

ionizing radiation. It is well written and well organized and amply illustrated with 350 figures that are exceptional in their clarity and helpfulness in understanding the material.

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HANDBOOK OF CLINICAL ULTRASOUND. Marinus de Vlieger, Joseph H. Holmes, Alfred Kratochwil, Ekkehard Kazner, Robert Kraus, George Kossoff, Jacques Pujol, and D. E. Strandness, eds. New York/Chichester/Brisbane/Toronto, John Wiley and Sons, 1978, 970 pp, illustrated, \$75.00.

My idea of a handbook is a slim volume, perhaps small enough to be carried in a pocket, and which contains succinct, practical information. This "handbook", however, hardly falls into that category. It is quite lengthy, and, in fact, it appears that the authors have attempted to provide a comprehensive, in-depth review of the field of diagnostic ultrasound.

The book is divided into eight segments. Following an introductory section, which contains an interesting historical perspective, there are several well-written chapters on the physical principles, safety, and instrumentation of ultrasound. A 140-page section on obstetrics and gynecology follows, providing a great deal of important information. It is evenly written, although it includes a section on the safety of diagnostic ultrasound, a subject adequately covered in an earlier chapter. The illustrations are bistable or of low quality, and many articles do not give recent references. There is little or no description of real-time, which has so changed out techniques in obstetrical ultrasound. Several important developments in diagnosis, such as the use of the empty bladder technique to diagnose placenta previa, are not mentioned.

The next section on internal medicine is somewhat disappointing. When one considers that abdominal ultrasound is a complex area in which at least one third of all ultrasonic examinations are performed, this subject has been allocated a remarkably small space. Several of the chapters are rather poorly illustrated, with out-of-date or low-quality figures, but others are more satisfactory, especially those in the chapters by Barbara Gosink. Some authors use real-time exclusively, others use gray scale. This section is suitable for a brief manual but is not adequate for a comprehensive book.

A most satisfactory area is that on cardiology. It is uniformly well written and forms a clear, concise summary of this topic. In fact, this section could stand on its own as a small book.

The segment on neurosonography follows, and this field, although of less importance now, is described in great and repetitive detail. Its length can be partially attributed to a fault that can be discerned to a lesser extent throughout the book—numerous authors have contributed, and consequently there is much duplication. Most chapters in this section are written as though they were review papers, beginning with a history of encephalography, mentioning the advent and impact of CT, etc. We feel this portion could easily have been shortened by one third.

There is a 100-page section on ophthalmology, which includes works by the major authors in this field, and is certainly a useful summary.

Finally, the last section, head and orthopedics, is interesting but of little clinical value; most of the illustrations are bistable.

In sum, this book is uneven, and it is not a handbook in the accepted sense of the term, for it is enormously lengthy. Yet, some sections should be expanded whereas others require abbreviation. Since much of the material is out of date, it is difficult to recommend the book for a novice in ultrasound. Separate volumes on

each of the different areas would perhaps serve a better purpose.

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NUCLEAR MEDICINE IN CLINICAL PRACTICE. P. B. Schneider and Salvador Treves. Amsterdam/New York/Oxford, Elsevier/North-Holland Biomedical Press, 1978, 320 pp, illustrated, \$84.50.

This book is a well-written guide to the appropriate utilization of nuclear medicine techniques. It is intended for referring physicians, clinical investigators, house officers, and students. The book covers mainly in vivo imaging procedures and describes the majority of nuclear medicine procedures with the exception of radioimmunoassay. The editors have assembled a panel of distinguished and articulate writers for each specialty. They have been thorough although in some sections, key points are buried in the text.

The authors anticipate and deal with a fundamental problem in any nuclear medicine textbook—namely, nuclear medicine techniques are changing so rapidly that it is impossible to write a book that contains only up-to-date material. They deal with this problem by giving the reader enough background information (physiology and applied tracer techniques) to provide a framework so that he can fill it in with details later as new techniques appear. The authors discuss many nuclear medicine procedures that are still in the investigational stage, and generally they make clear that which is clinically available and that still under development. The authors offer general principles that prepare the reader to understand new tracer procedures as they reach clinical status. Some of the diagnostic procedures that became available at about the same time the book was in press are, of course, not included, but, as indicated, the basic principles presented should allow the reader to "catch up."

The text is well balanced, with the strength skillfully distributed. There are especially good chapters on bone, heart, liver, and lung imaging; however, there is not much discussion of radioisotope therapy, quality control, or emergency studies. (Many chapters include a worthwhile description of the patient experience during the study.) Referring physicians may desire more data on the sensitivity, specificity, and predictive value of the tests than the authors provide.

The book contains copious, well-chosen illustrations; however, the referring physician should understand that a few of the images are not of state-of-the-art quality. Moreover, for the non-nuclear physician some of the images would be more helpful if they had had additional labeling. References are included with each chapter for further treatment of a subject or to acknowledge the developer of a technique.

The wide variety of subjects covered well in this book should provide the referring physician, resident, and student with a thorough background and strong framework on which to build a better understanding of clinical nuclear medicine. It is a good introduction and referral source for the non-nuclear physician and thus fulfills the authors' goals. It rightly deserves a place in the library of any physician who frequently refers patients for nuclear medicine studies or who seeks a better understanding of the clinical role of this rapidly developing specialty.

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