

Full Steam Ahead for Nuclear Medicine Therapy

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Nuclear medicine therapies have been around for decades but have recently come into their own in a big way. Advances have contributed to treatments for prostate cancer, neuroendocrine tumors, meningiomas, and lymphoma, with more on the horizon. At an SNMMI strategic planning meeting held in April 2022, society leadership identified radiopharmaceutical therapy (RPT) as a one of its top priorities for the next 5 years. Discussions at the meeting centered around ways to expand research, promote the use of therapy, and make it accessible to patients, among other topics.

SNMMI has several therapy-focused efforts in progress and many more planned. Last year the society introduced the Radiopharmaceutical Therapy Centers of Excellence (RPT COEs), in which sites utilizing RPTs could apply to earn designation as a clinical or comprehensive RPTCOE. This designation shows that the site meets strict regulatory, training, qualification, experience, and performance criteria. To date, 34 applications have been received from 22 comprehensive sites, 8 clinical sites, and 4 basic therapy sites. Twenty-two sites have received designation.

The Lu-177 Dosimetry Challenge demonstrated a great interest in personalized RPT dosimetry and a need to train more personnel to perform dosimetry. Thus, the development of a dosimetry certificate program was recently approved by the SNMMI Board of Directors. The certificate program will consist of a web-based curriculum followed by an onsite practicum. It will include separate tracks for physicists, physicians, and technologists. The SNMMI Board of Directors has also approved funding for 2 nuclear oncology fellowships. Applications for certificate programs and fellows will open soon. For technologists, SNMMI is creating an RPT badging program, which will include training materials on the components of therapy delivery. Although the badging program is not a certification or credential, it can be added to CVs to demonstrate proficiency in RPT.

On the education front, SNMMI has created a Nuclear Medicine University with educational content on RPTs and diagnostic procedures designed for residents. In addition, SNMMI is conducting a curriculum review to ensure that all necessary content is available to properly train nuclear medicine physicians to administer therapies.

SNMMI is also ensuring that appropriate use criteria and procedure standards are in place to describe when RPTs should be performed and identify the most important elements of a high-quality procedure. The society is also taking

an active role in ensuring that other specialties are educated about RPTs via educational workshops (“road shows”) and satellite symposia at related specialty meetings focused on prostate-specific membrane antigen imaging and therapy.

The society will launch a new therapy-specific clinical trials network, the Therapy Clinical Trials Network. The goal of this initiative is to establish a network of investigational sites with the capability of conducting clinical trials of RPTs, similar to ARTnet in Australia and New Zealand. SNMMI Clinical Trials Network database expertise will be utilized to create the new network, and it is anticipated that many of the RPTCOEs will be involved.

As the applications of nuclear medicine therapy continue to grow, ensuring a robust workforce pipeline of both physicians and technologists is always a concern. SNMMI is developing a physician survey to identify physician workforce needs going forward. Understanding that there is currently a shortage of therapy-focused technologists, SNMMI is also working on both short- and long-term solutions to grow the technologist workforce.

SNMMI will host its third annual Therapeutics Conference November 17–19 at the Gaylord National Resort in Washington, DC (www.snmmi.org/TC2022). Following the footprint of previous conferences, the event will explore the latest innovations and clinical applications in RPT. Sessions on radiopharmaceutical delivery, dosimetry, and more will be included in the conference.

At the 2022 Annual Meeting in Vancouver, Canada, SNMMI initiated its Mars Shot fund to radically transform the nature of disease treatment, prevention, diagnosis, and prognosis using visionary nuclear medicine procedures, RPTs, and research projects. By supporting training pathways and fellowships, our hope is to allow nuclear medicine physicians to integrate into patient management teams as key members, rather than as outlying suppliers of imaging and treatment.

Look for more on therapy in future issues of *The Journal of Nuclear Medicine*, and be sure to check out the September issue of the *Journal of Nuclear Medicine Technology*, which focuses on this topic. It is an exciting time for nuclear medicine therapies, and we look forward to what’s to come in the future.



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