

## BOOK REVIEWS

**MEDICAL IMAGING.** Louis Kreef ed., England, H. M. & M. Publishers, 1978, 237 p, illustrated, \$42.95.

Dr. Kreef has edited and written chapters in this concise volume, *Medical Imaging*, based on lectures prepared for a course on computed tomography under the aegis of the British Council. The result is a wealth of information on the current status of CT scanning, ultrasonography, and isotope scanning. There is even a chapter discussing the research developments in nuclear magnetic resonance imaging also called zeugmatography. The images produced by this tool are rather crude at present but may become important as research progresses.

The participants in the seminar, who then collaborated with Dr. Kreef to produce this beautifully illustrated and informative text, are authorities in their fields. The first chapter fittingly was written by the Nobel Prize winner, G. N. Hounsfield, who described the past, present, and future of computed tomography.

Theoretical principles, technique, and equipment utilized in CT scanning, ultrasound, and isotope scanning are discussed initially. The following chapters present detailed analysis of normal cross-sectional anatomy as seen in CT scans and in ultrasound. In later chapters of the book, common problems in the head and the body are reviewed in a comprehensive fashion.

There are informative chapters describing the use of CT scanning by the radiotherapist in treatment planning and the use of CT and of ultrasound by medical oncologists in managing the care of their cancer patients.

The chapter on clinical uses of isotope scanning includes a brief review of the most commonly used isotope tests. Newer technology using computers to measure the function of kidneys or to evaluate ventricular wall motion are described.

Some common clinical applications of ultrasound are reviewed, and the final chapter compares the utility of each imaging technique. In many instances the two methods are complementary with one providing information where the other modality may fail.

If this book has a shortcoming it is in the format, which uses a relatively fine print to compress a large amount of written material in its 247 pages. It is to be hoped that this excellent compendium will be updated as developments are made in the imaging fields and at that time a larger type would make the book easier to read. In the meantime, it can function as a very helpful manual for those who are becoming acquainted with the use of the newer medical imaging techniques.

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**RADIATION PROTECTION IN THE RADIOLOGIC AND HEALTH SCIENCES.** Marilyn E. Noz and Gerald Q. Maquire, Jr., Philadelphia, Lea and Febiger, 1978, 218 pp, \$12.50.

The authors have consolidated into this book the various materials required for a general knowledge of radiation protection procedures and regulations. It is directed to those preparing for a career as radiologic technologists, medical health physicists, or radiologists.

The book consists of twelve chapters that are organized into three sections: General Radiation Protection, Protection From

Radionuclides, Protection From External Radiation.

The first section describes the principles and operation of survey instruments and personnel monitors and the principles of radiation exposure and protection.

The second section on Protection From Radionuclides explains the hazards of and methods of protection from internal and external exposure to radionuclides. Procedures for contamination control and the management of accidents as well as a description of the regulation and licensing of the use of radionuclides are included.

The third section describes the use of barriers for protection from external sources and an explanation of external dose from photons.

Chapters 10, 11, and 12 dealing with internal dosimetry, barriers, and external dose from photons are especially useful for didactic purposes in that example calculations are presented to illustrate the practical use of the principles described.

In addition to the twelve chapters, the book has four appendices explaining the units of physics and radiation exposure and the use of logarithms.

Although this book contains material that can be found elsewhere in numerous publications, its consolidated format makes it a convenient source to those who desire a general knowledge of the safe use of ionizing radiation in the radiologic and health fields.

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**HANDBUCH DER MEDIZINISCHE RADIOLOGIE/ENCYCLOPEDIA OF MEDICAL RADIOLOGY.** Band 1 Vol. 15: Nuklearmedizin Nuclear Medicine, Part 2: Diagnostik, Therapie, Klinische Forschung. H. Hundershagen, ed. Berlin, Heidelberg, New York, Springer-Verlag, 1978, \$429.00.

This handbook is Part Two (diagnosis, therapy, and clinical research) of the nuclear medicine section in the series of The Encyclopedia of Medical Radiology. (Part One covers instrumentation and radiopharmaceuticals.) Except for two sections in English in the chapter on the thyroid gland, the book is written in German. There are 13 chapters dealing with the brain, salivary gland, thyroid, lung, bone, spleen, lymph system, endocrinology, gastroenterology, hematology, obstetrics and gynecology, and in vitro diagnosis. As stated in the book's preface, each chapter has been written by an internationally known specialist in the respective field. The development, standardization, and effectiveness of clinical procedures are treated according to organs, systems of organs, and special areas. The cardiovascular nuclear medicine, nuclear oncology, and the emission as well as positron computerized tomography are not included, because a supplementary volume dealing with the rapidly changing spectrum of those topics is in process.

This large handbook gives a concise, clear, up-to-date summary of diagnostic and therapeutic nuclear medicine procedures to aid the reader who is trying to grasp new information or one who is reviewing the field. The materials are well presented with careful organization and logically subdivided sections. This book is diffi-