**RATIONAL USE OF DIAGNOSTIC IMAGING IN PAEDIATRICS: REPORT OF A WHO STUDY GROUP.**
*World Health Organization, Geneva, Switzerland, 1987, 102 pp, $8.40*

This technical report provides information regarding diagnostic examination of children. The committee compiling the information for this report represent various international groups of experts that provide WHO with the latest scientific and technical advice in pediatric imaging. The material contained in this report are divided into the following categories: Chest, extremities, abdomen, skull and spine. The text is approximately 77 pages with 25 pages of up-to-date references.

There is a chapter dealing with protection from radiation exposure. It is primarily written for physicians involved in all aspects of diagnostic imaging as well as clinicians. It discusses the types of imaging (i.e., angiography, nuclear images, computed tomography, standard radiography, ultrasonography, and magnetic resonance imaging). In addition, it discusses topics of diagnostic concern in pediatrics, for example, trauma, intracranial pressure, neonatal intracranial disorders, and paranasal sinuses. Each section references the diagnostic strategy that is recommended in these areas. Although the report does not provide information concerning the disease, methods of interpreting images or discussing specific techniques, it does list the references that support the diagnostic strategy and could be used to help update a department.

A report such as this is useful for departments of diagnostic imaging for developing protocols. In addition, it would be useful for the administrative staff of a hospital because it outlines diagnostic approaches and, as such, indicates projected patient volumes in the diagnostic services.

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**MAMMOGRAPHY, SELF ASSESSMENT IN RADIOLOGY AND IMAGING.**
*J. Cooke, D. M. Hansell, C. Parson. Chicago, Year Book Medical Publishers, 1988, 128 pp., $45.00*

This book is a brief (126 pages) overview of mammography written in a question and answer format. It is primarily targeted at clinicians and radiologists who are beginning to look at mammograms. It does not dwell on the technical aspects of mammography, but focuses mainly on the images themselves. All of the images are by the Xerox technique.

The book consists of 46 cases which cover benign and malignant conditions. In general, the images are good and the supporting text is brief and to the point. One criticism is that there is not as much emphasis on benign conditions as there is on malignancies. For example, there are not as many cases of fibrocystic breasts and fibroadenomas which are more commonly seen than cancer in routine practice.

Overall, this book provides a quick survey of mammographic interpretation which should be helpful to a clinician who has limited contact with mammograms.

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**BASICS OF MAGNETIC RESONANCE IMAGING.**
*W. Oldendorf, W. Oldendorf, Jr., Boston, Martinus Nijhoff Publishing, 1988, 152 pp, $58.50*

Through the extensive use of analogies, "Basics of Magnetic Resonance Imaging" presents a nonmathematic introduction to the theory of MRI, easily readable by physician or technologist with no previous MRI experience.

The text is organized into nine chapters plus an appendix. The first three chapters explain the basics of MRI phenomena. By means of an analogy with a compass needle in the earth's magnetic field, fundamental concepts such as Larmor frequency, spatial localization via magnetic field gradients, and resonance are discussed in a clear and convincing manner. I found this approach to be clever and was impressed by the extent to which the analogy could be carried forward. In Chapter 4 the microscopic processes which affect nuclear relaxation times (T1 and T2) are discussed, again with great clarity. Chapter 5 presents the details of MRI pulse sequences. This is the most detailed chapter and represents the substance of the subject of MRI in practice. Ironically, this chapter is described as optional in the preface and the book written so that the reader may advance to Chapter 6 directly from Chapter 4. The remaining third of the book is devoted to a description of MRI equipment, comparisons of superconducting, resistive and permanent magnet units, and comparisons between MRI and computed tomography. The presentation here is fairly standard.

The book is well written with effective graphics and is reproduced on quality paper. There are, however, a few typographical errors. This work is the simplest, most readable text on the theory and operation of MRI I have seen and certainly has a niche in the medical literature. It is, however, only an introduction, appropriate for the newcomer to the MRI field.

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## Books Received

**Gastrointestinal Nuclear Medicine, Vol. 7: Contemporary Issues In Gastroenterology.** *M.G. Velchick, A. Alavi, Eds. New York, Churchill Livingston, 1988, 289 pp, $65.00*

**Nuclear Analytical Techniques In Medicine.** *R. Cersareo, Ed. New York, Elsevier Science Publishers, 1988, 404 pp, $129.00*

**Interventional Radiology.** *W.R. Castaneda-Wuniga and S.M. Tadavarthy. New York, Williams & Wilkins, 1988, 873 pp, $149.95*