

Emergency Imaging: A Practical Guide

by Alexander B. Baxter

This is an excellent concise hand book on Emergency imaging of acute trauma and acute disease conditions commonly encountered in the emergency room setting. It is intended and will be a useful, handy primer for the junior Radiology resident covering the busy Emergency room. It can be daunting overwhelming experience for young physicians in training when faced with the daunting prospect of interpreting complex multi organ acute trauma or other acute medical disease conditions requiring speed and accuracy of interpretation. The book stresses the importance of utilizing a systematic search pattern, looking at different window settings and reconstruction algorithms optimized for different structures like, brain, bone, lung window settings. Following a set search pattern can help reduce the risk of missing critical findings or other important incidental findings due to erratic, rapid review. A systematic review of all images within a study utilizing set search pattern increases physician efficiency and confidence of reporting and results in good reporting of abnormal findings and other important incidental findings. Pediatric imaging is well covered in chapter eight and provides a good differential diagnosis for commonly encountered pediatric emergencies like abdominal pain, suspected appendicitis, intussusception, testicular torsion, dyspnea and hip pain to name some. The first chapter is a general overview on how to observe and interpret Radiology images, stressing the importance of documenting 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 encountered with IV contrast, a vital learning requirement for Radiology residents and equally useful for all practicing radiologists to remember. It emphasizes the importance of learning basic physics for all modalities in radiology, imaging indications and most appropriate study for common conditions, different protocols utilized in CT and MRI and how to modify them to optimize them for a specific patient condition.

Chapters 2 through 7 cover different areas of the body starting with brain, followed by head and neck, spine, chest, abdomen, pelvis and musculoskeletal system. Each chapter follows the same format of a short general approach section, followed by an anatomic check list, then imaging and anatomy which lists the different imaging modalities and protocols to be used for different organs and is followed by differential diagnosis of specific abnormal findings seen on various imaging modalities like CT, ultrasound. Each chapter shows multiple disease conditions in a particular body system along with relevant imaging of applicable to various pathologic disease conditions. The number of cases included in each chapter range from 18 in pediatrics to a high of 60 in the abdomen and pelvis. The images are of excellent quality and may include plain radiographs, CT, ultrasound, MRI, angiogram, or whichever may be the most useful modality for that particular disease entity or the best modality to identify the abnormality. Each disease topic is addressed with a short text of the relevant clinical and pathologic findings, appropriate treatment options and potential complications if applicable and supplemented with excellent quality images defining the abnormality. A one page or less explanation of each case makes it easy to read, understand and retain salient facts regarding imaging of the most frequently encountered emergency disease conditions.

Arrows identifying the abnormality on the images will help the junior physician to more easily identify the abnormality and to easily correlate the imaging abnormality with the textual explanation in the accompanying figure legend. Emergency nuclear medicine is not included in this book. Radiology Residents will occasionally have to review some emergency nuclear medicine studies while covering the emergency department. Including emergency nuclear imaging like lung scan for pulmonary embolus evaluation, cerebral blood flow studies for brain death evaluation, hepatobiliary imaging (HIDA) to exclude acute cholecystitis, labeled red blood cells imaging to evaluate lower gastro intestinal bleeding and Meckel's scan in children will make the book more comprehensive.

This book provides a good foundation for the junior radiology residents to build upon as they advance along their residency and is a helpful handbook for practicing Radiologists who cover the emergency room. I highly recommend this book for all Radiology residents and practicing radiologists who cover the emergency room. This small impressive handbook on Emergency imaging is a valuable addition to any emergency room library, an essential hand book on emergency imaging for radiologists.

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