tiveness of each medication group on the important clinical outcomes described in the book's first section.

The chapter on anticholinergics describes the rationale for use and the pharmacologic action, including the muscarinic receptor subtypes and the pharmacokinetics of short-acting versus long-acting anticholinergics. The discussion of clinical pharmacology studies of anticholinergics is brief, and there are few data on the clinical trials and effect on clinical outcomes. The chapter on β-adrenergic receptor agonists has a slightly more comprehensive but still brief discussion of the effect of β agonists on outcomes such as exercise, quality of life, and COPD exacerbations.

Theophylline and newer selective phosphodiesterase inhibitors are discussed in more depth; the chapter discusses their effectiveness in relation to important outcomes, and the pros and cons of theophylline. A more complete chapter on corticosteroids summarizes oral and inhaled corticosteroids for COPD and briefly discusses the clinical trials of inhaled corticosteroids and their place in published guidelines.

The primary strength of the section on specific pharmacologic therapies is that it provides a concise overview of the rationale for use, pharmacologic action, and adverse effects of COPD medications. These chapters do not, however, discuss in detail individual medications, delivery systems, or clinical trials. The book concludes with a chapter by the editor, Bartolome Celli, that provides an integrated approach for treating patients with COPD, emphasizing the relationship between physiologic measures, patient perception of symptoms, and the effect on health status.

In summary, **Pharmacotherapy in Chronic Obstructive Pulmonary Disease** is an excellent compilation of the important physiologic and clinical outcomes in COPD. In addition, there is a concise summary of the rationale and mechanism of action of COPD medications. This book will be a very useful reference for clinicians and researchers in selecting what outcomes to focus on in COPD and in assessing clinical trials of COPD-treatment drugs.

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Lung Volume Reduction Surgery for Emphysema. Henry E Fessler, John J Reilly Jr, David J Sugarbaker, editors. (Lung Biology in Health and Disease series, Volume 184, Claude Lenfant, executive editor.) New York: Marcel Dekker. 2004. Hard cover, illustrated, 507 pages, $195.

Lung-volume-reduction surgery (LVRS) has engendered a great deal of debate in the pulmonary and thoracic surgery community. The book **Lung Volume Reduction Surgery for Emphysema**, edited by Fessler, Reilly, and Sugarbaker, details much of that debate and also presents the theory developed and data accrued over the past decade regarding LVRS. The book consists of 20 chapters, written by many of the major LVRS researchers. The preface is written by Claude Lenfant, the former Director of the National Heart Lung and Blood Institute of the National Institutes of Health, which is quite appropriate as Dr Lenfant was a major proponent and developer of the National Emphysema Treatment Trial (NETT), the largest and most comprehensive study of LVRS to date.

The book starts out with an overview of the epidemiology and pathology of chronic obstructive pulmonary disease, setting the stage for Chapter 3, which looks at the pathophysiology of emphysema, which in turn leads to discussion of surgery that could help chronic obstructive pulmonary disease patients. Chapter 3, written by Joseph Rodarte, is particularly clear in its explanation of why individuals with emphysema suffer from airflow limitation and why LVRS may be helpful. I was particularly affected by reading this chapter, as Dr Rodarte passed away shortly after writing it. He was a major contributor to the field of respiratory mechanics and was a teacher to many individuals interested in the function of the respiratory system. The chapter's clear and reasoned explanations were typical of Dr Rodarte.

The chapters that follow detail evaluation and preparation of the patient for LVRS, with a careful look at radiologic, medical, and anesthetic evaluations. In addition, the chapter details the implementation of maximal medical therapy and pulmonary rehabilitation prior to surgery. This is followed by a discussion of the surgical aspects of the treatment, which details the 2 currently accepted approaches: median sternotomy and video-assisted thoracoscopy.

Much of the latter part of the book details the data that accrued over the past decade, including data from case series, short-term randomized trials, and finally the NETT. All of these chapters are complete and concise. I particularly enjoyed reading the chapter that detailed the history and data produced to date by the NETT. As a participant in the NETT, I can say that the chapter is quite accurate and balanced in its presentation. The chapter on the financial aspects of emphysema and emphysema surgery is an important companion, as the NETT was designed to study the cost-effectiveness of LVRS.

Overall, I found the book quite readable. It has 29 contributing authors, but the editors did a nice job of getting the chapters to flow together. The book is of an appropriate length for the topic. If I have any criticism it is that the book will soon be partially obsolete because it discusses a surgical technique that is very likely to change. Various researchers are studying less invasive techniques of achieving lung-volume-reduction. However, the editors acknowledge that limitation, and I believe the volume is an excellent reference that documents a decade of intense interest in a therapy for patients with emphysema.

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Lung Transplantation. Nicholas R Banner, Julia M Polak, and Magdi Yacoub, editors. Cambridge, United Kingdom: Cambridge University Press. 2003. Hard cover, illustrated, 412 pages, $140.

Lung Transplantation is a clear and concise text written for an audience that is becoming acquainted with end-stage lung diseases, the indications for transplantation, and the major issues following transplantation. The book is divided into 3 major sections: pulmonary disease; lung transplantation; and future directions. The book's organization is logical, coherent, and easy to follow.

Part I reviews the basic pathophysiology, epidemiology, diagnosis, and treatment of the 6 major lung diseases that are most commonly treated with lung transplantation. The chapters in this section differ slightly in their approaches to the various lung diseases and there is slight overlap among some of the chapters. In addition, some of the chapters

also include details regarding transplantation for specific disease processes. Although this information overlaps somewhat with the information in the second section, the chapters are written coherently, so the repetition is not overbearing. I was surprised that there are 4 chapters devoted to pulmonary hypertension, an uncommon lung disease that is not the major indication for lung transplantation. Also, the chapter on explant pathology is interesting but appears to be a topic of its own and does not tie in well with the other pulmonary diseases discussed. Overall, this first section provides a complete overview of the 6 major lung diseases and the rationale for considering transplantation. Though this text does not appear to be intended to provide a comprehensive review of any of those 6 lung processes, it does provide the novice with an understanding of end-stage lung disease and the rationale for transplantation.

Part II reviews the basic patient selection criteria, the lung and heart-lung transplant procedure, postoperative management, long-term management, and potential post-transplantation complications. Again, the book provides a complete review of the basics of transplantation. The chapters on immunosuppression and transplant pathology are excellent and on par with almost any other transplantation book on the shelf. The hematology chapter was slightly repetitious and may be better served in the chapter on medical management or in a separate chapter discussing post-transplantation complications. I found the chapter on psychology particularly interesting, since most texts on transplantation do not devote much space to this important aspect of transplantation. The chapters are concise, reader-friendly, and fairly comprehensive.

Part III, "Future Directions," consists of 3 chapters that review tissue engineering, xenotransplantation, and the artificial lung. These chapters were slightly more complicated and difficult to understand, presumably because of the novelty of the topics. However, I found the chapter on the artificial lung particularly exciting, since much of the information remains novel to the medical community.

Overall, I found the book easy to read and understand. I believe it is intended for physicians, but other medical personnel who care for patients with end-stage lung disease will benefit by reading this book. In addition, much of the information is geared toward a transplantation fellow or new transplantation attending physician, but is too basic for an experienced lung-transplantation physician. The book carefully avoids delving too much into the basic immunology of transplantation but does review the basic mechanisms of immunological graft injury with more of a clinical flair.

The chapters are well organized and the material is relevant to lung transplantation. The majority of chapters are well referenced and written by experts in their respective fields. I believe this text is a good general guide to the clinical aspects of transplantation. There are important references included in each chapter and the 422 references for the chapter on immunosuppression represent probably one of the most comprehensive reviews on the topic. The references are appropriate and span the last 2 decades, during which lung transplantation has evolved substantially. The details provided will bring the reader up to date on the latest issues in particular transplantation topics, and the references direct the reader to more detailed materials.

The book is colorfully hard-bound. The print and paper appear to be of good quality. The chapters include appropriate tables, diagrams, and illustrations, but one drawback is the lack of glossy pages for illustrations. In the chapter on transplant pathology the images of biopsy material are not as clear and sharp as I would have liked. Likewise, in the chapter on imaging, many of the chest radiographs, tomograms, and ultrasound images are hazy and poorly reproduced.

Given the relative paucity of information available on lung transplantation, this book will be a welcome addition to any library for medical personnel interested in thoracic organ transplantation. Priced at $140, the book is competitive with the other currently available transplantation texts. I found the information to be a nice refresher course on the basics of end-stage lung diseases and the indications for transplantation. The book is comprehensive enough to be useful for medical personnel becoming acquainted with lung transplantation. Overall, this book is a useful and comprehensive text that does the job of familiarizing the medical community with lung transplantation.

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Textbook of Pleural Diseases. Richard W Light MD and Y C Gary Lee MBCHB PhD, editors. New York: Arnold/Oxford University Press. 2003. Hard cover, illustrated 553 pages, $149.

Textbook of Pleural Diseases is a multi-author book written by international experts. It is an up-to-date, definitive reference that provides in-depth knowledge about the basic and clinical science of pleural diseases. This book will serve as a comprehensive resource for health care professionals caring for patients with diseases involving the pleura. It is primarily useful for physicians and trainees in the pulmonary and critical care disciplines. The chapters on spontaneous pneumothorax, nonspontaneous pneumothorax, and drainage and biopsy techniques are excellent resources for respiratory therapists and nurses.

The book is organized into 2 main sections. Section 1 comprises 13 chapters on basic science, and section 2 comprises 30 chapters on clinical science. Well-organized chapters and a comprehensive index allow the reader to quickly find selected topics. I found the glossary of abbreviations preceding the chapters very useful for reading through individual chapters. Unfortunately, the abbreviations glossary is by no means complete; some complex abbreviations, such as ICAM-1 (intercellular adhesion molecule) and VCAM-1 (vascular cell adhesion molecule), are not included, whereas simple abbreviations such as IL (interleukin) are. The book's particularly unusual and useful features are (1) the highlighted summaries, presented as "take-home messages," at the ends of the chapters, and (2) the highlighted references for readers who wish to pursue further reading.

Section 1 (Chapters 1 through 4) covers embryology and gross structure, cells in the pleural cavity, liquid and protein exchange, and physiologic effects of pleural air or fluid of the normal pleura. My favorites in this section are Chapters 1 and 4, which are very clearly written and useful resources for medical students learning pleural anatomy and physiology.

Chapters 5–10 deal with the basic science of the abnormal pleura, including pleural inflammation, cytokines in pleural diseases, pleural infection, pleural fibrosis, pleural reaction to mineral dust, and genetics of malignant mesothelioma. These chapters are compilations of extensive basic science research performed over the years, yet