

## Facing the challenge of radiation treatment planning in pediatric malignancies; review of *Pediatric Radiotherapy: Planning and Treatment*

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There are few challenges in radiation oncology greater than the challenge of treating a child with cancer. Having a text like *Pediatric Radiotherapy: Planning and Treatment* makes this challenge easier to face. The book begins with a short introduction that gives a general background on pediatric malignancies. This chapter is followed by an extensive discussion of the unique difficulties in treating children, specifically focusing on second malignancies with a well-annotated review of the literature on a difficult topic. This discussion is well-placed, giving the appropriate context for the later chapters where the guidelines for the use of radiation are discussed. The awareness of this most grave of late side effects is critical in tempering all of the treatment decisions made when caring for a child.

The body of the book follows with chapters that focus on each pediatric malignancy such as bone sarcomas and Hodgkin's lymphoma. Within each of these chapters, there is a brief overview of the disease while the remainder of the chapter explains the treatment planning considerations such as target volume, beam orientation, target dose, and critical structures. Most of this information is very helpful, but the templates for beam arrangement such as those found in the section on brain tumors will likely see little use because of each patient's variability in target volume and dose constraints.

This book is dense with information, making it an excellent resource for radiation oncologists, physicists, and dosimetrists. There are discussions regarding the mechanics of total body irradiation, the use of 3D conformal radiation therapy versus intensity modulated radiation therapy (IMRT), and intraoperative radiation therapy. Each chapter has a specific discussion of the normal tissue constraints and late side effects seen in those tissues. There are several color plates of dose distributions, dose volume histograms, and field design. These pictures are helpful in illustrating some key topics. The only topic of radiation therapy that has a relatively shorter discussion is proton therapy. It is mentioned in the chapters on neuroblastoma, retinoblastoma, soft tissue tumors, and Wilms' tumor but not discussed at all in the section on craniospinal radiation. This brief inclusion of proton therapy may be seen as a shortcoming by those who are using this modality.

This text is well-written and well-researched and provides a comprehensive review of a complex set of information. It is a valuable resource for the team of radiation oncologist, physicist, and dosimetrist who are involved in the care of a deserving population, children with cancer.

**Conflict of interest** Carol Marquez has no conflict of interest.

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