

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.