

Book Review

MRI in Clinical Practice

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This book essentially does what it says on the cover—it covers all the major magnetic resonance imaging (MRI) topics (at least those relevant to a Trainee Clinical Scientist in Medical Physics) in a ‘distilled’ manner, in effect giving a summary of each topic. The book is divided into two parts.

The first part quickly describes the physics of MRI in enough detail to get you up and running, keeping the maths and complex descriptions to a bare minimum. It then goes on to describe, in the same brief manner, some basic pulse sequences followed by MRI hardware. The major sections on MRI safety are then summarised in enough detail to know what to look for, although some references to the relevant legislation would be welcomed. The next section is on scan parameters and artefacts, which describes the effects of the basic imaging parameters on image quality followed by the major imaging artefacts. The last section in the first part of the book describes some of the quality assurance measures implemented in MRI.

The second part of the book, divided into six anatomical sections, covers brain and spine, breast, abdomen and pelvis, cardiac MRI, magnetic resonance angiography and musculoskeletal MRI. For each of the sections the conventional techniques used are described followed by the advanced techniques relevant to each section; for both, a brief introduction to the technique is given alongside examples of

clinical sequence settings. For such a small book the number of techniques covered is very impressive; the concise descriptions give an immediate overview which is useful if trying to understand the techniques for the first time, or for reference.

Both parts of this book come with ‘Top Tips’ which offer practical advice to aid the reader in obtaining good images. The book also has many useful diagrams and is filled with real images that enhance the various sections.

In conclusion, the author has done well to distil a large amount of information into less than 150 pages which serves to highlight the important principles of MRI, although, for each section, links to the literature would have proved useful. This book acts as a first port of call for the various aspects and techniques of MRI. In this way it offers no-nonsense summary introductions to many components of MRI imaging. Owing to the small size of the book it doesn’t give an in-depth coverage of each section, and, as such, it is probably best to use it in conjunction with a more comprehensive text—with MRI in Clinical Practice acting as a reference.

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