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Radiopharmaceuticals in Nuclear Pharmacy and Nuclear Medicine

R.J. Kowalsky and S.W. Falen, eds.

Washington, DC: American Pharmacists Association, 741 pages, $191.95

Nuclear pharmacy and nuclear medicine continue to experience extensive growth and change with the development of new radiopharmaceuticals and technologies for the diagnosis and treatment of various diseases. This third edition of *Radiopharmaceuticals in Nuclear Pharmacy and Nuclear Medicine* updates the key topics of the second edition and reorganizes its chapters on the basis of a critical solicited review. A key change in this edition is the division of the radiopharmaceutical chapter into 3 chapters of extensive information. In addition, 4 new chapters have been added—microbiologic control of radiopharmaceuticals, with emphasis on U.S. Pharmacopeia 797 guidelines; special radiopharmaceutical topics, formulation problems, pediatric dosing, breast milk excretion, and adverse reactions; molecular imaging and new radiopharmaceutical development, including discussion of novel approaches and technologies; and clinical PET procedures—providing a breadth of fundamental diagnostic information. This book also has a new design, featuring a larger page size with 2-column format and 4-color high-resolution illustrations.

This book is designed as a comprehensive textbook on the chemical, physical, and biologic properties of radiopharmaceuticals and their applications in nuclear medicine. It is intended for courses on nuclear pharmacy and nuclear medicine but has also been useful both for professional practitioners and for those preparing for specialty board examinations in these disciplines since it contains essential information required by the state and federal radiation licensing organizations for authorized nuclear pharmacists, nuclear medicine physicians, and technologists.

This book is organized into 3 sections with 30 chapters. The first section, chapters 1 through 12, deals with fundamental concepts of radiation physics, safety, biology, and radiopharmaceutical chemistry. The next section, chapters 13 through 18, discusses nuclear pharmacy practice, radiopharmaceutical preparation, quality control, and regulations, as well as the development of new radiopharmaceuticals and molecular imaging. The concluding section, chapters 19 through 30, covers diagnostic and therapeutic applications in nuclear medicine practice such as imaging of various organs, SPECT and PET, peptides, and antibodies. The chapters have more than 200 tables and more than 500 superb figures to enhance the understanding of key concepts and are supported by references.

This expanded, updated book is a comprehensive reference for practitioners and those preparing for examinations on nuclear pharmacy and nuclear medicine. It is also useful for educational programs on nuclear pharmacy and nuclear medicine.

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