

Furthermore, any of the cases or portions of cases can be skipped, and it is simple to exit the program and then re-enter it at the same point.

The 8 patient cases demonstrate the protean manifestations of pulmonary embolism. The cases range from a patient with a relatively minor pulmonary embolism and no hemodynamic compromise to a patient with acute pulmonary embolism and right ventricular overload. Also included are 2 cases with diseases that can mimic pulmonary embolism: acute mitral regurgitation and atrial septal defect. When a case is opened, a list of case segments appears, including history, physical examination, laboratory data, electrocardiogram, and other relevant information. Images such as chest radiograph, duplex ultrasound, chest computed tomography, and echocardiography are then available with a click. The case concludes with any further diagnostic procedures that were ordered, followed by a description of the patient's treatment and clinical course and a brief discussion of the case's management. In general, the cases are well described, clear, and easy to learn from. I think the cases are appropriate for the intended audience. One of the best features of the program is that it allows the user to be a diagnostic sleuth, as it does not present the next step in the case until the user has an opportunity to formulate an answer.

However, there are several flaws with the presentations and discussions that could mislead practitioners. This program was written by a group of physicians who are researchers of echocardiography for diagnosing and managing pulmonary embolism, and they advocate echocardiography extensively, which is not agreed upon by all experts in this field. Every case includes an echocardiogram as part of the workup, and the echocardiography results are heavily relied on for management decisions. For example, studies have found that patients with pulmonary embolism who have signs of right ventricular strain on echocardiogram have increased mortality, and it has therefore been hypothesized that reducing right ventricular afterload with thrombolytic therapy might improve survival, even in cases where there is no hemodynamic compromise.<sup>1,2</sup> Many experts would agree, however, that, despite numerous investigations, thrombolytics have not been proven to provide a clear survival benefit in that situation. One of the cases presented in this CD-ROM is of a patient

who has an acute pulmonary embolism and right ventricular overload on echocardiogram. The patient receives thrombolytics, possibly leading the user to believe that obtaining an echocardiogram and administering thrombolytics is the correct decision with all patients of that type.

Additionally, many of the 8 example patients were included in study protocols and therefore received many diagnostic procedures. Several of the patients had positive chest computed tomography angiogram, duplex ultrasound of the extremities, and pulmonary angiogram, in addition to echocardiogram. Seeing the correlation between those different studies is interesting, but this CD-ROM could give the reader the impression that all of those tests should be performed, when in practice pulmonary embolism only needs to be diagnosed with a single positive study.

I think the program places too much emphasis on the complicated technology used for diagnosis of pulmonary embolism and not enough emphasis on identification of patients, simple diagnostic algorithms, and treatment. Nothing is mentioned about the utility of D-dimer testing. There is no discussion of the most appropriate diagnostic study to order first, which is usually a ventilation-perfusion scan or a chest computed tomography angiogram, not an echocardiogram. Also not referenced are the data comparing low-molecular-weight heparin and unfractionated heparin, the duration of anticoagulation therapy, or the appropriateness of a hypercoagulability workup in some patients.

Overall, **Diagnosis and Management of Pulmonary Embolism** is an interesting tutorial on pulmonary embolism, but it focuses too heavily on diagnostic modalities and new technology. With its interactive design and outstanding graphics, the program is entertaining while providing education on a limited approach to the diagnosis and management of pulmonary embolism. However, some information in the program can be misleading and too little time is spent on the relevant and practical clinical aspects of caring for patients with pulmonary embolism. As part of a library, this CD-ROM might be useful for some practitioners, but I would not recommend purchasing it for personal use.

**Renee D Stapleton MD**

Division of Pulmonary and Critical Care  
Medicine  
University of Washington  
Seattle, Washington

## REFERENCES

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**Pulmonary/Respiratory Therapy Secrets**, second edition. Polly E Parsons MD and John E Heffner MD, editors. Philadelphia: Hanley & Belfus. 2002. Soft cover, illustrated, 539 pages, \$34.95.

As a respiratory care educator, I cannot overstate the value of a good reference text. As the ever-expanding titles in my library vie for premium shelf space, more and more, natural selection takes over and those works with unturned pages are relegated to the back of the pack. I am pleased to say that **Pulmonary/Respiratory Therapy Secrets** has found its place not only among the front-runners, but also frequently occupies a seat in my book bag.

**Pulmonary/Respiratory Therapy Secrets** is a clinical reference for pulmonary and critical care medicine. The text presents numerous topics from a diverse and prolific group of authors, written in a question-and-answer format designed to function with the stated goal of the text: "Pulmonary clinicians and respiratory therapists must first pose proper questions before they can formulate effective solutions to their patients' respiratory problems." The intended audience is experienced clinicians, medical students, residents, and fellows. The question-and-answer format works well, because it utilizes and reinforces the critical thinking skills needed to be an expert clinician.

In general, the design of the book is visually appealing. The book is small enough to be kept handy, though not quite small enough to be comfortably kept in a lab coat. The paperback binding is sturdy, and my copy shows no signs of wear, even after being carted around town in my bag. The book's cover art is very basic and leaves something to be desired. That fact has some impact on the immediate visual appeal of the text—but the old adage about not judging a book by its cover still holds true! The book's use of illustrations, tables, and radiographs enhance the wealth of informa-

tion in the text. The editors used art sparingly and wisely, where needed; for example, flow volume tracings and other graphics to illustrate pulmonary functions. The illustrations will greatly enhance the reader's understanding, and there are excellent illustrations in many chapters, such as the chapters "Mediastinoscopy" and "General Approaches to Interstitial Lung Disease." The radiographs and computed tomography images, though not abundant, adequately demonstrate specific and important clinical findings. Image quality is important to illustrate points effectively, and I found the images to be of high quality and easy to view. The references are complete and current for each chapter. The table of contents is clearly organized and the index is comprehensive.

The organization of the subject matter departs from the traditional division of management and pathophysiology. Disease processes are presented categorically and include comprehensive corresponding chapters on treatment. This approach works nicely, as the reader can move quickly from readings on respiratory failure to ventilatory strategies and weaning. An example is the section "Airway Disease," in which the chapters flow from asthma and chronic obstructive pulmonary disease to oxygen therapy and smoking cessation.

The book's ease of use and convenient size create a text that is valuable in the clinical as well as didactic setting. The versatility of the text and the wide variety of subject matter make this a good reference for frequent use in various patient care settings. An entire chapter devoted to procedures in pulmonary medicine adds a lot of utility to the reference as a whole. The authors provide instructions for and clarify many points about specific procedures such as bronchoscopy, and they address questions such as "What are the indications for bronchoalveolar lavage?" and "What are palliative bronchoscopic therapies?" Posing these questions with succinct and current answers offers respiratory therapists a better understanding of the procedures we see every day and aids residents when asked for a consult.

A critical care reference must contain sound advice, and this text uses current standards of evidence-based practice. With all the current excitement surrounding acute respiratory distress syndrome in critical care, naturally this was the first section I read, considering the contemporary nature of the

material. I found that the book is supportive of the current National Institutes of Health recommendations for treating acute respiratory distress syndrome. I was also encouraged to see a discussion on multiple-organ dysfunction syndrome, as well as information on risk factors, morbidity, and mortality. Another nice facet of this book is its discussions of current controversies in acute respiratory distress syndrome management. In the section on mechanical ventilation there is an informative discussion on the basics of mechanical ventilation, as well as an interesting discussion on the mechanisms of permissive hypercapnia. In the section titled "Alternative Invasive Ventilatory Strategies," I found some unusual ideas that I have not heard much about in recent years, including thoracic gas insufflation, inverse ratio ventilation, proportional-assist ventilation, and partial liquid ventilation. Though these ventilation methods are fraught with pitfalls, they are also thought-provoking alternatives for those times when we need to pull a proverbial "rabbit out of our hat."

**Pulmonary/Respiratory Therapy Secrets** covers a comprehensive list of topics in pulmonary medicine. In addition to the topics in critical care and mechanical ventilation, an entire section is devoted to infectious processes, and the list of infectious processes is impressive. This section remains true to the rest of the text in that each chapter is current and contains valuable, up to date, and interesting information for the clinician. The chapters revolve around the current standards of practice but they also open up some interesting debates. One nice example is the controversy over tracheal aspirate versus bronchoalveolar lavage, discussed in the section on nosocomial pneumonia. Though the gamut of pulmonary infections receives a lot of attention in the section on infectious disease, it's nice to see an informative chapter on pneumonia prevention. There is also extensive reference to lung cancer, vascular disease, interstitial disease, and other topics too numerous to list here. For each disease category the book provides pertinent information on diagnosis, radiographic and clinical presentation, and treatment.

The question-and-answer format teaches practitioners to ask the right questions about patient care—one of the primary goals of the text. This is a nice alternative to the standard textbook format. The arrangement of questions allows the introduction of new concepts and text without the cumbersome

style of a traditional textbook. The reader can pause and formulate his or her own answers before proceeding to the text's answers. In practice it is easy to disseminate the required information, which adds to this text's utility as a reference. The design of the text stimulates the evaluation of a problem and the formulation of creative, effective solutions for patient care. Teaching critical thinking in this way creates better clinicians, which benefits our patients.

Overall, **Pulmonary/Respiratory Therapy Secrets** is informative, enlightening, and interesting. I integrated the book's information into my daily routines and found it to be a convenient reference. Of particular note is the union of older interesting ideas with exciting new ones. The text is not an instructional work, but rather a resource for clinicians seeking answers to questions about management, pathophysiology, and the theories behind what we do. I found the format refreshing and supportive of our roles as investigators in the clinical setting.

**Fred M Goglia RRT**

Respiratory Care Program  
Seattle Central Community College  
Seattle, Washington

**Understanding Lung Sounds**, third edition. Steven Lehrer MD. Philadelphia: WB Saunders. 2002. Soft cover, illustrated, 145 pages plus audio CD (operates with Windows or Macintosh operating systems), \$49.

Listening is a magnetic and strange thing, a creative force. The friends [and caregivers] who listen to us are the ones we move toward. When we are listened to, it creates us, makes us unfold and expand.

—Karl Menninger MD

**Understanding Lung Sounds** is designed to provide background on chest auscultation and interpretation skills to medical and allied health students and practitioners. The book is divided into 5 chapters, the first three of which comprise half of the 124 pages of the text; these 3 chapters review (1) fundamentals of pulmonary anatomy and physiology, (2) the physics of sound, hearing, and the stethoscope, and (3) history and physical examination. The final 2 chapters provide detailed discussion on normal and adventitious breath sounds. The accompanying audio compact disc contains 22 tracks of lung sounds described in the text, as well as 6 tracks to test the listener's skills. At the end of each chapter a series of questions