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Nota di contenuto	PART I: Imaging in Oncology: From Diagnosis to Outcomes -- Theragnostics in Modern Oncology – The Role of Imaging -- The Role of a Radiologist and Nuclear Medicine Physician in a Multidisciplinary Tumor Board -- PART II : From Simulation to Delivery Guided by Imaging: Technical Aspects -- Optimal CT Protocol for CT Guided Planning Preparation in Radiotherapy -- Management of Respiratory Induced Tumour Motion for Tailoring Target Volumes During Radiation Therapy -- Principles and Constraints of Nonrigid Registration -- Radiotherapy Target Volume Definition Based on PET/CT Imaging Data -- CT in Room Gating During Radiotherapy -- High-Field MRI in-Room Guidance for Radiotherapy Adaptation -- Low Tesla MRI in Room Gating During Radiotherapy -- Endoluminal Brachytherapy: Technicalities and Main Clinical Evidences -- PART III : Imaging for

Tumor Staging and Volume Definition -- Staging and Target Volume Definition by Imaging in CNS Tumours -- T Staging and Target Volume Definition by Imaging in Headand Neck Tumors -- T Staging and Target Volume Definition by Imaging in Breast Tumours -- T Staging and Target Volume Definition by Imaging in GI Tumours -- T Staging and Target Volume Definition by Imaging in GU Tumors -- T Staging and Target Volume Definition by Imaging in GYN Tumours -- N Stage Challenges -- Tumor Biology Characterization by Imaging In Laboratory -- Tumor Biology Characterization by Imaging in Clinic -- Imaging Based Prediction Models -- PART: IV Response Evaluation and Follow up by Imaging -- Response Evaluation and Follow up by Imaging in Brain Tumours -- Response Assessment and Follow up by Imaging in Head and Neck Tumours -- Response Assessment and Follow up by Imaging in Lung Tumours -- Response Assessment and Follow up by Imaging in Breast Tumours -- Response Assessment and Follow up by Imaging in Gastrointestinal Tumors -- Response Assessment and Follow up by Imaging in GU Tumours -- Response Assessment and Follow up by Imaging in GYN Tumours.

Sommario/riassunto

This book, edited by leading experts in radiology, nuclear medicine, and radiation oncology, offers a wide-ranging, state of the art overview of the specifics and the benefits of a multidisciplinary approach to the use of imaging in image-guided radiation treatments for different tumor types. The entire spectrum of the most important cancers treated by radiation are covered, including CNS, head and neck, lung, breast, gastrointestinal, genitourinary, and gynecological tumors. The opening sections of the book address background issues and a range of important technical aspects. Detailed information is then provided on the use of different imaging techniques for T staging and target volume delineation, response assessment, and follow-up in various parts of the body. The focus of the book ensures that it will be of interest for a multidisciplinary forum of readers comprising radiation oncologists, nuclear medicine physicians, radiologists and other medical professionals. .
