

Practical Pulmonary and Critical Care Medicine: Respiratory Failure, and Practical Pulmonary and Critical Care Medicine: Disease Management. Zab Mosenifar and Guy W Soo Hoo, editors. *Lung Biology in Health and Disease* series, volumes 213 and 214, Claude Lenfant, executive editor. Boca Raton: Taylor & Francis. 2006. Hard cover, illustrated, 1,065 pages, \$299.95.

The rapid pace of medical progress and technology has made electronic databases and reference materials the primary resource for many critical care providers in their day-to-day activities. Although most of us still have our classic reference texts impressively arrayed on our office shelves, many argue that the ready availability of updated electronic information is causing it to rapidly replace the role filled by published textbooks.

So why write another pulmonary and critical care medicine textbook? Mosenifar and Soo Hoo argue that the successful application of this readily available information requires a little experience. The stated goal of their 2-volume reference text is to provide a foundation of practical information to bridge a perceived translational gap between currently available electronic knowledge and the effective daily bedside delivery of critical care medicine. This 2-volume set is a well-written resource that largely achieves this goal. If you are a pulmonary/critical care fellow or staff physician looking to brush up on the current evidence behind common intensive care unit (ICU) practices, these books are for you. They would also serve as an excellent quick reference for new ICU directors and nurse managers, or in a medical library as a user-friendly text for a resident preparing a presentation on a critical care topic.

Volumes 213 and 214 of the *Lung Biology in Health and Disease* series, **Practical Pulmonary and Critical Care Medicine: Respiratory Failure**, and **Practical Pulmonary and Critical Care Medicine: Disease Management**, are well-bound and well-edited hardback texts. The contributors include 12 well-known experts from across the United States, along with numer-

ous authors from the editors' local area. The text maintains a very effective, consistent, and informative style throughout both volumes. The chapters are generally organized according to the series' traditional recommended format of sections and subsections, which sometimes can be distracting from the content. Several authors deviate from this format to provide a more step-by-step approach to practical procedure skills such as airway management, and I found these sections more effective than the later paragraph-format descriptions of chest tube and pulmonary artery catheter insertion.

In Volume 213 the first 5 chapters take the reader systematically through the indications for and methods of oxygen therapy; assessment and management of the routine and difficult airway; and the use, monitoring, and discontinuation of noninvasive and invasive mechanical ventilation. The next chapter focuses on the little-discussed issue of prolonged mechanical ventilation, and the remainder of the book is dedicated to a general review of common ICU diagnostic and therapeutic procedures.

The chapter on oxygen therapy and airway management is an excellent, step-by-step review of the physiologic basis for oxygen therapy, and gives a detailed description of current methods of delivery, with numerous accompanying pictures for clarity. It also includes a brief discussion of heliox therapy, along with emerging clinical data regarding its potential use in asthma and exacerbations of chronic obstructive pulmonary disease. This chapter in particular would be an outstanding reference and training tool for respiratory therapists.

Although most of the content is not new, the evidence-based reviews of noninvasive ventilation and liberation from mechanical ventilation are very thorough, and they include practical and specific recommendations for patient selection, equipment setup, and predictors of success and failure. Particularly well done is the analysis that supports continuous positive airway pressure over other forms of noninvasive ventilation in patients with heart failure. The subsequent chapters on the modes and monitoring of mechanical ventilation include a variety of ventilator waveform graphics that are very effective, although the discussion

of patient-ventilator synchrony issues is disappointingly brief.

One of the highlights of this volume is the chapter on prolonged mechanical ventilation, which is a little-discussed topic in most critical care texts. The authors present an interesting and well-researched viewpoint on the shifting environment of care and outcomes in these patients, along with a systematic review of the physiologic derangements associated with chronic ventilator dependence. They also provide an evidence-based, practical approach to ventilator weaning and strategies for improving respiratory muscle strength and endurance in this challenging patient population.

The chapters on critical care procedures are relatively well presented, including the placement and use of arterial and central venous catheters, tube thoracostomy, and bronchoscopy. This section tends to be a little basic for readers who work regularly in the ICU, but it could serve as a good introduction for residents or fellows early in their training. Its strengths include some brief but practical advice on the use of ultrasound, and well-presented details on appropriate venous catheter insertion depths and site selection. The review of indications and step-by-step guide to percutaneous tracheostomy is concise and excellent, with very good illustrations. The chapter on radiology is mainly focused on the portable chest radiograph, with useful detail on appropriate device placement, volume assessment, and manifestations of barotrauma. It is sometimes difficult to identify the relevant features identified in the text on the accompanying radiographs, and the section on common thoracic complications has a somewhat choppy organization that is distracting.

Volume 214 deals with the treatment of common critical care problems, and focuses on recent advances, developments, and clinical controversies. Topics include the management of acute lung injury, exacerbations of asthma and chronic obstructive pulmonary disease, hemoptysis, pneumonia, pulmonary embolism, neuromuscular respiratory failure, acute coronary syndrome, heart failure, sepsis, and acute gastrointestinal hemorrhage. There are also chapters dedicated to common issues in critical care prac-

tice, including neurologic emergencies, acute renal failure, nutritional support, sedation, infection control, and medical ethics. Virtually all the chapters in this second volume are clear, readable, and well researched. Most of the chapters function as well-presented evidence-based reviews and updates of current clinical practice, and they provide effective practical recommendations and tables for rapid reference.

The discussion on acute lung injury concisely summarizes recent findings from the Acute Respiratory Distress Syndrome Network and other authors. It also reviews the current evidence behind commonly attempted rescue maneuvers for patients with refractory hypoxemia, although there is no discussion of airway-pressure-release or high-frequency oscillatory ventilation. The chapters on exacerbations of obstructive lung disease, critical care sedation, and pain management provide excellent and systematic pharmacology reviews. There is a helpful discussion of the risks and benefits of bronchial artery embolization and surgery in patients with hemoptysis, and an outstanding summary of the current evidence and practical management of massive pulmonary embolism and chronic thromboembolic pulmonary hypertension.

Highlights of the section on cardiology include a concise summary of the clinical importance of positive troponins in the ICU, and discussion of the evolving role of antiplatelet therapies other than aspirin in acute coronary syndrome. Although the discussion of β natriuretic peptide in congestive heart failure is good, the subsequent section on nesiritide lacks balance. This section would have been strengthened with an evaluation of the recent meta-analysis that suggested that nesiritide may be associated with an increased risk of death after treatment for acutely decompensated heart failure.¹

The most original contributions to this volume are the chapters on pneumonia and ethics. Wunderink provides a very clear and interesting analysis of a vast and sometimes confusing body of literature on ventilator-associated pneumonia and severe community-acquired pneumonia, and explains the rationale for current management guidelines. The chapter on practical medical ethics in intensive care traces a simple approach to bioethics problems that would be a useful guide for any hospital ethics committee, and contains some interesting and specific recommendations for the management of pain and other symptoms at the end of life.

Neurologic issues are covered extensively, including a concise approach to stroke, encephalopathy, and brain death in the ICU, with easy-to-reference tables. The chapter on neurologic respiratory failure is one of the most comprehensive and complete reviews I have read on this subject, but the practical management issues are a little lost in the overall scope and detail that it provides.

The reviews of sepsis, acute renal failure, gastrointestinal bleeding, and infection control all continue to provide very clear, practical, and evidence-based guidance toward effective critical care management strategies. The chapter on nutrition provides an excellent discussion of the timing, route, and composition of nutritional support, including a good summary of the current evidence for immunomodulating diets and specific enteral formulations. Although few would argue the benefits of enteral over parenteral nutrition in critically ill patients, this chapter's strongly negative conclusions about parenteral feeding clearly reveal the author's bias and should be tempered by other more balanced reviews.

The volume ends with a chapter on the "electronic ICU," providing an excellent overview of the process-based advantages and challenges of the electronic medical record, and a very complete review of the currently available electronic critical care applications and databases. I was somewhat surprised to see no discussion of the electronic ICU movement, which is a current issue of some interest and controversy in critical care.

I will continue to use electronic databases and reference materials as my primary resource for the day-to-day questions that arise in my ICU practice. However, I will also add Mosenifar and Soo Hoo's textbook to my shelf of reference books, and in an easy-to-reach location, because of its excellent literature summaries and bibliographies, useful graphics, and accessible information that are applicable to the issues our critical care team discusses daily on rounds.

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Disorders of the Respiratory Tract: Common Challenges in Primary Care. Matthew L Mintz MD. *Current Clinical Practice* series, Neil S Skolnik, series editor. Totowa, New Jersey: Humana Press, 2006. Hard cover, illustrated, 343 pages, \$79.50.

Patients with respiratory disorders jam physician waiting rooms every day. Allergic rhinitis, upper-respiratory infections, and asthma: most primary care practitioners become adept at managing these disorders. However, these same practitioners face many challenges. Respiratory problems are so common, it's easy to be lulled into making the "obvious" diagnosis when another unusual diagnosis is lurking beneath the surface. The persistent cough in a male smoker may simply be acute viral bronchitis, or it may represent the initial manifestation of sarcoidosis, bronchiectasis, or lung cancer. This does not mean that every patient with a persistent cough should receive computed tomography or bronchoscopy. The prudent family physician and general internist know when to immediately investigate a problem and when to allow time to sort things out. There are other challenges, including maintaining the balance between over-treating and under-treating respiratory conditions such as infection, asthma, and chronic obstructive pulmonary disease, and providing treatments that are supported by strong evidence in the medical literature. And, of course, primary care practitioners must strive to offer therapies that are effective, safe, and inexpensive. Sometimes a follow-up telephone call, e-mail, or office visit suffices.

In this book, Mintz navigates primary care practitioners through the evaluation and treatment of common respiratory diseases. Though not mentioned on the title page or cover, each chapter is co-authored by Mintz's colleagues at the George Washington School of Medicine, at which Mintz is director of the ambulatory care rotation in the department of internal medicine.

The book is divided into 4 parts: "The Basics," "Disorders of the Upper Airway," "Disorders of the Lower Airway," and "Non-Airway Disorders That Present With Respiratory Symptoms." The first part reviews the general approach to patients with respiratory disorders; it covers basic anatomy, physiology, and pulmonary function testing. The second part reviews common upper-respiratory problems such as allergic rhinitis, sinusitis, pharyngitis, and laryngitis. Part 3 examines lower-airway problems, including croup, asthma, chronic obstructive pulmonary disease, cough, sarcoidosis, and bronchiolitis. The final part includes chapters on sleep apnea, obesity, vocal-cord dysfunction, pulmonary embolus, hemoptysis, and gastroesophageal reflux.

Each chapter includes, in this order: a table of contents; a case presentation that introduces the chapter; key clinical questions and learning objectives; the epidemiology, pathophysiology, differential diagnosis, diagnosis, and treatment; and future research directions of the particular respiratory disorder. This chapter conformity makes the book easy to read, and the fact that the author co-wrote every chapter gives the book an evenness and consistency. The subsections on pathophysiology and future directions are particularly well-written and interesting. They will provide medical students, residents, and seasoned physicians with the necessary background to understand respiratory disease processes and what the future holds. That said, I believe busy primary care practitioners will be primarily interested in what treatments work today.

There are a few problems with the book. Most importantly, there is no mention of levels of evidence when the authors make treatment recommendations. The authors failed to tell which treatment recommendations are based on expert opinion and which are based on analysis of randomized controlled studies. Although some chapters reference Cochrane reviews as the source of recommendations, other chapters rely on dated articles. For instance, in the section on allergy avoidance strategies (page 40) the recommendation to use impermeable bed coverings is based on a 1992 article. Recent evidence suggests that that method is ineffective.¹ When evidence-based recommendations are included, they are often buried in the text alongside expert-opinion-based recommendations.

There are other problems: the pediatric and adult asthma chapters present overlap-

ping material, and the flow-volume loop on page 22 is incorrect. Summary answers to the questions posed at the beginning of the chapter would have been helpful. These are minor quibbles.

This book is best suited for medical students, residents, and primary care practitioners who want a great overview of the epidemiology, pathophysiology, and evaluation of common respiratory disorders. For treatment recommendations *and* the levels of evidence that support them, the practitioner must look elsewhere.

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Pulmonary Medicine Review, 2nd edition. Michael Zevitz MD and Richard Lenhardt MD. *Pearls of Wisdom* series. New York: McGraw Hill. 2006. Soft cover, 314 pages, \$69.95.

The *Pearls of Wisdom* series includes over 30 review books on various specialties and subjects in clinical medicine. Specific titles target nurses, allied health professionals, and doctors. **Pulmonary Medicine Review** is for preparing to take the board examination in pulmonary medicine or for a general review of pulmonary medicine. It is written as a set of rapid-fire questions and answers, grouped by topic. The authors suggest that the book be used either as a pre-clinical assessment of one's own knowledge or as a post-textbook assessment of retention and comprehension. They suggest doing a primary review with another source and using this book for self-assessment.

There are 2 things anyone preparing for the boards wants from a review book: that it covers the material to be tested, and that it does so in a concise manner, emphasizing "high-yield" subjects and weeding out need-

less minutia. The authors proffer this text as all-inclusive, but that seems to be an erroneous claim. For all of their board examinations the American Board of Internal Medicine publishes a "blueprint" that lists the test topics and their relative percentages in the test. A complete board review and a thorough pulmonary review should touch on each of the 19 topics in the pulmonary medicine test, but this book does not cover the categories epidemiology/ethics/statistics, quality/safety/complications, and cell biology, which represent one eighth of the test. As a general review of pulmonary medicine, however, these missing topics are probably not as clinically important as the topics the authors did include.

There are similar information deficits in the individual subjects reviewed. For instance, the coverage of sleep medicine, which constitutes 10% of the board examination and is an important component of clinical pulmonary medicine, is relatively superficial. Of the 15 subtopics under the blueprint categories "sleep, respiratory" and "sleep, nonrespiratory" at least 7 (and arguably 10) are not discussed. A reader preparing for a board review should be aware of these important gaps in coverage. Similarly, a reader trying to achieve a general pulmonary review should be aware that clinically relevant aspects of sleep medicine are not reviewed.

Perhaps it is unreasonable to expect that a review book be all-encompassing. While lacking in breadth, this book does succeed in being brief. The questions are rarely longer than a single sentence, and the answers are usually even more terse. Chapters are readily manageable in a single sitting. Next to each question there is an open bubble the reader can mark to signify interest, weakness, or simply that it has been read. This could make a re-read more efficient. As a board review, however, several topics are over-represented, including airway management and altitude medicine, each of which has an entire chapter but represents only a small fragment of the board examination. And within some of the other chapters certain subtopics seem somewhat over- or under-represented for a board review.

A consequence of this book's brevity is that the answers often lack sophistication. While some of the answers are both brief and sufficiently comprehensive, many of them fail to represent the complexity pulmonary fellows should expect. This oversimplification is exemplified by 4 consecu-

tive questions in the chapter on pulmonary critical care:

Q: What are the major causes of arterial hypoxemia?

A: Hypoventilation, ventilation-perfusion inequality, shunt, low F_{IO_2} , and diffusion impairment.

Q: How does one assess oxygenation?

A: Skin color, pulse oximetry and blood gas analysis.

Q: How does one assess ventilation?

A: End-tidal CO_2 monitoring and blood gas analysis.

Q: What is a tension pneumothorax?

A: An injury to the lung allowing intrapleural air to collect without escaping via the chest wall. . .

Furthermore, the intentional lack of explanation will often force the reader to go elsewhere to learn about the subject. In addition, these rapid-fire questions bear little resemblance to the actual questions on the board examination. There are a number of overly simple true/false question, such as:

T/F: The more risk factors a patient has, the greater the chances of developing a DVT?

T/F: Only patients with known risk factors develop DVTs [deep vein thrombosis].

Many questions are repeated, occasionally even verbatim.

There is a chapter that intentionally includes more board-type case presentations with multiple-choice questions. However, even this section has too many true/false questions to emulate a board examination. Overall, this strict adherence to a rapid-fire question-and-answer format is one of the principle weaknesses of the book. As a board review, some of the answers are "too easy." And, as a general pulmonary medicine review for the rotating student, the answers often lack adequate explanation to serve as a primary review.

For the most part, the answers seem to be reliable, but occasionally opinion is stated as fact, and a few of the answers are outdated. The authors did a good job of sticking to safe, time-honored topics.

One other deficit is the almost complete absence of radiographs. Though the book contains textual descriptions of the radiographic and histologic appearance of various diseases, there is only one chest radiograph image in the entire text, and there are no histology or gross pathology images.

In conclusion, this book does succeed in being an affordable, quick read that covers a breadth of pulmonary topics. However, it suffers from being insufficiently broad or thorough for board review. It would function a bit better as a general review for the non-board-taker, but the rapid-fire question-and-answer format is better for assessing knowledge than for a primary review of it. The text further suffers from the near-complete absence of exemplary images. I would not recommend this text as a pulmonary board review and would caution the general pulmonary reviewer that it could serve as an adjunct but not a primary review source.

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Crash Course: Respiratory System. Adam Myers PhD. *Crash Course* series, Daniel Horton-Szar, series editor. Philadelphia: Elsevier Mosby. 2006. Soft cover, illustrated, 242 pages, with online student consult access, \$29.95.

This book approaches the understanding of the respiratory system in an integrated fashion, which clearly surpasses the rote teaching method (ie, memorization). The text describes the normal respiratory anatomy and physiology, and integrates the concepts discussed with lung disorders throughout. Additionally, the pathophysiology, diagnosis, and treatment are discussed. This integrative format is an ideal adjunct for problem-based, evidence-based, systems-based, or more traditional curricula.

The book has 2 parts. Part I, "Basic Medical Science of the Respiratory System," consists of 7 chapters, and Part II, "Clinical Assessment," has 3 chapters. At the end of each chapter are several questions designed to reinforce the concepts discussed. Unfortunately, there is no bibliography, although several of the figures are referenced. I found the index useful and referred to it many times during my review. The book's color format is based on various shades of blue, which at first seemed pleasant, but some of the figures would have been clearer with additional colors.

Chapters 1 through 3 provide a cursory overview of lung anatomy and physiology, with figures, tables, and diagrams that are appropriate, not overdone, and easy to follow. Chapter 1 gives an abbreviated overview of the respiratory system that prepares the reader for what lies ahead in the succeeding chapters. Chapters 2 and 3 describe the anatomy and physiology of the upper and lower respiratory tracts, respectively, and their embryonic development. Chapter 2 also discusses disorders of the nose, pharynx, and larynx, whereas Chapter 3 describes defense mechanisms (at the physical, humoral, and cellular levels), some of the lung's metabolic functions, and fetal pulmonary circulation. The figures and tables support the text and are appropriate.

Chapters 4 and 5 address ventilation, gas exchange, perfusion, and gas transport. Particularly helpful, again, are the illustrations and tables, which visually reinforce concepts that can be difficult to grasp from just the written word. Chapter 4 provides a good description of dead-space characteristics, the distinction between minute and alveolar ventilation, and the definitions of various lung volumes. One minor discrepancy I noted was that the text uses the term " V_T " for tidal volume, but most of the figures and tables use "TV." The description of pulmonary mechanics, especially the section on the compliance and elastic properties of the lung, is well written. The explanation and illustrations of airway resistance and work of breathing are well done. Some of the figures in Chapter 4 require close scrutiny because of their use of blue shading. In Chapter 5 the principles of hydrostatic, colloid osmotic, and colloid oncotic pressure are presented in relation to fluid balance in the lung. The concepts of filtration and reabsorption (ie, fluid dynamics) are not easily explained, but the author's attempt is noteworthy in this challenging subject. A couple of the figures are somewhat complex and may require a little extra attention, although they are important to understanding the concepts presented. Ventilation-perfusion relationships are addressed, along with consequences of their mismatch. Oxygen and carbon dioxide transport are described, which provides a springboard to the discussion of the oxyhemoglobin dissociation curve and the various factors that shift the curve (eg, temperature, pH, and 2,3-diphosphoglycerate). The various forms of hemoglobin and their effects on the oxyhemoglobin dissociation curve are also addressed.

One of the figures in this chapter provides the derivation of the alveolar ventilation equation, which seems unnecessary and may confuse some readers. There is a nice overview of acid-base balance and disturbance, along with a schema for interpreting acid-base disorders.

Interestingly, Chapter 6 ties in the neural, metabolic, and chemical control of ventilation with the pharmacologic agents used to treat respiratory diseases via the aforementioned "affectors." This appears to be a novel approach to the subject, which again illustrates the integrative format of the book. The control of ventilation is a complex topic, but the author does an outstanding job in synthesizing the information and presenting it clearly and concisely. The figures and graphs successfully support the text and reinforce the concepts. The section on responses to "extreme environments" was very interesting and took the physiology one step further. Chapter 6 includes a brief description of the cellular mechanisms of bronchodilators, steroids, and other respiratory drugs.

Chapter 7 describes the clinical features, diagnosis, and treatment of pulmonary diseases often seen in clinical practice. The author grouped lung disorders into: congenital abnormalities (eg, cysts and agenesis); infectious diseases (eg, pneumonia and tuberculosis); airway disorders (eg, chronic obstructive pulmonary disease, bronchitis, and alpha-1 antitrypsin deficiency); vessel disorders (eg, pulmonary congestion, edema, and acute respiratory distress syndrome); and interstitium disorders (eg, fibrosis, pneumoconiosis, and bronchiolitis obliterans). Also discussed are neoplastic lung diseases and their staging, iatrogenic pulmonary diseases, and pleural diseases. The descriptions of the pathogenesis of various lung diseases and types of emphysema are succinct and easy to follow.

Woven throughout all of the chapters in Part I are references to lung disorders associated with the physiologic and/or anatomic abnormalities described. This format integrates the underlying concepts with the overlying disease states, which definitely separates this book from many others. The use of icons and accompanying statements, dispersed throughout the chapters, reinforces the text and adds to the overall integrated format.

Part II addresses the clinical assessment of respiratory disease. Chief complaints, signs, and symptoms are addressed in Chap-

ter 8, the history and physical examination in Chapter 9, and tests in Chapter 10.

In Chapter 8, signs and symptoms (eg, cough, dyspnea, wheezing, sputum production, and chest pain) are characterized in terms of underlying cause. The types of sputum and patterns of hemoptysis are described. The author makes use of several diagnosis and treatment algorithms.

Chapter 9 begins with a framework for eliciting a history from the patient and ends with an overview of structuring a physical examination. However, it goes one step further by presenting a short section on verbal communication skills, tailoring the interview to the patient, and how to ask questions. Although those might seem intuitive and out of place in a physiology textbook, I extend a sincere thank you to the author. I believe that verbal and written communication skills cannot be overemphasized.

The section on finger clubbing includes a figure that shows normal fingers, but only a textual description of clubbing. An illustration of clubbing would have been useful. The illustrations of ptosis, neck anatomy, testing of the jugular venous pulse, and sites of percussion adds a nice dimension to the reading.

The last chapter describes commonly performed pulmonary tests. Tables describe the tests, normal values, and the meaning of high and low values. There is a short description of the closing volume measurement. Although I think this test is rarely used, the accompanying figure gives some insight into the distribution of alveolar ventilation; it might have been better placed in Chapter 4.

The section on imaging includes ultrasound, radiograph, pulmonary angiography, computed tomography, high-resolution computed tomography, and magnetic resonance imaging. Anecdotally, I recall a colleague who once said, and I paraphrase, a test should be ordered to confirm the diagnosis, not make it. He went on to say, that if you listen to the patient, the patient will tell you what is wrong.

In conclusion, because of the author's integrated approach to respiratory physiology, this is an outstanding book not only for a review of the respiratory system but also as an adjunct text for students. In teaching at one of the largest medical schools in the United States, it has been my observation that most first-year medical students have been accustomed to rote teaching at the undergraduate level. In medical school, how-

ever, the curriculum requires a more integrative approach, and this book provides that bridge between the rote and integrative methods. I thoroughly enjoyed reviewing this book and I will add it to my library.

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High-Yield Lung, Ronald W Dudek PhD. *High-Yield Systems* series. Philadelphia: Lippincott, Williams & Wilkins. 2006. Soft cover, illustrated, 143 pages, \$29.95.

When beginning medical school, most students don't have a tried-and-true method for learning huge amounts of information or determining which of the myriad topics are most important or useful. No medical student likes having to memorize things that will be of no practical use as a physician, yet sometimes we feel as if we are doing just that. Of course, when they enter the clinical years, students figure out what they need to know, and forget the knowledge they don't. I often wished for a review book that revealed which were the clinically relevant topics and facts, and which could be crammed in before a test and subsequently forgotten. That book would include clinically relevant pictures and diagrams useful while on the wards. If only such a book had existed during my first 2 years of medical school, life would have been much easier. For today's medical student, **High-Yield Lung** meets that need. In comparison to most review books, **High-Yield Lung** does an excellent job of covering material that is useful both in tests and in the clinic.

Many review books are dragged down by a lack of pictures or visually pleasing layout. Not so with **High-Yield Lung**. The layout is easy to follow, and the figures and images are excellent, which is particularly nice, as most review books seem to assume that the relevant pictures are easily available elsewhere. Sometimes they are, but useful images are often scattered among multiple sources. In this book most of the figures are included with their related text in the chapter, though a notable exception is in the chapters on microbiology and pathology,

where the images are at the end of the chapters. This is a minor annoyance, but it made for somewhat labored reading, with frequently flipping back and forth between pages. However, the authors may have had no choice, as these pictures are quite large; often a single set of pictures corresponding to a particular disease entity takes up a whole page. Another welcome addition is the radiographs and thoracic computed tomograms included in the chapter on chest radiology. These in particular are a good example of the clinical focus of this text; this material is quite low-yield for the United States Medical Licensing Exam (USMLE) step 1, and usually isn't heavily emphasized in 2nd-year courses, but will no doubt be useful to students in clinical rotations. Overall, the figures in **High-Yield Lung** go beyond what is traditionally offered in review books, and are an excellent educational resource.

The book begins with embryology, and then moves through anatomy, radiology, histology, physiology, pathology, microbiology, and pharmacology. Basically, this is a systems-based book on the lung, divided into chapters by basic science disciplines. The approach seems to work well, and should work especially well for the aspiring student, from the start of medical school. The book is detailed enough to be used for some sections of an anatomy or embryology class. Later the student could use it during a discipline-based pathology course, when dealing with lung pathology, or in a systems-based pulmonary course, or during 3rd and 4th year rotations and electives. One of the strengths of **High-Yield Lung** is that the writing and presentation is conducive to reading at various levels during a medical-school career.

The physiology and pathology chapters stand out for their excellence. The physiology chapter uses a good combination of figures (included at appropriate points) and text, and the writing is succinct but also explains everything well, without drowning the reader in esoteric details. The pathology chapter is also exemplary for its brevity and thoroughness. Well-thought-out explanations make it a fun read and provide sufficient information for most 2nd-year pathology or respiratory courses. These chapters are great for the first 2 years of medical school because they help identify the most important knowledge from the many details in the lectures and readings. This same compliment applies to most of the other chap-

ters. I wish I had had this book during my respiratory course.

Given its scope and the amount of detail, **High-Yield Lung** will be useful for students and clinicians at various levels. Foremost, the book will be useful for 1st and 2nd year medical students, which is one of the author's stated aims. It will also be useful for 3rd-year students to review the pulmonary system, and perhaps also for respiratory therapists seeking a basic, comprehensive review of the lung system, but without too much depth.

I read the book repeatedly, and it is obvious that a lot of time and care was put into it to make it accessible to students at different levels. This is quite different from many other 2nd-year USMLE review books, most of which are not very useful after the student enters the clinical years, either because they lack enough detail or they include topics that aren't so useful. Thus, the details in this book are what make it a good read for such a broad audience, from 1st-year through 4th-year medical students.

However, the book's stated aim of preparing students for step 1 of the USMLE is quite misleading; this book has far more detail than is needed to pass the USMLE step 1. This is my only major complaint about this otherwise wonderful review book. The large amount of detail which make the book good for a broad audience also poses a "catch-22" of sorts. On one hand, the amount and depth of material covered in this book is too much for the step 1 USMLE examination, and on the other hand this book entirely misses certain USMLE topics. For example, the pharmacology section does not discuss any adverse drug effects, which is inexcusable, since the step 1 examination has questions about adverse drug effects! But the amount of detail in this book is far too much for step 1 review; especially to start reviewing for that test, the reading would be overwhelming. The sections on embryology and anatomy are particularly laden with excessive detail that is not covered in the step 1 examination. While there are some step 1 questions on radiology, the questions ask for nowhere near as much detail as is given in the chapter on chest radiology. Though the information might be clinically useful, this book lacks the brevity that students appreciate when studying for the USMLE step I. And my criticism about lack of brevity applies to the entire book. A good USMLE step 1 review book, in my opinion, presents the bare essentials neces-

sary to do well on the test, preferably presented in tables or in an outline format; this book does neither. Though the bare essentials are, for the most part, included in this book somewhere, they are not as accessible as they should be for step 1 test preparation.

Another criticism of this book is that in some places it's hard to read because of the text size and layout. For example, the chapter on microbiology is well-written, to be sure, but I think the layout is not conducive to review or first-time reading. Putting all the details in one paragraph, in rather small type, with occasional words in bold is a great way to tire and frustrate even the most dedicated and focused reader.

However, I only make these complaints because the book claims to be good review for the USMLE step I, which it is most certainly not. However, considering the book on its other merits, and relative to the other claims in the introduction, it is an excellent basic respiratory review that would complement any medical school curriculum, either systems-based or discipline-based. It would be a good resource during all 4 years of medical school, which is a rare attribute. Perhaps its greatest achievement is combining basic science with relevant clinical details, in a book that can be read and enjoyed by medical students at all levels.

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Clinical Manifestations and Assessment of Respiratory Disease, 5th edition. Terry Des Jardins MEd RRT and George G Burton MD FAARC. St Louis: Mosby/Elsevier. 2006. Soft cover, illustrated, 654 pages, \$62.95.

I have taught from **Clinical Manifestations and Assessment of Respiratory Disease**, by these 2 seasoned writers, since the second edition was published. The latest edition included Beverly Ervin MSA RRT as a contributor. I was honored when asked to review the latest edition of this well-known lung disease book.

What makes this book unique is the format used throughout the chapters on lung disease. Each disease is presented in the following format: an illustration and discus-

sion of the disease's major anatomic alterations, pathologic mechanisms, clinical manifestations, and treatment options. Each chapter follows a set sequence of sub-topics: etiology, clinical manifestations, treatment and management, case study, and self-assessment test. The primary focus of each chapter is the overview of clinical manifestations, which describes the common clinical signs and symptoms. This assists the reader to gather relevant data, make an objective evaluation, identify the desired outcomes, and design a safe and effective treatment plan. Without this understanding of disease management, the clinician would merely go through the motions of performing therapies without adequate understanding of their effectiveness or when to adjust therapy.

The case studies provide realistic scenarios of patients suffering with disease, manifestations of the disease, and notes from the subjective/objective/assessment/plan (SOAP) method. The case studies in the chapters and at the end of the book are brief enough to be used in the classroom, for group discussion or small-group work. I found the cases realistic, accurate, and a good teaching tool.

The book's first section is dedicated to assessing the cardiopulmonary system and the data from common laboratory tests and special procedures. The chapters on patient interviewing and physical examination are particularly thorough. Although the topics covered in this first section (which accounts for 130 pages of the book) are often included in other lung disease books, what is unique here is the authors' attempt to tie in the assessment data and findings to normal physiology. In addition, in the chapters that cover specific diseases, the clinical manifestations of each disease are discussed with a reference to pages in this first section, which introduces related concepts. Again,

the authors bridge the normal physiology and the pathophysiology.

Two additional topics are covered that are not typically found in disease-related books. Chapter 9 covers therapist-driven protocols, with discussion on the knowledge base and assessment skills needed to implement a protocol. Examples of appropriate protocols are included. And Chapter 10 covers recording skills and how to collect and organize assessment data and therapeutic outcomes. This chapter will assist students in developing good documentation skills. The Health Insurance Portability and Accountability Act is also discussed.

What I found particularly useful in the disease chapters was how the suggested treatment plans for each disease are referenced to the therapist-driven protocol in Chapter 9. This tactic minimizes redundancy between chapters.

The color illustrations of the diseases are useful for scanning into presentation software for use in the classroom. A 2-color version of each photograph is also provided at the beginning of each chapter.

Parts II through XIII cover the lung diseases a respiratory therapist will encounter. Most are thorough and have been updated since the 4th edition. I did find a few chapters that omit key concepts or material. For example, I was surprised that the definition of chronic obstructive pulmonary disease, in Chapter 11, omitted reference to the Global Initiative for Chronic Obstructive Lung Disease, which redefined COPD and developed new standards of care. Chapter 15 has less than a page on community-acquired pneumonia and ventilator-associated pneumonia, which are timely topics that need further discussion. Chapter 17 on tuberculosis omits environmental control measures for the hospitalized patient with active tuberculosis. The chapters on sleep apnea, lung cancer, and acute respiratory distress syn-

drome cover these topics superficially. However, the remaining chapters are thorough and offer the detail appropriate for students in either an associate or bachelors degree program.

A few other minor issues I noted include: using the outdated term "rhonchi" to describe lung sounds; interchanging the terms "emergency room" and "emergency department" in most of the case studies; and gastric reflux is not discussed beyond a sentence or two in Chapter 13, on asthma, whereas it is covered in depth in Chapter 15, on pneumonia.

The book concludes with 10 additional practice case studies, with sections to have the student complete his or her own SOAP notes; the authors' answers are provided elsewhere in the book. These cases lend themselves well to class discussion or having students in small groups complete the SOAP notes. The appendixes and glossary are thorough.

To accompany the 4th edition the authors wrote a book of case studies tied to that edition. I hope they provide a similar partner book for this 5th edition. However, instructors may find adequate the 5th edition's emphasis on SOAP notes and its supplemental cases at the end of the book.

This book has evolved over the past 5 editions to become a staple in the respiratory care classroom. The book uses a number of andragogical principles that will assist the student in developing a good understanding of the concepts.

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