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

Requirement #: **I.B.1.a)**

Requirement Revision (significant change only):

I.B.1.a) The Sponsoring Institution must ~~also~~ sponsor at least ~~one oncology-related fellowship program accredited by the ACGME in a surgical, medical, or pediatric subspecialty~~ one hematology and medical oncology and/or medical oncology program. (Core)

I.B.1.b) The Sponsoring Institution must also sponsor a minimum of three ACGME-accredited residency or fellowship programs in the following: complex general surgical oncology; gynecologic oncology; micrographic surgery and dermatologic oncology; neurological surgery; otolaryngology - head and neck surgery; pediatric hematology and oncology; thoracic surgery; and urology. (Core)

I.B.1.b).(1) If the primary clinical site is not the same as the Sponsoring Institution, it must be the primary teaching institution(s) for the above-named programs. (Core)

1. Describe the Review Committee's rationale for this revision:
   The Review Committee for Radiation Oncology has concerns regarding the academic rigor of the learning environment at institutions where radiation oncology programs recently closed. The Review Committee acknowledges the multidisciplinary nature of cancer care, and strongly values the importance of education and training in an environment that promotes multidisciplinary exposure. Requiring additional oncology residents/fellows to participate in learning at the primary clinical site will help ensure a broader and richer learning experience for radiation oncology residents. During the process of developing major changes to the Program Requirements in 2019, integrated sites were removed from the requirements. The Review Committee has found that lack of program oversight of the previously designated integrated sites has had a negative impact on the learning environment for residents. Complex general surgical oncology includes breast and colorectal oncology education and training.

2. How will the proposed requirement or revision improve resident/fellow education, patient safety, and/or patient care quality?
   This will allow residents to participate in multidisciplinary tumor boards with representation from other specialists, and will provide the opportunity to learn with and from other oncology residents/fellows in a multidisciplinary care setting.

3. How will the proposed requirement or revision impact continuity of patient care?
   The proposed requirements will not impact continuity of patient care.

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?

A variety of residents/fellows rotating at the designated primary clinical site will necessitate changes to rotational schedules for other programs, and perhaps a change in designation of the primary clinical site.

Currently, four radiation oncology programs do not have hematology and oncology (or medical oncology) programs, and three programs do not have the requisite three additional programs determined by the Review Committee to be necessary for the radiation oncology residents' learning and working environment. These programs will be given time to meet the proposed revised requirements and demonstrate the richness of the learning and working environment for radiation oncology residents.

5. How will the proposed revision impact other accredited programs?
   A variety of residents/fellows rotating at the designated primary clinical site may necessitate changes to rotational schedules for other oncology and specialty programs.

Requirement #: **I.B.5**

Requirement Revision (significant change only):

I.B.5. At least one of the following must be met:

I.B.5.a) at least ~~50~~ 75 percent of the residents' educational experiences (i.e., clinical rotations and non-clinical activities) ~~should~~ must take place at the primary clinical site; or. (Core)

I.B.5.b) at least 90 percent of the residents' educational experiences must take place at the primary clinical site and one other participating site. (Core)

1. Describe the Review Committee's rationale for this revision:
   In bolstering the clinical learning environment at the primary clinical site, as outlined in the previous proposed program requirement change, the Review Committee has proposed the above requirement to ensure residents spend adequate time during their clinical rotations in said environment. In reviewing the current primary clinical sites and participating sites, the Review Committee notes that 21 programs do not meet the 75 percent proposed requirement. In reviewing the primary clinical and participating sites at which the most rotations occur, six of these programs would meet the 90 percent requirement.

   The Review Committee agrees with the Society of Chairs of Academic Radiation Oncology Programs (SCAROP) that requiring programs to limit the number of participating sites will result in a less fractured and more consistent education and training experience for residents, and that this is integral to ensuring the quality of the primary clinical site.

2. How will the proposed requirement or revision improve resident/fellow education, patient safety, and/or patient care quality?
   Residents rotating to fewer sites will improve resident education by enabling residents to better participate in various educational events, including tumor boards, conferences, and didactic sessions.

3. How will the proposed requirement or revision impact continuity of patient care?
   Maintaining more of the residents at the primary clinical site (or at no more than two participating sites, as described above) will improve patient care continuity, as residents will be better able to follow patient cases throughout the care continuum.

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?
   Some resident rotational schedules will need to be edited to meet the new requirement.

5. How will the proposed revision impact other accredited programs?
   The proposed revisions should not impact other accredited programs.

Requirement #: **I.D.1.a).(2)**

Requirement Revision (significant change only):

I.D.1.a).(2) The primary clinical site must have the following technologies available for resident education: stereotactic body radiation therapy/stereotactic radiosurgery with motion management; image fusion capabilities with positron emission tomography and magnetic resonance imaging scans; intravenous contrast for CT simulation; image guidance with cross-sectional imaging; and high- and/or low-dose-rate interstitial and intracavitary brachytherapy. (Core)

1. Describe the Review Committee's rationale for this revision:
   The Review Committee agrees with the SCAROP recommendation that this requirement is necessary to ensure adequate technological resources needed for resident education.

2. How will the proposed requirement or revision improve resident/fellow education, patient safety, and/or patient care quality?
   Having this equipment available to assist in the education of residents will provide enhanced educational opportunities, as well as better care for the patients served.

3. How will the proposed requirement or revision impact continuity of patient care?
   The proposed requirement will improve the continuity of patient care through additional radiation oncology services available to both residents and patients.

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?
   If not currently available, the technology will need to be purchased by the primary clinical site.

5. How will the proposed revision impact other accredited programs?
   The proposed revision will not impact other accredited programs.

Requirement #: **II.B.4.b).(1)**

Requirement Revision (significant change only):

II.B.4.b).(1) The core clinical faculty must include a minimum of four clinical faculty members, defined as faculty members who practice clinically and lead or co-lead clinical rotations. ~~The core clinical faculty-to-resident ratio must be at least 0.67 FTE clinical faculty members for every resident in the program.~~ (Core)

II.B.4.b).(1).(a) Programs with more than four approved resident positions must maintain a ratio of at least 1.5 clinical faculty members to each resident. (Core)

1. Describe the Review Committee's rationale for this revision:
   The change the Review Committee is proposing provides a minimum number of core clinical faculty members, as defined above, as well as a minimum clinical faculty member-to-resident ratio. Currently, approximately one-third of radiation oncology programs appear to not meet this proposed requirement. However, the Review Committee feels strongly that additional clinical faculty members are necessary to provide a more comprehensive learning and scholarly environment for residents. Programs also should have sufficient clinical faculty members to lead clinical rotations and to serve as mentors.

2. How will the proposed requirement or revision improve resident/fellow education, patient safety, and/or patient care quality?
   Having additional faculty members available to assist in resident education provides a more comprehensive learning and scholarly environment for residents.

3. How will the proposed requirement or revision impact continuity of patient care?
   The proposed revisions will improve the continuity of patient care by ensuring a broader scope of cases and the opportunity for residents to follow a case through the continuum of care.

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?
   The Review Committee believes most programs have the clinical staffing available to add to the Faculty Roster. Faculty development for graduate medical education and evaluation will need to be provided by the program and Sponsoring Institution.

5. How will the proposed revision impact other accredited programs?
   The proposed revision will not impact other accredited programs.

Requirement #: **IV.C.5.c)-IV.C.5.e)**

Requirement Revision (significant change only):

IV.C.5.c) Each resident must perform disease site-specific, non-metastatic, non-stereotactic body radiation therapy external beam simulations, including: (Core).

IV.C.5.c).(1) a minimum of five bone/soft tissue sarcoma simulations; (Outcome)

IV.C.5.c).(2) a minimum of 11 post-mastectomy breast simulations; (Outcome)

IV.C.5.c).(3) a minimum of 19 central nervous system simulations; (Outcome)

IV.C.5.c).(4) a minimum of 24 intact head and neck simulations; (Outcome)

IV.C.5.c).(5) a minimum of five esophagus simulations; (Outcome)

IV.C.5.c).(6) a minimum of seven rectum simulations; (Outcome)

IV.C.5.c).(7) a minimum of four non-prostate genitourinary simulations; (Outcome)

IV.C.5.c).(8) a minimum of four uterus simulations; (Outcome)

IV.C.5.c).(9) a minimum of seven non-Hodgkin's lymphoma simulations; and, (Outcome)

IV.C.5.c).(10) a minimum of 16 non-small cell lung cancer simulations. (Outcome)

IV.C.5.d) At most, two cases, or up to 25 percent of each of the above site-specific minimum requirements, whichever is greater, may be logged as observed cases to meet the minimum requirement. (Outcome)

IV.C.5.e) Holman Pathway residents must simulate at least 75 percent of each of the above site-specific minimum requirements. (Outcome)

1. Describe the Review Committee's rationale for this revision:
   Last year, the Review Committee undertook an in-depth review of submitted Case Logs and instituted recommended minimums last July as a first step in enhancing the current Case Log requirements for external beam radiation, which do not define site-specific simulation minima for non-metastatic, non-SBRT procedural categories. Along with input from the Association of Residents in Radiation Oncology (ARRO), the Review Committee has developed these new Case Log requirements.

   Resident-level Case Logs were reviewed for the most recent graduating classes of radiation oncology residents (July 2017-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, and 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, requirements must be met by logging remaining cases as "observed," as indicated in proposed requirement IV.C.5.d).

   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 resident Case Logs. Only simulations logged as "performed" will be used to assess and adjust minima to avoid artificial increases in case volume.

2. How will the proposed requirement or revision improve resident/fellow education, patient safety, and/or patient care quality?
   The proposed requirements will improve resident education by ensuring that residents have exposure and experience in multiple disease sites as part of their procedural experience. Procedural categories within each disease site were selected to avoid particularly rare (e.g., endocrine) or common (e.g., intact breast) clinical scenarios, as well as diagnoses with substantial practice pattern variation (e.g., pancreas) or diagnoses typically associated with specific technical categories (e.g., lung SBRT, intracranial SRS).

   Review of Case Log data indicate that programs routinely offer considerable exposure to common clinical scenarios (e.g., prostate cancer, intact breast cancer). Disease site-specific minima are opportunities to promote and monitor breadth of exposure to less common scenarios within these disease sites (e.g., non-prostate genitourinary, post-mastectomy breast cancers).

   Certain diagnoses (e.g., gastric cancer, pancreas cancer, small-cell lung cancer, Hodgkin's lymphoma) have significant epidemiologic or practice pattern variation nationally. To promote attainability of each site-specific minimum across programs, these particular disease sites were not selected at this time.

3. How will the proposed requirement or revision impact continuity of patient care?
   The proposed requirements will not impact continuity of patient care.

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?
   Other than block diagram and rotational changes necessitated to ensure residents receive appropriate access and exposure to all of the listed disease sites as part of their procedural experience and Case Logs (performed or observed), it is not anticipated that the proposed requirements will necessitate additional institutional resources.

5. How will the proposed revision impact other accredited programs?
   The proposed revision will not impact other accredited programs.

Requirement #: **VI.A.2.c).(1).(b).(i)**

Requirement Revision (significant change only):

VI.A.2.c).(1).(b)	**the supervising physician and/or patient is not physically present with the resident and the supervising physician is concurrently monitoring the patient care through appropriate telecommunication technology.** **(Core)**
VI.A.2.c).(1).(b).(i)	When residents are supervised directly through telecommunication technology, the supervising physician and the resident must interact with each other, and with the patient, when applicable, to solicit the key elements related to the encounter,

	and agree upon the significant findings and plan of action, including components of radiation treatment planning. (Core)

1. Describe the Review Committee's rationale for this revision:
   The Review Committee elected to include the Common Program Requirement that allows for direct supervision via telecommunication technology, and further specified which resident activities are appropriate for direct supervision via telecommunication methods.

2. How will the proposed requirement or revision improve resident/fellow education, patient safety, and/or patient care quality?
   The proposed requirement will improve patient safety and patient care quality by ensuring direct supervision can be accomplished via telecommunication methods if not physically available. It will also benefit resident education, as there will be additional opportunities for real-time feedback from faculty members in these circumstances.

3. How will the proposed requirement or revision impact continuity of patient care?
   The proposed requirement will not impact continuity of patient care.

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?
   The proposed requirement will not necessitate additional institutional resources.

5. How will the proposed revision impact other accredited programs?
   The proposed revision will not impact other accredited programs.