BOOK REVIEW

All interested medical physicists are encouraged to have their names added to a list of available reviewers. Please rank your interest among radiation therapy, x-ray imaging, nuclear medicine imaging, ultrasound imaging, MR imaging, radiation injury, radiation protection, and others. Make your interest known to Dimitris Mihailidis, Ph.D., Book Review Editor (dimitris@charlestonradiation.com). Include your name and email address in the body of the response.

The CT Handbook: Optimizing Protocols for Today's Feature Rich Scanners. Timothy P. Szczykutowicz, Author. Medical Physics Publishing, Madison, Wisconsin, 2020. Hardcover 580 pp. Price: $165.00. ISBN: 9780944838532.

DESCRIPTION

This is a truly comprehensive and practical CT handbook that covers all aspects of clinical CT imaging, from CT fundamentals to patient exam workflows and imaging protocol management. The author included numerous practical examples and protocol-specific advice.

PURPOSE

The primary focus of this book is to provide useful information and practical guidance for optimizing CT imaging protocols; very important objectives for achieving high-quality patient images and for ensuring patient safety. Over the past decade, hospitals and imaging clinics have been facing the challenge of how to optimize and manage CT imaging protocols practically and effectively. Indeed, this handbook is a timely publication for filling the void by providing all of the needed information in a single reference. It is well written and meets the author's objectives of providing comprehensive and practical information for supporting the day-to-day operation of CT imaging from the perspective of the CT protocol optimization team.

AUDIENCE

According to the author, this book is targeted primarily for practicing radiologists, medical physicists, and technologists. CT scientists, radiology managers, and administrators should also find this CT handbook useful. I agree with the author and would also recommend this book to students in radiology training programs and medical physics training programs for learning the clinical aspect of CT imaging. The author is an experienced diagnostic medical physicist with deep clinical experience and has been highly recognized as an expert in CT protocol optimization and management.

CONTENT/FEATURES

The uniqueness of this book starts from the first chapter which provides an overview of a large number of different CT technologies. Several examples of the CT exam workflow are described in Chapter 2. In four chapters, CT contrast, patient positioning, protocol management, and protocol review are covered. These subjects are typically not available in other CT books, but they are very important in CT imaging. Image artifacts are covered extensively with many image examples. The buyer's guide chapter is also useful for anyone in the process of purchasing a CT scanner. There are ample photographs, illustrations, tables, and charts throughout this textbook.

ASSESSMENT/COMPARISON

In my opinion, this excellent book would be a useful and practical resource for anyone who is involved in clinical CT imaging. With the increased demands in CT protocol development, the continuous effort for imaging optimization, as well as the increased complexity of CT scanner technologies, it is critical to gain a good understanding of scanner capability and CT protocols for clinical use. I have collected a list of books in CT imaging, but none of them compare to the materials covered in this book. This book answers the call of needing a practical "know how" textbook for providing guidance in clinical CT protocol optimization.

Reviewed by John Rong, Ph.D.

John Rong is a Professor in the Department of Imaging Physics at University of Texas MD Anderson Cancer Center in Houston, TX. He has expertise in all aspects of imaging physics and its clinical implementation. Dr. Rong is also active in clinical Task Groups and Committees of the American Association of Physicists in Medicine.