1. Record Nr. UNINA9911001785203321

Titolo	Radiation Oncology – Principles, Precepts and Practice : Volume I – Technical Aspects / / edited by Anusheel Munshi, Tharmarnadar Ganesh, Biplab Sarkar, Atul Sharma, Indranil Mallick, Manur Gururajachar Janaki, Bidhu K. Mohanti
Pubbl/distr/stampa	Singapore : , : Springer Nature Singapore : , : Imprint : Springer, , 2025
ISBN	981-9783-89-5
Edizione	[2nd ed. 2025.]
Descrizione fisica	1 online resource (XI, 712 p. 223 illus., 199 illus. in color.)
Collana	Medicine Series
Disciplina	616.0757 616.994
Soggetti	Medical radiology Oncology Surgery Radiology Medical physics Radiation Oncology Medical Physics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Introduction to the cancer world -- Radiation oncology infrastructure and manpower -- Cancer biology -- Radiation biology -- Clinical radiation physics -- Pathology in oncology practice -- Imaging in oncology -- Surgery in oncology practice -- Chemotherapy and chemo-radiotherapy in oncology practice -- Integration of target therapy and Immunotherapy -- Teletherapy technology and principles -- Brachytherapy technology and principles -- Electron therapy -- Reirradiation in radiotherapy -- Early and late toxicities after radiation therapy -- Proton and heavy ion therapy -- Special techniques-I TBI, TSET, IORT, hyperthermia -- Special techniques -II SRS, SRT, SBRT -- Quality of life in radiation therapy -- Palliative care in cancer -- Artificial intelligence in radiation oncology -- Setting up a new radiotherapy department -- Research, clinical trials and publication in radiation oncology -- Social sciences and economics in oncology --

Nuclear medicine in oncology -- Psycho-Onoology.

Sommario/riassunto

This book covers various aspects of radiation oncology, its principles and practice in the management of cancer types and sites in the human body. The book is in two volumes: Volume One is devoted to basic and technical aspects; Volume Two provides the clinical basis of modern radiation oncology. The chapters focus on an evidence-based multidisciplinary approach to cancer management covering the indications, contouring, treatment technique, outcomes, and toxicities related to radiotherapy for various cancer sites. It includes separate chapters on radiation biology, physics, and palliative care. Additionally, the book also addresses contemporary topics including artificial intelligence in radiation oncology, the role of protons/heavy ions, and the conduct of clinical trials in radiation oncology. The book is a relevant resource for busy radiation oncology physicians, practitioners, and trainees/residents/fellows seeking to utilize evidence in the literature to guide the management of radiation therapy patients. The book can be valuable for other disciplines such as surgical oncology, medical oncology, palliative medicine in cancer management including basic scientists working in both developed and developing countries. .