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MR Linac Radiotherapy: A New Personalized Treatment Approach, vol. 8, 1st Ed. Edited by Sara L. Hackett, Cem Onal, and Enis Ozyar. New York: Elsevier, 2022. ISBN 9780323916899

Reviewed by Ritchell van Dams

DESCRIPTION

This book titled “MR Linac Radiotherapy: A New Personalized Treatment Approach” (Elsevier Science & Technology, ISBN 9780323916899) is volume 8 in a series of books focused on magnetic resonance technology and its applications. It is a comprehensive review covering the physical and clinical aspects of radiotherapy treatment on a novel treatment platform.

PURPOSE

This book seeks to be an inclusive reference addressing all aspects of magnetic resonance (MR)-guided radiotherapy using an MR-Linac. This is a novel technology whose applications are still under active development, and this encyclopedic work fills a valuable, unmet need in describing the function, workflow, and clinical applications of this treatment modality to the full spectrum of radiotherapy cancer care.

AUDIENCE

This book addresses all practitioners of MR-guided radiotherapy, specifically physicians, physicists, therapists, and dosimetrists. It is an especially useful resource for physicians and physicists, and among its authors are some of the most experienced and knowledgeable users of MR-Linac technology in the field.

CONTENT / FEATURES

The book contains a detailed and comprehensive treatment of all aspects of the MR-Linac, from the physical basics of magnetic resonance to dosimetry and treatment planning, safety considerations, treatment delivery and QA, and chapters focused on disease-site specific applications of the MR-Linac. A particular strength of the book is that each chapter is written by subject matter experts but

in an accessible way such that each chapter is intelligible to a cross-disciplinary reader with limited background in that area.

ASSESSMENT / COMPARISON

This book sets out with an ambitious goal: to provide a comprehensive resource both accessible and useful to all disciplines in a radiotherapy department utilizing MR-Linac technology. It achieves this goal by combining the insights of world experts in the field with clear, concise writing that renders each chapter useful to its entire audience, and not just other experts. As the first of its kind entry into the field, there are no comparable books as of this writing. It is a boon to the field to have such a collection of knowledge organized in one place.

Book Reviewer Biography:

Ritchell van Dams, MD, MHS is an Instructor at Harvard Medical School and the Director of Gastrointestinal Radiation Oncology at Dana-Farber Brigham Cancer Center. His expertise includes treatment of gastrointestinal malignancies with a focus on stereotactic MR-guided adaptive radiotherapy for liver and pancreatic tumors.