

Pharmacology and Therapeutics of Airway Disease, 2nd edition. Kian Fan Chung and Peter J Barnes, editors. *Lung Biology in Health and Disease* series, volume 234. Claude Lenfant, executive editor. New York: Informa Healthcare. 2010. Hard cover, 400 pages, \$249.95.

The long running *Lung Biology in Health and Disease* series has published, including this volume, 234 monographs, ranging from acute respiratory distress syndrome and asthma to sleep dysfunction as it relates to breathing. This volume, **Pharmacology and Therapeutics of Airways Disease**, edited by Chung and Barnes, includes 27 contributors for the 16 chapters. Chung and Barnes's first edition, *Pharmacology of the Respiratory Tract*, has undergone a name change; however, the new edition covers more clinical and therapeutic approaches than the first. The first edition described basic research that was developing in the treatment of lung dysfunction. At that time it was important, as there was a huge interest in pharmacology for the lung, and the monograph included over 800 pages. This new edition is much more focused and compact, at 400 pages, delivering the most updated information on asthma and COPD.

The book's 16 chapters are divided into 3 categories. Part 1, Principles and Practice, describes airway pharmacology in terms of the action of drugs and target cells, to better understand the mechanisms of action used to treat airway disease. Discussion continues in other chapters, describing clinical trials in asthma and COPD, to include information on how treatments work and more novel clinical designs in the development of new therapies to treat these diseases. A review of current and novel drug delivery devices rounds out the section as it describes inhalation devices from Europe and North America, as well as deposition to the lung. One of the more interesting sections contains information regarding radionuclide imaging, which allows the visualization of inhaled drug particles that have been radiolabeled. Researchers conducting radiolabeled aerosol studies have been able to convey more strongly the outcomes of their findings with detailed color photographs describing the particles in the lung.

Part 2, Drugs in Respiratory Disease, describes the pharmacologic control of pathophysiological processes in the airway. The majority of the discussion covers well known asthma and COPD pharmacology. The expected drug categories—inhaled corticosteroids, bronchodilators, anti-allergic, and anti-mediator therapy—are well covered with up-to-date studies. In perhaps the most interesting chapter in this section, Chung writes about new anti-inflammatory therapy that is currently being studied to find and treat specific targets in the body and airway. This section does not discuss each agent available in detail. It does discuss the drug category as a whole and its relationships with the human body.

Part 3, Therapeutics and Treatment Approaches, covers treatment and management of asthma and COPD exacerbations, as well as stable and chronic asthma and COPD. A chapter on airway remodeling reviews the physiology and clinical changes in the airway, although most of the information collected discusses only remodeling of the airway as it pertains to asthma.

This book is an excellent reference for individuals conducting research on the pulmonary system, especially asthma and COPD. Few individuals will read this book in its entirety; however, it is a book that assimilates the most current information on lung biology with good information on new and future drug trials and the management of lung disease. Most of the discussion on management and treatment of asthma and COPD can be found in their respective guidelines (the Global Initiative for Asthma [GINA]¹ and the Global Initiative for Chronic Obstructive Lung Disease [GOLD]²).

Advantages of the text include the editors and the contributors. Most are well known scientists who have done extensive research on the topic. Each chapter contains a surplus of references, many that have been updated. The book does not have an overabundance of tables or figures, which would be seen with more traditional textbooks in respiratory care. The figures that are present are all black-and-white, which may be difficult to comprehend due to their printed size and complexities. Although the book is well written and contains information con-

cerning the most treated disease states in respiratory care, it is not an all-encompassing text on pharmacology. Another critique to consider is that the book discusses medication, therapy, and devices from both Europe and the United States. For me this is welcomed information, as I consider what may be utilized in Europe could be on the horizon in the United States. However, this may be confusing to some readers who are concerned with what is occurring only in the United States market.

Pharmacology and Therapeutics of Airway Disease is an excellent source of information, especially to individuals and departments conducting research in pulmonary pharmacology and those wanting access to a long list of reference materials.

Douglas S Gardenhire MSc RRT

Division of Respiratory Therapy
School of Health Professions
Georgia State University
Atlanta, Georgia

Mr Gardenhire is the author of *Rau's Respiratory Care Pharmacology*, 7th edition (2008).

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