

Emergency Imaging: A Practical Guide

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Emergency Imaging: A Practical Guide is an excellent, concise handbook on imaging of trauma and other acute conditions. It is intended to, and will, be a useful, handy primer for junior radiology residents covering a busy emergency room. Young physicians in training can find it challenging or even overwhelming to face the daunting prospect of quickly and accurately interpreting images of complex, multiorgan trauma. This book stresses the importance of making a systematic review of all images within a study using a set search pattern that looks at different window settings and reconstruction algorithms optimized for structures such as brain, bone, and lung. Adherence to a set search pattern helps reduce the risk—common with rapid review—of missing critical or important incidental findings and increases the physician's efficiency, confidence, and ability to generate accurate reports.

The first chapter, a general overview on interpreting radiology images, stresses the importance of documenting the required key elements in a radiology report, including relevant normal and abnormal findings. This chapter also provides basic information on the risks and treatment of adverse reactions to intravenous contrast material, a vital learning requirement for radiology residents and equally useful as a refresher for all practicing radiologists. Emphasis is placed on the importance of understanding basic physics in working with all radiologic modalities, as well as the most appropriate study indicated for common conditions, the various protocols used in CT and MRI, and how to optimize these protocols for a specific patient.

Chapters 2 through 7 cover imaging of the brain followed by the head and neck, spine, chest, abdomen, pelvis, and musculoskeletal system. Each chapter follows the same format, consisting of a brief general approach to the topic, an anatomic checklist, the imaging modalities and protocols to be used for specific organs, and the differential diagnosis for abnormal findings on the various modalities. Pediatric imaging is well covered in chapter 8, which provides a good differential diagnosis for commonly encountered pediatric emergencies such as abdominal pain, suspected appendicitis, intussusception, testicular torsion, dyspnea, and hip pain.

Each chapter presents multiple emergency conditions common to a particular body system, along with images of excellent quality. These may include radiographs, CT scans, ultrasound images, MR images, angiographs, or whatever else may be the most useful modality for evaluating a particular disease or for identifying an abnormality. The number of cases ranges from 18 in the chapter on pediatrics to 60 in the chapter on the abdomen and pelvis. The cases are those most frequently encountered under emergency conditions, and each is addressed by a short passage on the clinical and pathologic findings, treatment options, and any potential complications, accompanied by images. No more than one page is allocated per case, allowing for easy reading, understanding, and retention of the salient facts.

Future editions of the book would be improved by the addition of a section on nuclear medicine imaging, as radiologists sometimes have to review such studies while covering the emergency department. Examples include lung studies to check for pulmonary embolism, cerebral blood flow studies to determine brain death, hepatobiliary studies to exclude acute cholecystitis, labeled red blood cell studies to evaluate for lower gastrointestinal bleeding, and studies to check for Meckel diverticulum in children. Another improvement would be placement of arrows in the images to help the junior physician easily identify the abnormality and correlate it with the legend.

This small but impressive handbook not only provides a strong foundation for junior radiology residents but serves as a helpful refresher for practicing radiologists who occasionally have to cover the emergency room. I highly recommend that *Emergency Imaging: A Practical Guide* be added to emergency room libraries.

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