics. *Ann Allergy Asthma Immunol* 2000;85(1):40-45.
5. Stevenson DD, Simon RA, Mathison DA, Christiansen SC. Montelukast is only partially effective in inhibiting aspirin response in aspirin-sensitive asthmatics. *Ann Allergy Asthma Immunol* 2000;85(6 Pt 1):477-482.
6. Berges-Gimeno MP, Simon RA, Stevenson DD. The effect of leukotriene-modifier drugs on aspirin-induced asthma and rhinitis reactions. *Clin Exp Allergy* 2002;32(10): 1491-1496.
7. The Childhood Asthma Management Program (CAMP): design, rationale, and methods. Childhood Asthma Management Program Research Group. *Control Clin Trials* 1999;20(1):91-120.
8. Milgrom H, Berger W, Nayak A, Gupta N, Pollard S, McAlary M, et al. Treatment of childhood asthma with anti-immunoglobulin E antibody (omalizumab). *Pediatrics* 2001;108(2):E36.

**Allergy and Asthma in Modern Society: A Scientific Approach.** Reto Cramer, editor. *Clinical Immunology and Allergy* series, volume 91. Basel: Karger. 2006. Hard cover, illustrated, 224 pages, \$167.25.

**Allergy and Asthma in Modern Society: A Scientific Approach** is volume 91 in this series. The editor selected some of the best in their field to write the book's 18 chapters, which include such timely topics as environmental factors that influence allergy and asthma (Platts-Mills, Erwin, Woodfolk, and Heymann), the immunologic basis of the hygiene hypothesis (Renz, Blümer, Virna, Sel, and Garn), the role of T lymphocytes in asthma (Kay), allergic manifestations of skin diseases (Breuer, Werfel, and Kapp), allergic conjunctivitis (Bonini), and fungal allergies (Cramer,

Weichel, Flückiger, Glaser, and Rhyner). These will all appeal to the clinician, nurse, and technician. They are well written and timely chapters that will help in the clinical management of patients. In the chapter on the hygiene hypothesis, the sections on environmental factors and the role of infections driving the atopic phenotype will be of special interest to those in the clinic. Also, the chapters on allergic conjunctivitis, atopic dermatitis, and the often-forgotten fungal allergies will be of interest.

However, the majority of chapters focus on research and basic science, including "Molecules Involved in the Regulation of Eosinophil Apoptosis," "Skin-Homing T Cells in Cutaneous Allergic Inflammation," "Structural Features of Allergenic Molecules," "Regulation of Human T Helper Cell Differentiation by Antigen-Presenting Cells: The Bee Venom Phospholipase A<sub>2</sub> Model," and "Regulation of the IgE Response at the Molecular Level: Impact on the Development of Systemic Anti IgE Therapeutic Strategies." Although these chapters on immunologic mechanisms are necessary for a more profound understanding of the underlying pathophysiology of allergic diseases, there is little in the book that will help the patient today or the clinician seeking clinically useful information. Therefore, most nurses and technicians will not find much of this book helpful in their current clinical care responsibilities. Only a few chapters have sections on treatment, and much of this is at a basic level—offering very little that is new that can be applied to patient care today. Nevertheless, this book covers many current topics well and will appeal to physicians and researchers who have only a very fundamental knowledge of the topic. For more depth the reader will need to find other resources, which, fortunately, is made easier by this book's very adequate reference lists at the chapter ends.

I am disturbed by the cost of medical texts, which in almost all cases seems to me expensive and perhaps excessive. For example, this book, which has 224 pages, sells for \$167.25, which, even if justifiable based on the expense of publication, might keep important information out of the hands of those who do not have easy access to medical libraries or who are interested in only a few chapters of the volume. Authors expend much effort in researching, writing, and editing their chapters, often with little or no compensation. It must be disappointing to find that their efforts have reached a

very small readership because of the price of books in our field.

**James P Kemp MD**  
Allergy and Asthma Medical Group  
San Diego, California

The author reports no conflict of interest related to the content of this review.

**Asthma in the Workplace**, 3rd edition. I Leonard Bernstein, Moira Chan-Yeung, Jean-Luc Malo, and David I Bernstein, editors. Boca Raton, Florida: Informa/Taylor & Francis. 2006. Hard cover, illustrated, 875 pages, \$249.95.

This is the third edition of **Asthma in the Workplace**, which remains an exhaustive reference textbook on all aspects of this topic. The title page also includes the phrase "and related conditions," since chapters on the upper airways, urticaria, and other non-asthma conditions are included.

Part 1 covers "general considerations" and includes most of the basic science topics, such as epidemiology, genetics, pathophysiology, and animal models. The sections on genetics have been expanded to include new research on association studies with asthma. The chapter on animal models is expanded and updated as well.

Part 2, "Assessment and Management," includes chapters on clinical evaluation. Practical features of the clinical assessment chapters include typical patient case presentations at the beginning and discussions at the end of the chapters. The medico-legal aspects of workplace asthma are dealt with in this part.

Part 3, "Specific Agents Causing Occupational Asthma With a Latency Period," discuss agents such as enzymes, wood dusts, metals, and baking industry substances. The title of the section differentiates these agents from "nonallergic" agents, which are discussed in the next section.

Part 4, "Specific Disease Entities and Variants," tackles a number of asthma variants and respiratory conditions that do not fall into the strict definition of occupational asthma, including reactive airways dysfunction syndrome and hypersensitivity pneumonitis. There are useful chapters on building-related illnesses, upper-airway conditions, and occupational urticaria. A new addition in this edition is the chapter on work-exacerbated asthma.

The editors state that most of this book is aimed toward primary care physicians, occupational health specialists, allergists, and

pulmonologists, while specific chapters will also be useful to workers' compensation administrators, insurers, and lawyers. As a reference text, most of the chapters offer in-depth, comprehensive, and extensive reviews. However, respiratory therapists and technicians will find the clinical discussions very useful and the basic science sections interesting and an excellent resource.

The editors are leading, internationally recognized authorities on occupational asthma, and they co-authored many of the chapters with other experts. Previous editions of this book were considered a definitive resource on workplace asthma. Overall, the chapters are well written and readable. However, this book is not for the casual reader looking for quick, short overviews. The chapters are extensive, comprehensive, and well-referenced with recent literature. As in previous editions, the chapters on specific agents probably provide the most current research updates to be found in textbooks. The paragraphs on future research directions, at the end of the chapters, are helpful.

Primary care physicians and specialists will find the case presentations and discussions in the clinical chapters helpful in patient care. Especially welcome is the new chapter on work-exacerbated asthma, which reviews the literature on pre-existing asthma worsened at work, and will help practitioners recognize and differentiate this condition from "true" occupational asthma.

The chapter on medico-legal aspects provides a detailed survey of the legal climate of and compensation system for occupational asthma in the United States and around the world. There is even a table of the systems and compensations in 17 countries around the world. This is an invaluable resource for physicians who deal with occupational asthma in today's litigious world.

The book contains only a few paragraphs on molds, in the chapters on high-molecular-weight protein agents and building-related illnesses. An expanded section or chapter on the respiratory and other effects of mold exposure would have been timely, in light of the sensational and often misleading reports that have proliferated in the media and Internet in recent years. The primary care physician would probably expect a text entitled **Asthma in the Workplace** to deal with the mold issue more extensively, since respiratory symptoms are among the most common complaints with molds. A comprehensive review of the scientific data