NMT Bookshelf

TEXTBOOK OF NUCLEAR MEDICINE: CLINICAL APPLICATIONS

Antonio Fernando Goncalves Rocha, MD, and John Charles Harbert, MD, Lea and Febiger, Philadelphia, 1979, 495 pp, $32.50.

This comprehensive volume on clinical applications in nuclear medicine is a successful complement to the previously published volume by the same editors on the basic sciences in nuclear medicine. The authors cover the thyroid, central nervous system, skeleton, gastrointestinal system, lung, cardiovascular system, kidney and blood as individual systems and the chapters on these systems are concise yet comprehensive. The material is presented succinctly with many excellent clinical examples. These are complemented by tables that summarize much of the data. The skeletal system section is weakened by the sparseness of the information on primary and metastatic bone lesions. This is one area where the authors could have been more extensive.

There are additional chapters on adrenal scanning, tumors, pediatric considerations, water and electrolytes, and guidelines for evaluating new tests. These brief chapters complete the summary of information that most practitioners need.

In this volume the authors have successfully met their stated objective of dealing with the important clinical applications of nuclear medicine. This book should be available in all nuclear medicine laboratories and used whenever one is reviewing nuclear medicine for examinations. It is a textbook for all who are interested in knowing why a study is indicated and what results might be expected.

HAROLD A. GOLDSTEIN, MD
Veterans Administration Medical Center
Philadelphia, PA

MEDICAL IMAGING TECHNIQUES

B.W. Watson, editor, Institution of Electrical Engineers, Peter Peregrinus Ltd., New York 1979, 233 pp., $38.50.

This text represents six monographs in a continuing series of topics relative to medical electronics and instrumentation. The monographs cover electrostatic x-ray imaging (65 pages); Doppler imaging of the vascular system (14 pages); imaging by nuclear magnetic resonance (15 pages); radionuclide imaging (69 pages); and ultrasonic imaging of the abdomen (45 pages) and carotid arteries (23 pages).

The section on nuclear medicine imaging is well-presented, concise, and current; information on instrumentation, basic physics, computerization, radiopharmaceuticals and their distribution, and nuclear cardiology is surprisingly thorough considering the number of pages allocated. This finding supports the theory that the British are masters of the well-chosen word. Positron imaging and instrumentation as well as predictions for future direction add interest to the monograph.

The text is best directed to research and training facilities as reference material. Nuclear medicine technologists will find the other chapters enlightening but not essential to the practice of their specialty. The nuclear medicine section is not unique when compared to texts usually found in nuclear medicine departments.

PATRICIA WEIGAND
Veterans Administration Medical Center
Philadelphia, PA

NCRP REPORT NO. 58: A HANDBOOK OF RADIOACTIVITY MEASUREMENTS AND PROCEDURES

National Council on Radiation Protection and Measurements, Washington, DC, 1978.

This text is intended to update the 1961 NCRP Report No. 28, which pertained to radioactive measurements. Because of the bulk of data accumulated by the Council, this particular report only addresses material concerning *general* measurement and standardization procedures. Another report concerned specifically with medical and biological applications will be forthcoming.

The book itself contains a plethora of information, not all of it relevant to nuclear medicine technology. Topics addressed include the physics of radiation and radiation detectors, direct and indirect measurements of activity in radioactive decay, preparation of samples and solutions for counting, assay of radioactivity, statistics, and quality control. However, the report is frequently difficult to follow, requires a strong and advanced background in mathematics and physics, contains parts beyond the scope of the nuclear medicine technologist, and for much of the content covered, is better handled in other texts.

I find the book to be useful only as a reference source; it is not applicable as a text for a nuclear medicine technology course.

JOHN P. CAPUZZI
Crozer-Chester Medical Center
Chester, PA

THE HERITAGE OF NUCLEAR MEDICINE

Marshall Brucer, C. Craig Harris, William J. MacIntyre, and George V. Taplin, editors, Society of Nuclear Medicine, New York, 1979, 191 pp, $14.50.

This soft-bound volume contains 31 of the most significant scientific papers that formed the foundation for the modern science of nuclear medicine. Interestingly reproduced in facsimile on heavyweight cream vellum paper,

the articles trace the development of the field from its origin in the physical sciences through its early development as a branch of medicine. Included in the volume are important papers by Rutherford; Geiger and Muller; Hevesy and Hofer; Joliet and Curie; Fermi; Meitner and Frisch; Anger; and Yalow and Berson. All of the papers represent major, often revolutionary, contributions.

An introductory historical essay by Marshall Brucer puts each of the scientific papers in perspective and provides continuity albeit in an irreverent manner.

The review makes one appreciate each part of the puzzle that eventually meshed to produce nuclear medicine as we know it. New insights and a sense of pride could overtake the reader unless he is careful.

PATRICIA WEIGAND

AN INTRODUCTION TO RADIATION DOSIMETRY

S. Lovell, Cambridge University Press, New York 1979, 116 pp, $18.50.

Although the author describes this text as an elementary introduction, I find that he presumes some amount of background knowledge from the reader. The eight chapters include information on ionizing radiations and their interaction with matter at the atomic level and in bulk; dosimetric quantities and units; measurement of luminescent and photographic dosimetry; and radiation protection. These chapters are well written and include many graphs, line drawings, and formulae to aid in explanation. Modern units of dosimetry have been used throughout, making the overview of radiation protection (using grays and sieverts) a challenge.

An experienced technologist will find that this text provides relatively sophisticated adjunctive knowledge in the areas of physics and chemistry; this knowledge, however, is not so esoteric as to be totally removed from nuclear medicine technology. Many of the concepts and definitions in nuclear physics that I memorized years ago are elaborated upon and made more meaningful.

It is disappointing that the author does not examine the subject of radiation protection at greater length. His readable style could perhaps have consolidated much of the obscure information currently available.

PATRICIA WEIGAND