

Frequently Asked Questions: Radiation Oncology
Review Committee for Radiation Oncology
ACGME

Duration and Scope of Training

How can the requirement for medical oncology, pediatric oncology, pathology, and diagnostic imaging be fulfilled?

[Program Requirement Int.C.2]

Residents may satisfy this requirement in one of the following two ways:

- A. Rotations in which the residents are integrated into the service and are exposed to diverse material.
 - 1) Medical/pediatric oncology (2 months): Residents should be involved in adult and pediatric patient care.
 - 2) Pathology (1 month)
 - 3) Diagnostic Imaging (1 month)
- B. Participation in multidisciplinary tumor boards.
 - 1) To satisfy the requirement for medical/pediatric oncology education, the program director must be able to demonstrate that residents participate in at least four multidisciplinary, interactive tumor conferences per month that are attended by adult and/or pediatric oncologists.
 - 2) To satisfy the requirement for pathology and diagnostic imaging, the multidisciplinary tumor conference must occur at least monthly.

Note: Site visitors will verify attendance at these conferences during the interview process.

What is the minimum requirement for clinical radiation oncology experience and what experience counts toward that minimum?

[Program Requirement Int.C.2]

Residents must have a minimum of 36 months of clinical radiation oncology experience during the four years of residency. The 36 months do not include rotations outside of radiation oncology (to medical oncology, pathology, etc.), nor do they include time spent outside the clinic in, for example, physics rotations. 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 experience. On-call experience is not considered in this accounting.

Is a resident permitted to use PGY-1 experience in pathology, hematology/oncology, or diagnostic imaging to fulfill the radiation oncology clinical experience requirements in these areas?

[Program Requirement Int.C.2]

For program directors who do not provide direct oversight of the PG-1 year, and accordingly, do not control the content or curriculum components of these initial 12 months of their residents' education, then, no, a resident's PGY-1 experience in these areas cannot be counted toward the required clinical experience in radiation oncology.

However, for programs that are structured such that the radiation oncology program director has direct oversight, or is able, because of proximity, to effectively be involved in the curriculum development and evaluation of these educational components, then, yes, PGY-1 experience in these areas *can* be counted toward the requirements.

Participating Sites

When is a program letter of agreement required for outside rotations?

[Program Requirement I.B.1]

A program letter of agreement (PLA) should be obtained for any rotation of *one month or more* 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. Program letters of agreement should also be developed for shorter rotations (for example, brachytherapy, pediatrics) if the cases treated during these rotations are needed in order for residents to meet the program requirements.

If a facility is part of the sponsoring institution administratively, but located several miles from the parent institution, is this considered a separate integrated site?

[Program Requirement I.B.4]

Any facility which is removed from the main "campus" should be identified as a participating site and entered as a separate site in the ACGME's Accreditation Data System (ADS), even if it is administratively part of the main site. The Review Committee recognizes that there are often situations in which treatments are administered in a separate building, but essentially on the same "campus." For example, if a Gamma Knife Unit is located in a separate facility, but within reasonable walking distance from the primary clinical site, that unit would be considered part of the primary clinical site, and not an integrated site. But if an institution has a satellite clinic 10 miles from the primary clinical site, it should be listed as an integrated site, and the data from that institution should be listed separately.

What is the definition of an “integrated” site?

[Program Requirement I.B.4]

All sites that are routinely part of the program are considered integrated sites. The program director is responsible for the educational program at both the primary clinical site and all integrated sites, and faculty members at the integrated sites should have faculty appointments in the program. All integrated sites need to be approved by the Review Committee, and should be designated as ‘integrated’ in ADS as well as in the program information form (PIF). There is no limit to the duration of rotations at these sites, though it is presumed that the majority of the educational experience will occur at the primary clinical site.

What are participating sites?

[Program Requirement I.B.5]

External rotations used to supplement clinical experience outside of the primary clinical site and integrated sites are defined as "participating" sites. For example, if residents attend St. Jude Children's Research Hospital (SJCRH) for a pediatric rotation, SJCRH would be considered a participating site, not an integrated site. Although the external rotations at participating sites do not require prior Review Committee approval, PLAs, fulfilling the guidelines outlined in Section I.B.1 of the program requirements, must be in place.

Faculty

What are acceptable qualifications for faculty members who are not American Board of Radiology (ABR)-certified because of non-traditional education?

[Program Requirement II.B.2]

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.

If faculty members are part-time in the lab, or have other part-time duties in hospital or cancer center administration, does that time count toward the FTE requirement?

[Program Requirement II.B.2.b)]

If a radiation oncology faculty member spends 50% of his or her time in the clinic and 50% in the laboratory, he or she is still considered an FTE clinical faculty member. Similarly, if a faculty member spends 75% of his or her time in the clinic and 25% in hospital administration, he or she would also be considered an FTE faculty member. The majority of full-time academic radiation oncologists are not assigned to clinical duties 100% of the time. The spirit of this requirement is that a critical mass of four clinical faculty members assigned to the primary teaching site is

necessary to provide an adequate scholarly teaching, research, and educational environment.

Can a basic science researcher from another department fulfill the requirement for one on-site FTE radiation biologist or cancer biologist?
[Program Requirement II.B.2.c)]

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 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?
[Program Requirement II.B.2.c)]

No. It is common for clinical faculty members, physics faculty members, and other basic scientists to teach sections of the radiation biology course.

Must the faculty include a full-time radiation physicist?
[Program Requirement II.B.2.d)]

The program is required to have at least one full-time physicist on the faculty. The language of the requirements clarifies this individual's expected role in the program.

How does the Review Committee define scholarly activity/scholarship?
[Program Requirement II.B.5]

The Committee holds the view espoused by Boyer (*Scholarship Reconsidered: Priorities of the Professoriate*, 1990), specifically, that scholarly activity has two main components: peer review and dissemination. Evidence of scholarly activity can take several forms, including peer-reviewed grant funding, original reports in peer-reviewed literature, and presentation at local, regional, and national professional and scientific society meetings. However, lectures delivered as part of the core curriculum within the sponsoring institution are not considered scholarly activity.

How does the Review Committee define a 'majority' when assessing faculty members' participation in scholarly activities?
[Program Requirement II.B.5.d)]

A "majority" is greater than or equal to 50% of the faculty, including both physician and PhD faculty members.

What is considered an “adequate” level of scholarly activity for a program’s faculty members?

[Program Requirement II.B.5]

Departmental faculty members must demonstrate participation in national meetings. In addition, the majority of faculty members should demonstrate active participation in research. The most commonly used benchmark for this work is publication in peer-reviewed journals. A list of recent publications should indicate evidence of ongoing scholarly activity by physician faculty members and by the physicists and biologists who are involved in resident teaching and mentorship. Funded grant applications and participation in the development of clinical research trials are also considered.

Resident Appointments

How does the Review Committee evaluate requests for temporary increases in resident complement and what documents are required?

[Program Requirement III.B.3]

A program director may *prospectively* request a *temporary* increase in the number of residents when unforeseen circumstances result in a short-term excess in the total number of residents in a program. Examples of reasons this may occur include: 1) a resident delays completion of his or her residency, causing an overlap with incoming residents; 2) a resident transfers from a program that has closed causing a short-term excess in the program that accepts the transfer; or 3) there are residents within the Holman Pathway. It is expected that a program director will notify the Committee of the reason in his or her request for the temporary increase to the resident complement prior to accepting any additional resident.

In general, temporary increases should not exceed one resident beyond the approved number and should not continue for more than two years. Temporary increases DO NOT change the permanent ACGME-approved complement, and once the period of the temporary increase ends, programs will be expected to return to the approved permanent complement.

Requests are accepted or denied based on the reason for the request, the sufficiency of clinical material and faculty members to accommodate a temporary increase, and the outcome of past Committee reviews.

Rarely, selected residents are permitted to alter the typical educational program to increase their laboratory experience (and accordingly, have decreased clinical education requirements) under the Holman Pathway program. Programs with residents who have been accepted for the Holman Pathway may request a temporary increase in resident complement.

How does a program director apply for a temporary increase in the resident complement?

[Program Requirement III.B.3]

A program director requesting a temporary increase in resident complement must submit the following:

- A. an educational rationale for the temporary increase request;
- B. an explanation of how the program is addressing citations identified in the ACGME letter of notification following the most recent survey review by the Review Committee;
- C. medical data for the most recent calendar year; and,
 - Data should be submitted for all institutions and should be in the format of Section 1 of the PIF, which can be found here:
http://www.acgme.org/acWebsite/RRC_430/430_resComp.doc.
- D. resident logs for the most recent program graduates (four years of experience must be included).
 - Resident logs must be submitted electronically using the ACGME Resident Case Log System.

The chair of the Review Committee may grant a temporary increase in the resident complement without a full Committee review. The program director should allow at least two weeks for a response to the request from the Review Committee's Executive Director.

How does the Review Committee evaluate requests for permanent increases in the resident complement?

[Program Requirement III.B.3]

A request for a permanent increase must be reviewed by the Review Committee at one of its regularly scheduled meetings. Requests must be submitted through ADS, and the same information that is required for consideration of a temporary increase should be submitted for a permanent increase. Requests will not be considered by the Committee if the next site visit of the program is to be scheduled within two years of the request date.

How will the Review Committee consider a request for a permanent increase in the resident complement and what information specifically should be submitted for consideration?

[Program Requirement III.B.3]

- Growth in patient numbers alone will not be considered sufficient justification for an increase in resident complement, as this could raise concerns that residents are being utilized for service.

- The program must be in good standing (initial accreditation or continued accreditation) with no significant areas of non-compliance from the last program review by the Committee.
- Documentation of a sufficient number of faculty members, as well as patient resources (including external beam, pediatric, and brachytherapy cases) to support the increase must be provided.
- A description of how resident-to-resident interactions will be improved by the increase is recommended.
- A description of opportunities available to residents for clinical research, as well as opportunities to utilize state-of-the-art technology, is recommended in order to support the request.
- There must be a demonstration that facilities (office space) are adequate to support the increase in resident numbers.

Are Holman Pathway residents included in the complement of the total number of residents approved for a program?

[Program Requirement III.B]

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 his or her education. Under such circumstances, the program director must request this increase from the Committee through the usual procedure for gaining approval for temporary increases. It is the responsibility of the program director to specifically outline the length of time for the increase, and to 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.

How does a program director apply for a permanent increase?

[Program Requirement III.B.3]

A program director requesting a permanent increase in resident complement must submit the following:

- A. an explanation of the reasons a permanent increase is being requested;
- B. case data for the most recent calendar year;

- Data should be submitted for all institutions and should be in the format of Section 1 of the PIF, which can be found here:
http://www.acgme.org/acWebsite/RRC_430/430_resComp.doc.
- C. resident logs for the most recent program graduates (four years of experience must be included for each of the graduating residents); and,
- D. an explanation of how the program is addressing or has addressed citations identified in the ACGME letter of notification following the most recent survey review by the Review Committee.

Educational Program

What must be included in the required written goals and objectives for each rotation or level of education?

[Program Requirement IV.A.2]

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 competency 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 site visitor at the time of the site visit.*

Patient Care

Are Holman Pathway residents required to meet the same minimum requirements in clinical cases outlined in the program requirements?

[Program Requirement IV.A.5.a)]

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.

For special procedures, including interstitial brachytherapy, intracavitary brachytherapy, and unsealed sources, Holman Pathway residents are expected to meet the same minimum requirements outlined in the program requirements.

Holman Pathway residents are also expected to meet the minimum pediatric caseload outlined in the program requirements.

Who is responsible for the accuracy of residents' logs and how does the Review Committee evaluate resident logs?

[Program Requirements: II.A.4.r) and IV.A.5.a)]

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 (i.e, 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 patients simulated per year (maximum: 250) and the number simulated during the course of the residency (minimum: 450);
- the diversity 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 as documented in the PIF, and the level of coverage in integrated and participating sites.

How should patients be counted in resident logs?

[Program Requirement IV.A.5.a).(1)]

Patients should be counted as simulated by a resident if:

- 1) the resident was present and participated 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).

Patients should not be counted as simulated by a resident if:

- 1) the case was taken over from another resident, even if subsequent care involves a second simulation, unless this involves treatment of another area, or a substantial change in fields with a new isocenter;
- 2) the simulation and planning were performed by staff members and the resident only saw the patient after he or she was in treatment;

- 3) another resident has counted the case in his or her log, unless (1) or (2) applies; or,
- 4) the patient was seen for consult only.

How does the Review Committee define all intracavitary brachytherapy, interstitial brachytherapy, and unsealed sources, particularly those that do not fit neatly into one of these categories? (e.g., breast balloons, brain balloons, eye plaque, etc.)

[Program Requirement IV.A.5.a).(2)]

The Committee will follow the newly developed Brachytherapy Guidelines approved by the American Board of Radiology (<http://theabr.org/ic-policies#brachy>)

Do residents still need to keep track of observed brachytherapy cases?

[Program Requirement IV.A.5.a).(2)]

No, there is no longer a classification "observed" cases.

How should brachytherapy cases be counted?

[Program Requirement IV.A.5.a).(2)]

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 they meet the criteria outlined, which state: "resident involvement should include 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.

What are the current requirements for the number of interstitial and intracavity cases?

[Program Requirement IV.A.5.a).(2)]

The current requirements are that a resident perform five interstitial cases and 15 intracavity cases over the four years of education.

Why do residents have to participate in unsealed source procedures?

[Program Requirement IV.A.5.a).(3)]

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 required in the residency education program.

How many unsealed source procedures must a resident perform?

[Program Requirement IV.A.5.a).(3)]

Residents must participate in a total of six cases using unsealed sources. These cases should be distributed as follows: three cases involving oral administration of >33 mCi of I-131 (i.e., a therapeutic dose rather than a diagnostic procedure); and, three cases involving parenteral administration of any beta emitter or a photon-emitting radionuclide with photon energy <150 KeV.

(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.)

Does administration of radioactive isotopes for PET scanning count towards the unsealed source requirement?

[Program Requirement IV.A.5.a).(3)]

Administration of diagnostic doses of radioactive sources, orally or parenterally, does not count towards 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?

[Program Requirement IV.A.5.a).(3)]

Yes, residents should keep a separate log of the six unsealed source cases, signed by the authorized user. This signed log will be the permanent record. Recall that 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?

[Program Requirement IV.A.5.a).(3)]

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 a resident fulfills the six-case requirement, it is expected that he or she 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 satisfactory “participation” of a resident and signs the log to indicate the procedure has been satisfactorily completed.

How many pediatric patients must be treated to satisfy the minimum requirements?

[Program Requirement IV.A.5.a).(4)]

In general, residents should simulate a minimum of 12 children (at least nine of whom have solid tumors) during their residency to satisfy the minimum requirements. Programs may satisfy pediatric requirements through outside rotations. To do so, the program director must, at the time of the site visit:

- A. provide a signed letter of agreement with the participating site; and,
- B. provide an annual summary of the total number of pediatric patients simulated at the participating site, and an accounting of all radiation oncology residents assigned to rotations there.

Programs may supplement their residents’ pediatric experience with long-term follow-up clinics and with pediatric oncology rotations at the primary clinical site. Ultimately, the Review Committee assesses the participation of each resident in the radiation treatment planning and delivery of radiation treatment to children.

How many stereotactic cases are required?

[Program Requirement IV.A.5.a).(6)]

Residents are required to participate in the treatment planning and administration of at least 10 cases of stereotactic radiosurgery of the brain and at least five cases of stereotactic body radiation therapy of the liver, lung, spine, and other extracranial sites over the four years of education.

For residents who began their residency education prior to January 1, 2009 (the effective date of the current program requirements), the minimum case numbers will be prorated. For example, residents who began a residency in July 2008 and plan to complete the residency June 30, 2012 the minimum number of cases of stereotactic radiosurgery of the brain will be eight (and the number of stereotactic body radiotherapy would be four), since the current program requirements were in effect approximately 80% of the time these residents were enrolled in the program.

Evaluations

What must be included in the summative evaluation?

[Program Requirement V.A.2]

Program directors are required to produce a summative evaluation of each resident at the completion of his or her education. At a minimum, *this evaluation must include a statement verifying that the resident has*

demonstrated sufficient professional ability to practice without supervision. Program directors may want to produce more detailed final summaries to facilitate future requests for information from employers, licensing boards, etc. This summative evaluation should be part of the resident's permanent record maintained by the institution.

How does the Review Committee assess performance of a program according to the residents' results on the ABR certifying examination?

[Program Requirement V.C]

The Committee considers all aspects of a program's residents' performance, including performance on the written and oral examinations, the number of failures and conditions, and any trends toward improvement. In general, however, the Committee looks at statistics regarding the proportion of first-time examinees that successfully completed the entire exam (written and oral) on the first attempt. 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. Programs that fall in the lowest 25th percentile are cited for poor resident performance.

Duty Hours

Are there any licensed independent practitioners that the Review Committee recognizes as qualified to supervise residents?

[Program Requirement VI.D.1]

No. The Review Committee's opinion is that it is not relevant to our 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

How are program directors notified of changes to the Program Requirements and the Institutional Requirements?

Minor changes to the Program Requirements for Radiation Oncology or to the Institutional Requirements may be implemented as frequently as once a year. A comprehensive review of the requirements must occur every five years. Proposed changes are posted on the ACGME website for commentary prior to approval and before they become effective. Posted changes will be announced by way of the Review Committee newsletter, *RRC News for Radiation Oncology*, and through the Association of Directors of Radiation Oncology Programs (ADROP). *Program directors are held accountable at the time of their programs' site visits to the requirements document currently in effect as posted on the ACGME*

website. Program directors should periodically access the ACGME website to familiarize themselves with the current Program Requirements for Radiation Oncology, as well as the Institutional Requirements.

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