

Entry Level Respiratory Therapist Exam Guide, 4th edition. James R Sills MEd CPFT RRT. St Louis: Elsevier/Mosby. 2005. Soft cover (with CD-ROM), illustrated, 372 pages, \$56.95.

Respiratory Care Exam Review: Review for the Entry Level and Advanced Exams, 2nd edition. Gary Persing RRT. St Louis: Elsevier/Saunders. 2005. Soft cover (with CD-ROM), illustrated, 254 pages, \$56.95.

Few students look forward to taking the National Board for Respiratory Care (NBRC) credentialing examinations. The reality is that it is necessary to review 2 study-years' worth of content to adequately prepare. Both of these review books endeavor to prepare students to successfully complete the NBRC credentialing examinations. The books share a common goal, but the authors used divergent methods to present the review information. Persing used a more minimalist approach and reviews content for the entry-level, written registry, and clinical simulation examinations in just 254 pages, whereas Sills is more inclusive and used 372 pages to review information for just the entry-level examination. Each book has unique and useful characteristics, as well as some weaknesses.

The **Entry Level Respiratory Therapist Exam Guide** consists of 17 chapters and includes the entire NBRC 2003 Detailed Content Outline for the entry level Certified Respiratory Therapist (CRT) examination. The extensive introduction explains the examination matrix, format, and difficulty levels of the questions, and includes information on multiple true/false questions, suggestions for examination preparation, and addresses and telephone numbers of important organizations, such as the National Board for Respiratory Care. The table of contents may be of limited use, as it only lists the chapter titles, chapter page numbers, and the contents of the accompanying CD-ROM. Each chapter follows a standardized format that includes specific information from the examination matrix, background information, relevant tables, excellent illustrations, examination hints, and a bibliography. Additionally, each chapter ends with 10–23 well-written self-study questions. The book's index is comprehen-

sive, and I found common terms easily. The CD-ROM contains 2 complete entry-level examinations and their corresponding answer keys.

Respiratory Care Exam Review: Review for the Entry Level and Advanced Exams consists of 17 chapters and includes an acronym list on the inside front cover and a list of commonly used equations on the inside back cover. The preface explains the purpose of the text and CD-ROM and how it is possible to use one book to prepare for all 3 NBRC examinations. Persing includes an expanded table of contents that lists page numbers for all chapters, subtopics, tests, and answer keys. When thinking like a student, I was unable to find the terms "compliance" (which is listed in the index under "lung compliance") and "shunt" (this is listed as intrapulmonary shunt) in the index. However, I easily found "compliance" in the table of contents and the shunt calculation on the back cover. The book includes a 140-question entry-level examination, a 100-question written registry examination, and answer keys for both. The CD-ROM includes an entry-level and a written registry practice examination, as well as 10 clinical simulations. Chapter organization consists of 4–8 multiple-choice pretest questions, review information, hints, examination notes, and 6–34 open-ended post-chapter study questions. Answer keys for the before and after questions are included in the book.

When comparing content, both books review the information necessary to prepare for the latest version of the entry-level examination matrix. Both authors sprinkle their chapters with useful time-saving tips, common test-taking mistakes, examination hints, and examination notes. Chapters in Sills's book list specific NBRC content outline codes and are structured to specifically address every item on the examination matrix, so the student can be sure to review all items. Additionally, this format means that much more information is included on equipment troubleshooting, operation of equipment, and items such as coordinating patient care and discharge planning. Sills uses almost a page of text and 3 illustrations to review dry powder inhalers, whereas Persing uses only a few sentences. Persing covers blood gas

analyzers in a column of text, whereas Sills uses 8 pages, illustrations, and a Levey-Jennings chart to review quality control and troubleshooting for a blood gas analyzer. Sills's format is not without its drawbacks. Imagine the difficulty of logically organizing a chapter using content items such as "Analyze available data to determine pathophysiological state" or "Review interdisciplinary patient and family plan."

Because Sills reviews information with exhaustive detail, the format can be cumbersome if one wants to find quick answers. I thumbed through 6 pages in the chapter "Cardiac Monitoring and Cardiopulmonary Resuscitation" to find the normal chest-compression depth for adult cardiopulmonary resuscitation. Because Sills includes content specific to the NBRC entry-level matrix, there is no mention of high-frequency chest-wall oscillation in the chapter on bronchopulmonary hygiene therapy. Because Persing's book includes content for the NBRC registry examination, it reviews information on some subjects not covered in Sills's book, such as nitric oxide therapy, and several topics unique to neonatal patients. Persing does a nice job of highlighting information in each chapter specific to the registry examination. A new Registry Examination Content Matrix was implemented January 1, 2005. The only examination content I could not find in Persing's book was "Record and monitor quality-control data using acceptable statistical methods." Persing's book presents a greater number of practice-testing opportunities: 2 entry-level examinations, 2 written registry examinations, and 10 clinical simulations.

Sills's book and CD-ROM contain the most well-written recall, application, and analysis questions, as well as excellent multiple true/false questions. The quality of these questions is consistent with those on the NBRC examination. The tests on the included CD-ROM resemble the computerized NBRC examinations and do not include test questions identical to those in the corresponding text. The actual NBRC entry-level examination includes 160 questions, which must be completed in 3 hours. Both the practice examinations have only 140 questions to complete in 3 hours. Similarly, Persing provides 100 written registry

questions to complete in 2 hours, whereas the actual NBRC examination is 120 questions in 2 hours. Both the practice tests monitor and display the elapsed time. Neither practice test includes the NBRC option to hide the clock. The clock in Sills' program displays tenths of a second, which some might find distracting. Persing's program allows the student to turn feedback review off or on. Additionally, the student can suspend test-taking and select to either exit or have the program score the completed portion of the examination. Sills' program provides feedback on all pre-test examination questions. No scoring information is provided on the post-test until the entire 140-question examination is completed, and there is no option to exit early with scoring.

Although both books are new editions, each book is somewhat dated in both content and references. Sills reviews ventilator discontinuance using a "T-piece trial," but does not review methods that use low levels of continuous positive airway pressure and/or low levels of pressure support (5–7 cm H₂O). Sills's book includes excellent figures, which depict the comparisons of peak and plateau pressures with various compliance and airway resistance values, but uses a manometer to do so. While most students will appreciate the pressure/time tracings that are also included, most students will only recognize and relate to electronic digital (not manometer) displays of pressure. Persing uses the term "pressure-cycled" when describing the cycling of infant ventilators and "pressure support," and in the section "Maintenance of the Ventilator Circuit" he states that the "circuit should be changed at least once per week." Neither author reviews volume-targeted ventilation nor airway-pressure-release ventilation, possibly because they are not specifically listed in the examination content matrix.

Both books list ventilator weaning criteria that are not supported by the published evidence-based guidelines¹ (namely, vital capacity > 10–15 mL/kg) or are not inclusive of all evidence-based variables (eg, Sills does not list the ratio of P_{aO₂} to fraction of inspired oxygen, or the ratio of respiratory frequency to tidal volume). Persing lists a 15% increase in flow as indicative of bronchodilator response, but the American Thoracic Society recommendation is a 12% increase and 200 mL.² In this same section the 6th edition of the Manual of Pulmonary Function Testing is referenced, but an 8th edition was published in 2004.³ Similarly,

Sills lists the National Asthma Education Prevention Program Expert Panel Report II, but does not include the 2002 Update on Selected Topics.⁴ Both books include a few other dated references. Each book contains occasional content errors, but I found no typographical errors, and, given the amount of information reviewed, I commend the authors on how much they got right.

Sills and Persing kept the features that made the previous edition popular with students, and added and updated content to reflect the most recent NBRC examination matrix. While the primary audience of these books is the student preparing for the NBRC examinations, either book could be used as a study guide while in a respiratory care program. Both books provide a remarkable expanse of information, at a very affordable price. I will not hesitate to recommend these books to my students.

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Write It Down: Guidance for Preparing Effective and Compliant Documentation, 2nd edition. Janet Gough. Boca Raton, Florida: CRC Press/Taylor & Francis Group, 2005. Hard cover, illustrated, 479 pages, \$229.95.

The 2nd edition of **Write It Down: Guidance for Preparing Effective and Compliant Documentation** is an excellent addition to a reference library. Written mostly by one person, but with contributions by 14 professionals in the pharmaceutical, biotechnology, and medical-device industries, this book would be useful for anyone interested in preparing effective documentation and extensive information on the structure of lan-

guage, with focus on those components that are particularly troublesome for non-native writers of English.

The author points out in the introduction that this book is not a book of regulatory guidance, but instead is written with a 3-pronged focus: (1) to help writers understand the "why" of what they must write and the current industry standards for good documentation practice, (2) to provide effective examples of a broad spectrum of documents, and (3) to provide in-depth explanation of grammar and punctuation conventions. The book incorporates examples from working documents, including data-collection forms, audit reports, standard operating procedures, laboratory methods, development reports, excerpts from quality manuals and plans, and sections of dossiers.

The format in the first part of each chapter is easy to read, letting the reader know in the beginning what each chapter provides, from various perspectives of writing instructions, and examples of documents from first-hand industry experience. The reader can quickly determine which chapters might offer the information needed for the material they are attempting to write. This style of providing information develops throughout the book.

The opening chapter gives a good overview of writing within the regulated environment, with Title 21 of Code of Federal Regulations, Part 211, as the primary regulatory focus. This chapter establishes the reader's interest and provides essentials of why writing plays such an integral part in companies that develop, manufacture, and market therapeutic products. The following chapters cover various applications of writing for all types of industry settings. Each chapter is divided and organized so that the reader can walk through the information, focusing on the different components of writing as the information relates to what he or she may be working on at that particular time.

The content of Chapter 2, "Connecting Writer and Reader," focuses on how knowing who your documents address and what response you want is key to successful technical writing. This chapter provides additional information on how to ensure that the documents address the intended audience and elicit the desired response. It is important to be objective about who the intended readers are and to pay attention to how they will receive and use the information.

In Chapter 3 the author develops the process of organizing and delivering information. The writer of any document must learn to “look at it from 2 angles: logic and development of ideas.” While this is often difficult for writers, this chapter walks through the process in a manner that helps the writer understand how to develop this skill, with written examples to support and explain the process.

Chapter 4 will be very helpful for anyone who writes business correspondence, letters, memoranda, electronic correspondence, and facsimiles. A letter is, in many cases, the first contact a party has with a company, and you want their first impression to be the correct one. While letters are usually inter-organization communications and memoranda are intra-organization communications, facsimiles can be either, and you want to make sure that you are conveying the correct message in your wording. Knowing how to convey an accurate and professional piece of correspondence is very important. This chapter offers many good ideas and examples.

Chapter 5 addresses the skill of writing policies, plans, manuals, procedures, and methods, and describes why it is very important to understand the process of writing these correctly. The chapter explains the backbone process documents that must be in place for companies to operate compliantly. Examples of various process documents are provided. Chapter 6 discusses data-collection and routine reporting. Chapter 7 discusses process reports. Chapter 8 discusses summary writing. These chapters address the differences and similarities in writing routine reports, process reports, and summary reports. There are many different examples, along with specific information on what to include and what not to include in each.

The book’s largest section, Chapters 9 through 12, extensively covers grammar, writing style, sentence structure, managing verbs, and punctuation. These chapters are very informative and useful for developing clear, professionally written papers.

Chapter 13 is a glossary, which is very informative and offers good insights for avoiding inappropriate words in formal writing. Chapter 14, “Acronyms, Symbols, and Abbreviations,” offers help for eliminating the confusion and possible misunderstandings when using these in formal writing.

In summary, **Write It Down: Guidance for Preparing Effective and Compliant**

Documentation, is very helpful and informative, and the format makes it easy to read. It would be useful to professionals, both as a reference and a teaching aid, to enhance the preparation of effective documents. I would conclude that any person who has to provide documentation in a clear, effective, and professional manner will find it invaluable.

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The Respiratory Therapist’s Legal Answer Book. Anthony L DeWitt RRT CRT JD FAARC. Sudbury, Massachusetts: Jones and Bartlett. 2006. Hard cover, 501 pages, \$59.95.

DeWitt, an attorney and former respiratory therapist, has written a sound basic overview of general legal principles a respiratory therapist or nurse may encounter (and many that they will wish to avoid) in the regular course of their profession. The legal points included are sound, the analysis is accurate, the examples are usually helpful; for the most part, this is a handy reference or starting point to research the legal issues that can accompany many health-care situations. It contains information that will help avoid liability in the practice and legal problems relating to employment, and perhaps can even help address some of the ethical issues routinely confronted in this field.

A book can never replace an attorney. While this book may help practitioners to avoid some legal problems, and briefly explain the legal system, it cannot be relied upon for specific situations. Yet it does provide answers to common legal questions that can arise. It is written in an easy-to-use question-and-answer format, and it provides a complete survey of the legal principles that a respiratory therapist might encounter in employment settings. An understanding of some of those basic legal principles might help a nurse or therapist avoid legal pitfalls and lawsuits.

A treatise such as this should be restricted to legal principles and guidelines. Sometimes DeWitt’s bias and opinions creep in. On page 1, in the first paragraph, DeWitt says, “It is difficult to adequately describe ‘the legal system’ in a book that isn’t filled with legal jargon, because the legal system tries very hard to make itself difficult to

understand.” That opinion is incorrect. The legal system does not use jargon in a deliberate attempt to make itself hard to understand. Books on pathology or physiology contain medical terminology, but that does not mean that the health-care field deliberately uses jargon in order to be difficult to understand. Legal books and journals use legal terminology for the same reason medical books and journals use medical terminology: to be precise and accurate.

DeWitt wrote in simple, easy-to-understand language; at times maybe too simple. While there is nothing wrong with using examples, DeWitt uses the names Curly, Moe, and Shemp as parties in contract negotiations, which seemed somewhat condescending. Phrases such as “Lawyers are like nuclear weapons” (page 447) and “A lawsuit is much more like a ride through a haunted house on Halloween,” (page 2) seemed out of place in a serious work.

I expected this book to confine itself to legal issues that arise in the practice of respiratory care, such as liability for negligence, battery, lack of informed consent, and contractual issues. Indeed, these issues are covered, but so are other legal issues, including homeowners insurance, consumer-protection litigation, and domestic relations (divorce). Perhaps this broad focus will make the book more valuable to some readers, but the target audience will most likely be using this as a tool for legal issues that relate directly to their profession. If DeWitt intended to write a broad survey of the law for every occasion, there are many other issues (eg, tax law, estate planning, and securities law) that should have been included.

One problem with such a broad-based survey of law is that it is too general. If the author had concentrated on the legal issues that relate to the profession of respiratory care, he could have included more detailed analysis, including reference to more relevant legal cases. Legal research in the LEXIS and WESTLAW databases would have produced numerous citable cases where respiratory care was involved in allegations of negligence. Including a description of some of those cases might have made the book more interesting and relevant to the target readers.

DeWitt includes his own opinions in some sections, and that is fine, but he could have been clearer in differentiating between law, fact, and opinion. For example, in Chapter 8 he strongly recommends that respiratory therapists obtain their own malpractice in-

insurance. On page 262 he states, "The most common misconception is that you are covered under the malpractice liability policy of the hospital you work for." He then states that employees are not covered. That has not been my experience. I have been personally involved in many cases in which hospital employees were covered by hospital insurance for acts within their scope of employment. A hospital can act only through its agents and employees, so, for instance, if a nurse administers a wrong medication, the hospital can be sued, because the hospital is responsible for the nurse's negligence, under the legal doctrine of *respondeat superior* (let the master answer for the wrongs of the servant). However, if DeWitt wants to recommend the purchase of malpractice insurance, he certainly can, and should. One reason a person consults an attorney is to obtain good advice, and that recommendation might be such. Yet it should be presented as a recommendation, instead of implying that it is clearly established.

Since this is more of a reference book than one that most people will read cover-to-cover, the detailed table of contents and the index are helpful. The last chapter, which deals with ethical issues, was a nice addition. Sometimes the question is not whether a course of action is legal or illegal, but whether it is ethical, and clinicians should have high ethical standards. It is good to have something written about this important subject.

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Qualitative Research Methods, 2nd edition. Pranee Liamputtong and Douglas Ezzy. South Melbourne, Victoria, Australia: Oxford University Press. 2005. Soft cover, 410 pages, \$59.50.

As the title indicates, this book is about methods of qualitative research. It provides a practical guide to address the most commonly used techniques for collecting and analyzing qualitative data in health science. Its strength is also its weakness. This book is limited in discussion of theoretical perspective and paradigms of qualitative research.

This is the second edition of this title, and 3 new chapters (10, 11, and 15) were added. There are 3 parts and 15 chapters. The parts have no introduction sections to provide an overview of the ensuing chap-

ters, nor are there transition sections to help the reader journey from one chapter to the next. It feels like the chapters exist independently. The reader has to guess from the titles why the chapters were grouped together.

Part 1 initiates a description of the field of qualitative research, starting with the history and philosophy of qualitative research, then discusses criteria for judging the rigor of study findings, including ethical issues and sampling methods. The first 2 chapters describe the foundation of theoretical traditions of qualitative research, including positivism, ethnography, phenomenology, symbolic interactionism, feminism, post-modernism, and hermeneutics. Qualitative research methods commonly used for each tradition are identified, which is valuable information for new qualitative researchers to identify an appropriate method. There is a lot of useful information in Chapter 2, which reviews 12 commonly used qualitative-research sampling strategies. However, the section on rigorous reflexivity (often referred to as trustworthiness) provides limited information. Criterion area and techniques commonly used to establish trustworthiness, such as credibility and negative case analysis, are not included.

Part 2 introduces and addresses 7 methods of quantitative-data collection: interviews, focus groups, unobtrusive methods, narrative analysis and life history, memory-work, ethnography, and participatory action research. These chapters are good in reviewing and summarizing the advantages and limitations of these research methods. Unfortunately, these chapters seem unrelated to each other; there is no overview to provide a holistic perspective on these methods. Some comparison of the methods would help readers summarize the information and choose the right method, so an overview would greatly increase the value and usefulness of this book.

Part 3 is devoted to the application of qualitative research, including researching vulnerable groups, research in cyberspace, analysis processes of qualitative research, and writing qualitative research proposals and reports. This part concludes with discussion of new directions in qualitative research. The new chapter on online research describes computer-mediated communication as a research resource and tool. Chapters 10 and 12 seem to be out of place. Chapter 10, on researching vulnerable

groups, is more closely related to ethical implications of qualitative research, which is discussed in Chapter 2. Ethical issues are discussed all over again in Chapter 11, as they relate to online research; in Chapter 6 ethical issues are discussed in relation to narrative analysis, and in Chapter 12 as they relate to data analysis. Chapter 12, on analysis process, might fit better in Part 2, since all the other information on data analysis is discussed there.

One of the greatest challenges in doing qualitative research is data analysis and interpretation. This book devotes limited space to discussing how to analyze and interpret qualitative data. The book would also benefit from adding a section on the phases of qualitative research. And the authors could have made it easier to access the book's information by providing a more detailed tabulation of chapter content. The index is of limited usefulness; it does not provide complete information on terms used in the book. For example, content analysis is discussed as an analytic strategy used in an unobtrusive method, but the reader would not know that if he or she were only to look at the index under "content analysis."

What makes this book stand out from other books on this subject is that it is easy to read and gives a simple-to-understand introduction to qualitative research methods. It provides broad examples of qualitative-research methods in health-care research disciplines, and readers can learn from these examples how particular qualitative-research methods are used. Also, the length of this book makes it less intimidating than some other books on the subject, though it presents a tremendous amount of useful information. At the end of the chapters there are helpful tutorial exercises and lists of recommended reading on specific qualitative-research topics. Additionally, there is a complete reference list at the end of the book, and a glossary. This book does not belong on every bookshelf but it is a "how-to" guide for beginning qualitative researchers.

Though the primary intended readers are students of health and social sciences, this book could be a good introduction for clinicians who are not familiar with qualitative inquiry. I would recommend it for beginning researchers, but for in-depth discussion of qualitative-research methods and exploration of philosophical and theo-

retical issues in qualitative research, the reader will need to refer to other sources.

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Lung Cancer: Principles and Practice, 3rd edition. Harvey I Pass MD, David P Carbone MD PhD, David H Johnson MD, John D Minna MD, and Andrew T Turrisi III MD, editors. Philadelphia: Lippincott Williams & Wilkins. 2005. Hard cover, illustrated, 934 pages, \$199.

Lung cancer is the leading cause of cancer mortality in both men and women in the United States. This unfortunate truth underscores the importance of creating a comprehensive text devoted to what is also considered a global epidemic. This third edition of **Lung Cancer: Principles and Practice** clearly represents that work. It is an important revision from the previous edition published in 2001. The need for a top-to-bottom revision reflects the rapid evolution of all aspects of this field. With this new edition the authors clearly intended to provide us with the latest and most relevant information, and they recruited active researchers and thought-leaders to write the chapters. The fact that approximately 50% of these contributing authors are new from the previous edition is a reflection of that intention.

The text is well-organized, into 13 parts and 63 chapters, which cover virtually all aspects of lung cancer, from epidemiology and biology to the relevant clinical topics of screening, staging, treatment, and palliation. Although this chapter-heavy format runs the risk of over-organization and therefore repetition, it also creates a resource that is easy to search and extract information when seeking an answer to a specific question. Searching this text for information is made even easier by its detailed, 26-page index.

Generally, each chapter is well-researched and well-written, by at least one author with substantial experience in the topic at hand. Impressively, almost no individuals contributed to more than one chapter, and contributing authors were recruited from all over the country and the world. The large number of research papers cited in the references sections of almost every chapter is impressive and reflects the careful and thoughtful approach taken by each contributing author.

Whenever there is a large number of authors, there is a risk of differences in the structure of individual chapters, and, unfortunately, that does happen to some degree in this text. The uniform inclusion of a summary section in each chapter would have been helpful, especially in the more detailed chapters, in which a wealth of research information must be synthesized and digested. For clinically relevant material it is always desirable for the author to provide recommendations based on his or her interpretation of the evidence. This helpful practice was not utilized enough in this text.

The reproduction of figures was one of the few consistent disappointments. The only color images are in the plates grouped in the center of the text, and I found it cumbersome to have to go back and forth between the chapters and the plates. Additionally, many of the color figures are too small to allow useful visualization of the image details. Black-and-white figures appear in the chapters, and many of these are also too small and/or blurred. There are a number of instances in which the figure legend indicates that there are arrows or arrowheads in the figure but there are none.

The text is written primarily for physicians and should appeal to oncologists, surgeons, pulmonologists, and radiation oncologists. The text should prove informative for both community and university-based physicians, and it is a valuable resource for residents and fellows. Although they are clearly not the target audience, nurses and respiratory therapists who work extensively with patients who have lung cancer will find some of the information of substantial supplemental value.

The text begins logically, with several chapters on the etiology and epidemiology of lung cancer (Part I). Appropriately, the role and treatment of tobacco dependence is a major focus. In Chapter 4, I enjoyed the piece on addressing smoking cessation in patients who have already been diagnosed with lung cancer; this important concept is not commonly covered in many resources. In Chapter 4 it would have been helpful to list resources such as Web sites and literature for patients who would like help with smoking cessation. Additionally, there was no discussion or comment on common alternative therapies frequently considered by individuals desperate to quit smoking, such as hypnosis, acupuncture, and cognitive-behavioral methods. Also, there was no practical comment on the current status of payer

reimbursement for practitioner time devoted to smoking cessation.

Chapter 5 covers genetic susceptibility to lung cancer. Mercifully, this chapter is short, because it reads more like a laundry list of candidate "soiled genes." Chapter 6 is devoted to nontobacco-related causes of lung cancer. This relatively short chapter is the only one that focuses on occupational-exposure carcinogenesis, and I was disappointed that the subject was not covered in greater depth.

The 8 chapters in Part II address lung cancer biology. I especially enjoyed the discussion on epigenetic changes in lung cancer—molecular changes that do not alter the deoxyribonucleic acid (DNA) base sequence, but result in altered gene expression, typically gene silencing. Examples include DNA-methylation and covalent modification of histone proteins. Excellent summaries of other important genetic modifications can also be found in Part II. Another currently important subject is the role of tyrosine kinase abnormalities in non-small-cell lung cancer. It is thought that epidermal-growth-factor-receptor alterations are involved in 40–85% of non-small-cell lung cancers. Chapters 11 and 13 contain excellent reviews of recent studies in this active research topic and include a nice discussion on the mixed results from the therapeutic trials with epidermal-growth-factor-receptor inhibitors (monoclonal antibodies to the ligand-binding extracellular domain [cetuximab] and low-molecular-weight inhibitors of the receptor's tyrosine kinase [erlotinib and gefitinib]) and insights into future approaches on how to integrate therapeutic targets to these abnormalities with existing chemotherapeutic strategies.

In Part III, Pass et al turn their attention toward screening, early detection, and prevention. Chapter 15 has a good summary of historical data on the utility of bronchoscopy and sputum analysis for early detection of lung cancer. Chapter 17 deals with lung-cancer screening. I found this chapter unnecessarily confusing and wordy. Concepts such as "lead-time bias" and "length-time bias," frequently encountered in the literature, are buried and not easily recognizable in the authors' discussion. Additionally, I would have appreciated a greater focus on available results from clinical trials that used low-dose computed tomography for screening high-risk individuals.

Part V covers the clinical presentation, diagnosis, and staging of lung cancer. Most

of these chapters are thorough, well-written, and contained information relevant for clinicians. Chapter 26, which covered positron emission tomography (PET), was surprisingly thin, especially given the robust amount of recently published information on PET in lung cancer diagnosis and staging. More information on PET technique, examples of PET/computed-tomography fusion images, and clinically-oriented recommendations (eg, when should PET be used in the work-up of a patient with lung cancer?) should have been included. Chapter 28 is an excellent review of both preoperative and postoperative lung-cancer staging; however, an important subject of controversy that was inadequately addressed is the role of PET in staging mediastinal lymph nodes and PET's value in the context of the current accepted standard: mediastinoscopy. Finally, Chapter 29 should be eliminated, given its narrow scope and the fact that the information in it appears in other chapters.

I am not a surgeon, but I have 3 critiques of Part VI, which addresses surgical aspects. First, Chapter 31, which covers surgery for early-stage non-small-cell lung cancer, was brief, and the interested reader will need to find another text to gain a greater depth of understanding on this subject. Second, although I enjoyed the up-to-date, clear, unbiased discussion on recent trials in adjuvant chemotherapy for resectable non-small-cell lung cancer, the topic is well-covered in Chapter 45 and doesn't belong in this section. Finally, most of the chapters in this part do not contain information on ongoing or future trials in the surgical management of lung cancer.

Parts VII through X focus on radiation therapy, chemotherapy, and multimodality therapy of small-cell and non-small-cell lung cancer. The chapters on radiation therapy (Part VII) are detailed and clearly organized. The chapters on chemotherapy (Part VIII) are also informative, though Chapters 40 and 41, which cover chemotherapy for advanced non-small-cell lung cancer, should really be combined, as they contain essentially the same information. I found the notion of carving out separate chapters for treatment of the elderly ("Non-Small-Cell Lung Cancer in the Elderly: Current Treatment Paradigms," Chapter 42 and "Treatment of Small-Cell Lung Cancer in the Elderly Patient," Chapter 48) original but superfluous, given the overlap with other chapters.

In this edition the editors added a new part on the growing field of interventional pulmonology (Part XII), and one on other thoracic tumors (Part XIII). Part XII addresses palliation and uses special circumstances (malignant pleural and pericardial effusions, hemoptysis, and airway obstruction) to introduce the concepts of electrocautery, laser, stents, photodynamic therapy, and brachytherapy. In Part XIII, the chapters covering thymoma, thymic carcinoma, and malignant mesothelioma are definitely adequate.

Still missing from even this new edition is practical information on the components of a strong multidisciplinary lung-cancer program. It is becoming well accepted that all institutions treating patients with lung cancer should develop a high-quality program that speeds cooperation and communication among the involved subspecialists, to optimize efficiency and patient outcomes. More and more information is becoming available on the components of such programs (eg, the American College of Chest Physicians evidence-based guidelines), and I advise readers to seek out that information.

In summary, this text is a comprehensive, up-to-date review of a rapidly evolving field. The relatively few disappointments I mentioned above are more than made up for by the presentation of quality information by well-selected contributors. This reference belongs on the office shelves of all providers who care for people with lung cancer.

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Severe Acute Respiratory Syndrome.

Malik Peiris, Larry J Anderson, Albert DME Osterhaus, Klaus Stohr, and Kwok-Yung Yuen, editors. Malden, Massachusetts: Blackwell Publishing. 2005. Hard cover, illustrated, 263 pages, \$110.

Following the worldwide outbreak of severe acute respiratory syndrome (SARS) in early 2003, an abundance of related literature was published in various disciplines, including virology, clinical medicine, pathology, radiology, and even psychology. This book makes a valiant attempt to review and summarize that large literature database, and is aimed at a broad readership.

Some of the basic-science details may not interest clinicians, but the chapters on the history of SARS and the clinical and epidemiological aspects are certainly worthy of note.

The book is well written and organized, in relatively short, easy-to-read chapters, and there is a useful index. It contains very good graphics, which cover pathology, radiology, virology, and clinical epidemiological charts. A large number of authors contributed to the publication, the majority of whom are from Hong Kong, but there are also contributors from other Asian centers, the World Health Organization, the United States Center for Disease Control, and Europe. Many of the contributors are authors of landmark early journal articles on SARS.

The text begins with a detailed account of the origins of the outbreak, predominantly from the perspective of Hong Kong, but with an overview of the global impact. This is followed by several chapters on the clinical aspects, including a detailed discussion on the radiologic findings, with valuable radiological images. A considerable proportion of the book is then devoted to the basic-science aspects, namely the identification of the etiology, the virology of SARS coronavirus and other animal coronaviridae, genome structure, viral diagnostic techniques, and pathology. Several chapters discuss the epidemiology and viral transmission dynamics. The public-health response is covered from the perspective of the outbreaks in Singapore, Hong Kong, and the United States. The book's coverage of infection-control is limited to a relatively short chapter, which unfortunately does not mention high-risk respiratory procedures such as noninvasive ventilation, endotracheal intubation, mechanical ventilation, and bronchoscopy. Chapters on antiviral agents and vaccines follow, concluding with discussions on preparations for a resurgence of SARS and lessons that may be applicable to future viral outbreaks. These last chapters are applicable to current concerns about the potential avian influenza pandemic.

While the book does address many SARS topics, it is lacking in several respects. As a clinician, I can see that the coverage of clinical aspects of SARS is incomplete, and I suspect that the sections on the basic-science and epidemiology are also incomplete. Its focus is clearly not clinical, but the editors, in an attempt to provide an overview of all aspects of SARS, perhaps took on too large a task,

providing inadequate detail in any one section. Furthermore, with the rapid and ongoing research in this field, changes and new developments have occurred since publication. As an example, recent data suggest that the source of SARS may be the horseshoe bat,^{1,2} an animal not mentioned in the discussion on animal reservoirs of the virus.

From a clinical perspective, we know that 20% of patients with SARS required intensive care, 15% needed ventilatory support, and 10% died. This book, surprisingly, has almost no mention of the intensive-care course and management of SARS, and it does not reference the rich literature on this subject.

Patients with SARS pose a risk to health-care workers, but this issue is not addressed. Infection-control precautions are described broadly, but certainly not in sufficient detail that this book can be used a reference source. Another surprising aspect is that none of the contributors are from Canada, which has produced a substantial proportion of the SARS literature; the Canadian perspective on clinical management, infection-control protocols, and public-health aspects would clearly have been a beneficial addition. Despite these deficiencies, this book does provide a very good overview of the SARS outbreak. The discussions, with the benefit of hindsight, clarify many aspects of SARS that I have not previously seen in print.

While the overall text is not specifically directed at the clinician, and certainly not at the respiratory therapist, several chapters are devoted to clinical aspects. The book does provide an interesting overview and further insight into what was happening behind the scenes during the spring of 2003.

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UpToDate in Pulmonary and Critical Care Medicine, Version 13.3. Talmadge E King Jr MD, Peter Barnes DM DSc, Polly Parsons MD, Mark H Sanders MD, editors. Wellesley, Massachusetts: UpToDate. October 2005. \$495 for annual subscription, with updates every 4 months.

A bright and eager 3rd-year medical student ventures down to the emergency department to admit her patient, alongside her intern and senior resident. She interviews the patient, does a complete physical examination, and determines that her patient has pneumonia in the setting of a human-immunodeficiency-virus infection. The team admits the patient, and the 3rd-year student is told to “read up” on her patient. She ponders her options. Should she peruse PubMed, looking for the latest original research? How about dusting off the copy of *Harrison’s* in the team’s work room? Would the Cochrane report on pneumonia be the next step? Instead, the student ably logs on to the computer and dives in to the cutting-edge database known as UpToDate.

UpToDate has swiftly gained popularity as a collection of reviews that cover a wide variety of subjects. Field experts frequently update UpToDate’s reviews on topics from internal medicine to obstetrics and gynecology to pediatrics. With a click of a button, one can search anything as general as “approach to a patient with hypoxia” to the latest on “extracorporeal membrane oxygenation in the adult,” complete with references. Each reference is linked to its MEDLINE abstract, which is extremely useful and an easy way to view the primary literature. The target audience is physicians and medical students, but the breadth and depth of topics covered would also be useful for nurses, pharmacists, and respiratory therapists.

Many institutions subscribe to UpToDate, which helps defray the daunting individual cost of \$495 and renewal rate of \$395. If the software is purchased by an individual, the subscriber initially receives 2 CD-ROMs that take approximately 20 min to easily install onto the computer. As a part of the purchase, the subscriber receives 2 updated CD-ROM releases—one every 4 months, for a total of 3 CD releases during the 1-year license period. The subscriber also gets access to the online version, at <http://www.uptodate.com>, for the duration of the subscription, and has the option of receiving versions designed for handheld computers.

UpToDate has versions for Macintosh and Windows platforms. For the Windows version a Pentium-class processor is recommended (processor speed \geq 266 MHz), and it requires Microsoft Windows 98 or later and a minimum of 128 megabytes of random-access memory (RAM). The Macintosh version requires a Power Mac or G3/G4 processor (processor speed \geq 266 MHz), Macintosh operating system OS 8.6 or later, and a minimum of 128 megabytes of RAM. Both systems need 255 megabytes of free hard-drive space, and, to install all of the text, graphics, etc. on the hard drive requires 1.3 gigabytes of free hard-drive space. A CD-ROM drive is also required. To appropriately view the figures and graphics, the computer’s monitor should support \geq 800 pixel \times 600 pixel resolution, with at least 256 colors. The version for handheld computers requires Microsoft Pocket PC software, but a version for the Palm handheld is supposed to be released in 2006. I tested the software on a Windows-based laptop computer with a Pentium III 1-GHz processor and 256 megabytes of RAM, and I had no difficulty.

UpToDate is extremely easy and intuitive to use. The first interactive screen has a box in which to type a search term. Anything can be entered into the search box, from a general search of “critical care,” which yields over 100 topics related to critical care, to “low-tidal-volume ventilation,” which links to a review on “mechanical ventilation in acute respiratory distress syndrome.” There is a “Narrow Search” button to conduct a secondary search and refine the search results.

Once the article of interest is found, one click will display it. On the left-hand side of the screen is an outline of the article, the items in which can be clicked to access sections of interest. There is also a “Find” function that can help if you are searching for a very specific topic or question.

The UpToDate reviews are generally well written by physicians in their respective fields. However, they are not complete systematic reviews of the literature or meta-analyses, so the literature-searches conducted for the various reviews are not necessarily comprehensive, and the views presented may represent the author’s bias and personal practice.

UpToDate is a “treasure chest” of figures, including drawings, histology slides, and photographs, as well as easy-to-read tables and charts, which come up in a sepa-

rate window upon clicking the link. There are also useful links to echocardiogram movies and heart sounds; these require the Quick-Time program, which can be downloaded for free from the Apple Web site.

UpToDate has other very useful features as well. The drug database, which is partnered with the Lexi-Comp (<http://www.lexi.com>) database, includes indications, adult dosages, adverse effects, and drug interactions. It is accessed by typing the drug name into the initial search box or by clicking on a link in an UpToDate article. The database also includes “natural” remedies, in an easy-to-read format, with current known indications, dosages, and warnings.

UpToDate also stores practice guidelines—notably, 50 American Thoracic Society guidelines. It is also possible to download patient handouts and to earn continuing-medical-education credit (60 min of use equals 1 credit). UpToDate will keep a log of these credits for you. Another feature is

the complete table of contents, which is interesting to scan but unfortunately does not link directly to the articles.

New to UpToDate version 13.3 is the addition of medical calculators, which include descriptions of the calculations and formulas. I found these extremely easy to use. There are calculators for alveolar-arterial oxygen difference, calculating in-flight P_{aO_2} , right-to-left shunt fraction, and many others. I hope there will be even more calculators in future versions.

I was also delighted to discover a section called “Pulmonary Pearls.” It includes 16 interesting cases, complete with history, physical, clinical questions, diagnosis, and discussion of the case. The majority of the cases are fairly obscure but fascinating “zebras,” with a few commonly seen problems (ie, upper-airway obstruction secondary to laryngeal edema). The cases are well-written and most applicable to attending physicians and house staff for personal education and interest, and they can be teaching tools.

Overall, UpToDate has taken the electronic textbook to a new level. No hard-cover textbook could possibly cover UpToDate’s range of topics and keep it as current as UpToDate does. Although the reviews are occasionally influenced by author bias, physicians who use UpToDate feel that it has improved their clinical practice in terms of diagnostics and therapeutics. House staff and medical students have thoroughly incorporated it into their education as well as into patient care and patient education.

UpToDate is constantly being expanded and improved, and new features are frequently added. As medicine and its body of information evolves, I look forward to watching this revolutionary program progress with it.

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