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

Requirement #: II.B.1.a) – II.B.1.b).(1)

Requirement Revision (significant change only):

II.B.1.a) In addition to the program director, the faculty must include a minimum of six four FTE radiation oncologists, of which four must be located at the primary clinical site, who devote the majority of their professional time to the education of residents. (Core)

II.B.1.b) The primary clinical site must have a cancer or radiation biologist who is either a member of the department or a member of the cancer center of the Sponsoring Institution, and whose job description includes responsibility for resident education in radiation oncology. (Core)

II.B.1.b).(1) This is a core faculty member, who must be responsible for presentation of an on-site didactic educational program core curriculum, and for leading a minimum of four cancer and/or radiation biology journal clubs or similar conferences sessions each year. (Detail)

1. Describe the Review Committee’s rationale for this revision:
The change is proposed due to the increasingly complex nature and specialization of radiation oncology techniques and care. In addition, over the last several years, ASTRO, the radiation oncology membership organization and program director community, has heard concerns about the variability of radiation and cancer biology faculty members, and the Review Committee has recommended the new requirements to clarify the ambiguity.

2. How will the proposed requirement or revision improve resident/fellow education, patient safety, and/or patient care quality?
The proposed requirement will improve resident education by providing more information related to the role of the required cancer/radiation biologist.

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?
The requirement clarifies the current Program Requirements and should require no additional institutional resources, unless the program does not meet the current requirements.

5. How will the proposed revision impact other accredited programs?
n/a
### Requirement #: III.B.2

**Requirement Revision (significant change only):**

III.B.1. The program must offer at least **six** resident positions. *(Core)* [Moved from III.B.2.]

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| 1. | Describe the Review Committee’s rationale for this revision:  
The Review Committee is concerned that programs with fewer than six residents are too small to engender a productive learning environment. Programs with six or more residents are more likely to provide the critical mass of learners needed to facilitate the educational environment needed to transform residents from medical student to independent practitioner. |
| 2. | How will the proposed requirement or revision improve resident/fellow education, patient safety, and/or patient care quality?  
The proposed revision will improve resident education and patient safety by the cultivation of a richer educational environment. |
| 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?  
There are currently 19 programs with fewer than six approved resident positions, approximately 20% of radiation oncology residency programs. Adding an additional one or two resident positions could necessitate additional institutional resources. The Review Committee will allow time for these affected programs to increase their complement. |
| 5. | How will the proposed revision impact other accredited programs?  
n/a |
Requirement #: IV.C.5.b)

Requirement Revision (significant change only):

IV.C.5.b) A resident should perform treat no more than 250 simulations patients with external beam radiation therapy in any one year. *(Detail)* [Moved from IV.A.6.c).(2)]

6. Describe the Review Committee’s rationale for this revision:
   The number of treatments per simulation continues to drop as short fraction regimens become more common. As the proposed Program Requirements increase the number of brachytherapy cases, the Review Committee is proposing this change to ensure that residents are able to meet all procedural requirements within the clinical radiation oncology training period.

7. How will the proposed requirement or revision improve resident/fellow education, patient safety, and/or patient care quality?
   In reviewing the current Program Requirements, and data from programs, the Review Committee believes that increasing the number of simulations permitted will provide residents with more competence, and better confidence in their ability to practice without supervision at the completion of the residency program.

8. How will the proposed requirement or revision impact continuity of patient care?
   n/a

9. 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

10. How will the proposed revision impact other accredited programs?
    n/a
### Requirement #: IV.C.6 – IV.C.6.b

**Requirement Revision (significant change only):**

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<tbody>
<tr>
<td>IV.C.6</td>
<td>Each resident must perform at least seven five interstitial and 15 intracavitary brachytherapy procedures. <em>(Core)</em> [Moved from IV.A.6.d]</td>
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<tr>
<td>IV.C.6.a</td>
<td>Of the required intracavitary brachytherapy procedures, a minimum of five must be tandem-based insertions for at least two patients. <em>(Core)</em></td>
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<tr>
<td>IV.C.6.b</td>
<td>Of the required intracavitary brachytherapy procedures, no more than five should be cylinder insertions. <em>(Core)</em></td>
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11. Describe the Review Committee’s rationale for this revision:

   In a recent ASTRO survey radiation oncology residents, residents expressed less confidence in independently providing brachytherapy than in delivering stereotactic treatments. The change is to address community concerns about the levels of brachytherapy training, particularly in light of recent reports of underutilization of brachytherapy for patients with cervical cancer and associated decline in cure rates. In addition, the community was concerned that the current intracavitary requirements could be met with vaginal cylinders only and with no exposure to tandem-based insertions.

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

   The proposed requirement will ensure that residents have training in each of the intracavitary procedures. The increase in the number of interstitial procedures will also provide more opportunity for residents to demonstrate competence in the procedure.

13. How will the proposed requirement or revision impact continuity of patient care?

   n/a

14. 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 require few changes to programs, other than additional planning to ensure residents meet the minimum requirements by procedure type. Current national average number of interstitial brachytherapy procedures per resident is 20.6; current national average of intracavitary brachytherapy is 52.4 procedures per resident.

15. How will the proposed revision impact other accredited programs?

   n/a
### Requirement #: IV.C.9 and IV.C.9.b)

#### Requirement Revision (significant change only):

**IV.C.9.** Each resident must demonstrate the requisite knowledge and skills in the administration of at least *eight* procedures using radioimmunotherapy, other targeted therapeutic radiopharmaceuticals, or unsealed sources. *(Core)* [Moved from IV.A.6.g)]

**IV.C.9.b)** Residents must perform a minimum of five 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.

Parenteral unsealed source: A minimum of three procedures must include a parenteral administration with therapeutic intent for a diagnosis of malignancy. *(Core)* [Moved from IV.A.6.g)-(2)]

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1. **Describe the Review Committee’s rationale for this revision:**
   
   The proposed requirements are based on a request by ASTRO, which anticipates the need for radiation oncologists to be prepared to manage patients who are receiving theranostics and other radiopharmaceuticals. The ongoing use of Xofigo®, the recent approval of Lutethera® and the imminent approval of a PSMA-targeted radioligand and other novel radiolabeled agents in the pipeline leads us to believe that the current requirements are inadequate. The radiation oncology requirements for parenteral administration have been amended to mirror the nuclear medicine requirements, given the likelihood that both nuclear medicine and radiation oncology will be providing this service.

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

3. **How will the proposed requirement or revision impact continuity of patient care?**
   
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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?**
   
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5. **How will the proposed revision impact other accredited programs?**
   
   n/a
### Requirement #: **IV.C.12**

#### Requirement Revision (significant change only):

**IV.C.12** Residents must have specific rotations in gastrointestinal, gynecologic, genitourinary, lymphoma/leukemia, head/neck, breast, adult CNS, and thoracic malignancies. *(Core)*

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| 1. | Describe the Review Committee’s rationale for this revision:  
**As multidisciplinary multimodality treatments and increased sophistication of radiation delivery continue to expand and define the standard of care for many cancer patients, the Review Committee proposes this requirement to ensure that resident training should include disease-specific clinical rotations.** |
| 2. | How will the proposed requirement or revision improve resident/fellow education, patient safety, and/or patient care quality?  
**The proposed requirement provides clarity and direction into resident clinical rotations for residents. This specialized experience will help residents further refine their understanding of the intricacies of these diseases that are frequently treated with radiation.** |
| 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?  
**The didactics listed in the proposed requirement are based on ASTRO recommendations and can be facilitated in a number of different ways** |
| 5. | How will the proposed revision impact other accredited programs?  
*n/a* |
Requirement #: **IV.C.16**

Requirement Revision (significant change only):

**IV.C.16** The program must ensure that there are intradepartmental clinical oncology conferences that address the following topics: new patient management; patient safety; principles of palliative care; principles of patient-centered care; principles of practice management; financial principles of medical practice; health policy; clinical informatics; and continuous quality improvement. (Core) [Moved from IV.A.3.e]

1. **Describe the Review Committee’s rationale for this revision:**
   The Review Committee proposes the additional didactic content areas to ensure resident education in the full potential of emerging agents and technologies, how to appropriately integrate them into the practice of radiation oncology, and how to recognize and address the full spectrum of patient needs. Furthermore, it is important to train and prepare residents in how to function successfully in the modern healthcare workplace. Knowledge regarding these skills has greatly expanded in recent years and is crucial to a successful career and the highest quality patient care.

2. **How will the proposed requirement or revision improve resident/fellow education, patient safety, and/or patient care quality?**
   The proposed additional didactic topics provide updated subject matter areas to ensure that residents are fully able to practice without supervision on graduation.

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?**
   The Review Committee believes these topics are currently addressed by a majority of radiation oncology residency programs, but may require additional resources in the event the current radiation oncology faculty members do not have experience or expertise in the proposed new topics.

5. **How will the proposed revision impact other accredited programs?**
   n/a