

Features:

- **NEW! Considerations** explore how the radiation therapist role has changed due to the pandemic, the addition of remote work outside of administering treatment, and equipment changes
- **NEW!** Information enhances coverage of **proton arc therapy (PAT) and artificial intelligence (AI)**
- **UPDATED! Expanded information on treatment setups for simulation procedures** offers additional guidance
- **NEW! Updated artwork** throughout reflects modern radiation therapy practice
- **Comprehensive radiation therapy coverage** includes a clear introduction and overview plus complete information on physics, simulation, and treatment planning
- **Chapter objectives, key terms, outlines, and summaries** in each chapter help you organize information and ensure you understand what is most important
- **End-of-chapter questions and questions to ponder** provide opportunity for review and greater challenge
- **Bolded and defined key terms** are highlighted at first mention in the text
- **Spotlight boxes** highlight essential concepts and important information as they appear in the chapters

New To This Edition:

- Considerations about how the role changed because of pandemic, addition of remote work outside of administering treatment, changes to equipment
- Updating MRI
- Operational Issues Course
- Updated! Management for Radiation Therapists

Περιεχόμενα:

UNIT 1: Introduction

1. Cancer: An Overview
2. The Ethics and Legal Considerations of Cancer Management
3. Patient Assessment
4. Overview of Radiobiology
5. Detection and Diagnosis
6. Medical Imaging in Practice
7. Treatment Delivery Equipment
8. Treatment Procedures

9. Infection Control in Radiation Oncology Facilities
10. Infection Control: Health and Safety
11. Pharmacology and Drug Administration

UNIT 2: Physics, Simulation, and Treatment Planning

12. Applied Mathematics Review
13. Introduction to Radiation Therapy Physics
14. Aspects of Brachytherapy
15. Advanced Procedures
16. Particle Therapy
17. Radiation Safety and Protection
18. Culture of Safety and Protection
19. Quality Improvement in Radiation Oncology
20. Surface and Sectional Anatomy
21. Computed Tomography Simulation and Design
22. Photon Dosimetry Concepts and Calculations
23. Photon Dose Distributions
24. Electronic Charting and Image Management

UNIT 3: Practical Applications

25. Bone, Cartilage, and Soft Tissue Sarcomas
26. Leukemias and Lymphomas
27. Endocrine System Tumors
28. Respiratory System Tumors
29. Head and Neck Cancers
30. Central Nervous System Tumors
31. Digestive System Tumors
32. Gynecological Tumors
33. Male Reproductive and Genitourinary Tumors
34. Breast Cancer
35. Pediatric Solid Tumors
36. Skin Cancers and Melanoma

Glossary

Index

Answers