

**ACGME Program Requirements for Graduate Medical Education  
in Radiation Oncology  
Summary and Impact of Interim Requirement Revisions**

Requirement #: **4.4.b. (NEW)**

Requirement Revision (significant change only):

4.4.b. Residents must demonstrate compliance with radiation safety rules and regulations, including Nuclear Regulatory Commission (NRC) or agreement state rules, local regulations, and the ALARA (as low as reasonably achievable) principle for radiation protection. (Core)

1. Describe the Review Committee's rationale for this revision:  
**The American Society for Radiation Oncology (ASTRO) board of directors requested updates to the program requirements related to radiopharmaceuticals. The oncologic use of radiopharmaceuticals is rapidly expanding, and a knowledgeable and well-trained workforce is required to meet this demand. As such, ASTRO has identified radiopharmaceuticals as a priority for therapeutic development and is actively engaged in supporting initiatives aimed at patient-centered utilization of radiopharmaceuticals. In 2022, ASTRO published a Framework for Radiopharmaceutical Curriculum Development for Trainees to supplement the current robust radiation oncology education and training to help programs prepare residents for clinical radiopharmaceutical planning and delivery. While the next generation of radiopharmaceuticals holds much promise, ASTRO indicated concern about a shortage of skilled practitioners to provide these therapies to patients. The proposed requirement mirrors the ACGME Program Requirements for Graduate Medical Education in Nuclear Medicine.**
2. How will the proposed requirement or revision improve resident/fellow education, patient safety, and/or patient care quality?  
**Historically, the American Board of Radiology (ABR) has certified authorized user (AU) eligibility for its diplomates to facilitate AU status. However, it recently discontinued that practice. In light of this change, graduating residents/residency program directors must attest that residents have the necessary training and experience for eligibility.**
3. How will the proposed requirement or revision impact continuity of patient care?  
**n/a**
4. Will the proposed requirement or revision necessitate additional institutional resources (e.g., facilities, organization of other services, addition of faculty members, financial support; volume and variety of patients), if so, how?  
**n/a**
5. How will the proposed revision impact other accredited programs?  
**The proposed requirement will require additional collaboration between radiation oncology and nuclear medicine residency programs to ensure that all residents fully participate in the requisite procedures and experience.**

Requirement #: 4.11.g. – 4.11.g.2.

Requirement Revision (significant change only):

4.11.g. Each resident must demonstrate the requisite knowledge and skills in the administration of at least ~~eight~~ **13** procedures using radioimmunotherapy, other targeted therapeutic radiopharmaceuticals, or unsealed sources.  
(Core)

Of the ~~eight~~ **13** procedures:

4.11.g.1. Oral I-131  $\geq$  33 mCi: A minimum of three procedures must include the oral administration of I-131 with administered activity equal to or in excess of 1.22 Gigabecquerels (33 mCi). Patient conditions may be either benign or malignant but the counted administration must be for therapeutic intent. (Core)

4.11.g.2. Residents must perform a minimum of ~~five~~ **10** cases of parenteral administration of any alpha emitter, beta emitter, mixed emission, or a photon-emitting radionuclide with a photon energy less than 150 keV, for which a written directive is required, and/or parenteral administration of any other radionuclide, for which a written directive is required and at least two different US Food and Drug Administration-approved radiopharmaceuticals. (Core)

Specialty-Specific Background and Intent: This procedural experience includes:

1. ordering, receiving, and unpacking radioactive materials safely, and performing the related radiation surveys;
2. performing quality control procedures on instruments used to determine the activity of dosages, and performing checks for proper operation of survey meters;
3. calculating, measuring, and safely preparing patient or human research subject dosages;
4. using administrative controls to prevent a medical event involving the use of unsealed byproduct material;
5. using procedures to safely contain spilled radioactive material and using proper decontamination procedure; and
6. instruction in mathematics pertaining to the use and measurement of radioactivity and instruction in chemistry of byproduct material for medical use.

1. Describe the Review Committee's rationale for this revision:

**The ASTRO board of directors requested updates to the program requirements related to radiopharmaceuticals, and has suggested that the requirements mirror the revised ACGME Program Requirements for Graduate Medical Education in Nuclear Medicine to ensure residents are fully prepared to meet the increased demand for radiopharmaceuticals.**

2. How will the proposed requirement or revision improve resident/fellow education, patient safety, and/or patient care quality?

**Historically, the ABR has certified AU eligibility for its diplomates to facilitate AU status. However, it recently discontinued that practice. In light of this change,**

**graduating residents/residency program directors must attest that residents have the necessary training and experience for eligibility.**

3. How will the proposed requirement or revision impact continuity of patient care?  
**n/a**
4. Will the proposed requirement or revision necessitate additional institutional resources (e.g., facilities, organization of other services, addition of faculty members, financial support; volume and variety of patients), if so, how?  
**n/a**
5. How will the proposed revision impact other accredited programs?  
**The proposed revisions will require additional collaboration between radiation oncology and nuclear medicine residency programs to ensure that all residents fully participate in the requisite procedures and experience.**