

Frequently Asked Questions: Radiation Oncology

Review Committee for Radiation Oncology ACGME

Question	Answer
Oversight	
What ACGME-accredited specialty programs does a Sponsoring Institution need to sponsor or be affiliated with to maintain an accredited radiation oncology program? <i>[Program Requirements: 1.2.b.; 1.2.b.1.]</i>	Pathology- and oncology-related programs include pathology, cytopathology, dermatopathology, hematopathology, and selective pathology. Surgical oncology programs include colon and rectal surgery, complex general surgical oncology, gynecologic oncology, micrographic surgery and dermatologic oncology, musculoskeletal oncology, neurological surgery, otolaryngology – head and neck surgery, thoracic surgery, and urology. Other oncologic-related programs include hospice and palliative medicine and pediatric hematology-oncology. Affiliations with a particular program can be demonstrated through resident and fellow interaction through procedures, didactics, conferences, and other efforts to ensure an effective clinical learning environment. The Review Committee will track progress toward meeting this requirement for programs that do not currently comply, and will begin citing non-compliance with this requirement after July 1, 2026.
When is a program letter of agreement (PLA) required for outside rotations? <i>[Program Requirement: 1.3.]</i>	There should be a PLA in place for any rotation of <i>one month or more</i> that will occur outside of the primary clinical site or integrated sites. A PLA is not required when the site is wholly owned or managed by the Sponsoring Institution. PLAs should also be developed for shorter rotations (e.g., brachytherapy, pediatrics) if the cases treated during these rotations are needed for residents to meet the Program Requirements.

Question	Answer
Are there any exemptions to the limits on outside rotations? <i>[Program Requirement: 1.6.a.; 1.6.a.; 1.6.a.]</i>	Establishing limits to outside rotations ensures that clinical rotations are of high quality and educational value for residents. This limitation allows for a variety of practice settings, but guards residents against potential coverage abuse. The Review Committee understands that there can be tremendous value in working with underserved populations, such as at Veterans Affairs (VA) Medical Centers, and will consider the VA centers, as well as other medical centers working with underserved populations, to be exempt and not included in this limitation. The VA specifies education and research as primary missions for their organization. Clinical experiences that require travel because they are not available at the primary clinical site, provide access to specialized patient populations (e.g., pediatric patients) or required technical training (e.g., stereotactic body radiation therapy, brachytherapy, or proton therapy), and/or are led by clinical physician faculty members from the program, may also be considered exempt. These sites should not, however, be included if the primary clinical site offers the same or similar educational experience.

Personnel	
Who should a program include on its Faculty Roster? <i>[Program Requirements: 2.7.a.; 2.7.b.-2.7.b.2.; 2.7.c.- 2.7.c.1.; 2.11.b.1.]</i>	The program's Faculty Roster must include: • A minimum ratio of 1.5 clinical physician faculty members to each resident ○ <i>Any clinical faculty members (MD or DO) who: a) see and treat patients; and b) lead or co-lead resident rotations may be included on the Faculty Roster for the purposes of maintaining the 1.5:1 clinical faculty member-to-resident ratio. There is no minimum FTE for these faculty members. Medical physicists and radiation/cancer biologists do not count toward this ratio.</i> • A full-time medical physicist as a core faculty member, to provide a scholarly environment of research and to participate in the teaching of radiation physics • A cancer/radiation biologist, whose job description includes responsibility for resident education in radiation oncology, and who is responsible for oversight and organization of an on-site didactic educational program core curriculum • A minimum of four FTE radiation oncologists who are based at the primary clinical site ○ <i>If individual radiation oncology faculty members spend 25 percent of their time in the clinic and 75 percent in the laboratory, they are still considered an FTE clinical faculty member. Similarly, if such faculty members spend 10 percent of their time in the clinic and 90 percent in hospital administration, they would also be considered an FTE faculty member. The majority of full-time academic radiation oncologists are not assigned to clinical duties 100 percent of the time. The spirit of this requirement is that a critical mass of four clinical faculty members be assigned to the primary clinical site in order to provide an adequate scholarly teaching, research, and educational environment.</i> • At least four clinical physician faculty members must be identified as core faculty members in the Faculty Roster in the Accreditation Data System. The program director is not considered a core faculty member. These individuals will be required to complete the annual ACGME Faculty Survey.

Question	Answer
Can a basic science researcher from another department fulfill the requirement for one on-site radiation biologist or cancer biologist? <i>[Program Requirement: 2.7.b.]</i>	The spirit of this requirement is that the radiation or cancer biologist is available to the residents for potential research opportunities, to participate in discussions regarding the interactions between clinical and basic sciences, and to participate in or oversee the teaching of radiation/cancer biology. This level of involvement in resident teaching and research is generally best achieved when the radiation or cancer biologist is on site and administratively within the department of radiation oncology (either as a primary or secondary appointment).
Does the radiation/cancer biologist have to teach the entire course of radiation cancer biology? <i>[Program Requirement: 2.7.b.]</i>	No. It is common for clinical faculty members, physics faculty members, and other basic scientists to teach various sections of the radiation biology course.
Does the Review Committee allow for distance education by the cancer or radiation biologist? <i>[Program Requirement: 2.7.b.]</i>	Yes. On-site education may be supplemented by remote learning, but the program must also offer on-site education for residents. There must be in-person interaction between the cancer or radiation biologist and the residents.
What are acceptable qualifications for faculty members who are not American Board of Radiology (ABR) certified because of non-traditional education? <i>[Program Requirement: 2.10.]</i>	It is recommended that faculty members who have not obtained ABR certification spend four years in an academic department, and then take the ABR certifying examination and enter the Maintenance of Certification (MOC) process.

Question	Answer
Resident Appointments	
Can a resident apply for a waiver of the PGY-1 fundamental clinical skills year? <i>[Program Requirement: 3.3.a.1.]</i>	Advanced standing entry into residency programs at the PGY-2 level does not apply to radiation oncology, which requires an initial clinical year for entry. If prior education was not accredited as referenced in Program Requirement 3.3., the Review Committee cannot grant permission to waive the applicable fundamental clinical skills experience, and residents must take the PGY-1 fundamental clinical skills year prior to entry into the ACGME-accredited radiation oncology program. For board certification purposes, the ABR does offer an alternate pathway for international medical graduates, which does not require the PGY-1 fundamental clinical skills year. More information can be found at: https://www.theabr.org/diagnostic-radiology/initial-certification/alternate-pathways/international-medical-graduates.
Are Holman Pathway residents included in the total number of residents approved for a program? <i>[Program Requirement: 3.4.]</i>	Yes, Holman Pathway residents are included in the total complement of residents approved by the Review Committee throughout their four-year residencies, whether in the clinical or laboratory phase of their educational programs. The Committee will consider, on a case-by-case basis, temporary increases in the resident complement to accommodate programs with reason to increase their complement while a Holman resident is in the laboratory phase of education. Under such circumstances, the program director must request this increase from the Committee through the usual procedure for gaining approval for temporary increases. The program director must specifically outline the length of time for the increase, and outline the plan for returning to the approved complement. The request should be submitted at least six months in advance of the anticipated change in complement. Such requests should be endorsed by the institution's office of graduate medical education. Note that Holman Pathway residents must be identified in the Resident Roster (under the Resident Detail Section 4 "Comments") to ensure that no program citations related to the required number of external beam simulations are issued.
What is the process for submission and approval of a temporary or permanent increase in resident complement? <i>[Program Requirement: 3.4.a.]</i>	See "Requests for Changes in Resident Complement" on the Documents and Resources page of the Radiation Oncology section of the ACGME website.

Question	Answer
Educational Program	
What must be included in the required written goals and objectives for each educational experience? <i>[Program Requirement: 4.2.b.]</i>	Goals and objectives should be specific and should clearly articulate what the supervising faculty member on a rotation will expect a resident to master during the rotation. Very general comments, such as “the resident should achieve greater independence in treatment planning and administration,” are not sufficient. Instead, the goals and objectives should provide residents with a practical guide for their study during each rotation (types of cases that they should treat, number of procedures, level of competence expected in specific areas, reading materials to be mastered, etc.). The goals and objectives must be provided to residents prior to the rotations, and should be available for the ACGME Accreditation Field Representative at the time of the site visit.
What counts toward the minimum requirement for clinical radiation oncology experience? <i>[Program Requirement: 4.11.a.1.]</i>	The 36 months of clinical radiation oncology includes rotations within the radiation oncology department. Normal vacation time does not need to be deducted from the 36 months, but unusually long periods of leave cannot be included in the 36 months. Part-time clinical experiences that occur during a research year may be counted as clinical time, but only proportional to the time spent in the clinic. Because these experiences rarely involve comprehensive management of patients in treatment, they should comprise a relatively small part of the overall clinical experience. On-call experiences are certainly important, but are not considered in this accounting. Outside rotations (medical oncology, pathology, etc.) are not included in the 36 months of clinical radiation oncology, nor is time spent on rotations that do not include direct clinical care (e.g., physics or dosimetry rotations).

Question	Answer
Are Holman Pathway residents required to meet the same minimum requirements in clinical cases outlined in the Program Requirements? <i>[Program Requirements: 4.11.c.1.; 4.11.c.5.]</i>	For adult external beam cases, it is expected that Holman Pathway residents will simulate a minimum of 350 cases over their minimum of 27 months of clinical education. Similarly, there is a proportional decrease in the disease site-specific minima. It is expected that Holman Pathway residents will simulate or observe at least 75 percent of each minimum target to satisfy these requirements. The process for logging observed cases is otherwise identical to that of non-Holman Pathway residents. Disease site-specific minima for external beam radiation cases listed in the Program Requirements are effective as of July 1, 2022, and will be enforced for the cohorts of Holman Pathway residents graduating June 30, 2026 and beyond. For all other procedures, including the minimum pediatric case load and unsealed source cases, Holman Pathway residents are expected to meet the same minimum requirements outlined in the Program Requirements.
How were the site-specific external beam minima defined? <i>[Program Requirements: 4.11.c.3.- 4.11.c.3.j.]</i>	Resident-level Case Logs were reviewed for the graduating classes of radiation oncology residents from July 2017 through June 2020. At least one procedural category was selected for each disease site (bone/sarcoma, breast, central nervous system, head and neck, gastrointestinal, genitourinary, gynecologic, hematologic, thoracic). Each disease site-specific minimum was defined at the resident-level 25th percentile nationally using the preceding three years of graduating resident classes, in an effort to balance adequate exposure with a reasonably attainable standard. Because approximately 25 percent of residents may not have sufficient exposure for a given minimum, the Review Committee allows up to 25 percent of disease-site specific procedure requirements to be met by logging remaining cases as “observed.” Case Log data will continue to be reviewed regularly to monitor for attainability and temporal changes in practice patterns. Site-specific minima will be updated as necessary to account for substantial increases or decreases in case volume using the preceding three years of graduating residents’ Case Logs. Only simulations logged as “performed” will be used to assess and adjust minima to avoid artificial increases in case volume.

Question	Answer
Why do certain diagnoses not have site-specific minimum requirements? <i>[Program Requirements: 4.11.c.3.- 4.11.c.3.j.]</i>	Procedural categories within each disease site were selected to avoid particularly rare (e.g., endocrine) or common (e.g., intact prostate and breast cancers) clinical scenarios, as well as diagnoses with substantial practice pattern variation (e.g., pancreas) or diagnoses typically associated with specific technical categories that are already captured elsewhere in the case logs (e.g., lung stereotactic body radiation therapy (SBRT), intracranial stereotactic radiosurgery (SRS)). Review of Case Log data indicates that programs routinely offer considerable exposure to common clinical scenarios. Disease site-specific minima are opportunities to promote and monitor breadth of exposure to less common but clinically important scenarios within these disease sites (e.g., non-prostate genitourinary, post-mastectomy breast cancers). Certain diagnoses (e.g., gastric cancer, pancreatic cancer, small-cell lung cancer) have significant epidemiologic or practice pattern variation nationally. In an effort to promote attainability of each site-specific minimum across programs, these particular disease sites were not selected at this time.
What diagnoses and procedural categories count toward the non-prostate genitourinary site-specific minimum? <i>[Program Requirement: 4.11.c.3.g.]</i>	The non-metastatic external beam Case Log categories of “genitourinary: bladder,” “genitourinary: testes,” and “genitourinary: other” (e.g., urethral, penile, ureteral, renal) are counted toward the site-specific minimum of non-prostate genitourinary procedures. The sum of these procedural categories will determine whether the minimum has been met.

Question	Answer
If a resident is unable to meet all disease site-specific minima as logged “performed” simulations, how else may they meet these requirements? <i>[Program Requirement: 4.11.c.4.]</i>	Residents who do not meet all 10 required site-specific minima (4.11.c.3.a.-4.11.c.3.j.) may log the remaining cases in each category as “observed.” At most, two cases or up to 25 percent of each site-specific minimum (whichever is greater) may be logged as observed cases to meet each minimum requirement. For example, at most two of three non-prostate genitourinary cases, three of 11 post-mastectomy cases, five of 19 central nervous system cases, and 10 of 41 head and neck cases may be logged as observed. To log a single case as “observed,” residents should comprehensively review the oncologic history/consultation, diagnostic imaging, treatment recommendation, cross-sectional simulation, target volumes, treatment plan, and on-treatment management of a prior representative case with an attending physician on an individual basis. This should be conducted using the medical record and treatment planning system but may be supplemented with educational materials from an attending physician. This may not be conducted in groups. A resident may not log a prior case multiple times as “observed,” but more than one resident may log the same prior case as “observed” if there is particular educational value. It is the responsibility of the program director, with input from the Clinical Competency Committee, to assess individual residents’ competence for graduation, irrespective of whether all site-specific minima are met by “performed” or “observed” logged simulations. It is recommended that individual programs regularly review all required Case Log minima to assess whether residents have sufficient exposure across the breadth of radiation oncology. If a program is unable to provide sufficient clinical exposure to a given disease site (e.g., esophagus) or technical procedure (e.g., SBRT, SRS), it is recommended that the rotation schedule be reviewed and that supplemental disease site-specific education be implemented.

Question	Answer
How should brachytherapy cases be counted? <i>[Program Requirement: 4.11.d.]</i>	Only one resident is allowed to count a specific brachytherapy application in a given patient. Residents participating in brachytherapy cases may count them as performed, provided that resident involvement includes planning, review of dosimetry, and hands-on participation in a significant portion of the implantation procedure. Separate applications (applicator insertions) of an implant can count as separate procedures, but multiple fractions of a single application (applicator insertion) can only be counted once for the single application. To develop competence in the performance of procedures, the Committee requires a limit of five vaginal cylinder brachytherapy treatments, to allow for resident training in cervical cancer brachytherapy procedures.
How does the Review Committee define “pediatric?” <i>[Program Requirement: 4.11.e.]</i>	The Review Committee does not limit pediatric cases to a specific age. Residents can continue to count cases as “pediatric” even if the patient has aged into early adulthood, if the patient is being treated for a pediatric condition. Total body irradiation and palliative treatment of metastatic sites can be counted toward the requirement.

Question	Answer
Why do residents have to participate in unsealed source procedures? <i>[Program Requirement: 4.11.g.]</i>	The Nuclear Regulatory Commission (NRC) has long recognized radiation oncologists as qualifying for “authorized user” status based on the fact that radiation oncology education includes the required clinical exposure and didactics in physics, radiobiology, and clinical applications of unsealed sources. As the NRC mandates that to maintain “authorized user” status radiation oncologists must demonstrate “formal experience” with unsealed sources, this experience must be included in the educational program. For a radiation oncologist to be certified as “authorized user eligible” through the NRC, the ABR requires a specific form to be completed and submitted that represents the NRC requirements of three oral administrations of >33 mCi of I-131 and three other parenteral administrations, which is lower than that required by the ACGME. For a resident to be eligible as an “authorized user” through the NRC, the Review Committee strongly recommends following NRC §35.390, which requires a minimum of 700 hours of training and experience, including a minimum of 200 hours of classroom and laboratory training, in basic radionuclide handling techniques applicable to the medical use of unsealed byproduct material requiring a written directive. These hours can include basic physics, cancer biology, and general clinical care of oncologic patients who may or may not receive unsealed sources. More information is found in the NRC regulations.
How many unsealed source procedures must a resident perform? <i>[Program Requirement: 4.11.g.]</i>	Unsealed source cases should be distributed as follows: a minimum of three cases involving oral administration of >33 mCi of I-131 (i.e., a therapeutic dose rather than a diagnostic procedure); and a minimum of five cases involving parenteral administration of any beta emitter or a photon-emitting radionuclide with photon energy <150 KeV. <i>(Note that this category includes I-131 labeled antibodies and I-131 MIBG, as well as a majority of other radioactive isotopes used for therapeutic purposes such as Samarium, or other radiolabeled antibodies administered by a parenteral route. This experience must be obtained under the supervision of an authorized user.)</i>

Question	Answer
Does administration of radioactive isotopes for positron emission tomography (PET) scanning count toward the unsealed source requirement? <i>[Program Requirement: 4.11.g.]</i>	Administration of diagnostic doses of radioactive sources, orally or parenterally, does not count toward the unsealed source requirement. Only those procedures in which therapeutic levels of unsealed sources are used qualify.
Do residents need to keep a separate log for documentation of unsealed sources? <i>[Program Requirement: 4.11.g.]</i>	Yes, in addition to submitting cases in the ACGME Resident Case Log System, residents should keep a separate log of their required unsealed source cases, signed by the authorized user. This signed log will be the permanent record submitted to the ABR. Current residency education qualifies graduating residents as authorized users, but the educational program experience does not provide the license. The NRC will administer the license and requires the log of experience to confirm that it was performed under the supervision of an authorized user.
What constitutes participation in unsealed source procedures? <i>[Program Requirement: 4.11.g.]</i>	Since these unsealed source procedures are generally performed outside of the radiation oncology facility, some residents may do formal rotations for fixed periods, and others may do cases as they come up, without formal fixed rotations. Therefore, the extent of involvement in these procedures will vary. However, as residents fulfill the eight-case requirement, it is expected that they will understand the indications for the procedure, alternatives, the radiation safety issues, and the methods involved in the calculations and administration of the isotope. Residents should be present when the isotope is delivered and should understand the precautions and follow-up procedure. Ultimately, it is the authorized user who determines the participation of a resident and signs the log to indicate that the procedure has been satisfactorily completed. “Procedure” corresponds to a single treatment in a unique patient, or a repeat treatment in the same patient, as long as the repeat treatment occurs on a separate day. Intravenous or intra-arterial instillations of multiple lesions during the same procedure, regardless of individual dosimetry, must be counted as a single procedure.

Question	Answer
How can programs at institutions that also have a nuclear medicine program meet the unsealed source minimum requirement? <i>[Program Requirement: 4.11.g.]</i>	At institutions with both nuclear medicine and radiation oncology programs, the programs are expected to create an environment of collaboration and develop a system of cooperation, with the goals of identifying adequate numbers of patients for all residents and ensuring all residents receive adequate clinical and didactic training in radionuclide therapy.
How can a program provide resident education in the topics specified in program requirement 4.11.n.? <i>[Program Requirement: 4.11.n.]</i>	There is no specific requirement as to how these topics need to be addressed by programs. There are numerous ways that residents can be educated in these areas, including didactic sessions, intra- or interdepartmental clinical oncology conferences, webinars, distance education, etc.
Evaluation	
How should simulated patients be counted in resident case logs? <i>[Program Requirement: 5.1.h.1.]</i>	Patients should be counted as simulated by a resident if: 1. the resident is present and participates throughout the initial simulation and treatment planning process; or, 2. the resident simulates and plans treatment of a new area on an established patient (i.e., a new metastasis, new primary, or recurrence). Re-simulations of a recently simulated treatment site or a cone-down simulation of an initially simulated treatment site should not be counted in resident simulation logs.

Question	Answer
Who is responsible for the accuracy of residents' case logs and how does the Review Committee evaluate resident logs? <i>[Program Requirement: 5.1.i.]</i>	Though residents are required to maintain logs of patients for whom they have participated in the initial simulation, or for whom they have performed other procedures (brachytherapy, stereotactic radiosurgery, etc.), the program director is ultimately responsible for monitoring the logs' accuracy. The program director must review the logs with residents at least semiannually, as stated in the Program Requirements. At the time of a program's review, the Committee looks for: • evidence that the program director is reviewing the logs with each resident twice yearly; • the number of external beam radiation therapy simulations performed per year (maximum: 350), and the number of simulations during the course of the residency (minimum: 450); • the variety of material seen by each resident, with emphasis on the number of patients with different diseases and the number of brachytherapy procedures; and, • consistency among the numbers of patients counted in resident logs, the number of patients treated, and the level of coverage in integrated and participating sites.
How does the Review Committee assess performance of a program with regard to graduate results on the ABR certifying examination? <i>[Program Requirement: 5.6.]</i>	The Committee considers all aspects of a program's graduates' performance, including performance on each of the written and oral examinations, the number of failures and conditions, and any trends toward improvement. Residents who "condition" a part of the examination are considered not to have passed the examination. Residents who fail the examination repeatedly are considered only once. Residents who defer taking any part of the certification examination are not deemed to have participated in the exam, and are not included in the aggregate data provided to the Review Committee for consideration.

Question	Answer
How should a program determine a resident's eligibility to take the certification examination during residency? <i>[Program Requirement: 5.6.]</i>	The ABR reports the results of all first-time test takers to the ACGME for each certification examination (Biology and Physics Qualifying Examination (each part is reported separately); Clinical Qualifying Examination; and Oral Certifying Examination). First-time test takers' results are reported, regardless of whether they take the examination during or after their residency. Program directors, in consultation with the Clinical Competency Committee, are the initial gatekeepers for the qualifying examination. If a program director does not feel an individual resident is prepared or has demonstrated sufficient knowledge and competence, the program director should not permit the resident to take the examination. Programs are discouraged from blocking access to the examination simply to maintain the required aggregate pass rate percentage, as all qualified and competent residents should be permitted to sit for the qualifying examination.
The Learning and Working Environment	
Are there any licensed independent practitioners the Review Committee recognizes as qualified to supervise residents? <i>[Program Requirement: 6.6.]</i>	No. The Review Committee's opinion is that it is not relevant to the specialty to have other licensed independent practitioners supervise residents. Physician extenders may be present in some clinics, but the Review Committee does not view them as primarily responsible for patient care delivered by residents.
Other	
What does the Review Committee require of a resident taking approved medical, parental, or caregiver leave(s) of absence? <i>[Institutional Requirement: 4.8.]</i>	The Review Committee allows for flexibility in approved leaves of absence at the program level, provided that all clinical experience requirements are met, including case and procedure logs, and that the Clinical Competency Committee considers the affected resident fully prepared for autonomous practice. The program director is encouraged to seek guidance from the ABR to ensure there will be no adverse effects on the resident's board eligibility and ultimate board certification.
What is the maximum length of time for a resident to complete the educational program, in the event of a break in education and training?	This situation varies by individual, and the program director is encouraged to contact the ABR in the event that a resident's education is delayed beyond three years.