Essentials of Nuclear Medicine Imaging

F.A. Mettler, Jr., and M.J. Guiberteau

Philadelphia, PA: Saunders, 2006, 577 pages, \$106

This attractively designed, clearly illustrated hardbound textbook of nuclear medicine imaging is a new, expanded, and improved fifth version of the first edition, which has been one of the most popular books for trainees in nuclear medicine and diagnostic imaging for more than 20 years because of its practical and essential guidelines on nuclear imaging and treatment. The well-known and respected authors have made substantial changes while trying to keep the book affordable. They have removed outdated material and have updated aspects of nuclear instrumentation and radiopharmaceuticals. They have added a dedicated chapter (chapter 13) on PET, since many readers would be interested in PET only.

This fifth edition is organized into 14 chapters. Chapter 1 deals with radionuclides and radiopharmaceuticals, chapter 2 with instrumentation, and chapter 3 with quality control. Chapters 4 through 10 discuss nuclear imaging in various organs. Chapter 11 reviews tumor imaging, and chapter 12 deals with inflammation and infection. The last chapter, chapter 14, discusses radiation safety. This book covers new technologies such as PET/CT, cardiac-gated SPECT, and tumor-specific radionuclides and also comprehensively covers hot topics such as cerebrovascular accidents, tumor imaging, and radioimmunotherapy. Important and useful "Pearls and Pitfalls" are presented in each chapter. At the end

of the text, the authors have included 7 sets of unknown cases, with answers, that span the useful gamut of nuclear medicine imaging. Reviewing the sets will allow readers to assess their knowledge in a common testing format. This book also includes 9 helpful appendices dealing with the characteristics of radionuclides, tables of radioactivity unit conversion and decay, injection techniques, pediatric dosage, samples of nuclear images and of abnormal radiopharmaceutical distribution, nonradioactive pharmaceuticals, pregnancy and breast feeding, radionuclide therapy, and radioactive spills.

This edition features a new color format, with more than 600 images in digital-quality resolution because of the advent of PET/CT and other forms of fusion imaging. The tables are clear, and the index is comprehensive.

This user-friendly book is outstanding in fulfilling its original purpose and describes current clinical practices in nuclear medicine. I recommend it enthusiastically to trainees and practitioners in nuclear medicine and diagnostic imaging regardless of their level of experience.

E. Edmund Kim M.D. Anderson Cancer Center Houston, Texas