SNMMI Newsline

Interim Report on Provisional Requirements for Radionuclide Therapy

George M. Segall, MD - *Executive Director, American Board of Nuclear Medicine*

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In 2020, the American Board of Nuclear Medicine (ABNM) proposed new requirements for radionuclide therapy (*J Nucl Med.* 2020;61[12]:41N). The proposed changes were based on the evolution of practice since the requirements were changed in 2014, with fewer radioiodine therapies for hyperthyroidism and thyroid cancer and more parenteral therapies due to U.S. Food and Drug Administration (FDA) approval of additional radiopharmaceuticals for cancer treatment. Before making changes, the ABNM polled the directors of all 38 Accreditation Council for Graduate Medical Education (ACGME)–accredited nuclear medicine programs. Fifty-three percent approved the proposal in its entirety. Thirty-four percent supported the proposal with reservations about decreasing the minimum number of radioiodine therapies and increasing the minimum number of parenteral radiopharmaceuticals, including requiring experience with at least 2 different FDA-approved radiopharmaceuticals. Four directors (10%) did not support the proposal because of challenges in providing experience with parenteral therapies. Based on this feedback, the ABNM decided that candidates for the 2021 and 2022 certification examinations could fulfill the requirements using the current ACGME-based criteria or by using the new provisional criteria proposed by the ABNM. The ACGME Nuclear Medicine Review Committee decided that programs would not be cited if trainees met the ABNM provisional requirements instead of the ACGME requirements.

The ABNM provisional requirements did not change the minimum number of all therapies, which was maintained at 35. The minimum number of radioiodine therapies using ≤33 mCi of ^{131}I was decreased from 10–15 to 5, and the minimum number using >33 mCi of ^{131}I was also decreased from 10–15 to 5. The minimum number of parenteral therapies was increased from 5 to 10, with the additional requirement that experience must include at least 2 different FDA-approved radiopharmaceuticals, excluding ^{90}Y microspheres. The requirement for 35 total therapies could be met by any therapy beyond the specified minimum.

Sixty-five candidates took the 2021 ABNM certification examination. Seven candidates (11%) met the new provisional requirements, with the remaining candidates meeting the current ACGME-based requirements. Six of the 7 candidates also met the eligibility requirements for certification by the American Board of Radiology (ABR) in diagnostic radiology and had 16 months of nuclear medicine training. Four of the candidates completed the ABNM and ABR requirements during 4 years of diagnostic radiology residency, and 2 candidates completed the requirements in 5 years, with 1 year of nuclear medicine plus 4 years of diagnostic radiology training. One candidate was certified by another specialty board and met the requirements with 2 years of nuclear medicine training.

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The radionuclide therapy case logs of the 7 candidates who met the new provisional requirements were reviewed. The parenteral radionuclides listed included ^{223}Ra-dichloride (41 therapies) and ^{177}Lu-DOTATATE (37 therapies). Candidates were required to list only the minimum requisite number of 10 parenteral therapies (although some listed more than 10), so it is not known whether these candidates had additional experience with these or other FDA-approved radiopharmaceuticals. No candidates listed ^{89}Sr-chloride, ^{153}Sm-lexidronam, ^{90}Y-ibritumomab tiuxetan, or ^{131}I-iobenguane. It is also unknown how many trainees had experience with prostate-specific membrane antigen (PSMA)–targeted radiopharmaceuticals, which are still in clinical trials.

The number of trainees meeting the provisional radionuclide therapy criteria this year was small. The ABNM does not expect any significant change in the number of trainees having greater experience with parenteral therapies until the FDA approves PSMA-targeted radiopharmaceuticals for treatment of prostate cancer. FDA approval will likely be too late to impact training during the current academic year at sites that are not participating in clinical trials, but adoption of the new treatment is expected to be rapid at teaching institutions once these therapies are approved.