

any health professional interested in chest radiograph interpretation.

Jonathan Hero Chung MD

Department of Radiology
Harborview Medical Center
University of Washington
Seattle, Washington

The authors of this review report no conflict of interest.

100 Chest X-Ray Problems. Jonathan Corne MA PhD FRCP and Kate Pointon MRCP FRCR. Philadelphia: Elsevier/Churchill Livingstone. 2007. Soft cover, illustrated, 205 pages, \$29.95.

The chest X-ray is often the starting point for evaluation of respiratory complaints, and is therefore encountered daily by many health care providers. It is almost universally available and relatively inexpensive, and it boasts a quick turnover time. In an era of increasingly imaging-intensive medical practice, a thorough understanding of chest radiograph interpretation is a key skill that may aid practitioners in determining appropriate intervention, while lessening their dependence on expensive chest computed tomograms. **100 Chest X-Ray Problems** is a sequel to co-author Corne's instructive *Chest X-Ray Made Easy*, which serves as a companion volume that will help providers apply the principles to actual patient cases.

100 Chest X-Ray Problems is slim and pocket-sized. It includes 100 clinical vignettes, each accompanied by the patient's chest radiograph. Diagnoses and explanations follow each case, in a user-friendly format that encourages readers to learn by self-testing. Overall, it is a quick read and can be reviewed in 2 or 3 hours. The case selection seems appropriate for the book's stated teaching purposes, with cases selected from settings that range from out-patient clinics to in-patient and intensive care. There are radiographs of most common pulmonary complaints, such as pneumonia, congestive heart failure, cancer, and pneumothorax. Also included are examples of rarer but classic pulmonary syndromes and normal variants, including silicosis and Chilaiditi syndrome.

The clinical histories in the cases are succinct and written in simple language. Limited to 1 or 2 lines, they describe the patient's age, relevant medical history, and

subjective complaints. After reading the clinical history and reviewing the radiograph, the reader turns the page to see the authors' interpretation and explanation. This layout feature is beneficial for readers who are tempted to look ahead to the answer at the bottom of a page without giving the clinical problem due consideration.

The explanations are written in a professional but conversational tone that addresses the reader directly. This approach minimizes reader fatigue as one progresses from one case to the next, and helps the authors to frankly emphasize important take-home teaching points. The prose style also offers insight into the authors' thought processes as they viewed the films. Although the authors hail from the United Kingdom, and therefore use terminology and spellings for some clinical entities that differ slightly from those used in the United States, the book is easy to understand.

The analysis for each case has 3 sections: initial impression, interpretation, and summary. The initial impression is a single phrase, written in layman's terms, that simply describes what is seen in the radiograph. Examples include, "Multiple small white nodules in both lungs" or "Increased whiteness in the right lung." This simple descriptive method is taught in *Chest X-Ray Made Easy*, but it is easy to understand without reading *Chest X-Ray Made Easy*, even for those just beginning to read films. A more detailed, 1–3-paragraph explanation follows, which describes the various signs and findings that contribute to the final diagnosis. Most of the interpretations include a differential diagnosis and present a didactic dialogue that is both engaging and informative. Magnified views or images with markings that detail important findings are also included in most interpretations. The text often goes on to suggest diagnostic tests warranted by certain radiographic abnormalities, and for several of the patients describes how the diagnosis was ultimately reached. The text also includes numerous radiographic eponyms, which may be especially useful in academic circles.

The use of real-life patient presentations is among the greatest strengths of this book and facilitates efficient learning. The inclusion of various radiographic presentations of the same disease in different patients is also very helpful. The cases are arranged in order of difficulty, so the first several cases are best suited to readers who have just begun learning, and the later cases would be

most helpful to those seeking to refine their interpretive skills. For those wishing to review particular disease entities, a comprehensive index is included. There are some nice clinical pearls embedded in the text, including a page that explains the basic rules of looking at a lateral chest film. Many of the cases helpfully underline the importance of examining more than just the lung parenchyma, while others illustrate the utility of the chest film in patients with non-pulmonary symptoms.

This book has a few limitations. Though there is an index, the question-and-answer format does not lend itself to easy reference. The book would benefit from a disease-specific table of contents for quick reference. The book's utility lies in its role as an adjunctive learning tool. Its convenient pocket size and short cases encourage quick study during down time or between patients, but this is not a text that would be useful to carry daily on the wards. An introductory review of the basic principles of radiograph interpretation would have been very helpful for beginners, and a brief overview of anatomy on a chest radiograph and perhaps a glossary of common pulmonary terms would complement the cases nicely.

The radiographs differ in quality, as the authors acknowledge in the preface, with the intent that radiographs in real life are often of suboptimal quality but still require interpretation. As the book is sized to fit into the pocket of a medical coat, the radiographs are relatively small, and this format limits interpretation in a few cases. The largest radiographs are approximately 10×13 cm, and most are smaller. Not surprisingly, these scaled-down reproductions lack the crispness of the original radiograph, and there is some graininess. In at least one image I found it difficult to identify the pulmonary abnormality, even after reading the diagnosis and examining the magnified close-up on the following page. In most cases, nevertheless, the image quality is sufficient to read the radiographs accurately.

Though the case selection provides a good representation of typical pulmonary syndromes, it would have also been interesting to include a patient with influenza, given its high incidence and clinical importance. Viral pneumonias, such as severe acute respiratory syndrome and avian influenza, are also currently high-profile diseases that would have complemented the other cases nicely. It was surprising to find that, despite the inclusion of a case involving right-mid-

dle-lobe pneumonia, there was little discussion of aspiration pneumonia. In this instance the opportunity to make a clinically important teaching point was missed.

Radiographic imaging plays an important role in the practice of modern medicine. However, radiologists are often unable to deliver a definitive diagnosis; their readings simply describe the observed findings and often conclude with the dreaded "clinical correlation is recommended." This book seeks to give all clinicians the ability to tie the radiograph findings into the patient's clinical history and establish a unifying diagnosis.

100 Chest X-Ray Problems seems intended for medical students and trainees, but it may also be useful to those already in practice. It seems particularly well suited for non-radiologist physicians, nurses (especially in intensive care settings), and respiratory therapists. The text is unusually succinct, and the book, overall, is an excellent, high-yield review of the art of chest radiograph interpretation. Any reader will find this especially useful for refreshing knowledge of less common findings and building confidence in personal interpretive skills.

Edie P Shen MD

Joann G Elmore MD MPH

Department of Internal Medicine
Harborview Medical Center
University of Washington
Seattle, Washington

The authors of this review report no conflict of interest.

Imaging of Pulmonary Infections. Nestor L Müller MD PhD, Tomás Franquet MD PhD, Kyung Soo Lee MD, editors. C Isabela S Silva MD PhD, associate editor. Wolters Kluwer/Lippincott Williams & Wilkins. 2007. Hard cover, illustrated, 184 pages, \$129.

Pulmonary infection remains one of the most common indications for chest imaging. Despite the myriad of infectious etiologies,

it is paramount for imagers to recognize common patterns and assist in the diagnosis. Divided into 8 chapters, this 184-page hard-cover book provides a succinct overview of pulmonary infections and their imaging presentations.

The opening chapter introduces core concepts in the imaging of pulmonary infections. There is a brief review of pulmonary host defenses, the changing trends in pulmonary imaging, and the use of radiography and computed tomography (CT) in the imaging of pulmonary infection. The authors, who are well known experts in their specialty, use computer graphic diagrams along with the radiographs to describe imaging patterns commonly seen on CTs (eg, ground-glass, halo sign, and tree-in-bud). There is an overview of community-acquired pneumonia, nosocomial pneumonia, aspiration pneumonia, and pneumonia in the immunocompromised host, and excellent radiographs of those processes. The chapter concludes with a brief discussion of interventional procedures in patients with pneumonia and offers an algorithm for evaluating patients suspected of having a pulmonary infection, to help guide clinicians in taking care of patients with suspected pneumonia.

Subsequent chapters are divided by infectious etiology: bacterial, tuberculosis, nontuberculous mycobacteria, viruses and atypical bacterial infections, infections related to acquired immune deficiency syndrome, and infections in the immunocompromised host. In each 20–30-page chapter the authors follow an easy-to-use, reader-friendly layout. For example, the second chapter, which discusses bacterial pneumonia, begins with common radiologic patterns of bacterial pneumonia and gives examples of the various imaging patterns (eg, lobar, central lobular, tree-in-bud) on both plain radiographs and CTs. Again, helpful computer graphic diagrams are also presented along with the numerous radiographs, to show a schematic picture of the various patterns, which is helpful for residents-in-training. The authors then discuss specific bacteria (eg, *Streptococcus pneumoniae*,

Klebsiella species), their epidemiology, pathogenesis, and imaging characteristics on radiographs and CTs. Throughout the chapters, useful tables summarize key radiographic characteristics, common complications of the infection, risk factors, and epidemiologic information regarding each particular pneumonia. Each section concludes with a discussion on the utility and limitations of radiography and CT in evaluating the pulmonary infection discussed in that chapter. Over 400 images are high in resolution and are not littered with arrows, nor are the arrows so annoyingly large that the pathology is overshadowed. Over 50 full-color illustrations show histopathologic or microbiologic features that correlate with imaging findings. Additional tables and diagrams complement the imaging findings. At the conclusion of each section there is an up-to-date list of suggested readings.

Thoracic imaging is one of the more difficult radiology specialties to master, but after using this textbook—one that you'll actually want to read—your diagnostic confidence in interpreting everyday chest imaging will increase at the reviewing station. In summary, this is a great text for those who desire a concise edition that includes just enough to whet the appetite for further study and to be able to offer an intelligent diagnosis of the most common disease entities and a differential diagnosis for less common entities. The book also would be useful for pulmonologists who do not wish to spend a lot of money on radiology reference books, for thoracic surgeons or other clinicians who want a quick synopsis of their patient's imaging findings, or for any established radiologist who wants a very readable and portable book for a quick and painless review.

Arlene Sirajuddin MD

Tan-Lucien H Mohammed MD

Section of Thoracic Imaging
Division of Radiology
The Cleveland Clinic
Cleveland, Ohio

The authors of this review report no conflict of interest.