

and P_{aO_2} values are given in both kPa and mm Hg.

Taken in total, this atlas is well written and organized in an easy-to-use format. It covers the latest basic science and provides very practical and comprehensive clinical information. It is therefore a practical reference on COPD for a diverse readership, from respiratory therapy students to experienced specialists.

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Tobacco Dependence and COPD: A State-of-the-Art Series. (Reprint of the 'Thematic Review Series' published in *Respiration*, volume 68, 2001, and volume 69, 2002). Basel, Switzerland: S Karger. 2003. Soft cover, illustrated, 96 pages, \$24.50.

This soft-cover book is a reprint of 14 thematic review articles published in the journal *Respiration* in 2001 and 2002, on tobacco dependence and chronic obstructive pulmonary disease (COPD). The authors are well known European and American physicians who are experts in their fields. The book is in 2 sections: the first 7 articles address epidemiology, pathogenesis, management, and advances in COPD, and the final 7 articles address smoking-cessation, addiction, and future advances in treating tobacco dependence. The articles were intended to promote interest and provide information to the readers of *Respiration*. A few of the articles contain advanced content that may be difficult reading for some allied health professionals, but overall the articles provide a very good resource for physicians, respiratory therapists, nurses, and health care workers who assist in providing COPD education or smoking cessation.

The initial article, by Gustafsson, "The World Galloping Into Breathlessness," aptly summarizes the review series. He clearly makes the point that much is known about COPD and smoking cessation, yet much remains to be discovered. This is particularly important because of the delayed effects of cigarette smoking on the health care system: many of today's smokers will be lung-disease patients in the coming decades.

The next 2 articles describe the epidemiology and pathogenesis of COPD. These 2 reviews provide an outstanding summary of current data on COPD. The information in both articles is clearly presented and augmented well with graphs, charts, and pictures. These 2 articles are an excellent resource for COPD information.

The fourth article, "How and Why Exercise is Impaired in COPD," forwards the somewhat controversial view that COPD exercise is more limited by leg fatigue than dyspnea. The information is well presented and supplemented nicely with graphs and charts. My only argument with the chapter is that many of the studies that reported leg fatigue as the main limiting factor during maximal exercise testing used on bicycle ergometry,^{1,2} and bicycling may not be as relevant to daily living skills. A recent study by Man et al³ compared limiting factors during a walking test with COPD patients and found that breathlessness limited walking in 81% of patients tested, whereas leg fatigue limited 34%. A comparable test by Killian et al¹ on a cycle ergometry found limiting factors of 26% dyspnea versus 43% leg fatigue. I believe further study is needed to adequately determine the specific causes of exercise limitation in patients with COPD.

The article, "Management of COPD: Surgical Options," briefly reviews lung-volume-reduction surgery. Unfortunately, at the time the article was published, its author did not have the benefit of the (recently published) National Emphysema Treatment Trial, so more recent information on lung-volume-reduction surgery can be readily found.⁴ Nevertheless, the article's information is clearly presented and useful. I would have suggested including more information on lung transplantation, which, though limited by resources and availability, is still a viable surgical option.

The final 2 reviews cover COPD future advances and perspectives and summarize current thoughts on the potential to identify COPD and improve treatment. These chapters are clear and easily understandable. There are few graphs or diagrams but in this context there is little need.

Guest editor Karl Fagerström initiates the second half of the review on smoking cessation with his chapter, "What Is New With Tobacco Dependence," which provides a concise summary of the remaining articles on tobacco treatment, cessation, and future advances. I enjoyed the comparison that if 80% of all lung cancer and COPD cases

were created by a biological factor, such as alpha-1 antitrypsin deficiency, how many resources would we expend to find treatment? Should nicotine dependence, which is considered more of a psychosocial phenomenon, afford the same kind of treatment? It's an interesting point which begs for more thought.

The ninth article is "The Neurobiology of Tobacco Dependence: A Commentary," by Balfour, which is an excellent review of neurological response to nicotine. While doing research on smoking cessation for a recent article in *RESPIRATORY CARE*, I reviewed numerous articles on the neurology of nicotine dependence, but I could have saved much time by starting with Balfour's review. His commentary is concise and straightforward. Illustrations would have augmented the discussion, but overall the lack of illustrations did not diminish the quality of the review.

Computerized smoking-cessation assistance is the topic of "Using New Information Technology to Treat Tobacco Dependence." Information technology can assist in smoking cessation, but, as the author acknowledges, such computer assistance is limited to those who have computer access and know how to use computers.

The chapter "A Vaccine for Nicotine Dependence: Targeting the Drug Rather Than the Brain," reviews this exciting new research topic. The objective of the vaccine is to blunt the effects of nicotine on the "reward system." The author concludes that a vaccine for nicotine dependence may be helpful but clearly requires many accompanying therapies for smoking cessation (eg, counseling and medications). In this chapter it might have been helpful to use graphs or charts. Overall this review succeeds in providing a clear understanding of a complicated subject.

"Smoking During Pregnancy: A Way to Transfer the Addiction to the Next Generation?" is the next chapter. It discusses the neurobiology of the transference of nicotine from a smoking mother to an in utero fetus. It is clear that smoking mothers should be encouraged to quit, to prevent risk of low birth weight or preterm delivery. Further evidence demonstrates a relationship between prenatal exposure to smoking and behavioral problems such as attention deficit, hyperactivity, learning disabilities, and tobacco dependence later in life. These relationships are well referenced and convincing, though the authors correctly note that there are other

confounding factors that may account for behavior (eg, socioeconomic background, genetics, education).

"Achieving Tobacco Cessation: Current Status, Current Problems, Future Possibilities" provides a quick summary of smoking cessation techniques. There are many more complete sources for current cessation strategies, such as the United States Public Health Department's clinical practice guidelines for treating tobacco use and dependence,⁵ but this review provides an adequate summary and references. The chapter notes that combination therapies seem to confer the most benefit, but relapse rates remain high. Most interesting was the discussion of a genetic basis for nicotine addiction. New studies regarding future trends seem to show some promise, but unfortunately there is still much to be learned.

The final article covers the controversial area of "Smoking Reduction for Smokers Not Able or Motivated to Quit." I thought this article was an excellent and well-balanced summary of the pros and cons of smoking reduction. There is limited evidence comparing smoking reduction and complete smoking cessation. This chapter included no graphs or charts, but I didn't think they were necessary. The author clearly presents existing data on smoking reduction and describes what future research is needed, but he correctly points out that the ultimate goal remains smoking cessation.

As an allied health professional involved in out-patient pulmonary education, I am always looking for information that allows me to increase my knowledge of COPD and smoking cessation. I found these reviews to be a very good source of information for providers interested in tobacco dependence and COPD.

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Pharmacotherapy in Chronic Obstructive Pulmonary Disease. Bartolome R Celli, editor. (Lung Biology in Health and Disease, Volume 182, Claude Lenfant, executive editor.) New York: Marcel Dekker. 2004. Hard cover, illustrated, 354 pages, \$99.75.

This 354-page book is a summary of current pharmacologic treatment of chronic obstructive pulmonary disease (COPD). The book is primarily intended for clinicians and researchers interested in important clinical outcomes in COPD and how specific drugs relate to those outcomes. The book will help the reader understand and evaluate pharmaceutical trials, the choice of outcomes, and the potential benefits of various COPD medications.

The book has 17 concise chapters, divided into 2 sections. The first section is on how to define, measure, and select outcomes for pharmacologic COPD studies. The second section, which is more relevant to therapists, nurses, and physicians, describes the effect of specific categories of medications on clinical outcomes.

After an introductory chapter, the first section consists of 10 chapters that provide an excellent overview of physiologic measures, symptoms, health status, and clinical outcomes such as exacerbations and hospitalizations. The contributing authors are experts with extensive experience in their fields. The book begins with a discussion of physiologic measures such as the expiratory airflows and lung volumes used to assess response to COPD therapy. The discussion covers reversibility of bronchoconstriction

and airway hyperreactivity. Subsequent chapters describe other physiologic markers of disease severity that are not as widely used, such as gas exchange, nocturnal hypoxemia, and exercise testing. The book describes the latter objective physiologic markers, but one of the book's strengths is its recognition that more subjective and patient-based variables, such as sensation of dyspnea and the patient's feelings about his or her own health status, are being more frequently used as outcomes in studies of COPD medications. Because current COPD drugs do not dramatically alter the course of disease progression (as measured with spirometry), the book emphasizes that the effect of medications on patient-based measures, such as symptoms or health status, may be as important to patients and providers as is change in forced expiratory volume in the first second.

The chapters on exercise testing and dyspnea give a very helpful discussion of the relationship between physiologic measures of hyperinflation, self-reported dyspnea, and instruments designed to measure shortness of breath. A chapter on health status briefly outlines the rationale for using measures of quality of life or health status in COPD, describes the instruments that have been developed (eg, Saint George's Respiratory Questionnaire and the Chronic Respiratory Questionnaire), and describes the use of those instruments to assess pharmacologic response to COPD drugs.

There is a useful chapter on COPD exacerbation, which is increasingly recognized as an important clinical outcome that has implications regarding optimizing quality of life, preventing hospitalization, and minimizing preventable health care utilization. After defining exacerbations the chapter briefly discusses the medications used to prevent and treat COPD exacerbations. The chapter on the genetics of COPD is interesting but seems out of place because it summarizes the methods used to identify candidate genes for the development of COPD and potential therapeutic implications.

The second half of the book consists of 6 chapters that overview research on specific drugs to treat COPD, including anticholinergics, β -adrenergic receptor agonists, theophyllines and other phosphodiesterase inhibitors, corticosteroids, antioxidants, and protease inhibitors. Each chapter discusses the rationale for the drug's use, the mechanism of action, and adverse effects, and provides a limited discussion on the effec-