

## BOOK REVIEWS

**NUCLEAR RADIOLOGY (SECOND SERIES) SYLLABUS.** Barry A. Siegel, ed. (with co-authors Naomi P. Alazraki, Philip O. Alderson, R. Barry Grove, Paul B. Hoffer, and Barbara McNeil). Washington, D.C., American College of Radiology, 1978, 640 pp, illustrated. \$45.00 (members); \$65 (nonmembers); \$30.00 (residents).

This excellent text is the answer syllabus for the ACR Nuclear Radiology Continuing Education Test. Groups of test questions deal with a particular aspect of nuclear medicine, and this grouping is maintained in the syllabus with the questions and accompanying illustrations restated. A detailed discussion of each question follows, including why a particular response to a question is correct or incorrect. This discussion also contains a review of the literature and a presentation of the differential diagnostic considerations of the findings on a particular nuclear medicine procedure. In the discussions, there are additional illustrations that complement those of the question. The illustrations are radiographic studies, sonograms, and computerized tomographic scans, and they provide valuable knowledge about the correlative use of multiple diagnostic studies of the same organ system and demonstrate the different diagnostic data provided by these studies.

The syllabus covers every organ system that can be evaluated with nuclear medicine procedures. The discussions review how these nuclear medicine studies may be applied in the study of different diseases within a particular organ system and analyze diagnostic decision processes. At the end of each discussion there is a very useful bibliography, and these are, for the most part, grouped according to the diseases presented in the discussions.

Despite the fact that the book has multiple contributors, precise editing has culminated in a uniform, clear, concise writing style. This syllabus is *must* reading for the nuclear medicine clinician and is an excellent text for any physician or medical student interested in the varied clinical applications of nuclear medicine.

LARRY GREENFIELD  
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**SI UNITS IN MEDICINE: An Introduction to the International System of Units with Conversion Tables and Normal Ranges.** Herbert Lippert, H. Peter Lehmann. Baltimore-Munich, Urban & Schwarzenberg, 1978. \$14.50.

This 211-page softbound book is an exceedingly well-done work that defines the SI Units, explains their use in clear, concise language and contains tables for converting from the traditional units to SI units for 81 of the substances most likely to be investigated in a clinical laboratory. The introduction includes an interesting history of the definition and use of units for measuring physical quantities and a comprehensive section on recommendations for the introduction of the International System of Units (SI) in medicine with a convenient table of the units recommended by the International Union of Pure and Applied Chemistry and the International Federation of Clinical Chemistry.

A chapter entitled "Legislation Governing the International System of Units" summarizes significant United States, European, and World Health Organization Documents that set forth the SI units and establish guidelines for the conversion to them.

The conversion tables are arranged in a form similar to logarithmic tables and are read in the same way. Normal ranges of

the substances are color coded. The use of the tables is explained in detail with the aid of several examples. Presented beneath each table are an explanation of the unit conversion for that table (e.g.,  $\mu\text{g} \times 5.458 = \text{n mol}$ ) and an example from the table, as well as notes on normal values for certain population segments.

This book should be a valuable addition to every clinician's library.

GUY SIMMONS  
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**SI FOR THE HEALTH PROFESSIONS.** Geneva, World Health Organization, 1977.

This paperback book was prepared in response to a charge given to the World Health Organization (WHO) as part of a resolution adopted by the Thirtieth World Health Assembly in May 1977. The charge called for WHO to prepare "a succinct, simple, and authoritative account of the SI" for use in the health professions. In this reviewer's opinion the work accomplishes the objective very well.

The main text is divided into five parts. The first part is a description of the SI covering the entire system, not merely those units that are of concern to the health professions. The second area deals with the practical application of SI units in general medicine practice and certain medical specialties and includes a section on radiation quantities and units. The third part covers standardization of laboratory reporting and summarizes recommendations that have been made for implementing SI units, principally in clinical chemistry. Part 4 consists of tables of equivalent values in traditional units and SI units for the more important tests, and Part 5 lists conversion factors.

The book is designed for all members of the medical and allied professions—physicians in general practice, specialists, nurses, laboratory technologists, pharmacists, as well as for students in training for any of these professions.

GUY SIMMONS  
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**CLINICAL NUCLEAR CARDIOLOGY.** R. W. Parkey, F. J. Bonte, L. M. Buja, and J. T. Willerson. Appleton-Century-Crofts, 1979. 338 pp.

This well-written book spends relatively little time discussing TI-201 imaging, quantitative left-ventricular function studies, or exercise studies, but does an excellent job reviewing many other aspects of nuclear cardiology. The reader who approaches the text with this in mind will find it useful and instructive. Practitioners who use "hot spot" techniques will find it a valuable reference.

There is an excellent 56-page chapter on instrumentation, which reviews fundamental principles of radiation detection, including problems of photon attenuation in the chest. Digital and analog imaging systems including emission tomography, multicrystal cameras, and microprocessors are discussed in detail. The radiopharmaceuticals chapter is thorough, but not as exhaustive as the instrumentation chapter. The authors' reasons for categorizing Tc-99m DTPA as a "blood pool agent" are unclear.

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The authors devote a complete chapter to techniques for myocardial blood flow measurements (primarily Xe-133 washout) and a portion of another chapter to microsphere studies of relative myocardial perfusion. The reader may question the relevance of this material in a book on "clinical" nuclear cardiology, but the sections are well done and will broaden the reader's knowledge of nuclear cardiology. The chapter on sizing myocardial infarctions is also good. Problems inherent in sizing myocardial infarcts with Tl-201 or Tc-99m "hot spot" scanning are discussed.

The sections on clinical studies using Tc-99m phosphates are excellent, as one would expect from the group that pioneered these techniques. The chapter by Buja on the pathophysiologic basis for "hot spot" imaging is especially good. The correlations between persistently positive "hot" infarct images and ongoing myocardial myocytolysis are discussed and illustrated in detail. The discussion of the complex basis for myocardial accumulation of "hot spot" tracers is excellent. Other chapters focus on "hot spot" imaging in acute infarctions, after cardiac surgery, and following myocardial trauma. There is little numerical data

concerning the sensitivity and specificity of "hot spot" imaging, but this is counterbalanced by a wealth of excellent clinical case material.

One of the strengths of the book is the large number of excellent illustrations. Virtually every Tc-99m "hot spot" myocardial image pattern imaginable is illustrated. Line drawings are included with numerous figures, and detailed captions are provided. Each chapter also contains a list of references for further reading. The index is also thorough, containing roughly 900 citations.

The authors state that one of the main purposes of this book is to "place in proper perspective" radionuclide techniques used to evaluate patients with heart disease. Those who rely heavily on Tl-201 and blood pool rest-exercise studies may not feel that the book accomplishes that objective. Nevertheless, they will probably feel, as I did, that the excellent material about other techniques in nuclear cardiology is worth reading.

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### **7TH ANNUAL WINTER MEETING THE SOCIETY OF NUCLEAR MEDICINE TECHNOLOGIST SECTION**

**Feb. 7-9, 1980**

**Galt Hotel**

**Louisville, Kentucky**

#### **FIRST CALL FOR ABSTRACTS-SCIENTIFIC PAPERS**

The Technologist Section of the Society of Nuclear Medicine announces the first call for abstracts for scientific papers for its 7th Annual Winter Meeting. Abstract forms may be obtained from: Diane Shepherd, SNM, 475 Park Ave. So., New York, NY 10016.

Completed abstracts (including the original with five copies, with supporting data) should be returned to:

Janice Brewster  
Episcopal Hospital  
Nuclear Medicine Dept.  
Front St. & Lehigh Ave.  
Philadelphia, PA 19125

Deadline for submission of abstracts-September 15, 1979

#### **FIRST CALL FOR ABSTRACTS-SCIENTIFIC EXHIBITS**

Completed abstracts (including the original and five copies, with supporting data) should be returned to:

David Phegley  
St. Louis University Hospital  
Nuclear Medicine Dept.  
1325 South Grand Blvd.  
St. Louis, MO 63104

Deadline for submission of abstracts-November 15, 1979