Reviews of Books and Other Media. Note to publishers: Send review copies of books, films, tapes, and software to RESPIRATORY CARE, 600 Ninth Avenue, Suite 702, Seattle WA 98104.
© 2004 Daedalus Enterprises

Books, Films, Tapes, & Software

Ethics and Evidence-Based Medicine: Fallibility and Responsibility in Clinical Science. Kenneth W Goodman. Cambridge, United Kingdom: Cambridge University Press. 2003. Soft cover, 168 pages, $27.

In **Ethics and Evidence-Based Medicine: Fallibility and Responsibility in Clinical Science**, Kenneth Goodman PhD, who is the director of the University of Miami's Bioethics Program, starts out to examine the link between the theory and practice of evidence-based medicine, moral theory, and clinical ethics. Given the broad scope of the task and the many interests of the author, it is not surprising that the book meanders through many aspects of the evidence-based medicine movement, from its history, to practical difficulties in implementation, to statistical considerations, to implications for clinical practice and public policy. Along the way Goodman identifies the conflicts and controversies at the heart of the evidence-based medicine movement and a large number of tangential issues as well. Unfortunately, but unapologetically, he approaches these questions and controversies as an evidence-based medicine "true believer," often giving short shrift to criticisms and cautionary words of those who view evidence-based medicine more skeptically. Despite that limitation Goodman deals with complex and nuanced concepts while writing in a casual vernacular that is at times amusing, though at other times a bit flip. Clearly, he is writing with the clinician in mind, making the book accessible to physicians, nurses, and therapists who lack formal training in the philosophy of science or ethics but who nonetheless find themselves worrying about the reasoning and rightness of clinical decisions. The book thus provides an interesting, if not completely satisfying, tour through the phenomenon that is evidence-based medicine.

The first 5 chapters read as independent essays about central and tangential aspects of the evidence-based medicine movement. Loosely woven around the theme of ignorance as moral culpability, brief discussions of everything from medical history to computer databases reveal Goodman's encompassing familiarity with the subject matter. The book is most interesting in Chapter 5, in which Goodman acknowledges the difficulties in applying clinical-research evidence to the care of individual patients. Here clinicians will recognize the daily struggles of trying to practice some version of evidence-based medicine. As a nonclinician Goodman at times appears to lack an appreciation of the complexity of clinical decision making—a weakness present in virtually all guides to the practice of evidence-based medicine. In discussing the ethical necessity of a clinician knowing the results of clinical research relevant to one's clinical practice Goodman sometimes conflates the moral culpability of ignorance of the evidence with that of not acting on the evidence. But that distinction is critically important to understanding the ethical paradox of evidence-based medicine. If one must always act in accordance with the evidence, then there is ultimately no role for independent thought and decision-making on the part of clinicians, and computers really could do our jobs. But if clinicians are allowed to deviate from the evidence (or guidelines) in individual cases—something Goodman and all thoughtful proponents of evidence-based medicine support—then we must understand the rules and reasoning that allow for such deviations to be rational and ethical. Unfortunately, neither Goodman nor any other proponents of evidence-based medicine have put much effort into that task.

Readers sympathetically inclined toward evidence-based medicine will find the book thought-provoking and ultimately comforting, as it will not induce any crisis of confidence. Those with vague, nagging doubts about evidence-based medicine will probably feel reassured. But for clinicians more deeply troubled by the epistemic or moral assumptions underlying the evidence-based medicine movement the book does not offer any new or more satisfying responses to those concerns. Such central concerns as the lack of evidence to support practicing evidence-based medicine, the moral and epistemic gap between evidence derived from clinical trials and the care of the individual patient, and the question of when a clinician can ethically deviate from guidelines are all acknowledged in the text, but too quickly bypassed as the author moves on to topics presenting less of a challenge to evidence-based medicine. Sacrificing the exhaustive survey of evidence-based medicine and instead focusing on those core issues would have presented a more vigorous defense of evidence-based medicine and a more compelling argument that the failure to adopt the evidence-based-medicine construct brings moral culpability.

Mark R Tonelli MD MA
Department of Medicine
Department of Medical History and Ethics
University of Washington
Seattle, Washington

Critical Diagnostic Thinking in Respiratory Care: A Case-Based Approach. James K Stoller MD MSc FAARC, Eric D Bakow MA MPM RRT, and David L Longworth MD. Philadelphia: WB Saunders. 2002. Soft cover, 398 pages, $34.95.

Critical Diagnostic Thinking in Respiratory Care: A Case-Based Approach is divided into 4 parts. Part 1 is an introduction to the critical thinking process used by respiratory care clinicians. The authors of this section provide some background theory in what constitutes "critical diagnostic thinking," including a brief description of the process by which a clinician learns to gather data and integrate that information into what ultimately becomes the diagnosis. The process of hypotheses generation and differential diagnosis of the patient's clinical problem(s) are reviewed. Identifying the patient's clinical problem through use of patient history, physical, and laboratory examination is then described. Briefly reviewed are the major elements of physical examination, with the key findings that are often associated with pulmonary problems, as well as common laboratory tests used in differential diagnosis. Respiratory signs and symptoms are identified with their common and less common causes to assist the clinician in formulating a differential diagnosis.

Parts 2–4 constitute 90% of the book. Each of the 35 chapters in these 2 parts begins with a case study that illustrates a common pulmonary problem. The presenting signs, symptoms, and other initial data are given in the brief beginning section entitled "The Clinical Problem." The reader is then taken through the diagnostic reasoning

process, which typically includes discussion of the differential diagnosis, clinical features that suggest a specific cause, pathophysiologic basis, diagnostic testing, assessment of the effect of therapy, and pitfalls and common mistakes in the assessment and treatment of the problem in question. Not all chapters have all of those sections, and additional sections appear in certain chapters. Each chapter has several boxes and tables that summarize key information.

The cases are grouped by the clinical setting in which the case would present. Part 2 is "Common Presentations in the Out-patient Setting" (20 chapters), which describes presenting signs and symptoms frequently encountered in a pulmonary out-patient clinic. Part 3, "Common Problems in the Non-ICU Patient," (5 chapters) deals with most of the clinical problems respiratory therapists see in the acute hospital, non-intensive-care-unit (ICU) setting. Part 4, "Common Problems in the ICU Adult" (10 chapters) focuses less on presenting signs and symptoms and more on common problems encountered in managing pulmonary patients in the ICU setting that invite the use of problem solving skills.

The book was clearly intended for respiratory therapists, respiratory therapy students, physicians in training, and pulmonary nurses. The last 15 chapters (Parts 3 and 4) would be particularly useful to respiratory therapists who work more often in the acute care setting.

Not unexpectedly, this first edition does have its share of minor glitches. For example, Chapter 1 presents a substantial amount of information (on pages 28 and 29) on acid-base physiology but fails to summarize that information in a table or box. There are a few places where, when you read the text carefully—as one should when attempting to learn about such a complex topic as critical thinking— you are left with a big "Huh? What does that mean?" This confusion is sometimes related to the intensity of the subject matter, but sometimes it is the result of awkward wording. For example, on page 29, after appropriately stating, ". . . the well-prepared respiratory care clinician should have an excellent working knowledge of the chest x-ray," the authors then state, "Careful interpretation of the film enhances critical diagnostic thinking by enhancing diagnostic skills and by improving the appreciation of the response to therapy."

Another example is on page 210. The discussion of the pitfall of confusing vocal cord dysfunction and asthma ends with the statement, "A high degree of suspicion should be present if the patient has little difficulty completing full sentences, can hold his or her breath, can abolish the laryngeal-induced sounds during a panting maneuver or cough and with sedation and anesthesia despite the severe respiratory distress. Laryngeal sounds may also decrease with switching from mouth to nose breathing and during talking." Although there is certainly some factual and probably useful information in that passage, it is confusingly written.

A third example occurs on page 31, where the author begins a good summary point but ends it awkwardly: "Thus, although anemia does not generally affect the P_{aO_2}, anemia can compromise the oxygen-carrying capacity of the blood and must be considered in patients with evidence of perfusion impairment." What *does* that mean?

Factual errors are fairly rare in this book but they do crop up, such as on page 33 where the author refers to the Gram-stain and culture and sensitivity as being helpful at identifying the specific cause of pneumonias for *protozoa or viruses*? Another example is in the arterial blood gas report on page 240, where the bicarbonate value reported as 28 mEq/L is not possible with the stated ph of 7.45 and P_{aCO_2} of 30 mm Hg. The actual bicarbonate value, as determined by the Henderson-Hasselbach equation, for that combination of ph and P_{aCO_2} must be approximately 21 mEq/L. And on page 241 Box 22–1, lists "atelectasis" under the common infectious causes of fever and new pulmonary infiltrate. Atelectasis would be appropriately classified in Table 22–1 as a noninfectious cause.

Overall the book is well written and the very complex subject matter is presented in a manner that makes it digestible. The tables and boxes are for the most part very well done and help organize the material. In particular the tables in most of the chapters interpreting signs and symptoms are very handy for helping to sort through the various possible diagnoses by reviewing the possible causes and suggestive clinical features. Of concern, however, was that Table 25–1, "Interpreting Signs and Symptoms of Atelectasis," included no signs or symptoms (ie, suggestive clinical features). Was the table mislabeled?

In summary, **Critical Diagnostic Thinking in Respiratory Care: A Case-Based Approach** goes a good distance toward achieving its stated goal of "clarifying the process of clinical reasoning." The book presents problems to solve and takes the reader through the process of solving them. The reader will gain insight into the process followed by experienced clinicians as they organize and collect data, integrate it into one or more working hypotheses and then refine those plausible explanations for the clinical problem through a process of critical diagnostic reasoning into one or more diagnoses. This book should serve its purpose of aiding those who want to become more analytical in their reasoning and decision making, and ultimately, as the authors suggest, that should translate into more effective care for patients.

Melvin A Welch Jr MPH RRT-NPS
Health Science Department
Santa Monica College
Santa Monica, California

Cross-Examination: The Comprehensive Guide for Experts. Steven Babitsky Esq and James J Mangraviti Jr Esq. Falmouth, Massachusetts: Seak. 2003. Hard cover, 414 pages, $99.95.

Most physicians avoid medical-legal work like the plague. The thoughts of being humiliated by a smarmy attorney or testifying against another physician are enough to make most physicians flee to the comfort and familiarity of their practices.

Over the past 20 years I have done a modest amount of medical-legal expert work—primarily because my colleagues fit the description above! This work has ranged from independent medical examinations (mostly in occupational medicine) to malpractice litigation to adventure or high-altitude accident liability. In reflection I have found the work stimulating and challenging and have also felt that it has, in part, been a responsibility to our profession.

I have always followed these rules: (1) never become involved in a case unless you do feel like an expert, (2) "call them like you see them" and never get swayed by what the attorney wants to hear, (3) don't do cases just for the plaintiff or defendant sides (don't get a reputation as a "hired gun"). Also, I have often been asked by plaintiffs' counsels to look at a case to see if it has merit, which has in numerous cases allowed me to say, "No, this is too 'gray.' I don't think there is enough here to drag a family through the cost and anguish of a prolonged proceeding." That approach is a

service to the encumbered system. Finally, I have found that more than 95% of the attorneys I've encountered to be smart, educated on the topic, honest, and enjoyable to work with! In my experience, the image of "the lawyer" has not been true. On the other hand, if you are an expert, you can turn the tables on a poorly prepared attorney and take some solace in that.

One can also pick up a lot of tricks along the way. In that light I found **Cross-Examination: The Comprehensive Guide for Experts** to be a superb and extensive handbook for physicians entertaining the idea of becoming involved in medical-legal expert testimony. Despite its length and some redundancy I found myself reading enthusiastically through the numerous examples of question-and-answer scenarios one might encounter, which include tips on how to respond well, honestly, and clearly, as well as how to be "one-up" on the attorneys.

The organization helps the reader to see issues from both the physician's and the lawyer's sides. Chapters 2 and 3 describe how an attorney prepares and how a physician should prepare for depositions and trials. Chapter 4 describes the juror's perception of what is going on and the techniques to communicate with the jury through one's testimony. The remaining chapters (5–10) further delineate the legal limits of the process, tactics to defeat the counsel's cross-examination, the handling of trick questions, and techniques to become a "dangerous" or "bulletproof" expert witness. Each chapter has an executive summary at the beginning and an extensive example of an actual trial question-and-answer session, with evaluation of poor and excellent responses. The book teaches one to listen very carefully to every word of the questions, to respond clearly and accurately, and to avoid being cornered. Most importantly there are excellent tips on how to avoid trick questions and in some cases turn the tables, leaving the attorney standing empty in front of the judge and jury. This book is very helpful for experts who come from either the academic or practice setting, both of whom can be extremely valuable witnesses.

Despite its length and boring façade (looks like it belongs in some legal library) this book is a must for physicians—both novice and seasoned—in this arena of medical-legal work. Reading this book should diminish one's fear of the challenge in an unfamiliar setting. My hat is off to the authors.

Robert B Schoene MD
Department of Medicine
University of California
San Diego Medical Center
San Diego, California

Principles of Pulmonary Medicine, 4th edition. Steven E Weinberger MD. Philadelphia: Saunders. 2004. Soft cover, illustrated, 403 pages, $44.95.

Now in its 4th edition, **Principles of Pulmonary Medicine** provides an excellent introduction to the fundamental mechanisms, manifestations, and management of respiratory diseases. The book is written with preclinical medical students in mind, but its readability and clinical scope make it suitable for others seeking a basic overview of pulmonary medicine. It lacks the depth and clinical emphasis to be of substantial use to seasoned practitioners and those in the advanced stages of their training. The newest edition retains the strengths of previous versions, with concise, stimulating, and comprehensible prose combined with a generous number of figures and tables. In addition, it offers improved graphics, more radiographic images, and updates on advances in basic sciences, diagnostic tools, and treatment options.

The opening chapter briefly reviews the fundamentals of respiratory anatomy, lung mechanics, and the physiology of ventilation, circulation, diffusion, gas transport, and gas exchange. The following 2 chapters provide an overview of the presentation and evaluation of patients suffering pulmonary disease. For the most part the remainder of the book is divided into sections on airway disease, parenchymal disease, pulmonary vascular disease, neuromuscular disease, infectious disease, and respiratory failure. Each section begins with an overview of the pertinent anatomy and physiology, and the chapters discuss specific respiratory diseases in detail. There are also chapters on pleural disease, mediastinal disease, and lung cancer. The appendixes review analysis of pulmonary function tests and arterial blood gases.

It is particularly important for an introductory textbook to correlate basic pathophysiology with the radiologic, pathologic, and clinical manifestations of individual diseases, and **Principles of Pulmonary Medicine** fulfills that expectation admirably. Throughout the book the author sequentially discusses the etiology and pathogenesis, pathology, pathophysiology, clinical features, diagnosis, and treatment of each disease. Consistent use of that format takes the reader seamlessly from pathophysiology to clinical presentation to diagnosis to treatment. It also allows the reader to anticipate the flow of material and easily retrieve specific information.

The discussion of respiratory failure and pulmonary function tests are not as cogently presented. Topics central to respiratory failure are scattered throughout the book (ventilation-perfusion relationships and abnormalities of gas exchange in Chapter 1, arterial blood gases in Chapter 3 and Appendix 3, respiratory control in Chapter 17, disorders of the respiratory pump in Chapter 19, and the pathophysiology and treatment of respiratory failure in Chapters 27, 28, and 29). Alternative and additional figures of the 2-alveolus model illustrating ventilation-perfusion mismatch, shunt, and hypoventilation would be helpful. The causes of hypoxemia and the response (or lack thereof) to interventions to improve gas exchange, such as increased alveolar ventilation and supplemental oxygen, are arguably the most difficult concepts for students to understand and merit more detailed explanation. The discussion of pulmonary function tests would benefit from less emphasis on midexpiratory flow rates and a more integrated discussion of how spirometry, lung volumes, and diffusion capacity are used to differentiate common obstructive, parenchymal, neuromuscular, and pulmonary vascular diseases.

This 4th edition provides a thorough update on pulmonary medicine, with major developments incorporated into each topic. For instance, the chapter on pulmonary embolism describes the expanding role of contrast computed tomography angiography and introduces the use of D-dimers in diagnosis. Also covered are the impact of highly active antiretroviral therapy on respiratory infections in individuals with acquired immune deficiency syndrome and the use of positron emission tomography for lung cancer diagnosis and staging. In addition to incorporating new information on pathogenesis, pathology, and therapy, the chapter on asthma includes a new table that outlines asthma severity and corresponding treatment. Reference to prominent ongoing areas of research, such as lung cancer screening with chest computed tomography, is made in an appropriately succinct, neutral

fashion. The author steers clear of esoteric and inappropriately advanced topics, and the discussion of clinical aspects is limited to material suitable for an introductory text. The net effect of the author's judicious writing is that the book, with 400 low-text-burden pages, remains a cover-to-cover read rather than an unwieldy desk reference.

The book contains a number of features that facilitate learning. An outline is provided on the first page of each chapter and sections and subsections are clearly demarcated. Brief annotations written in the margins highlight key learning points, and students could go a long way toward passing most introductory courses by studying the margins alone. The tables are easily readable and nicely complement the text. The radiographs and pathology figures are of high quality and more numerous than in the previous edition. In the figures important features are obviously visible or are identified with arrows, and the figure legends contain sufficient explanatory detail. The images are strictly black-and-white; inclusion of color photomicrographs would, presumably, excessively increase the price of the text. Typographical errors are rare, the references are well-selected and timely, and the comprehensive index is user-friendly for students.

In summary, the 4th edition of **Principles of Pulmonary Medicine** is a practical, user-friendly, well-written, timely introduction to pulmonary medicine that successfully elucidates the relationship between basic pathophysiology and the presentation of respiratory diseases. The discussion of clinical topics is sufficiently detailed to provide excellent preparation for clinical rotations but is rightfully limited to material suitable for an introductory textbook. Preceding familiarity with the fundamentals of cardiopulmonary physiology is helpful, as some aspects of gas exchange and pulmonary function are covered in cursory fashion. Nonetheless, we will continue to use **Principles of Pulmonary Medicine** for our pre-clinical medical student course on respiratory diseases, and other learners at similar stages of their training will likewise find it useful.

Robert R Kempainen MD
Division of Pulmonary, Allergy, and
Critical Care Medicine
Department of Medicine
Fairview University Medical Center
University of Minnesota
Minneapolis, Minnesota

Multidisciplinary Approaches to Breathing Pattern Disorders. Leon Chaitow ND DO, Dinah Bradley DipPhys, and Christoper Gilbert PhD. Edinburgh, United Kingdom: Churchill Livingstone. 2002. Soft cover, illustrated, 280 pages, $49.95.

Hyperventilation is a vexing problem, both for patients who experience distressed breathing and for clinicians who treat them. Often such patients are judged adversely by clinicians as though the term "psychosomatic" implies ruling out "somatic" causes so that the patient's signs and symptoms can be relegated to the precincts of psychopathology. That the syndrome may involve abnormal sensitivity to a level of dissolved carbon dioxide in the blood or that it may represent a complex, multisystem, conditioned response to obscure stressors seems to have little bearing on treatment (especially in emergency care settings) or referral. Rather, treatment typically focuses on symptom-relief during acute episodes, via rebreathing and anxiolytic medication. Though such treatment often results in fairly immediate relief, the patient commonly is none the wiser with respect to how to avert such attacks in the future, especially if the patient is predisposed to some form of chronic hyperventilation.

Hyperventilation is not the only clinical problem addressed in **Multidisciplinary Approaches to Breathing Pattern Disorders,** but it is a recurrent and consistent theme throughout. In essence it is a model of what the authors mean by "breathing pattern disorder." The authors' backgrounds in osteopathy (Chaitow), respiratory physiotherapy (Bradley), and psychology (Gilbert) make the term "multidisciplinary" more than just a buzzword or empty promise.

Throughout the text there is strong, sustained emphasis on respiratory and musculoskeletal structure and function relationships. For osteopathic and physiotherapy practitioners there is ample detail on various manual therapeutic techniques, with appropriate cautions to the effect that such techniques require adequate theoretical and clinical grounding in those disciplines. Numerous figures, tables, and text boxes highlight important conceptual and clinical content and help to clarify many of the technical points for readers from outside of those disciplines.

Nevertheless, some readers (eg, those whose training and expertise are entirely within an allopathic medical tradition, particularly those who fancy themselves to be committed to rigorous evidence-based practice) may well object that many theoretical and clinical points are derived from less-than-optimal evidence for causal claims (eg, studies with observational designs). Careful consideration of the text may alleviate some of those concerns. Although the authors do not "grade" evidence per se, they generally provide sufficient information about cited studies to permit readers to form their own judgments about methodological quality. However, that does place some burden on readers, the more skeptical of whom may find it necessary to suspend judgment on some claims by taking them as hypotheses awaiting more rigorous attempts at corroboration or refutation. Readers unwilling to devote more than casual attention to the underlying conceptual framework of the authors' perspectives may question the value of that effort.

In the context of clinical science and practice, this may well exemplify Thomas Kuhn's (1970) thesis of incommensurability across conceptual frameworks.[1] Kuhn focused on "revolutions" in basic science (notably physics) rather than conceptual evolution in clinical science, which may proceed along parallel tracks in relation to specific needs and interests of practice disciplines. Nevertheless, his basic point about incommensurability was that conceptual frameworks need to be understood in their own terms and evaluated as adequate or wanting on that basis. To the extent that one accepts that thesis, attempts to focus critical comments on divergent, framework-dependent interpretations of which facts or claims matter most or least are apt not to illuminate controversies, let alone resolve them.

To the authors' credit, their theoretical explanations and empirical claims about breathing patterns are expressed, whenever possible, in familiar terms of disordered pulmonary or thoracic mechanics and the neurophysiology of respiratory control. There also is a very welcome, sustained emphasis on the psychological distress that attends disordered breathing. However, the interpretation of what such evidence means and what its relevance may be to practice (ie, how much is "signal" as opposed to "noise") remains framework-dependent.

The book begins with a lengthy chapter on structure-function relationships that the authors deem critically important for analyzing normal and disordered breathing. The

second chapter deals with patterns of breathing dysfunction (in particular, hyperventilation). Chapter 3 deals with "biochemical aspects of breathing," and the following chapter addresses "biomechanical influences" on breathing, in which both chemical and neuromuscular aspects of respiratory control are covered in reasonable depth. Subsequent chapters pertain to psychological and emotional interactions relevant to disordered breathing, osteopathic assessment and treatment, physiotherapy in the context of pulmonary rehabilitation, and self-regulation of breathing. The chapters on osteopathic and physiotherapy approaches to assessment and treatment will probably be far more useful to practitioners in those fields as opposed to a more general readership. On the other hand the chapters on psychological issues and self-regulation are insightful, clearly written, and characterized by enormous empathy for what patients experience when breathing goes awry. They should be required reading for anyone inclined to dismiss as cranks or malingerers patients with acute or chronic hyperventilation and other forms of disordered or distressed breathing who have a problem that is "all in their heads."

The last 2 chapters include a mixed bag of "other breathing issues" and self-help approaches and exercises that had "no natural [ie, conceptual] home" (page 223) in the foregoing chapters. The "other issues" chapter is wide-ranging and covers such issues as hyperventilation during air travel and exercise, paper-bag rebreathing (with appropriate cautions), sleep-disordered breathing, Buteyko breathing exercises, as well as a brief overview of traditional Chinese medicine and acupuncture in relation to dysfunctional breathing. The authors state unambiguously that inclusion of a particular method in that chapter does not imply their endorsement; rather, they justify devoting a chapter to arguably "fringe" methods because there already are practitioners who employ such techniques in practice and "we felt it important to provide at least a thumbnail impression of the methodology and underlying concepts, and, where necessary, a word of caution" (page 223). Despite the disclaimer it is entirely possible that practitioners of such techniques will claim that their inclusion in a respectable text is, in some sense, legitimizing, whereas more mainstream readers may find much of this material highly speculative and lacking evidence of efficacy.

At a more concrete level a similar criticism may attach to the final chapter, which is a compilation of various breathing exercises and self-help techniques in the form of brief summaries that the authors intend for use as handouts for individual patients (and for which duplication is expressly permitted). According to the authors some of the techniques (eg, autogenic training) are, "well-researched while others have proved themselves in practice to the satisfaction of one or more of the authors" (page 241). Whether practitioners interested in using such techniques make scrupulous distinctions between data-based evidence and expert opinion is an open question.

One limitation of the book that I found rather surprising was a relative lack of attention to how primary pulmonary diseases such as asthma, chronic obstructive pulmonary disease, and intrapulmonary restrictive conditions affect breathing patterns in ways that contribute to alveolar hypoventilation. Rather more attention is devoted to extrapulmonary sources of restriction such as kyphoscoliosis and other postural abnormalities. There also is surprisingly little material on the psychophysics and physiology of dyspnea. On balance, however, the strengths of the book outweigh those limitations. By elucidating an alternative, nonallopathic framework for understanding disordered breathing, the authors persuasively argue that—to paraphrase Hamlet—there is far more to both normal and disordered breathing than, perhaps, many of us have "dreamt of" in our "philosophy" of assessment and treatment.

Mark B Parshall PhD RN
College of Nursing
University of New Mexico
Albuquerque, New Mexico

REFERENCE

1. Kuhn TS. The structure of scientific revolutions. Chicago: University of Chicago Press; 1970.

Radiology of the Chest and Related Conditions. Fred W Wright MA DM. New York: Taylor & Francis. 2002. Soft cover, illustrated, unpaginated (with CD ROM), $280.

A number of different texts are available on chest radiology. They are primarily of 2 types: those designed to be all-inclusive and those that focus on a particular facet of chest radiology. **Radiology of the Chest and Related Conditions** is in the former group. Most often the disadvantage of a comprehensive textbook is its large size, often spanning multiple volumes. Fred Wright has condensed the essence of cardiopulmonary radiology into a single volume, measuring a mere 18×26×5 cm. And the entire text plus supplementary images are included on the companion CD-ROM.

In the preface Wright indicates that his intended audience is "radiologists and chest physicians (especially those in training), medical students, technologists, and radiographers." Indeed, there is something for everyone. A medical student or intern would benefit from the introductory chapter on normal chest anatomy. The technologist could learn from the short section on technical variables and radiation physics. The physician would use this book as a reference when encountering an unknown or unusual disease process of the chest.

As with any text there are positive and negative attributes. The book does present a wide range of topics within chest radiology but some are given only token mention. The style in which the topics are presented is unique and allows for its compact size, although it also creates shortcomings.

The book is bound in an esthetically pleasing soft cover with a matching rigid cardboard box. The paper quality is good and the type face is very readable. Except for a single color picture (of Saint Ansanus) inside the front cover, the only illustrations in the book are (numerous) black-and-white line drawings. All the radiographs are on the CD-ROM. The text is not consecutively paginated from beginning to end; rather each individual chapter is paginated.

The book is in 24 chapters, beginning with basic anatomy, ending with lung cancer. The chapter organization is somewhat awkward, as some chapters are divided by anatomic location (veins, arteries, chest wall, pleural space, and esophagus), whereas others are divided by appearance or pathology (eg, lung consolidation, cavitation). Chapters 3 and 4 discuss common and atypical lung neoplasms. Later Chapter 17 discusses metastasis of chest tumors to the abdomen. Chapter 24 examines the etiology, classification, and management of lung cancer. Lymphangitic carcinomatosis is discussed in Chapter 8, along with pulmonary edema and acute respiratory distress syndrome. Overall the book has a somewhat disjointed

feeling, although, being a single volume, skipping around is not overly cumbersome.

Within the chapters individual subtopics are presented in a fairly intuitive and fluid order. For example, Chapter 2 discusses signs of consolidation, followed by atelectasis, air-trapping, and emphysema. Simple line drawings are used to illustrate. The references are not listed at the end of each chapter but instead are interspersed within different sections of each chapter, with a slightly smaller font. Chapter 2 has 18 different reference sections. In each section the references are for the subjects discussed in the preceding paragraphs. The citation lists the author and year, and some citations include a synopsis of the article. This format does somewhat detract from the overall flow of the text, although it also makes finding citations for a certain topic much easier.

The book uses simple line drawings to illustrate the discussion. The drawings are quite primitive, although are quite effective in illustrating particular findings. However, access to a detailed anatomic or radiologic atlas is occasionally needed for thorough comprehension. The images on the CD-ROM are linked (with bold-face, all-capital-letters file names) to topics in the chapters. There are 8,660 images, taken from teaching files of the author and others. The pictures are easily viewed with software included on the CD-ROM, which runs on either the Windows or Macintosh operating system. For me the program ran without difficulty in the Windows-XP operating system.

One particular highlight of this text that is not included in many other chest radiology books is the historical perspective. Often when introducing a disease process, the author describes the original case, how it was diagnosed, and the evolution of its treatment. The sections on the histories of tuberculosis and lung cancer are especially interesting. Many of those classic cases are included in the CD-ROM teaching file.

In conclusion, **Radiology of the Chest and Related Conditions** should be a welcome addition to any radiology or chest disease library. A wealth of information and historical perspective is included in a single compact volume. And it is portable because the entire text and excellent teaching file are on a single CD-ROM. The primary limitation is the absence of radiographic images in the printed book.

Scott Vanderheiden MD
Department of Radiology
University of California
San Francisco, California