

Book Review

Treatment Planning in Radiation Oncology. Third Edition

Faiz M. Khan and Bruce J. Gerbi

Lippincott Williams and Wilkins; ISBN 978-1-60831-431-7; 773 pages; Hardback; £132.00

There are few texts that can rightly assert to be a gold standard but Khan and Gerbi's epic "*Treatment Planning in Radiation Oncology*" is certainly a strong contender. This third edition is a timely revision boasting six new chapters and considerable updating throughout. The book's original strengths remain, however, an impressive array of eminent contributors, clear and thoroughly detailed explanation of all relevant theories and strong relevance to current clinical practice. As in previous editions there is impressive support from a comprehensive range of references and the text is complemented by clear and useful diagrams. The occasional typographical errors are perhaps forgivable in such a weighty volume but did distract from the flow somewhat. At the time of writing the online content was strangely not yet available but purports to include an image bank and an electronic version of the book. So what's new? In addition to the general updates, there are dedicated chapters on treatment simulation, electron and proton beam therapy, IGRT, stereotactic body radiotherapy and normal tissue tolerances.

The treatment simulation chapter is a useful addition and neatly progresses from traditional methods to virtual simulation. The IGRT chapter is comprehensive although much of the material covered relates to treatment issues. Despite this there is some interesting discussion of the effect of IGRT on margins and dosimetry. This content could perhaps have been better placed in the patient and organ movement chapter and the treatment-specific material dispensed with. It is rather surprising that adaptive radiotherapy planning receives so little attention given the increasing popularity of the techniques and this would make a potentially useful chapter in future editions.

Although the stereotactic body chapter is a valuable addition with a good summary of clinical results, there was repeated material on cranial stereotactic treatment that could have been cross-referenced from the previous chapter. In general, a little more vigorous editing would have made for a more concise and focussed text. Perhaps the addition of an introductory paragraph summarising the changes from the previous edition as in Chapter 17 would have helped emphasise the currency of information.

The chapters on Electron and Proton Beam Therapy are welcome additions and, as elsewhere, featured detailed explanations supported by useful diagrams. There was comprehensive coverage of electron techniques including Total Skin Treatment with clear acknowledgement of the challenges and potential obsolescence of some techniques. The proton chapter was relatively short and could perhaps have been extended with discussion of other charged particle therapy such as carbon ions. With the increasing popularity of particle therapy worldwide perhaps some more detail here and clinical examples in Section 2 would be of value. Mention was made in the index of proton planning for pyriform sinus but it was strangely omitted from the actual text.

For my money the most valuable addition to the text was Chapter 22 with the update to Normal Tissue Tolerances. It was particularly valuable to have the QUANTEC implications discussed by the expert Emami and it is worth purchasing the new edition for this alone. The clear summary and useful tables are complemented by insightful pointers to future research

and acknowledgement of the importance of clinical judgement in all cases.

Section 2 has again been thoroughly updated with good emphasis on IMRT issues where relevant. Chapters detail immobilisation, structure outlining, margin choice, tissue tolerances and a variety of techniques for each body site with impressive support from the literature. This section suffers somewhat from an inconsistent format with some chapters losing focus and lapsing into discussion of anatomy, staging and even an illustration of the ICRU volumes! Instead of cross-referencing to the excellent Chapter 22, tissue tolerances tended to be discussed independently.

A little more editorial control and use of a consistent format for this section would ensure that all material remains planning-specific and easy to read.

Overall this text is first-rate and will certainly be of inestimable value to all members of the multi-disciplinary planning team. The new edition remains current, detailed and excellent value for money.

*Pete Bridge, Senior Lecturer,
Queensland University of Technology,
Brisbane, Australia.
pete.bridge@qut.edu.au*