

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-