The book is illustrated with color images, which are clear, visually appealing with striking but soothing colors, and helpful (though small, in the context of a small-format book). The histologic micrographs and radiologic images (chest radiographs and computed tomograms) are well rendered.

From the perspective of the RT reader, the book is again concise and thorough but contains both more information than might be needed for the RT clinician and some information that might be beyond reach and relevance (eg, the discussions of the regulation of serpin synthesis and some of the molecular biology). In this regard, the book might well find a place in the library of RT teaching or training programs as a reference rather than a regularly read resource, especially since a reader seeking the most up-to-date information will consult the medical literature directly, given the inevitable delays between manuscript finalization and publication of a book.

Recognizing the many strengths of this book and its great usefulness as a contribution to the field and to the libraries that respiratory clinicians use, several shortcomings warrant mention. First, as expected, and as is unavoidable for a book that summarizes a field in which new information continues to emerge at a relatively rapid pace, some late-breaking information about AAT deficiency is not included. This is perhaps more evident in the sections on therapy than in those on clinical presentation and diagnosis. For instance, the discussions on lung-volume-reduction surgery and gene therapy do not include the latest, emerging information or references (eg, current gene therapy trials underway at the University of Florida).

Second, the critical reader may quibble about some small details in this book, such as the statement on page 18 that initial pulmonary symptoms include "massive sputum production," which is not the case in my experience and is not part of the classical description of AAT deficiency, or the statement on page 17 that "for clinical symptoms to manifest, the alleles inherited from both parents must exhibit a defect." Though in that statement the authors are probably discussing the pulmonary manifestations of AAT deficiency (about which the statement is largely correct), the statement overlooks the fact that patients who are PI*MZ heterozygotes (who have only a single abnormal allele) may develop cirrhosis on the basis of AAT deficiency. Indeed, that fact is recognized elsewhere in the book. Other quibbles could be made about editing errors, which are few but present. For example, on page 40, "the emphysematous changes in the lungs have been contributed [should be "attributed"] to the lack of antiproteolytic capacity."

Certainly, these and other small quibbles, and the fact that the book does not cite the latest-breaking information, should not obscure the overall impression that this book is a very useful addition to the literature and will be a valued resource for the respiratory clinician. Its conciseness is appealing to all those who have too much information to absorb and therefore desire a single source of organized information. Finally, the book will be a useful reference addition to libraries that regard themselves as having complete respiratory collections.

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Cystic Fibrosis, 3rd edition. Margaret Hodson, Duncan Geddes, and Andrew Bush, editors. New York: Oxford University Press/Hodder Arnold. 2007. Hard cover illustrated, 503 pages, $198.50

Cystic fibrosis (CF) is a common genetic disorder caused by mutations in the cystic fibrosis transmembrane conductance regulator (CFTR) gene. The clinical phenotype is characterized by progressive damage to organs that express CFTR, with particular involvement of the lungs, pancreas, and hepatobiliary system. Median survival is into the mid-thirties, with over 90% of CF patients dying of respiratory failure. Life expectancy of CF patients has improved substantially because of aggressive treatment delivered by multidisciplinary CF teams in dedicated CF units.

This third edition of **Cystic Fibrosis** is a comprehensive textbook, with 34 chapters written by 66 experts, covering all aspects of CF. It has been extensively updated since the 2nd edition (published in 2000), with the addition of a third editor, which reflects the dramatic and rapid changes in the understanding and management of CF over the past decade. The 3rd edition includes new chapters on sexual and reproductive health, palliative care, and lung transplantation, and the book is aimed at all providers of adult and pediatric CF care, including trainees, nursing staff, dietitians, physiotherapists, respiratory therapists, psychologists, and social workers.

The book has 7 sections. The first section gives an introduction to CF and a brief review of CF history and epidemiology. The chapter on the history of CF will be an enjoyable read for all CF care providers; it reviews all the major medical and research advances, broken down by decade, since Anderson first described CF in the 1930s. The detailed review of CF epidemiology includes up-to-date information on the incidence, clinical features, demographics, and survival/prognosis, as reported by international registries and epidemiological studies.

The second section has 4 chapters, each of which describes a different aspect of CF basic science, including genetics/biology of CFTR, CF pathophysiology and immunology, and the influence of modifier genes and the environment on the CF phenotype. The chapters are detailed and clear, and as they are aimed at CF clinicians, do not require extensive background knowledge of molecular biology. Citations for review articles are provided for further reading.

Section 3 deals with the diagnosis of CF. The first chapter reviews the various approaches to making the CF diagnosis and includes a section on the more detailed investigations that are often required to diagnose a patient with atypical CF. The second chapter deals with the benefits and challenges of screening newborns for CF and how to deal with CF patients identified via newborn screening. The final chapter in this section reviews the complicated issue of the role of the microbiology laboratory in the care of CF patients. I found this chapter very informative, albeit brief, and believe it will be of value to many CF clinicians. It has sections on sputum sample processing, optimal antimicrobial susceptibility testing (including synergy testing), and infection control.

The fourth and largest section of the book deals with the multitude of clinical complications and challenges of CF. This section has 12 chapters, each of which deals with a specific complication. The first 3 chapters address respiratory complications. As would be expected, considerable attention is focused on respiratory infections characteris-

tic of CF lung disease, with descriptions of the clinical importance and optimal management of common CF respiratory pathogens. The second and third chapters focus on the non-infectious respiratory complications and treatment of pneumothorax, hemoptysis, sleep disorders, and respiratory failure. These chapters provide an excellent resource for dealing with advanced CF lung disease. These chapters also include descriptions of the commonly used CF lung disease treatments and the approach to CF patients in special situations, such as those preparing for surgery or air travel.

Of particular interest is the fourth chapter in this section, which deals with the delivery of inhaled therapy to the CF lung. The chapter focuses on the technology of different types of inhaled drug delivery and outlines the promises and pitfalls of each delivery system. This chapter should be helpful to CF clinicians in their day-to-day practice. The remainder of the fourth section provides comprehensive reviews of the ear/nose/throat, gastrointestinal, and endocrine complications of CF, and a final chapter gives an overview of lung transplantation.

Section 5 deals with clinical monitoring of CF and reviews the most current methods to assess CF lung disease severity and response to treatment. With chapters on outcome measures used in clinical trials, the role of exercise testing, and novel monitoring techniques such as infant pulmonary function testing and bronchoscopy, this section is an informative review of the evolving technologies used to monitor disease progression in CF, which will be of value to adult and pediatric CF care providers.

Section 6 focuses on the role of the multidisciplinary CF team in the management of CF. With separate chapters dedicated to the role of the specialist CF nurse, dietitian, physiotherapist, and psychologist, and on the role of palliative care in CF, this section is a wonderful resource for those unfamiliar with the complexities of each discipline's approach to CF care.

The seventh and final section examines the future of CF care and focuses on current research on correcting the primary CFTR defect, including CFTR gene therapy and stem cell therapy.

Overall, the 3rd edition of **Cystic Fibrosis** is an excellent, comprehensive text that gives a thorough overview of all aspects of CF. It is very well referenced and has a detailed index so that CF care providers interested in more extensive reading can delve into each topic as needed. This book will benefit all CF care providers and will be well placed in any CF center's departmental library.

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