

Numerous practice opportunities are available in nuclear pharmacy

Safety is the number one priority in each



By S. Duann Vanderslice

Nuclear pharmacy was the first specialized practice recognized by the Board of Pharmaceutical Specialties. It embodies the professional and scientific knowledge required to improve and promote health through the safe and effective use of radiopharmaceuticals for diagnosis and therapy. As with other types of pharmacy practice, nuclear pharmacy embraces the concepts of pharmaceutical care.

I consider myself lucky for knowing I wanted to practice nuclear pharmacy at the beginning of my pharmacy career. I would like to share some basic information about this dynamic practice and to tell you how I got where I am today.

Training and titles

A nuclear pharmacist is a licensed pharmacist with advanced training in radiation physics, radiation detection and measurement, mathematics, radiopharmaceutical chemistry, radiation biology, and health physics/radiation protection. Typically, this training consists of at least 700 hours of didactic instruction and practical experience in a structured educational program. This program can be completed through pre- and/or postgraduate courses.

As a member of the nuclear medicine team, a nuclear pharmacist specializes in the procurement, compounding, quality assurance testing, dispensing, and provision of radiopharmaceuticals. Providing these services requires nuclear pharmacists to engage in activities in the general domains of health and safety, provide information and consultation, monitor patient outcomes, and perform research and development.

Practice opportunities range from the traditional role of dispensing and clinical patient-physician interaction to the research and development of new radiopharmaceuticals. Today, most opportunities exist within commercial nuclear pharmacy companies, such as Tyco Healthcare/Mallinckrodt, Amersham Health, Cardinal Health (Syncor & CPSI), and PETNET, as well as in independent commercial nuclear pharmacies (e.g., Geodax, Eastern Isotopes) and smaller independently-owned nuclear pharmacies.

Additionally, opportunities in hospital settings continue to grow. Other rapidly expanding areas of nuclear pharmacy practice, both in terms of development and clinical care, are working with positron-emitting radiopharmaceuticals, radiolabeled monoclonal antibodies for diagnosis and therapy, radiographic contrast media and contrast enhancement agents used in computer tomog-

raphy, ultrasound, and magnetic resonance imaging. Finally, management, sales, marketing, regulatory compliance, and radiation safety are possible career pathways.

No matter the work setting, safety is the number one priority in nuclear pharmacy practice. Precautionary measures must be taken when handling biohazardous materials, toxic chemicals and radioactive materials. Ensuring the safety of personnel, patients, and the environment are equally important.

My career ride to date

After completing my coursework at Purdue University and a summer internship, I began working as a nuclear pharmacist for Tyco Healthcare/Mallinckrodt in Baltimore. I enjoyed developing and delivering employee training and in-services for customers on policies, procedures, and radiopharmaceuticals. Providing pharmaceutical care, including compounding pediatric doses, counseling patients on drug interactions, and intervening to prevent drug problems on an ongoing basis were particularly rewarding. I became the radiation safety officer and worked to improve regulatory compliance program and to develop standard operating procedures. I coordinated participation in an investigational new drug study and worked with the sales staff to improve their knowledge of products and services.

I relocated to St. Louis to join the Tyco Healthcare/Mallinckrodt Regulatory Compliance Department as a radiation specialist. My job entailed traveling to pharmacies across the nation to perform inspections and offer guidance on the everyday application of the regulations that guide the practice of nuclear pharmacy. I developed and conducted personnel training programs and participated in root cause analysis investigations. Just recently, I was promoted to principal pharmacy operations specialist and now serve as the liaison between the nuclear pharmacy staff and top-level managers. I will relay a nuclear pharmacist's perspective on all topics relating to practice and provide specific support in the field via written communications and on-site visits.

My career has been a fabulous ride and I hope it continues for years. Most rewarding was becoming active at the local and national levels in advancing nuclear pharmacy as a career and recognized specialty. Nuclear pharmacy is indeed a family, and APhA is its home.

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