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Mack Roach III
Editors



Handbook of Evidence-Based Radiation Oncology

Second Edition



Springer

Handbook of Evidence-Based Radiation Oncology

2nd Edition

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Dedication

To Keith Hansen – Compassionate and dedicated physician; loving husband, father, and grandfather. You were larger than life!

Preface to the 2nd Edition

The first edition of *Handbook of Evidence-Based Radiation Oncology* was extremely successful and well received by the worldwide oncology community. In the second edition, we have kept the same concise format in order to remain a practical quick reference guide. Yet we have also added new content and features based on the valuable feedback from readers. All chapters have been revised and include the latest key studies and radiotherapy techniques. Color figures are included for the first time. Three new chapters have been written, including management of the neck and unknown primary of the head and neck, urethral cancer, and clinical radiobiology and physics. An appendix on use of IV contrast has been added as well.

We are particularly pleased that our second edition includes the newly published 2010 AJCC and 2008 FIGO staging systems. We recognize that there will be a transition period in which the previous staging systems will continue to be widely used. For this reason and at the AJCC's specific demand, the previous staging systems are included as well.

We have again strived to maintain a balance of including the most important information for practitioners while also limiting the size of the handbook so that it did not become a full-sized textbook. As before, we strongly encourage readers to refer to the primary literature for further details and references not included here. Although this handbook provides treatment algorithms and suggestions, it remains the professional responsibility of the practitioner, relying on experience and knowledge of the patient, to determine the best treatment for each individual.

We are grateful to all the contributing authors, including multiple new ones, for their hard work and dedication. We believe *Handbook of Evidence-Based Radiation Oncology* will continue to be an invaluable resource for students, resident physicians, fellows, and other practitioners of radiation oncology.

Last, we owe special thanks to our families for their patience during our work on this new edition.

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Preface to the 1st Edition

Management of patients in radiation oncology is constantly evolving as the medical literature continues to grow exponentially. Our practices have become increasingly evidence-based. In this setting, it is critical to have a practical and rapid reference. The *Handbook of Radiation Oncology* is designed with this purpose in mind.

Each clinical chapter is organized in a concise manner. First, important “pearls” of epidemiology, anatomy, pathology, and presentation are highlighted. The key facets of the work-up are then listed followed by staging and/or risk classification systems. Treatment recommendations are provided based on stage, histology, and/or risk classification. Brief summaries of key trials and studies provide the rationale for the treatment recommendations. Practical guidelines for radiation techniques are described. Finally, complications of treatment and follow-up guidelines are listed.

This handbook grew out of a practical need for a rapid reference for students, resident physicians, fellows, and other practitioners of radiation oncology. To be concise and portable, we limited the potential pages and pages of references that could have been included in the handbook (so that it did not become a textbook). Numerous sources were used to compile the information in each chapter, including the primary literature, each of the outstanding radiation oncology reference books (*Textbook of Radiation Oncology*, *Principles and Practice of Radiation Oncology*, *Radiation Oncology Rationale Technique Results*, *Clinical Radiation Oncology*, and *Pediatric Radiation Oncology*), the National Comprehensive Cancer Network Guidelines (at www.nccn.org), the National Cancer Institute’s Physician Data Query Cancer Information Summaries (at www.cancer.gov), the American Society for Therapeutic Radiology and Oncology Annual Meeting Educational Sessions, and the notes of the radiation oncology residents at UCSF. Because a lengthy book could easily be written for many of the individual chapters, readers are encouraged to refer to the primary literature and the sources listed above for further details and references not listed in this handbook.

The handbook provides guidelines and suggestions, but it cannot replace the experience of clinicians skilled in the art of radiation oncology. It is the professional responsibility of the practitioner, relying on experience and knowledge of the patient, to determine the best treatment for each individual. Moreover, changes in care may become necessary and appropriate as new research is published, clinical experience is expanded, and/or changes occur in government regulations.

We thank all the contributors for their hours of hard work. We owe them a debt of gratitude for their excellent chapters and their promptness that made the task of editing this handbook much easier.

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PART I

Skin