BOOK REVIEWS


The authors and editors of the Nuclear Medicine Review Syllabus have certainly succeeded well in their task. The syllabus is a quite excellent, well-rounded review of nuclear medicine procedures as generally practiced today and does not deal with the controversial, not universally accepted, or in-progress research concepts. The syllabus could serve as an update to any presently circulating standard textbook on nuclear medicine. In addition, it provides a generous number of references for further in-depth review of specific subjects. Certain shortcomings, such as the presentation of particular points of view and the possible omission of information, are absolutely excusable in view of the complexity and great volume of condensed information included.

In the basic science section, the chapter on instrumentation covers very well today’s available and “in use” instrumentation without going into great detail. Radiopharmaceuticals are rather completely presented, with paragraphs on the problems one could encounter in the in-house production, distribution, and administration of these agents. The chapter on radiation effects and radiation protection is worthwhile reading, since it brings one up-to-date on the multiple regulatory commissions and administrative bodies to which the practicing nuclear medicine physician has to answer.

The clinical section of this syllabus is oriented primarily for the consulting nuclear medicine physician who is approached by clinical colleagues to evaluate particular problems with radionuclides encountered with their patients. The selection of specific pharmaceuticals, their preparation, appropriate handling, and administration are well covered and are integrated with techniques and image patterns as well as specific radionuclide biology and dosimetry. Imaging techniques are complemented by in vitro techniques whenever appropriate for a particular clinical situation. In many instances, radionuclide procedures and results are correlated with other diagnostic procedures, and the individual merits of each are discussed.

Obviously, because of the magnitude and complexity of the material covered in the clinical section, the authors had to exercise appropriate selectivity and restraint, which they have done well.

The Nuclear Medicine Review Syllabus is excellent reading for the nuclear medicine resident, the practicing nuclear medicine physician, the nuclear medicine technologist, and the interested clinician referring patients to the nuclear medicine service for consultation.

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This text is an updated version of the first edition of Medical Radiation Physics. The current edition discusses the physical principles involved in diagnostic radiology, ultrasound, computerized tomography, and diagnostic nuclear medicine. It does not cover therapeutic nuclear medicine or radiation oncology.

In this current edition, some of the text remains as in the first edition, but there have been modifications of other parts of the book, and some new material has been added. The alteration of text material includes reorganization of some chapter content, modernization to the new international system of units (SI units), deletion of obsolete material, and expansion of discussion of certain areas, including scintillation cameras, image intensifiers, and automatic brightness control. New chapters have also been added covering computerized tomography and ultrasound.

The text includes many excellent illustrations and, when appropriate, examples demonstrating the solution to mathematical questions, such as those dealing with chemical dosimetry. As in the first edition, questions are posed at the end of each chapter with the answers placed at the back of the text. The book also has several useful appendices.

This second edition is an excellent medical physics text for radiologists, medical physicists, and radiologic technologists.

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This is the second in a series of annual reviews of the radiological literature. It is a cooperative effort by a group of authors and is organized into chapters covering a variety of topics. In addition to subjects covered in the first review (otolaryngology and ophthalmology, skeletal radiology, neuroradiology, computerized tomography of the CNS, pediatric radiology, and radiology of the chest and genitourinary tract), new chapters on nuclear medicine and vascular radiology are included. Mammography, discussed in the first volume, has been deleted. Body-section imaging comprised a chapter in Volume 1, but has now been divided into two chapters, one covering ultrasound and the other on computerized tomography of the body.

In contrast to other literature surveys that summarize a series of articles individually, the chapters of this work are organized into subject subheadings that generally incorporate several references. A stated objective is to present an editorialized literature review, and most of the contributors have attempted to emphasize areas that are of particular current interest or are controversial.

The chapter on otolaryngology and ophthalmology includes a discussion of the current role of CT compared with pluridirectional tomography and stresses the role of coronal CT scanning for the evaluation of facial structures. The chapter on ultrasound
BOOK REVIEWS

and CT of the body incorporates several references to comparative studies among ultrasound, CT, and nuclear medicine, in addition to a useful section on the technique of ultrasonographic investigation of the biliary tract. Skeletal radiology is covered particularly well, with reviews of metabolic bone disease, trauma, arthrography, and arteriography in conditions such as aseptic necrosis and leprosy. The chapters on gastrointestinal and vascular radiology emphasize some of the newer invasive techniques, such as ERCP and percutaneous transluminal angioplasty. The current debate over the efficacy of lidocaine as a means of decreasing pain in peripheral angiography is part of a good section on angiographic complications. Although the chapters on neuroradiology and CT of the CNS could probably have been combined, their separation facilitates a more detailed discussion of neuroradiologic techniques other than CT, such as myelography with water soluble agents. The applicability of ultrasonography, nuclear imaging, CT, and angiography in children is evaluated in the longest chapter of the book, pediatric radiology.

The content of the chapter on nuclear medicine is limited by the authors to coverage of brain, thyroid, lung (ventilation and perfusion), liver-spleen, gallbladder, adrenal, and bone imaging. Within the discussion of liver-spleen imaging is a brief, important description of the use of this procedure in evaluating the effects of trauma to these organs. The chapter also discusses the correlative and complementary roles of ultrasound, computerized tomography, and nuclear medicine in imaging some of these organ systems.

Although generally well organized, some articles are mentioned in several chapters and some illustrations are repeated. (A single article on neurofibromatosis is discussed in three separate chapters.) Also, although the illustrations are generally good, some areas, such as nuclear medicine, pediatric radiology, and CT of the CNS, are not sufficiently illustrated.

The book is a good review of the recent general radiological literature and is intended primarily for radiologists. It is not intended to be encyclopedic, although the bibliographies at the end of each chapter are relatively comprehensive. Nuclear medicine specialists will be disappointed that important topics, such as cardiovascular nuclear medicine, are not mentioned at all. Nevertheless, for those interested in a readable review of general radiology, Current Radiology, Volume 2, will be useful.

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BOOKS RECEIVED


Information Processing in Medical Imaging. Robert Di Paola, Edmond Kahn, Eds. 671 pp, Institut National de la Sante et de la Recherche Medicale, 1979

Diagnostic Imaging in Pediatric Trauma. John L. Gwinn, Philip Stanley, 199 pp, Springer International, 1980, $45.00