

## Book Review

# Radiotherapy Physics and Equipment

Samantha Morris

*Churchill Livingstone; ISBN: 0443 06211 0; 192 pp (paperback); £27.95*

Writing a textbook on radiotherapy physics and equipment is a very difficult task. The field is both broad and deep. It is stated in the preface to this book "It is not intended that this text cover in comprehensive detail each and every aspect of equipment important to the radiotherapy radiographer. Instead, emphasis is placed on those aspects that the author considers are not addressed in current texts at an appropriate level and/or depth for the undergraduate radiotherapy radiographer." And indeed the book does not cover the topic in comprehensive detail being only 167 pages long.

This book is well produced, and the layout is very student friendly. Each of the eight chapters starts with chapter objectives and is liberally scattered with "key points" and "learning points". The topics covered by these chapters (simulation, measurement of radiation, legislation and radiation protection, quality assurance, linear accelerators, cobalt units, kilovoltage units, and brachytherapy units) make the book look appealing to quite a wide audience. Unfortunately the content of these chapters leaves something to be desired. The lack of attention to detail in the proof reading does not help. For example figure 2.19 is referred to in the text as both an illustration of the sigmoidal relationship between the dose delivered and the probability of tumour control and a cell survival curve; the latter description is correct. Also some accounts of how equipment works are so truncated as to be confusing.

There are two aspects of this book that I found particularly disappointing. First was the lack of detail on new pieces of equipment such as multileaf collimators and electronic portal imaging devices (EPIDs). The EPID section, for instance, is only half a page long. Increased depth in these sections are required to fulfil the promise of providing invaluable information on the recent dramatic advances in radiotherapy equipment. The second disappointment was in some of the factual inaccuracies in the text. Some of these are minor, in that a field instrument (farmer dose meter) is compared annually against the secondary standard, not 3 yearly as stated. Others are more major. For example, in the brachytherapy chapter, the Manchester system of dosimetry is described as being developed for gynaecology but then only the interstitial rules are described. In fact there are two distinct Manchester systems – one for gynaecology and one for calculating interstitial and mould treatments.

So, overall, this book is a bit of a curates egg – it is good in parts. The structure and layout are good, but the contents are very limited.

*Dr Keith Langmack  
Medical Physics Dept  
Lincoln County Hospital  
Lincoln, UK*