

for respiratory physiology and pathophysiology. I enjoyed reading the book for its historical information and appreciated the collection as a single repository for all of the great work performed at the fabled Meakins-Christie Laboratories.

Robb W Glenn MD

Division of Pulmonary and
Critical Care Medicine

University of Washington Medical Center
Seattle, Washington

Pulmonary Pathophysiology, 2nd edition.

Juzar Ali MD, Warren Summer MD, Michael Levitzky PhD. Lange Medical *Physiology* series. New York: Lange Medical Books/McGraw-Hill. 2005. Soft cover, illustrated, 317 pages, \$34.95.

Although the back cover bills Lange's **Pulmonary Pathophysiology** as a "handy guide" for students and clinicians, the front cover claim of "Great review for the United States Medical Licensing Examination" (the "boards") more accurately reflects the thrust of this text. In preparation for step 1 of the boards, many medical students feel compelled to stuff all medical facts, great and small, into their heads. This requires students to review what has been forgotten—as well as digest new esoteric topics—and to do so in a hurry.

Pulmonary Pathophysiology does meet the boards-preparation specifications of both brevity and breadth. It reads more like a review rather than a thorough introduction to "bread and butter" topics, while offering at least cursory coverage of unusual diseases. For instance, the text succinctly discusses asthma and chronic obstructive pulmonary disease in 14 pages, but provides an extensive discussion of causes of noncardiac chest pain, including mitral-valve prolapse, Coxsackie-B-induced pleurodynia, and xiphoidalgia. In this respect, better introductory texts to respiratory pathophysiology are available. At the same time, the text provides insufficient details on diagnosis and management to be of much practical use to clinicians. Respiratory therapy and nursing students in need of a review, however, may find portions of it helpful.

The text is divided into 2 parts and 15 chapters. The first part is about symptoms and physical-examination findings and contains chapters on dyspnea, cough, hemoptysis, noncardiogenic chest pain, and lung sounds. The second part is structured according to categories of disease and includes

chapters on obstructive lung disease, parenchymal lung disease, pulmonary vascular disease, respiratory infections, pleural disease, respiratory abnormalities with sleep disorders, respiratory failure, lung under stress, pediatric lung disease, and miscellaneous topics such as transplantation and drug-induced lung disease. A focused discussion of lung cancer is notably absent.

Pulmonary Pathophysiology is meant to complement the 6th edition of *Pulmonary Physiology*, by Levitzky, and the authors assume the reader is well-versed in respiratory physiology, including abnormalities in gas exchange. For instance, the opening chapter, on dyspnea, explains normal ventilation-perfusion, low ventilation-perfusion, dead-space ventilation, and hypoventilation in 7 sentences, without the use of a figure.

At times, terminology is used imprecisely, such as a description of pulmonary embolism causing hypoxemia through creation of high ventilation-perfusion lung units. The majority of the book is written with adequate clarity, but some chapters are hampered by suboptimal organization, difficult prose, and redundancy. For instance, the pathophysiology of acute respiratory distress syndrome is discussed in multiple chapters, although the criteria for its clinical diagnosis are not included. Sprinkled throughout the book are instances where the text conflicts with information contained in a table, figure, or another chapter.

The book contains an abundance of figures, tables, and radiologic images. The figures borrowed from previous publications are excellent, but a few of the original figures are confusing. For example, an algorithm for the evaluation of acute dyspnea incorporates obstructive and restrictive pulmonary function tests but doesn't explain these terms until later in the chapter. Some recommendations, such as that of using the 6-min-walk test to differentiate congestive heart failure from other causes of acute dyspnea, raise questions about the basis of the algorithm. The chapter on dyspnea also contains tables that outline the modified Borg and American Thoracic Society shortness-of-breath scales, but arguably this level of detail is of limited value in the context of a student review or introductory text. The tables are easily legible and for the most part are otherwise functional. The vast majority of the chest radiographs and scan images are of good quality and serve their purpose.

This second edition has added Key Concepts sections that link to specific segments of text. For the most part they highlight important teaching points, but occasionally the generality of the statements limits their utility (eg, "Respiratory failure is common, but the etiology is varied and may be multifactorial."). The new chapter on lung sounds provides a clear, concise bridge between the symptoms-based and disease-based sections. Each chapter also includes 2–4 brief case presentations and 2–4 study questions. The former nicely illustrate the clinical applicability of the preceding material, but the latter often are not clearly written, or place undue emphasis on atypical presentations, unusual diseases, or relatively esoteric facts.

The index is comprehensive and accurate. The text's relatively small size (23 × 15 × 13 cm) and soft cover impart a relatively small additional risk of musculoskeletal injury when tossed into an already hefty backpack.

Pulmonary Pathophysiology is best-suited to students preparing for the boards, and perhaps others early in their training who need to rapidly review a large volume of material. How well it succeeds as a boards-review tool is difficult to assess, in part because the National Board of Medical Examiners is less than forthcoming about what it expects of learners. Nonetheless, the deficits outlined above indicate that there remains substantial room for further improving this text. Writing the ultimate boards-review pulmonary pathophysiology text is, without question, a monumental task, and **Pulmonary Pathophysiology** does many things well. Hopefully a 3rd edition will see the text advance from an adequate to an excellent resource for students.

Robert R Kempainen MD

Division of Pulmonary, Allergy, and
Critical Care Medicine
University of Minnesota
Minneapolis, Minnesota

Practical Pulmonary Pathology: A Diagnostic Approach. Kevin O Leslie MD and Mark R Wick MD. Philadelphia: Elsevier/Churchill Livingstone. 2005. Hard cover, illustrated, 813 pages, \$275.

There is no dearth of books depicting and illuminating the wonderful but challenging field of pulmonary pathology. For the past generation it had been only Spencer's *Pathology of the Lung*. More recently, seasoned pathologists have been relying on the

Armed Forces Institute of Pathology fascicles and atlas, and on the short treatise by Katzenstein, which continue to contain all that is really needed by the professional pathologist. Several other high-quality textbooks have recently appeared on our shelves and are occasionally helpful. Choosing one depends on the purpose of the consultation. One must keep in mind the strengths and expertise of the authors. Did we need a new book on pathology of the lung? In this case, the answer is yes, we did, because none of the above books is a *practical* pathology like this multiauthor volume edited and (in part) written by Leslie and Wick.

Many pulmonary health workers need an easy-to-read textbook that is comprehensive but not of frightening size, with well-chosen illustrations of the majority of lung disorders and introductory references to initiate clinical research projects or understand present situations. Among these, first and foremost, is community-hospital pathologists, who are not always familiar with lung pathology, in particular with non-neoplastic lung diseases. This book is particularly suitable for a quick consult because of its easy-to-read tables of differential features and pretty pictures for comparison with findings in problem slides. This is particularly true of the section on open biopsies of interstitial diseases (traditionally a weak spot of many community hospitals), which counts among the best and most lucid presentations in this book.

A second group of potential readers is pulmonary fellows preparing to take the subspecialty boards, who worry about the number of pathology questions that they will certainly face in the examination. In any pulmonary training program, pathology plays a major role. Brief booklets or introductions do not help the fellows, because they already know all the common ailments. They only need help when their patients suffer from difficult or unusual problems. For consultations (if they don't have a friendly local pulmonary pathologist) fellows require a comprehensive but accessible textbook, and **Practical Pulmonary Pathology: A Diagnostic Approach** is well suited for that role. The enclosed CD-ROM, which includes all the pictures, drawings, and tables, will in many cases provide all the clarifications and illustrations needed for their clinical presentations. To a lesser degree, this work also holds some limited interest for other professionals such as respiratory therapists and nurses in training, as a

consultation volume, because of the relatively plain and accessible language used in most chapters.

This textbook is, as the title proclaims, a *practical* treatise, not a full-blown academic textbook of lung pathology, and, to my knowledge, it is the first one of its kind. It clearly aims at helping lung workers to deal with and understand daily anatomic problems, not at identifying or resolving current controversies or pinpointing research directions. The authors summarize their philosophy of teaching pathology by familiarizing readers with a few basic anatomic *patterns*, described in a brief introduction, and organize most of the book to develop the application of these patterns. The idea is well taken and attractive, although it could be argued that only trained pathologists identify patterns. It is the experience of many pathologists used to discussing cases in multiheaded microscopes and giving presentations to pulmonary specialists and surgeons that most nonpathologists have great difficulties identifying simple anatomic entities, more so patterns.

A second problem is that several entities logically end up being discussed in more than one chapter (for instance, sarcoidosis is presented in conjunction with airways, interstitial, and vascular diseases) and that it results in more than one unexpected classification, although we should keep in mind that many pulmonary diseases are idiopathic and that this situation challenges the best classification schemes.

The language is understandable and generally precise, although the diversity of authors is occasionally noticeable. The nomenclature in this rapidly changing field is up to date and generally in tune with the leading institutions, at least up to the time of publication. The authors do not hesitate to surprise readers with names that are not yet popular. BOOP (bronchiolitis obliterans organizing pneumonia) has become COP (cryptogenic organizing pneumonia). The old "sugar tumor" is now an epithelioid myomelanocytoma, no longer a PECOMA (perivascular epithelioid cell tumor), as it had been called in the meantime. An inflammatory pseudotumor has become an inflammatory myofibroblastic tumor, and adenomatoid malformations are now congenital pulmonary airway malformations (CPAMs). I found especially exciting the word pneumocytoma now gracing the rare entity previously known as sclerosing hemangioma. One must know these things. The

list could be extended. As far as names are concerned, the most controversial section is the one on malignant neuroendocrine tumors, for which the authors adopt the famous system of the neuroendocrine carcinomas grade I represented by the typical carcinoid (absurdly called classical carcinoid by the book), grade II, which is the atypical carcinoid, and grade III (small-cell and large-cell neuroendocrine carcinomas). Many aspects of neuroendocrine tumors are vexing and, as I suspect, still unsettled. This nomenclature has been tried before, without much success.

It may represent an inexcusable abuse of a temporary position of strength when a reviewer sets out to publicly identify errors and omissions in a new book. After all, everybody is entitled to his opinions, and this book is not particularly controversial. Even so, some experts in pulmonary pathology might take issue with certain of this book's statements, but this does not change the fact that the presentation is clear, as easy to read as it can be, mostly complete, appropriately short (with exceptions), and takes into account the latest developments. I was somewhat disappointed at the treatment given to the immunohistochemical markers, which play an increasingly important part in our daily practice. Here the reader looking for simple tables and advice to resolve a current problem will instead have to negotiate large paragraphs with more detail and critical descriptions of practical and unpractical markers than he probably cares for. I was far more impressed with the chapters on benign pulmonary diseases (interstitial diseases in particular are a strength of the first author), infections, drug reactions, and similar items than with the discussion of malignancies.

The inclusion of unusual entities and the workup of metastatic disease, which is a growing problem in modern pulmonary oncology, is great and helpful. Many descriptions will only be fully appreciated by a practicing pathologist when he is unexpectedly confronted, after years of boring routine, with a condition that he knows only by name and has never seen—an exhilarating experience not limited to academic centers. On the other hand, the chapters dealing with our "bread-and-butter" (lymphomas, the common carcinomas of the lung) are good but may not meet the same standard of excellence. I only take exception with the lengthy section devoted to the malignant mesotheliomas, which, departing from the style

and expanding the objectives of the book, is combative, controversial, and editorializing. It was astonishing to read that, in the experience of that chapter's author, "40–50% of malignant mesotheliomas are spontaneous neoplasms with no definable etiologic linkage to asbestos" (p. 737). Many in the community will, as do I, respectfully disagree.

In addition to the usual introductory chapter on lung anatomy, this book has a useful, brief summary of chest radiology and explanations of common surgical techniques and biopsy procedures. Many specific items include useful illustrations of the associated radiologic findings and the gross appearance of specimens.

The illustrations were, for me, the most appealing part of the book, as they should be, in view of the book's practical emphasis. In multi-author books, some heterogeneity is difficult to avoid, but in general the chapters are lavishly illustrated. Many of the items depicted are rare and images are not easily found. Their availability here will be an invaluable resource to pathologists, pulmonologists, residents, and even medical students. I suspect, however, that neither the printed images nor the digital reproductions in the accompanying CD do full justice to the original micrographs. In addition to trying it out myself, I lent the CD to a photograph technician and to 3 residents of my department. One of us reported that it was easy to use, another one gave up in frustration, and three had some difficulties but easily overcame them to view the contents. This is not unlike the experience with other digital media on the market. The CD should be more user-friendly in future editions.

All the chapters are followed by a fair number of key references that will suffice to start a good literature search. The book is well printed, with pleasant and clear fonts, and the index—a crucial element of a consultation book—is good and lived up to my expectations almost every time I tried it.

In short, this is a good book that is needed and will be helpful to many. In my opinion, its outstanding collection of histologic, gross, and radiologic illustrations of common, uncommon, and very uncommon conditions and tumors is its greatest asset.

Joan Gil MD

Pathology Department
Mount Sinai Hospital
Mount Sinai School of Medicine
New York, New York

Thurlbeck's Pathology of the Lung, 3rd edition. Andrew M Churg MD PhD, Jeffrey L Myers MD, Henry D Tazelaar MD, and Joanne L Wright MD. New York: Thieme Medical Publishers. 2005. Hard cover, illustrated, 1157 pages, \$249.95.

With the large number of excellent textbooks that currently address pulmonary pathology, one could question whether another text in this field is necessary. In the case of **Thurlbeck's Pathology of the Lung**, the answer is clearly and enthusiastically *yes*.

This is the third edition of this now classic text, and, in my opinion, the best. The back cover refers to the text as the "bible" of pulmonary pathology, and this at first might appear to some to be an audacious claim. Yet, if by "bible" one means a source of truth that can be turned to repeatedly for new insights, then this metaphor is wholly appropriate. As a practicing pulmonary pathologist, my bookshelf includes virtually all of the currently available texts of lung pathology. Most of them are collecting dust and taking up space. But when I need to locate a useful fact or reference, I reach for **Thurlbeck's**.

It has been some time now since this book's original author, "Whitey" Thurlbeck, passed. But the current editors continue to produce a text as authoritative as his was. The list of contributing authors is a veritable "Who's Who" of pulmonary pathology. Each contributor is an internationally recognized expert in his or her field. The result is that each chapter is filled with a wealth of evidence-based information, and written in the voice and from the perspective of an established expert.

Within its thousand-plus pages, certain chapters deserve special mention. De Paape's chapter devoted to developmental disorders summarizes a subject that can be challenging for the pathologist who primarily encounters adult disorders. The text includes chapters on lung anatomy co-authored by Kuhn and Wright. Wright has improved on Thurlbeck's chapter on quantitative anatomy, a subject of special interest to Thurlbeck. The chapters on basic lung structure ought to be required reading for training in pulmonary pathology; I highly recommend it, for its content and clarity, to both practicing pulmonologists and thoracic surgeons. Churg's chapter on how to handle biopsy specimens and Wright's chapter on "special techniques" are excellent contributions on

subjects with which the general surgical pathologist should be acquainted.

As a pathologist with specific expertise in the pathology of pulmonary infection, I found the chapters by Procup and Tazelaar of particular interest. The chapter on tuberculosis and other mycobacterial infections may be the best presentation I have seen in a pathology textbook on this important subject. The chapters on fungal, protozoal, and helminthic diseases, by Sobonya and Fraser, are also expertly presented.

A particularly outstanding contribution is the chapter on interstitial lung diseases, by Myers. Whereas this is a subject that at times appears to be continuously in flux, Myers concisely summarizes the state of the art with respect to the categorization of interstitial lung disease and succeeds in dispelling the confusion that at times seems to pervade the field.

Hogg's chapter on pulmonary edema synthesizes the pathophysiology with the morphologic changes that accompany changes in alveolar-capillary permeability. An outstanding chapter by Churg and Green reflects 2 lifetimes of investigation of occupational lung disease.

The aforementioned chapters are merely a sampling of the consistently high-quality presentations in this text. Others, including the chapters on vasculitis and pulmonary hemorrhage, by Youssef, and the detailed reviews of benign and malignant pulmonary neoplasia, by Cagle and Tazelaar, are as noteworthy. Elsewhere, Cagle nicely explicates and illustrates the specific issues encountered in lung-transplant pathology. Finally, the text is capped off by Churg's approach to the disorders of the pleura and by a must-read chapter on pulmonary cytopathology by Amy.

Reading this enthusiastic review, the reader may rightfully ask whether this text has any deficits. Unfortunately, the answer is yes. The one glaring problem that is certain to cause some disappointment is that the (copious) illustrations are all in black-and-white. The emphasis on morphologic images in the practice and training of diagnostic surgical pathology may mean that some readers who look to this text for assistance in establishing a diagnosis may find the black-and-white reproductions inadequate, especially since some of the recent competing lung pathology texts include beautiful color illustrations. For this reason, this text may appeal more to pathologists who have already established expertise in