

**UNIVERSITY OF VIRGINIA
RADIATION ONCOLOGY RESIDENCY PROGRAM
REQUIREMENTS AND GUIDELINES
2018 - 2019**

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ABR information came from <http://www.theabr.org>

Please refer to the Graduate Medical Education website for the most recent policies and procedures concerning resident employment: <https://med.virginia.edu/gme/>

Note: The term “resident” in this document refers to both specialty residents and subspecialty fellows. Once the Common Program Requirements are inserted into each set of specialty and subspecialty requirements, the terms “resident” and “fellow” will be used respectively.

UVA Radiation Oncology Residency Program Introduction

Residency is an essential dimension of the transformation of the medical student to the independent practitioner along the continuum of medical education. It is physically, emotionally, and intellectually demanding, and requires longitudinally-concentrated effort on the part of the resident.

The specialty education of physicians to practice independently is experiential, and necessarily occurs within the context of the health care delivery system. Developing the skills, knowledge, and attitudes leading to proficiency in all the domains of clinical competency requires the resident physician to assume personal responsibility for the care of individual patients. For the resident, the essential learning activity is interaction with patients under the guidance and supervision of faculty members who give value, context, and meaning to those interactions. As residents gain experience and demonstrate growth in their ability to care for patients, they assume roles that permit them to exercise those skills with greater independence. This concept—graded and progressive responsibility (milestones)—is one of the core tenets of American graduate medical education. Supervision, in the setting of graduate medical education, has the goals of: assuring the provision of safe and effective care to the individual patient; assuring each resident's development of the skills, knowledge, and attitudes required to enter the unsupervised practice of medicine; and establishing a foundation for continued professional growth.

Overview

A. Definition, Goals, and Mission

Radiation oncology is that branch of clinical medicine concerned with the causes, prevention, and the treatment of cancer and certain non-neoplastic conditions utilizing ionizing radiation. Radiation oncologists are an integral part of the multi-disciplinary management of the cancer patient, and must collaborate closely with physicians and health care professionals in the management of the patient.

The objective of the residency program is to educate and train physicians to be skillful in the practice of radiation oncology and to be caring and compassionate in the treatment of patients. To develop clinical expertise, this training is designed to teach: oncology physical exam; oncology diagnosis and clinical judgment; and all patient management skills necessary to provide high quality state of the art therapeutic radiation therapy for oncology patients. This training will consist of direct mentorship and didactic instruction in the areas of clinical radiation oncology, treatment planning, radiation physics and safety, and radiobiology. To accomplish this goal, adequate structure, facilities (ECCCC = Emily Couric Clinical Cancer Center; Moser, and CMC = Culpeper Medical Center), faculty, patient resources, and an educational environment must be provided.

B. Resident Complement

A total of 6 residents have been approved for this training. This total is based on the number of faculty, new patient consultations, and simulations performed annually at the University of Virginia Health System's ECCCC Radiation Oncology Clinic, Moser, Gamma Knife, and CMC. Also, a complement of 6 residents has been approved by the Radiation Oncology Residency Review Committee (RRC), the Accreditation Council for Graduate Medical Education (ACGME), and the UVA Graduate Medical Education (GME) Office.

The Program Director will not appoint more residents than approved by the RRC. Any increase will be based on educational considerations, not the fulfillment of service requirements.

1. The program's educational resources are adequate to support these six residents and allow for:
 - a. A meaningful peer interaction throughout the training period among the residents themselves
 - b. A minimum of 1 faculty member (certified by the American Board of Radiology or in the process of obtaining certification) for every 1.5 residents.
2. The institution provides the residents with appropriate financial support and benefits to ensure that they are able to fulfill the responsibilities of this educational program.
3. The RRC guidelines will be followed for any changes in the residency complement.

C. Duration and Scope of Graduate Medical Education Training and USMLE Requirements

To meet the American Board of Radiology (ABR) requirements for radiation oncology board eligibility, the educational program in radiation oncology must be 60 months in length. The UVA Department of Radiation Oncology is accredited for training in radiation oncology by the Radiation Oncology Residency Review Committee (RRC) of the Accreditation Council for Graduate Medical Education (ACGME). This department adheres to the UVA GME policies concerning graduate medical education requirements for passing “USMLE, Steps 2 and 3” ([#7](#)) and “Recruitment and Selection of Graduate Medical Trainees” ([#2](#)). Each resident must adhere to the Departmental [“Policy on Board Eligibility”](#).

PGY 1

The first year of post-graduate clinical education must be accredited by the ACGME, AOA, or RDPSA and spent in internal medicine, family medicine, obstetrics and gynecology, surgery or surgical specialties, pediatrics, or a transitional year program, and must include at least nine months of direct patient care in medical and/or surgical specialties other than radiation oncology. Resident applicants must apply for their PGY1 year in a separate match process from the UVA Radiation Oncology residency application process.

PGY 2 – PGY 5: UVA Radiation Oncology Residency Program

No fewer than 36 months must be spent in clinical radiation oncology. (Residents enrolled in the Holman Pathway, a research track designed by the American Board of Radiology to promote a commitment to basic science or clinical research must complete 27 months in clinical radiation oncology. UVA does not currently offer the Holman Pathway.)

UVA has four clinical areas where external beam radiation therapy occurs; Emily Couric Clinical Cancer Center (ECCCC) Radiation Oncology Clinic, the Moser Outpatient Radiation Oncology Center on 250 West, the Gamma Knife Center in the Primary Care building, and an integrated rotation at Culpeper Medical Center (CMC) in Culpeper, Virginia. The 36 months do not include clinical elective rotations outside the Department of Radiation Oncology, nor does it include time spent within our department on non-clinical rotations, such as physics and research. Residents are expected to remain in the UVA Radiation Oncology Residency Training program for the duration of the training. If a resident desires to/has to transfer to another training program, he/she must follow the ACGME requirements for transfer as described in [Section III C](#).

The rotations will involve the care of oncology patients with gynecologic, genitourinary, gastrointestinal, breast, lymphoma/leukemia, head and neck, lung, pediatric, central nervous system, soft tissue and bone, and skin malignancies. In addition, the program provides eight (8) months of off-service rotations. The following 3 months of required electives (off-service rotations) are considered mandatory program requirements: Nuclear Medicine (1 month); Gamma (1 month); and Physics/Dosimetry (1 month). To complete his/her training, the resident will select additional electives, which may include options such as Pediatric Hematology (UVA); Proton Training (Norfolk or Switzerland); VCU; research; or rotating to another facility. Additional research rotation time and rotations at outside academic institutions may be arranged to meet specific resident educational objectives. Scholarly activity during residency is considered essential to training. It is expected that each resident will submit at least one manuscript for peer review publication and present research at one or more national meetings.

The ACGME requirements state that “The program must educate resident physicians in adult medical oncology, pediatric medical oncology, oncologic pathology, and diagnostic imaging in a way that is applicable to the practice of radiation oncology.” In order to satisfy those requirements through tumor board attendance, the residents will track their participation in multidisciplinary, interactive tumor conferences that are attended by adult and/or pediatric oncologists. This is consistent with the ACGME core program requirements in radiation oncology as a method to satisfy program requirements for adult and pediatric medical oncology, oncologic pathology, and diagnostic imaging.

In addition, the residency program offers a structured educational program in basic radionuclide handling techniques applicable to the use of manual brachytherapy sources and the use of remote after loader units, teletherapy units, and Gamma Stereotactic Radiosurgery units that includes a minimum of:

200 hours of classroom and laboratory training in:

- a. radiation physics and instrumentation,
- b. radiation protection,
- c. mathematics pertaining to the use and measurement of radioactivity,
- d. radiation biology;

500 hours of work experience under the supervision of an Authorized User including training in:

- a. ordering, receiving, and unpacking radioactive materials safely and performing the related radiation surveys,
- b. checking and using survey meters for proper operation,
- c. preparing, implanting, and removing brachytherapy sources,
- d. maintaining running inventories of radioactive material on hand,
- e. using administrative controls to prevent a misadministration involving the use of radioactive material,
- f. using emergency procedures to control radioactive material,
- g. reviewing full calibration measurements and periodic spot-checks,
- h. preparing treatment plans and calculating treatment doses and times,
- i. implementing emergency procedures to be followed in the event of the abnormal operation of the medical unit or console,
- j. selecting the proper prescribed dose and how it is to be administered.

I. Institutions in the Radiation Oncology Residency Program

A. Sponsoring Institution

The University of Virginia (UVA) is the sponsoring institution. UVA assumes ultimate responsibility for the program, as described in the Institutional Requirements, and this responsibility extends to resident assignments at all participating sites. The sponsoring institution and the program will ensure the Program Director has sufficient protected time and financial support for his or her educational and administrative responsibilities to the program.

1. The program director should devote a minimum of 10% of his or her time to administration of the program.
2. The sponsoring institution must also sponsor other relevant oncology- related graduate medical education programs accredited by the Accreditation Council for Graduate Medical Education (ACGME), including residencies or fellowships in surgical, medical, and/or pediatric oncology.
3. At least 50% of the residents' educational experiences should take place at the primary clinical site.
4. UVA assists the program director in:
 - a. Teaching
 - b. Recruiting faculty
 - c. Selecting, evaluating, and dismissing residents whose performance is unsatisfactory
5. Education in radiation oncology must occur in an environment that encourages the exchange of knowledge and experience among residents
6. A minimum number of faculty and residents is essential to provide an opportunity for meaningful interaction throughout the program
7. The UVA GME will ensure that residents:
 - a. can participate on committees and councils whose actions affect their education and/or patient care; and
 - b. will participate in an educational program regarding physician impairment, including substance abuse and sleep deprivation.

B. Participating Sites

1. There must be a program letter of agreement (PLA) between the program and each participating site. The PLA will be renewed at least every five years. The PLA will:

- a. identify the faculty who will assume both educational and supervisory responsibilities for the residents;
- b. specify the faculty responsibilities for teaching, supervision, and formal evaluation of residents, as specified later in this document;
- c. specify the duration and content of the educational experience;
- d. state the policies and procedures that will govern resident education during the assignment.
- e. state the Sponsoring Institution retains responsibility for the quality of the GME training
2. The program director must submit any additions or deletions of participating sites routinely providing an educational experience, required for all residents, of one month full time equivalent (FTE) or more through the ACGME Accreditation Data System (ADS).
3. Assignment to a participating site must be based on a clear educational rationale, integral to the program curriculum, with clearly-stated activities and objectives; should provide resources not otherwise available to the program, should allow the preponderance of the educational experience to take place in the primary clinical site, and should assure the continuity of the educational experience.
4. When multiple participating sites are used, there must be assurance of the continuity of the educational experience.
5. **Integrated Sites**
 - a. A site is considered integrated when the program director determines all rotations and assignments of residents, and is responsible for the overall conduct of the educational program and faculty members there.
 - b. Clinical faculty members at the integrated site should have faculty appointments from the sponsoring institution or the primary clinical site.
 - c. Integrated sites must provide a means for direct participation in joint conferences, by attendance when institutions are in geographic proximity to the primary clinical site, or by electronic transmission when not.
 - d. Prior approval must be obtained from the Review Committee for an integrated participating site, regardless of the duration of rotations.
 - i. Rotations to integrated sites are not limited in duration.
6. **Other Participating Sites**
Participating sites that do not meet the requirements for integrated sites must meet the following requirements:
 - a. Participating sites that are not designated as integrated may be used to complement residents' educational experiences.
 - b. Rotations which are outside the primary clinical site or integrated sites must not exceed a total of six months during the residency.
 - c. Participating sites do not require prior Review Committee approval. There must be a program letter of agreement for any site from which cases are entered into resident logs. (Section I.B.1).
7. The UVA Department of Radiation Oncology will reimburse residents performing a one month elective away rotation to a participating site:
 - a. for travel to and from the participating site (flight or gas)
 - b. a per diem for lodging and/or local transportation based on location of the participating site
 - i. maximum of \$2,500 for domestic rotations
 - ii. maximum of \$3,500 for international rotations
 - iii. considerations will be made for special circumstances; and can be approved by either the Program Director or the Department Chair
 - c. only if they provide documentation of expenses to Rebekah McComb and/or Caitlin Connelly

C. Culpeper Medical Center (CMC) in Culpeper, Virginia

1. An integrated site under the direction of Shiv Khandelwal, M.D., UVA Radiation Oncology faculty member,
2. Dr. Khandelwal will:

- a. be responsible for providing teaching and mentorship on this rotation as specified in the faculty responsibility section of the UVA residency guidelines.
 - b. determine when a resident is capable of independently functioning at CMC
 - c. notify the CMC staff when the resident has been granted privileges to operate independently in the use of image guided technologies.
 - d. evaluate the residents following this rotation based on their PGY level specific achievement of the ACGME core competency milestones as specified in the residency guidelines.
3. The CMC Rotation Global Educational/ Learning Objectives and Goals are:
 - a. to provide the residents with a community oncology practice experience
 - b. to broaden their understanding of how a broad range of oncology patients receive oncology care outside an academic medical system
 4. Rotation Specifics:
 - a. Residents on this rotation will:
 - i. rotate at CMC two days per week,
 - a) Monday and Tuesday
 - b) 8:00 am to 5:30 pm
 - ii. will complete the “Checklist for the Incoming Radiation Oncology Resident to complete prior to starting the Novant Health UVA Health System Culpeper Medical Center Rotation” (two months before the rotation)
 - iii. keep logins up-to-date so they aren’t expired upon arrival at CMC
 - iv. rotate on Wednesday, Thursday, and Friday per the Clinic Coverage Schedule
 - v. participate in Treatment Simulation & Planning for Culpeper patients
 - vi. participate in the care of UVA Radiation Oncology patients
 - vii. have access to videoconferencing to view scheduled conferences, lectures, and seminars.
 - b. No PGY2 residents will rotate at CMC
 - c. Residents will not:
 - i. be on call for CMC patients for after hour phone calls
 - ii. cover emergency patients at CMC while on call at UVA
 5. Residents will have their salary, benefits, and medical liability premiums provided by the University of Virginia Health System.
 6. The residents will have the same responsibilities and PGY level specific core competency milestones as outlined in the residency guidelines.
 7. Specific ACGME core competency-based responsibilities and expectations of the residents at CMC:
 - a. Patient Care: the resident will:
 - i. see on-treatment, follow-up, and new consult patients (inpatients and outpatients).
 - ii. participate in initial consultation of definitive cases
 - iii. not necessarily see all palliative cases with minimal educational value.
 - iv. participate in simulation and treatment planning of cases being treated at CMC
 - v. perform review of MVCT scans.
 - vi. participate in routine patient care; such as, ordering IV fluids and blood products, imaging studies, and writing prescriptions.
 - b. Medical Knowledge: the resident will:
 - i. formulate treatment plans and
 - ii. propose a course of treatment based on existing medical data and review this with the attending physician.
 - c. Practice-Based Learning and Improvement: the resident will:
 - i. evaluate the faculty and the effectiveness of the rotation.
 - ii. review treatment plans of all patients under treatment and discuss goals/rationale of treatment.
 - iii. attend monthly tumor boards to learn how community oncologists and health care professionals educate each other regarding patient outcomes and implementation of new technologies that become available locally.
 - d. Interpersonal and Communication Skills: the resident will:

- i. Call 540-829-4271 (the clinic @ CMC) if the resident is going to be late or unable to work
- ii. create an email distribution list for
 - a) Shiv Khandelwal, MD (srk6v@virginia.edu), Physician/Medical Dir. at CMC
 - b) Tim Showalter, MD, MPH (tns3b@virginia.edu), Program Director
 - c) Rebekah McComb (rm5dg@virginia.edu), Program Coordinator
 - d) Caitlin Connelly (ct9nw@virginia.edu), Senior Administrative Coordinator
 - 1) to let them know when the resident will be late or absent and
 - 2) the reason for the absence
- iii. Present a case at the CMC tumor boards if applicable.
- iv. Learn to use the CMC dictation system.
- v. Learn to use the videoconferencing system.
- e. Professionalism: the resident will:
 - i. dress and act professionally at all times as specified in the residency guidelines.
- f. Systems-Based Practice: the resident will:
 - i. Coordinate care with other health care providers in a community private practice setting such as medical oncologists and extended medical oncology care providers, surgeons, primary care physicians, dieticians, social workers, etc. to learn about how community-based oncology systems function.
 - ii. Learn about billing and documentation in a community-based oncology health care system.
 - iii. Attend bi-weekly tumor boards to learn how community based oncologists communicate and how this differs from prospectively presenting most cancer patients at academic centers.
- g. The UVA Department of Radiation Oncology will reimburse residents for mileage at the standard institutional reimbursement rate (54.5 cents/mile) x 90 miles round trip for travel expenses incurred while on this rotation.

D. Virginia Commonwealth University (VCU) is a participating site in Richmond, VA

1. UVA PGY 5 resident/s can elect to perform a one month rotation under the direction of Dr. Emma Fields
 - a. a VCU Radiation Oncology faculty member and
 - b. the VCU Radiation Oncology Residency Program Director.
2. VCU residents can elect to perform a one month rotation at UVA.
3. This affiliation will provide residents with an academic rotation outside the parent institution to expose residents:
 - a. to a wider array of academic experts, and
 - b. to treatment techniques and technologies not available or routinely performed at the parent institution.
4. VCU residents will learn about and participate in treatments delivered with Helical Tomotherapy and the Perfexion Gamma Knife at UVA. Specific learning objectives will include:
 - a. Helical Tomotherapy: a basic understanding of how the Helical Tomotherapy technology works; understanding of site specific-dosimetry that the system is capable of delivering for helical Tomotherapy, topotherapy, and for STAT RT, and an understanding of how the image guidance system functions and is utilized for daily image guidance. The resident should learn the limitations of the system including the lack of respiratory gating and lack of non-coplanar treatment delivery.
 - b. Perfexion Gamma Knife: a basic understanding of how the Perfexion Gamma Knife technology works; appropriate patient selection for treatment and the typical prescription doses for commonly treated disease processes (avascular malformations, acoustic swannomas/neuromas, meningiomas, pituitary adenomas, trigeminal neuralgia, and brain metastases); how treatments are planned and delivered in a single day. Residents should learn the limitations of this system including the need for head frame placement, the inferior anatomic extent of lesions that can be treated, and the size limitations of lesions that can be treated and outcomes of commonly treated disease processes.

5. UVA residents will learn about and participate in treatments including prostate, cervical and breast High Dose Rate (HDR) Brachytherapy, Total Body Irradiation (TBI), and Total Electron Skin Irradiation at VCU. Specific learning objectives will include:
 - a. Prostate, cervical, and breast High Dose Rate (HDR) Brachytherapy: Residents will learn and participate in the technical aspects of these interstitial implantation HDR techniques including needle and or Contoura placement, commonly prescribed doses and fractionation, typical dosimetry, timing of radiation delivery, and expected outcomes and potential toxicities.
 - b. Hyperthermia: Residents will participate in the technical aspects of hyperthermia treatment and learn about the indications, rationale, relation to external beam radiation therapy, and delivery.
 - c. Total Body Irradiation (TBI): Residents will participate in TBI procedures and learn the indications, rationale, technical aspects of and toxicities of TBI as a component of bone marrow transplant.
 - d. Total Electron Skin Irradiation: Residents will participate in total electron skin irradiation procedures and learn the indications, rationale, technical aspects of and toxicities of total electron skin irradiation as a treatment option for patients with mycosis fungoides/ T cell lymphoma.
6. Residents on these rotations will be evaluated based on PGY-specific competency-based milestone expectations.
7. The UVA Department of Radiation Oncology will reimburse residents performing a one month VCU rotation:
 - a. up to \$1,600 to help defray the cost of mileage or lodging.
 - i. mileage will be reimbursed at 54.5 cents/mile
 - b. the resident will:
 - i. decide how to apply this reimbursement (lodging and/or gas) and
 - ii. provide documentation of expenses.

II. Program Personnel and Resources

A. Program Director

1. There is a single Program Director, Timothy Showalter, M.D., M.P.H., with authority and accountability for the operation of the program. The PD has privileges at the CMC integrated site. The UVA GMEC must approve a change in Program Director.
 - a. The Program Director must submit this change to the ACGME via the ADS.
 - b. The Program Director should be a full time faculty member at the primary clinical site.
2. The program director should continue in his or her position for a length of time adequate to maintain continuity of leadership and program stability.
 - a. The program director should have a term of at least three years.
3. Qualifications of the Program Director must include:
 - a. requisite specialty expertise and documented educational and administrative experience acceptable to the Review Committee;
 - b. current certification in the specialty by the American Board of Radiology, or specialty qualifications that are acceptable to the Review Committee; and,
 - i. The program director must actively participate in Maintenance of Certification in radiation oncology through the American Board of Radiology.
 - c. current medical licensure and appropriate medical staff appointment.
4. The program director must administer and maintain an educational environment conducive to educating the residents in each of the ACGME competency areas.
The program director must:
 - a. oversee and ensure the quality of didactic and clinical education in all sites that participate in the program;
 - b. approve a local director at each participating site who is accountable for resident education (Dr. Shiv Khandelwal at CMC and Dr. Emma Fields at VCU);

- c. approve the selection of program faculty as appropriate;
- d. evaluate program faculty;
- e. approve the continued participation of program faculty based on an annual written evaluation;
- f. monitor resident supervision at all participating sites;
- g. prepare and submit all information required and requested by the ACGME.
 - i. This includes but is not limited to the program application forms and annual program resident updates to the ADS, and ensure that the information submitted is accurate and complete.
- h. ensure compliance with grievance and due process procedures as set forth in the Institutional Requirements and implemented by the sponsoring institution;
- i. provide verification of residency education for all residents, including those who leave the program prior to completion;
- j. implement policies and procedures consistent with the institutional and program requirements for resident duty hours and the working environment, including moonlighting, and, to that end, must:
 - i. distribute these policies and procedures to the residents and faculty;
 - ii. monitor resident duty hours, according to sponsoring institutional policies, with a frequency sufficient to ensure compliance with ACGME requirements;
 - iii. adjust schedules as necessary to mitigate excessive service demands and/or fatigue; and,
 - iv. if applicable, monitor the demands of at-home call and adjust schedules as necessary to mitigate excessive service demands and/or fatigue.
- k. monitor the need for and ensure the provision of back up support systems when patient care responsibilities are unusually difficult or prolonged;
- l. comply with the sponsoring institution's (UVA's) written policies and procedures, including those specified in the Institutional Requirements, for selection, evaluation, and promotion of residents, disciplinary action, and supervision of residents;
- m. be familiar with and comply with ACGME and RRC policies and procedures as outlined in the ACGME Manual of Policies and Procedures;
- n. obtain review and approval of the sponsoring institution's GMEC/DIO before submitting information or requests to the ACGME, including:
 - i. all applications for ACGME accreditation of new programs;
 - ii. changes in resident complement;
 - iii. major changes in program structure or length of training;
 - iv. progress reports requested by the Review Committee;
 - v. requests for increases or any change to resident duty hours;
 - vi. voluntary withdrawals of ACGME-accredited programs;
 - vii. requests for appeal of an adverse action;
 - viii. appeal presentations to a Board of Appeal or the ACGME;
 - ix. proposals to ACGME for approval of innovative educational approaches.
- o. obtain DIO review and co-signature on all program application forms, as well as any correspondence or document submitted to the ACGME that addresses:
 - i. program citations, and/or
 - ii. requests for changes in the program that would have significant impact, including financial, on the program or institution.
- p. ensure that each resident keeps a detailed, well-organized, and accurate electronic log of those procedures noted in [Program Requirement IV.A.6](#)
 - i. The log should include patients simulated, procedures performed, and modalities used.
- q. review the logs with all residents at least semiannually to ensure accuracy and to verify that the case distribution meets the standards specified; and,
 - i. the program director must provide documentation of these discussions for the resident's record maintained by the program; and,

- r. submit the cumulative experience of graduating residents to the Review Committee annually in accordance with the format and the due date specified by the Review Committee
 - s. ensure that conferences and teaching rounds provide for progressive participation of residents. There must be:
 - i. adequate frequency of conferences,
 - ii. attendance by Radiation Oncology residents, radiation oncologists, and other staff
 - t. ensure that there are intradepartmental clinical oncology conferences, including:
 - i. new patient conferences,
 - ii. weekly chart reviews,
 - iii. problem case conferences,
 - iv. continuous quality improvement,
 - v. morbidity and mortality,
 - vi. physics,
 - vii. dosimetry,
 - viii. radiation and cancer biology,
 - ix. journal review.
5. Associate Program Director (Einsley Janowski, M.D., Ph.D.): if there is an APD, he/she will assist in these administrative responsibilities but the Program Director is ultimately responsible for all aspects of the residency program.

B. Faculty

1. At each participating site, there must be a sufficient number of faculty with documented qualifications to instruct and supervise all residents at that location.
The faculty must:
 - a. devote sufficient time to the educational program to fulfill their supervisory and teaching responsibilities; and to demonstrate a strong interest in the education of residents; and,
 - b. administer and maintain an educational environment conducive to educating residents in each of the ACGME competency areas.
2. The physician faculty must have current certification in the specialty by the American Board of Radiology, or possess qualifications acceptable to the Review Committee.
3. The physician faculty must possess current medical licensure and appropriate medical staff appointment.
4. The non-physician faculty must have appropriate qualifications in their field and hold appropriate institutional appointments.
5. The faculty must establish and maintain an environment of inquiry and scholarship with an active research component.
 - a. The faculty must regularly participate, with the residents, in organized clinical discussions, rounds, journal clubs, conferences, and Multi-Disciplinary Tumor Boards.
 - b. Some members of the faculty should also demonstrate scholarship by one or more of the following:
 - i. peer-reviewed funding;
 - ii. publication of original research or review articles in peer-reviewed journals, or chapters in textbooks;
 - iii. publication or presentation of case reports or clinical series at local, regional, or national professional and scientific society meetings; or,
 - iv. participation in national committees or educational organizations.
 - c. Faculty will encourage and support residents in scholarly activities.
 - d. The majority of both physician and PhD faculty should demonstrate scholarship as defined above.
6. The department chair must demonstrate an interest in and support for the training of residents in Radiation Oncology.
7. The faculty must include a minimum of four (4) full-time-equivalent (FTE) radiation oncologists at the primary clinical site who devote the majority of their professional time to the education of the residents.

- a. Currently, the program has five (5) FTE radiation oncologists who devote the majority of their professional time to the education of residents.
8. The faculty must include at least one full-time radiation biologist (Tarek Abbas, PhD) or cancer biologist (PhD level or equivalent) who devotes the majority of his or her professional time to laboratory-based cancer research and is at the primary clinical site or at an integrated site to provide a scholarly environment of research, and to participate in the teaching of radiation and cancer biology.
9. The radiation oncology faculty must include at least one full-time faculty medical physicists (PhD level or equivalent), who is at the primary site or an integrated site to provide a scholarly environment of research, and to participate in the teaching of radiation physics.
 - a. The department currently has seven physicists who serve at the various sites. Several participate in the teaching of radiation physics to radiation oncology residents:
 - i. David Schlesinger, PhD
 - ii. Bruce Libby, PhD
 - iii. Jeff Siebers, PhD
 - iv. Krishna Wijesooriya, PhD
 - v. Tyler Watkins, PhD
 - vi. Sarah Scarboro, PhD
 - vii. Reza Taleei, PhD
10. The faculty-to-resident ratio must be at least 0.67 FTE faculty members for every resident in the program.
11. The UVA [GME Policy 12](#) details the delineation of the responsibilities of the attending physician, the trainee and the program.
12. Attendance will be kept at the above departmental conferences for assessment purposes.
13. The faculty will evaluate the residents
 - a. based on the resident's achievement of milestone expectations
 - b. through the institution's electronic New Innovations system
 - c. during mock oral examination held monthly.

C. Other Program Personnel

The institution and the program will jointly ensure the availability of all necessary professional, technical, and clerical personnel for the effective administration of the program.

1. The departmental staff includes: dosimetrists, therapists, nurses, and clerical staff
2. Residency Program Coordinator Mrs. Rebekah McComb:
 - a. provides administrative support to the Program Director and the Associate Program Director,
 - b. Maintains the records of the residents and visiting medical students.

D. Program Resources

The institution and the program must jointly ensure the availability of adequate resources for resident education, as defined in the specialty program requirements.

1. There must be a minimum of 600 patients receiving external beam radiation therapy per year cumulatively at the primary clinical site and any integrated sites.
2. Facilities
 - a. At the primary clinical site there must be two or more megavoltage machines, a machine with a broad range of electron beam capabilities, computed tomography (CT)-simulation capability, and three-dimensional conformal computerized treatment planning, including intensity modulated radiation therapy (IMRT).
 - i. Varian TRUEBEAM (at ECCCC-primary site)
 - a) Photon (x-ray) energies:
 - 1) 6 MV
 - 2) 10 MV (10x is good compromise if need increased penetration yet minimal neutron production and ok lateral equilibrium)
 - 3) 15 MV
 - b) Electron energies: (4), 6, 9, 12, 16, 18, & 20 MeV electrons
 - c) IGRT capabilities: same as for Trilogy

- d) TrueBeam vs. Trilogy (differences)
 - 1) TrueBeam offers 10 MV photons
 - 2) TrueBeam has optional higher dose rate (“Flattening Filter Free”)
 - 3) TrueBeam can offer the same special treatment modalities as Trilogy (although Respiratory Gating awaiting small upgrade)
- ii. Varisource iX HDR unit (at ECCCC)
 - a) High activity Ir-192 source for high dose rate brachytherapy
 - b) Patients are treated in a matter of minutes. Most of the time is spent in preparation, placement of the brachytherapy applicator, and calculation of source “dwell times” in the applicator.
 - c) It is currently used for:
 - 1) Intracavitary brachytherapy using a vaginal cylinder to treat the vagina or vaginal cuff
 - 2) Intracavitary brachytherapy using a Y applicator (2 intrauterine tandems) for some endometrial cancer patients
 - 3) Intracavitary brachytherapy for treatment of cervical cancer
 - 4) Intracavitary brachytherapy to treat the breast using Contura balloon that has been placed in the lumpectomy cavity
 - 5) Interstitial brachytherapy to treat vulva, vagina, or other gynecological cancer
 - 6) Prostate HDR brachytherapy delivered as a boost in addition to external beam radiation therapy
 - 7) Interstitial brachytherapy for treatment of soft tissue sarcomas
 - 8) Use of custom mold applicators to treat tongue or nasal cancers
- iii. Varian TRILOGY (at Moser)
 - a) Photons (x-rays)
 - 1) Photon energies:
 - 6 MV (generally used in head and neck, CNS, extremity, and some breast treatments – thinner regions to treat through)
 - 15 MV (generally used with chest, abdomen, and pelvis treatments – thicker regions to treat through)
 - 2) Special treatment modes:
 - *Non-coplanar* deliveries (via table rotations)
 - *IMRT* (Intensity Modulated Radiation Therapy)
 - *Conformal arc* (no intensity modulation: MLCs simply conform to projection of PTV)
 - *VMAT / RapidArc / SmartArc* (Arc form of IMRT)
 - *Respiratory Gating* (Tx at specific parts of breathing cycle)
 - Brain Lab (SBRT)
 - 3) IGRT capabilities: MV EPID, KV planar, KV CBCT
 - b) Electrons
 - 1) (4), 6, 9, 12, 16, & 20 MeV Electrons are used for fairly superficial targets (posterior triangles in the neck, internal mammary nodes, etc.)
 - 2) Electron dose decreases rapidly after a certain depth in tissue.
 - 3) Generally, you can determine the depth in cm that 90% of the dose will cover in tissue by dividing the electron energy E (in MeV) by 4.
 - Therefore, 6 MeV electrons should cover 1.5 cm deep with the 90% isodose line.
 - That means if you prescribe 200 cGy to the 90% isodose line, you will be getting 200 cGy to 1.5 cm deep to the skin surface.
 - 4) Dividing E by 3 will give the approximate depth of the 80% IDL.
 - 5) Dividing E by 2 gives approximate depth (cm) beyond which no electrons will penetrate.

- iv. TomoTherapy unit (at ECCCC & Culpeper)
 - a) 6 MV Photons via helical delivery system (similar to CT scanner geometry).
 - b) Useful for IMRT and Stereotactic radiosurgery/radiotherapy. Most of the head and neck cancer patients are treated here.
 - c) The unit has its own inverse planning system to develop IMRT plans. We simulate the patient, digitize the targets and normal structures, and then send it electronically to TOMO for planning.
- b. Adequate conference room and audiovisual facilities must be provided.
- c. Necessary software available to facilitate efficient patient care including:
 - i. MOSAIQ (radiation oncology departmental electronic chart),
 - ii. EPIC (UVA Hospital electronic chart),
 - iii. PACS (radiology film review)
 - iv. Velocity image processing and contouring software
 - v. BrachyVision, Variseed and Vitesse for brachytherapy treatment planning
 - vi. Radiation treatment planning systems for Varian and Tomotherapy treatment planning
- 3. Other Services:
The UVA GME meets and/or exceeds all ACGME institutional and other service requirements detailed by our RRC, including:
 - a. adequate medical services available in the specialties of medical oncology, surgical oncology, and pediatric oncology.
 - b. There must be access to current imaging techniques, PACS systems, nuclear medicine, pathology, a clinical laboratory, and a tumor registry.

E. Medical Information Access

Residents have ready access to specialty-specific and other appropriate reference material in print or electronic format. Electronic medical literature databases with search capabilities are available for the residents.

- 1. The sponsoring institution provides residents with:
 - a. ready access to a computerized search system
 - b. rapid access to national databases in medicine to permit timely literature review.
- 2. The Department provides:
 - a. textbooks for each resident (a radiobiology textbook, physics textbook, and a clinical oncology textbook, among others).
 - b. several up-to-date textbooks for onsite reference and study.

III. Resident Appointments

A. Eligibility Criteria

The Program Director must comply with the criteria for resident eligibility as specified in the Institutional Requirements (GME Policy [#02](#))

- 1. Eligibility Requirements – Residency Programs
 - a. All prerequisite post-graduate clinical education required for initial entry or transfer into ACGME-accredited residency programs, or in Royal College of Physicians and Surgeons of Canada (RCPSC)-accredited or College of Family Physicians of Canada (CFPC)-accredited residency programs located in Canada. Residency programs must receive verification of each applicant's level of competency in the required clinical field using ACGME or CanMEDS Milestones assessments from the prior training program.
 - b. A physician who has completed a residency program that was not accredited by ACGME, RCPSC, or CFPC may enter an ACGME- accredited residency program in the same specialty at the PGY-1 level and, at the discretion of the program director at the ACGME- accredited program may be advanced to the PGY-2 level based on ACGME Milestones assessments at the ACGME-accredited program. This provision applies only to entry into residency in those specialties for which an initial clinical year is not required for entry.

- c. A Review Committee may grant the exception to the eligibility requirements (specified in Section III.A.2.b) for residency programs that require completion of a prerequisite residency program prior to admission.
 - d. Review Committees will grant no other exceptions to these eligibility requirements for residency education.
 - e. Will require a completed ERAS application with Medical Student Performance Evaluation (formerly called the “Dean's Letter”) and transcript, and three letters of reference for each applicant; will participate in the National Resident Matching Program (NRMP) and adhere to its policies; and will use ERAS® (Electronic Residency Application System) to Match with trainee applicants and the SOAP program should the program not fill through the Match.
2. Eligibility Requirements – Fellowship Programs
- All required clinical education for entry into ACGME-accredited fellowship programs must be completed in an ACGME-accredited residency program, or in an RCPSC-accredited or CFPC-accredited residency program located in Canada.
- a. Fellowship programs must receive verification of each entering fellow’s level of competency in the required field using ACGME or CanMEDS Milestones assessments from the core residency program.
 - b. Fellow Eligibility Exception

A Review Committee may grant the following exception to the fellowship eligibility requirements:

An ACGME-accredited fellowship program may accept an exceptionally qualified applicant**, who does not satisfy the eligibility requirements listed in Sections III.A.2 and III.A.2.a, but who does meet all of the following additional qualifications and conditions:

 - i. Assessment by the program director and fellowship selection committee of the applicant’s suitability to enter the program, based on prior training and review of the summative evaluations of training in the core specialty; and
 - ii. Review and approval of the applicant’s exceptional qualifications by the GMEC or a subcommittee of the GMEC; and
 - iii. Satisfactory completion of the United States Medical Licensing Examination (USMLE) Steps 1, 2, and, if the applicant is eligible, 3, and;
 - iv. For an international graduate, verification of Educational Commission for Foreign Medical Graduates (ECFMG) certification; and,
 - v. Applicants accepted by this exception must complete fellowship Milestones evaluation (for the purposes of establishment of baseline performance by the Clinical Competency Committee), conducted by the receiving fellowship program within six weeks of matriculation. This evaluation may be waived for an applicant who has completed an ACGME International-accredited residency based on the applicant’s Milestones evaluation conducted at the conclusion of the residency program.
 - a) If the trainee does not meet the expected level of Milestones competency following entry into the fellowship program, the trainee must undergo a period of remediation, overseen by the Clinical Competency Committee and monitored by the GMEC or a subcommittee of the GMEC. This period of remediation must not count toward time in fellowship training.

**An exceptionally qualified applicant has (1) completed a non ACGME-accredited residency program in the core specialty, and (2) demonstrated clinical excellence, in comparison to peers, throughout training. Additional evidence of exceptional qualifications is required, which may include one of the following: (a) participation in additional clinical or research training in the specialty or subspecialty; (b) demonstrated scholarship in the specialty or subspecialty; (c) demonstrated leadership during or after residency training; (d) completion of an ACGME International-accredited residency program.
3. Qualified and selected applicants will be invited for an interview and applicants who are not selected for an interview will be notified of this decision.
- d. Applicants who are invited for an interview, are given the location of:

- i. the UVA Radiation Oncology web site which contains the information about the department
- ii. the UVA GME web site which contains the terms, conditions, and benefits of their appointment, including financial support, vacations, parental, sick, and other leaves of absence, professional liability, hospitalization, health, disability and other insurance provided for the residents and their families, the conditions under which the Sponsoring Institution provides call rooms, meals, laundry services, or their equivalents.
- e. Applicants who accept an interview date will meet with faculty and the current residents and will be provided with a tour of the departmental facilities.
- f. The Program Director (PD) is responsible for:
 - i. directing the Program Coordinator in organizing the interviews,
 - ii. discussion and review with the faculty regarding the scoring of the applicants and the applicant rank order list, and
 - iii. submitting the rank order list to the NRMP.

B. Number of Residents

The program's educational resources must be adequate to support the number of residents appointed to the program.

- 1. The program director may not appoint more residents than approved by the Review Committee, unless otherwise stated in the specialty-specific requirements.
 - a. Prior approval must be obtained from the Review Committee to increase the number of resident positions.
- 2. Each program must be structured to have a minimum of four residents.
- 3. The faculty (full-time equivalent staff radiation oncologist) to resident ratio must be a minimum of one faculty member for every one and a half residents during training in clinical radiation oncology.
- 4. Please refer to the GME website for most recent policies and procedures concerning resident employment; such as, contracts, leave, insurance, Step scores, etc.

C. Resident Transfers

- 1. Before accepting a resident who is transferring from another program, the Program Director must obtain written or electronic verification of previous educational experiences and a summative competency-based performance evaluation of the transferring resident.
 - a. In addition, having the program director of the initial program document the resident's successful completion of the training in the current program; nine-months of direct patient care in medical and/or surgical specialties other than radiation oncology; and confirming the resident's passing of Steps I, II (Part A and Part B) and III.
- 2. The Program Director must provide timely verification of residency education and summative competency-based performance evaluations for residents who may leave the UVA Radiation Oncology Program prior to completion.

D. Appointment of Fellows and Other Learners

The presence of other learners (including, but not limited to, medical students, residents from other specialties, subspecialty fellows, PhD students, and nurse practitioners) in the program must not interfere with the appointed residents' education.

- 1. The Program Director will report the presence of other learners to the DIO and GMEC in accordance with sponsoring institution guidelines (GME Policy [#13](#))

IV. Educational Program Curriculum

A. The curriculum contains the following educational components:

- 1. Overall educational goals (guidelines) for the program will be made available to the residents and faculty;
- 2. Competency-based goals and objectives for each assignment at each educational level will be distributed to the residents and faculty at least annually, in either written or electronic form and will be reviewed by the resident at the start of each rotation.

- a. These competencies will be achieved by residents and integrated into the curriculum through milestones as laid out in section [VII](#).
3. Regularly scheduled didactic sessions
 - a. Didactic sessions should be attended by residents, radiation oncologists, and other staff members;
 - b. The program must document that residents acquire knowledge and skills through instruction in the following areas: three-dimensional conformal radiation therapy, intensity-modulated radiation therapy, image-guided radiation therapy, stereotactic radiosurgery, stereotactic body radiotherapy, concurrent chemo-radiotherapy, intraoperative radiation therapy radioimmunotherapy, unsealed sources, total body irradiation therapy as used in stem-cell transplantation, total skin radiation therapy, high- and low-dose rate brachytherapy, and particle therapy.
 - c. The program must provide instruction in medical physics that includes practical demonstrations of radiation safety procedures, calibration of radiation therapy machines, the use of state-of-the-art-treatment planning systems, the application of treatment aids, and the safe handling of sealed and unsealed radionuclides.
 - d. The program must provide instruction in radiation and cancer biology that includes the molecular effects of ionizing radiation and radiation effects on normal and neoplastic tissues, as well as the fundamental biology of the causes, prevention, and treatment of cancer.
 - e. The program must ensure that there are intradepartmental clinical oncology conferences that cover the following topics: new patient management, patient safety, and, continuous quality improvement.
4. Delineation of the resident responsibilities for patient care, progressive responsibility for patient management, and supervision of residents over the continuum of the program;
5. ACGME Competencies

The program must integrate the following ACGME competencies into the curriculum:

 - a. Patient Care and Procedural Skills
 - i. Residents must be able to provide patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health.
 - ii. Residents must be able to competently perform all medical, diagnostic, and surgical procedures considered essential for the area of practice. Residents:
 - a) Must demonstrate competence in treating adult patients with conventionally-fractionated external beam radiation therapy;
 - b) must demonstrate competence in performing interstitial and intracavitary brachytherapy procedures;
 - c) must demonstrate competence in treating pediatric patients, including patients with solid tumors;
 - d) must demonstrate competence in the use of unsealed radioactive sources;
 - e) must demonstrate competence in follow-up care of irradiated patients, including pediatric patients; and,
 - f) must demonstrate competence in treating adult patients with stereotactic radiosurgery and stereotactic body radiation therapy
 - iii. Resident/s must keep a detailed, well-organized, and accurate ACGME electronic procedure log.
 - a) Patients should be counted as simulated by a resident if the resident was present and participated throughout the initial simulation and treatment planning process; the resident simulates and plans treatment of a new area on an established patient (for example a new metastasis, new primary, or recurrence).
 - b) 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,

- 2) this involves treatment of another area, or a substantial change in fields with a new isocenter.
 - 3) the simulation and planning were performed by staff members and the resident only saw the patient after he or she was on treatment;
 - 4) Another resident has counted the case on their log, unless (1) or (2) apply;
 - 5) The patient was seen in consult only
- iv. The resident must follow-up on the irradiated patients, including pediatric patients, on an inpatient or outpatient basis.
 - v. Residents are expected to check the Master Mosaiq schedule to arrive in clinic at the start of his/her patients' treatment each morning and stay in clinic until all of his/her patients have been treated.
 - vi. Residents are expected to gather essential and accurate information about their patients; make informed decisions about diagnostic and therapeutic intervention based on patient information and preferences, up to date scientific evidence, and clinical judgment; develop and carry out patient management plans; perform competently all medical and invasive procedures considered essential for the practice of radiation oncology; and, counsel and educate patients and their family.
- b. Medical Knowledge
- Residents must demonstrate knowledge of established and evolving biomedical, clinical, epidemiological, and social-behavioral sciences, as well as the application of this knowledge to patient care. Residents must demonstrate competence in their knowledge of:
- i. clinical radiation physics;
 - ii. radiation and cancer biology;
 - iii. medical statistics;
 - iv. clinical radiation oncology, including late effects on normal tissue; and,
 - v. radiation safety procedures.
- c. Practice-based Learning and Improvement
- Residents must demonstrate the ability to investigate and evaluate their care of patients, appraise and assimilate scientific evidence, and continuously improve patient care based on constant self-evaluation and life-long learning.
- Residents are expected to develop skills and habits to meet the following goals:
- i. identify strengths, deficiencies, and limits in one's knowledge and expertise;
 - ii. set learning and improvement goals;
 - iii. identify and perform appropriate learning activities;
 - iv. systematically analyze practice using quality improvement methods, and implement changes with the goal of practice improvement;
 - v. incorporate formative evaluation feedback into daily practice;
 - vi. locate, appraise, and assimilate evidence from scientific studies related to their patients' health problems;
 - vii. use information technology to optimize learning; and,
 - viii. participate in the education of patients, families, students, residents, and other health professionals.
- d. Interpersonal and Communication Skills
- Residents must demonstrate interpersonal and communication skills that result in the effective exchange of information and collaboration with patients, their families, and health professionals.
- Residents are expected to:
- i. communicate effectively with patients, families, and the public, as appropriate across a broad range of socioeconomic and cultural backgrounds;
 - ii. communicate effectively with physicians, other health professionals, and health related agencies;
 - iii. work effectively as a member or leader of a health care team or other professional group;
 - iv. act in a consultative role to other physicians and health professionals; and

- v. maintain comprehensive and timely medical records, if applicable.
 - e. Professionalism
Residents must demonstrate a commitment to carrying out professional responsibilities and an adherence to ethical principles.
Residents are expected to demonstrate:
 - i. compassion, integrity, and respect for others;
 - ii. responsiveness to patient needs that supersedes self-interest;
 - iii. respect for patient privacy and autonomy;
 - iv. accountability to patients, society and the profession; and,
 - v. sensitivity and responsiveness to a diverse patient population, including but not limited to diversity in gender, age, culture, race, religion, disabilities, and sexual orientation.
 - vi. a commitment to ethical principles pertaining to provision or withholding of clinical care confidentiality of patient information, informed consent, and business practice
 - f. Systems-based Practice
Residents must demonstrate an awareness of and responsiveness to the larger context and system of health care, as well as the ability to call effectively on other resources in the system to provide optimal health care.
Residents are expected to:
 - i. work effectively in various health care delivery settings and systems relevant to their clinical specialty;
 - ii. coordinate patient care within the health care system relevant to their clinical specialty;
 - iii. incorporate considerations of cost awareness and risk-benefit analysis in patient and/or population-based care as appropriate;
 - iv. advocate for quality patient care and optimal patient care systems;
 - v. work in interprofessional teams to enhance patient safety and improve patient care quality; and,
 - vi. participate in identifying system errors and implementing potential systems solutions.
 - vii. understand how their patient care and other professional practices affect other health care professionals, the health care organizations, the larger society, and their own practice.
 - viii. demonstrate how to practice cost effective health care and resource allocation that does not compromise quality of care.
 - g. These competency milestone expectations will be used in faculty evaluations of the trainees; the semi-annual evaluations and reviews provided by the Program Director; and Mock Oral Examinations.
 - h. The competencies will be taught through didactic, physics, radiobiology, and biostatistics lectures, seminars (invited guest radiation oncologists and Cancer Center Seminars), conferences (M&M conference and multi-specialty tumor boards), role modeling of faculty, simulation/treatment planning of radiation treatments, peer review of simulations through SIM/Journal Conference, manuscript reading lists, self-directed learning through text books, mentored research projects, and individual mentoring of junior residents.
6. Curriculum Organization and Resident Experiences
- a. The first year of post-graduate clinical education must be spent in internal medicine, family medicine, obstetrics and gynecology, surgery or surgical specialties, pediatrics, or a transitional year program, and must include at least nine months of direct patient care in medical and/or surgical specialties other than radiation oncology.
 - b. The year of clinical education must be followed by forty-eight months in an ACGME accredited radiation oncology program.
 - c. No fewer than 36 months must be spent in clinical radiation oncology.
 - i. Holman Pathway residents must complete no fewer than Radiation Oncology 27 months of clinical radiation oncology.
 - d. Residents must have experience with lymphomas and leukemias; gastrointestinal, gynecologic, genitourinary, breast, soft tissue and bone, skin, head and neck, lung, pediatric,

- and central nervous system tumors; and treatment of benign diseases for which radiation is utilized.
- e. Each resident must treat at least 450 patients with external beam radiation therapy.
 - i. Holman Pathway residents must treat 350 patients.
 - ii. A resident should treat no more than 250 patients with external beam radiation therapy in any one year.
 - f. Each resident must perform at least 5 interstitial and 15 intracavitary brachytherapy procedures.
 - i. Plaque Brachytherapy cases and breast brachytherapy cases that involve a medical device [e.g., Mammosite, SAVI Accelerated Partial Breast Irradiation (APBI), Contura] will be considered interstitial.
 - ii. Interstitial implants constitutes any application of radioactive needles, wires, or seeds directly into a tumor volume or into catheters placed in a tumor volume (e.g. prostate brachytherapy, etc.); any application of sealed or unsealed sources into a catheter preplaced directly into tissue (non-natural body cavity or non-natural lumen) (e.g. breast balloons, GilaSite® applications, etc.); and surface molds.
 - iii. Intracavitary implants is any LDR or HDR application into a natural body cavity or lumen, whether direct or into a pre-placed applicator (e.g. endobronchial, biliary, cervix, endometrial, etc.)
 - iv. www.theabr.org/BrachyRequirementsPolicy.pdf
 - v. Resident involvement should include planning, review of dosimetry, and hands-on participation in a significant portion of the implantation procedure. Separate applications of an implant in a given patient (such as two separate intracavitary applications) may be counted as two separate procedures. However, multiple fractions of a single application (such as multiple fractions of an interstitial implant) may be counted only once. Also, only one resident may count a specific brachytherapy application in a given patient.
 - g. Each resident must treat at least 12 pediatric patients, including at least 9 patients with solid tumors.
 - i. Programs may satisfy pediatric requirements through outside rotations by the program director submitting the following information at the time of the site visit:
 - a) a signed letter of agreement with the outside (participating) institution;
 - b) an annual summary of the total number of pediatric patients simulated at the outside institution and an accounting of all radiation oncology residents who are assigned to rotations at this institution.
 - ii. Programs may supplement their residents' pediatric experience with long term follow-up clinics and with pediatric oncology rotations at the primary site.
 - iii. The RRC is ultimately assessing the participation of the resident in the radiation treatment planning and delivery of radiation treatment to children
 - h. Each resident must demonstrate the requisite skills in successfully treating at least 20 patients with intracranial stereotactic radiosurgery and at least 10 patients with stereotactic body radiation therapy to the liver, lung, spine, or other extracranial sites.
 - i. These may be delivered by a variety of available technologies using image guided stereotactic localization procedures; and may be administered in a single fraction or extended to a maximum of five fractions.
 - ii. More protracted courses of stereotactic radiation should be classified as external beam radiation cases.
 - i. Each resident must demonstrate the requisite knowledge and skills in the administration of at least six procedures using radioimmunotherapy, other targeted therapeutic radiopharmaceuticals, or unsealed sources.

Of the six procedures:

 - i. Oral I-131 ≥ 33 mCi: A minimum of three procedures must include the oral administration of I-131 with administered activity equal to or in excess of 1.22

- Gigabecquerels (33 mCi). Conditions may be either benign or malignant but the counted administration must be for therapeutic intent.
- ii. Parenteral unsealed source: A minimum of three procedures must include a parenteral administration with therapeutic intent for a diagnosis of malignancy.
 - iii. This experience must be obtained under the supervision of an authorized user.
 - iv. In radiation oncology, administration of diagnostic doses of radioactive sources, orally or parenterally, does not qualify for this component.
 - v. The residents will keep a separate log of the 6 cases ([Oral I-131 & Parenteral Administration Log](#)), signed by the authorized user, which will be part of the resident's permanent record as a hard copy of the log will be required to take the oral exam, for future licensure, and if any questions arise to document that current training qualifies graduating residents as authorized users, but the training does not provide the license.
 - vi. After training, each resident will need to get licensed from the NRC to perform these procedures. The NRC will administer the license, and will require the log to confirm your experience was performed under an authorized user.
 - vii. A graduate resident needs to apply to the NRC for a license through a local facility, or through applications submitted generally to an institution's radiation safety office. Once the resident fulfills the six case requirement, it is expected that he/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.
 - viii. The resident must be present when the isotope is delivered and should understand the precautions and follow-up procedure.
 - ix. Ultimately it is the authorized user who really determines the satisfactory "participation" of the trainee and signs the form as satisfactory completed. Per NRC mandated guidelines, in order for a radiation oncologist to be considered an "authorized user" he/she must demonstrate a "formal experience" with unsealed sources and participate in unsealed source procedures as formally included in the residency training requirements.
 - j. The program must educate resident physicians in adult medical oncology, pediatric medical oncology, oncologic pathology, and diagnostic imaging in a way that is applicable to the practice of radiation oncology.
 - i. There are multiple ways to meet this requirement:
 - a) Provide a two-month rotation in medical oncology to include adult and pediatric patients, as well as a one-month rotation in both oncologic pathology and diagnostic imaging, or
 - b) Document attendance at regularly-scheduled Radiation Oncology multidisciplinary patient disposition conferences (at least four hours per month during the clinical rotations).
 - ii. To satisfy the requirement for education in one of these areas, it must be documented that a board certified physician in the applicable field participated in the conference.

B. Residents' Scholarly Activities

1. The curriculum must advance residents' knowledge of the basic principles of research, including how research is conducted, evaluated, explained to patients, and applied to patient care.
2. Residents should participate in scholarly activity.
 - a. Residents must complete an investigative project under faculty member supervision.
 - i. Projects should take the form of biological laboratory research, clinical research, translational research, medical physics research, or other research approved by the program director.
 - ii. The results of such projects should be suitable for publication in a peer-reviewed scholarly journals or presentation at scientific meetings.
 - iii. 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, lectures delivered, as part of the

core curriculum within the sponsoring institution, would not be considered scholarly activity.

3. The sponsoring institution and program should allocate adequate educational resources to facilitate resident involvement in scholarly activities.
 4. There will be an annual research award – Roentgen Resident/Fellow Research Award
- C. As the resident shows proficiency in the radiation oncology skills, he/she will be given more responsibility.
1. At the completion of the four-year program the resident should be fully capable of functioning independently as a radiation oncologist and able to develop their own system of continuing education.

V. Residency Evaluation Process

A. Resident Evaluation

1. The program director must appoint the Clinical Competency Committee.
 - a. At a minimum the Clinical Competency Committee must be composed of three members of the program faculty.
 - i. The program director may appoint additional members of the CCC.
 - a) These additional members must be physician faculty members from the same program or other programs, or other health professionals who have extensive contact and experience with the program's residents in patient care and other health care settings.
 - b) Chief residents who have completed core residency programs in their specialty and are eligible for specialty board certification may be members of the CCC.
 - b. There must be a written description of the responsibilities of the CCC.
 - i. The Clinical Competency Committee should:
 - a) review all resident evaluations semi-annually;
 - b) prepare and assure the reporting of Milestones evaluations of each resident semi-annually to ACGME; and,
 - c) advise the program director regarding resident progress, including promotion, remediation, and dismissal.
2. Formative Evaluation
 - a. Faculty must evaluate resident performance in a timely manner during each rotation or similar educational assignment, and document this evaluation at completion of the assignment. This will be done anonymously in the New Innovations (NI) system.
 - b. The program must:
 - i. provide objective assessments of competence in patient care, medical knowledge, practice-based learning and improvement, interpersonal and communication skills, professionalism, and systems-based practice based on the specialty specific Milestones;
 - ii. use multiple evaluators (e.g. faculty, peers, patients, self, and other professional staff);
 - iii. document progressive resident performance improvement appropriate to educational level; and,
 - iv. provide each resident with documented semi-annual evaluation of performance with feedback.
 - c. The evaluations of resident performance must be accessible for review by the resident, in accordance with institutional policy.
 - d. Once a month after Sim Conference the attending and resident will spend fifteen minutes of uninterrupted time discussing the weaknesses and strengths of the resident within the rotation, what needs to improve before the end of the rotation, setting goals to be reviewed at the end of the rotation; except during the elective rotations.
 - e. Faculty will evaluate residents via monthly [mock oral examinations](#) based on their expected milestone achievements in the areas of patient care and medical knowledge, by scoring the cases on a 1 to 5 scale (correlating with the NAS way of scoring).
 - i. Faculty will be responsible for the following mock oral examination topics:

- a) Showalter: GU, Peds
 - b) Read: Head & Neck, Lymphoma
 - c) Lerner: CNS, Lung
 - d) Janowski: GI, Breast
 - e) Khandelwal: Sarcoma
 - f) Romano: GYN
3. Summative Evaluation
- a. The specialty-specific Milestones must be used as one of the tools to ensure residents are able to practice core professional activities without supervision upon completion of the program.
 - b. The program director must provide a summative evaluation for each resident upon completion of the program.
This evaluation must:
 - i. become part of the resident's permanent record maintained by the institution, and must be accessible for review by the resident in accordance with institutional policy;
 - ii. document the resident's performance during the final period of education; and,
 - iii. verify that the resident has demonstrated sufficient competence to enter practice without direct supervision.
 - iv. verify successful completion of departmental, institutional, ACGME, and NRC requirements for ABR board eligibility
 - c. The Program Director and resident will meet at the completion of the residency to review the evaluation and have it signed by the resident, Program Director and Clinical Competency Committee Chair. Then it will be copied and given to the resident, the UVA GME office, and the original will be placed in the resident's permanent file.
4. Staff 360 Degree Evaluation of the Resident
- a. Representatives from Dosimetry, Therapy, Physics, and the nursing staff will evaluate the residents during the semi-annual CCC meetings.
 - b. Residents will complete peer evaluations through New Innovations annually.
5. Program Director Evaluation of the Resident
- a. The Program Director and resident will meet semi-annually to:
 - i. Review, verify, and sign the ACGME patient logs.
 - ii. Review and sign resident summary of evaluations and provide an opportunity for them to respond to their evaluations.
 - iii. Review oral examination scores, ACR In-service examination scores, Raphex scores, ABR board scores as appropriate.
 - iv. Openly discuss any resident concerns, complaints, or grievances that they might have with the Residency Program, Institution, or the specific faculty; and any resident concerns about their fatigue or stress levels which are interfering with their well-being or with patient care.
 - v. Develop an improvement plan to correct deficiencies by the program director and resident if significant deficits are reported with a plan for re-evaluation at three months or sooner.
 - b. The Program Director will document the evaluation with a formal letter signed by the resident, the Program Director, and the Clinical Competency Committee Chair.
 - c. Evaluations will be reviewed by the Clinical Competency Committee and available for the resident to review.
6. All resident performance evaluations will be:
- a. Accessible for review by the resident at all times, in accordance with institutional policy.
 - b. Maintained in a hard-copy record for residents with academic or other performance problems because the electronic evaluation parameters may not be appropriate or sufficient in cases where remediation, probation, non-renewal or dismissal needs to be documented.
 - c. Available during the site visit with the goal of allowing site visitors to verify the existence of a functioning evaluation process, as evidence that the evaluations were discussed and reviewed

with the resident, by the traditional paper-based evaluation forms or print-outs of electronic evaluations.

B. Faculty Evaluation

1. At least annually, the program must evaluate faculty performance as it relates to the educational program. (This will be satisfied by the PEC).
2. These evaluations should include a review of the faculty's CV, clinical teaching abilities, commitment to the educational program as documented by attendance at conferences, clinical knowledge, professionalism, and scholarly activities.
3. This evaluation must include at least annual written confidential evaluations of the faculty by the residents.
4. The PEC will define any faculty deficiencies and report them to the department chair, who will address issues during the annual faculty evaluations.
5. The faculty evaluations will be reviewed by the Residency Review Committee and if there are deficiencies or areas that could be improved the Committee will create an action plan with specified times for re-evaluation.
6. The residents are required to anonymously evaluate the Faculty annually in NI. The residency coordinator will print an annual summary report for the end-of-year PEC meeting. The summary reports of the evaluations will provide feedback on how well the Faculty are meeting the needs of the resident in his/her achievement of the competency milestones and be reviewed by the PEC.

C. Program Evaluation and Improvement

1. The program director must appoint the Program Evaluation Committee (PEC).
 - a. The Program Evaluation Committee:
 - i. must be composed of at least two program faculty members and should include at least one resident;
 - ii. must have a written description of its responsibilities; and,
 - iii. should participate actively in:
 - a) planning, developing, implementing, and evaluating educational activities of the program;
 - b) reviewing and making recommendations for revision of competency-based curriculum goals and objectives;
 - c) addressing areas of non-compliance with ACGME standards; and,
 - d) reviewing the program annually using evaluations of faculty, residents, and others, as specified below.
2. The program, through the PEC, must document formal, systematic evaluation of the curriculum at least annually, and is responsible for rendering a written and Annual Program Evaluation (APE). The program must monitor and track the following areas:
 - a. resident performance;
 - b. faculty development;
 - c. graduate performance, including performance of program graduates on the certification examination;
 - i. Sixty percent of the program's graduates from the preceding five years taking the American Board of Radiation certifying examination for the first time must pass.
 - d. program quality; and,
 - i. Residents and faculty must have the opportunity to evaluate the program confidentially and in writing at least annually, and
 - ii. The program must use the results of residents' and faculty members' assessments of the program together with other program evaluation results to improve the program.
 - e. progress on the previous year's action plan(s).
3. The PEC must prepare a written plan of action to document initiatives to improve performance in one or more of the areas listed in section V.C.2., as well as delineate how they will be measured and monitored.
 - a. The action plan should be reviewed and approved by the teaching faculty and documented in meeting minutes.

4. Resident Evaluation of the Program
 - a. The residents are required to anonymously evaluate the Program annually.
 - b. The residents are encouraged to provide positive or negative feedback of the Program to the Program Director at any time and this information is solicited during the semi-annual meeting of the Program Director with the resident.
 - c. These evaluations will provide feedback as to how well the Program is meeting the needs of the resident in his/her achievement of the competency milestones and will be reviewed by the Program Evaluation Committee.
5. Faculty Evaluation of the Program will be done anonymously each year.
6. UVA GME Evaluation of the Program
 - a. The UVA GMEC develops, implements, and oversees an internal review process.
 - b. Internal reviews must be in process at the approximate midpoint of the ACGME accreditation cycle and documented in the GMEC minutes.
 - i. The GMEC will approve the written report of the internal review committee for each program.
 - ii. The DIO and the GMEC must monitor the response by the program to actions recommended by the GMEC in the internal review process.
 - iii. The accreditation cycle is calculated from the date of the meeting at which the final accreditation action was taken to the time of the next site visit.
 - iv. The internal review shall assess each program per the institutional guidelines.
 - c. Internal Review Report
 - i. The Sponsoring Institution must submit the most recent internal review report for each training program as a part of the Institutional Review Document (IRD).
 - ii. The Program Evaluation Committee will develop an action plan to address any citations and respond to the GME report within the specified time interval.
7. ACGME Evaluation of the Program
 - a. The Radiation Oncology Review Committee (RRC) of the ACGME will perform an external review of the Program to determine its accreditation status of the program.
 - i. The ACGME will report any citations and the Residency Program Evaluation Committee will develop an action plan to address any citations and respond to the ACGME report within the specified time interval with a letter co-signed by the DIO.
 - b. The RRC considers all aspects of a programs performance, including
 - i. program data for the most recent 5- and 10-year periods, performance on the written and oral examinations, the number of failures and conditions, and any trends toward improvement. Programs that fall in the lowest 25th percentile are cited for poor performance. In general, the programs that fall below the 25th percentile have failed to pass more than half of the residents taking the examination in a five-year period.
 - ii. compliance to ACGME and Institutional requirements
 - iii. compliance of didactic and clinical education having a priority in the allotment of residents' time and energy
 - iv. Duty hour assignments, being collectively recognized by faculty and residents as necessary for the safety and welfare of patients, will be tracked by the UVA GME electronic residency system (New Innovations) one month annually, in October.

VI. The Learning and Working Environment

Residency education must occur in the context of a learning and working environment that emphasizes the following principles:

- Excellence in the safety and quality of care rendered to patients by residents today
- Excellence in the safety and quality of care rendered to patients by today's residents in their future practice
- Excellence in professionalism through faculty modeling of:

- the effacement of self-interest in a humanistic environment that supports the professional development of physicians
- the joy of curiosity, problem-solving, intellectual rigor, and discovery
- Commitment to the well-being of the students, residents, faculty members, and all members of the health care team

A. Patient Safety, Quality Improvement, Supervision, and Accountability

1. Patient Safety and Quality Improvement

All physicians share responsibility for promoting patient safety and enhancing quality of patient care. Graduate medical education must prepare residents to provide the highest level of clinical care with continuous focus on the safety, individual needs, and humanity of their patients. It is the right of each patient to be cared for by residents who are appropriately supervised; possess the requisite knowledge, skills, and abilities; understand the limits of their knowledge and experience; and seek assistance as required to provide optimal patient care.

Residents must demonstrate the ability to analyze the care they provide, understand their roles within health care teams, and play an active role in system improvement processes. Graduating residents will apply these skills to critique their future unsupervised practice and effect quality improvement measures.

It is necessary for residents and faculty members to consistently work in a well-coordinated manner with other health care professionals to achieve organizational patient safety goals.

a. Patient Safety

i. Culture of Safety

A culture of safety requires continuous identification of vulnerabilities and a willingness to transparently deal with them. An effective organization has formal mechanisms to assess the knowledge, skills, and attitudes of its personnel toward safety in order to identify areas for improvement.

- a) The program, its faculty, residents, and fellows must actively participate in patient safety systems and contribute to a culture of safety.
- b) The program must have a structure that promotes safe, interprofessional, team-based care.

ii. Education on Patient Safety

Programs must provide formal educational activities that promote patient safety-related goals, tools, and techniques.

The UVA GME Core Lecture Series addresses this topic every year. In addition, the residency curriculum includes the new 2 days devoted to patient safety in radiation oncology using the IAEA eLearning curriculum and small group format with Dr. Showalter. Residents will continue to be engaged in newsletter contributions for the American Brachytherapy Society Patient Safety corner, an educational forum.

iii. Patient Safety Events

Reporting, investigation, and follow-up of adverse events, near misses, and unsafe conditions are pivotal mechanisms for improving patient safety, and are essential for the success of any patient safety program. Feedback and experiential learning are essential to developing true competence in the ability to identify causes and institute sustainable systems-based changes to ameliorate patient safety vulnerabilities.

- a) Residents, fellows, faculty members, and other clinical staff members must:

- 1) know their responsibilities in reporting patient safety events at the clinical site;
- 2) know how to report patient safety events, including near misses, at the clinical site; and,
- 3) be provided with summary information of their institution's patient safety reports

- b) Residents must participate as team members in real and/or simulated interprofessional clinical patient safety activities, such as root cause analyses or other activities that include analysis, as well as formulation and implementation of actions.

This includes both Be Safe reporting and analyses and near-miss events discussed in Sim Conference.

iv. Resident Education and Experience in Disclosure of Adverse Events

Patient-centered care requires patients, and when appropriate families, to be apprised of clinical situations that affect them, including adverse events. This is an important skill for faculty physicians to model, and for residents to develop and apply.

- a) All residents must receive training in how to disclose adverse events to patients and families.
- b) The UVA GME Core Lecture Series addresses this topic every year.
- c) Residents should have the opportunity to participate in the disclosure of patient safety events, real or simulated.

b. Quality Improvement

i. Education in Quality Improvement

A cohesive model of health care includes quality-related goals, tools, and techniques that are necessary in order for health care professionals to achieve quality improvement goals.

- a) Residents must receive training and experience in quality improvement processes, including an understanding of health care disparities.

ii. Quality Metrics

Access to data is essential to prioritizing activities for care improvement and evaluating success of improvement efforts.

- a) Residents and faculty members must receive data on quality metrics and benchmarks related to their patient populations.

iii. Engagement in Quality Improvement Activities

Experiential learning is essential to developing the ability to identify and institute sustainable systems-based changes to improve patient care.

- a) Residents must have the opportunity to participate in interprofessional quality improvement activities.

- 1) This should include activities aimed at reducing health care disparities.

- 2) The UVA GME Core Lecture Series addresses this topic every year.

2. Supervision and Accountability

- a. Although the attending physician is ultimately responsible for the care of the patient, every physician shares in the responsibility and accountability for their efforts in the provision of care. Effective programs, in partnership with their Sponsoring Institutions, define, widely communicate, and monitor a structured chain of responsibility and accountability as it relates to the supervision of all patient care.

Supervision in the setting of graduate medical education provides safe and effective care to patients; ensures each resident's development of the skills, knowledge, and attitudes required to enter the unsupervised practice of medicine; and establishes a foundation for continued professional growth.

- i. Each patient must have an identifiable, appropriately-credentialed and privileged attending physician (or licensed independent practitioner as specified by the applicable Review Committee) who is ultimately responsible and accountable for the patient's care.

- a) This information must be available to residents, faculty members, other members of the health care team, and patients.

- b) Residents and faculty members must inform each patient of their respective roles in that patient's care when providing direct patient care.

- b. Supervision may be exercised through a variety of methods. For many aspects of patient care, the supervising physician may be a more advanced resident or fellow. Other portions of care provided by the resident can be adequately supervised by the immediate availability of the supervising faculty member, fellow, or senior resident physician, either on site, or by means of telephonic and/or electronic modalities. Some activities require the physical presence of the supervising faculty member. In some circumstances, supervision may include post-hoc review of resident-delivered care with feedback.

- i. The program must demonstrate that the appropriate level of supervision in place for all residents is based on each resident's level of training and ability, as well as patient complexity and acuity. Supervision may be exercised through a variety of methods, as appropriate to the situation.
 - a) Residents will not be allowed to approve images for image guided radiation therapy without direct supervision of a resident with these privileges or a faculty member until they are deemed competent and granted this privilege by the Program Director. The faculty members are ultimately responsible for approval of all images obtained to guide radiation therapy.
 - b) Residents will not be allowed to insert or remove brachytherapy sources without direct supervision of a resident with these privileges or a faculty member until they are deemed competent and granted this privilege by the Director of Brachytherapy and Program Director.
- c. Levels of Supervision

To promote oversight of resident supervision while providing for graded authority and responsibility, the program must use the following classification of supervision:

 - i. Direct Supervision – the supervising physician is physically present with the resident and patient.
 - ii. Indirect Supervision –
 - a) with Direct Supervision immediately available – the supervising physician is physically within the hospital or other site of patient care, and is immediately available to provide Direct Supervision.
 - b) with direct supervision available – the supervising physician is not physically present within the hospital or other site of patient care, but is immediately available by means of telephonic and/or electronic modalities, and is available to provide Direct Supervision.
 - iii. Oversight – the supervising physician is available to provide review of procedures/encounters with feedback provided after care is delivered.
- d. The privilege of progressive authority and responsibility, conditional independence, and a supervisory role in patient care delegated to each resident must be assigned by the program director and faculty members.
 - i. The program director must evaluate each resident's abilities based on specific criteria, guided by the milestones.
 - ii. Faculty members functioning as supervising physicians must delegate portions of care to residents, based on the needs of the patient and the skills of each resident.
 - iii. Senior residents or fellows should serve in a supervisory role of junior residents in recognition of their progress toward independence, based on the needs of each patient and the skills of the individual resident or fellow.
- e. Programs must set guidelines for circumstances and events in which residents must communicate with the supervising faculty member(s).
 - i. Each resident must know the limits of their scope of authority, and the circumstances under which the resident is permitted to act with conditional independence.
 - a) Initially, PGY-1 residents must be supervised either directly or indirectly with direct supervision immediately available. [Each Review Committee may describe the conditions and achieved competencies under which PGY-1 residents progress to be supervised indirectly with direct supervision available.]
- f. Faculty supervision assignments must be of sufficient duration to assess the knowledge and skills of each resident and delegate to him/her the appropriate level of patient care authority and responsibility.

B. Professionalism

1. Programs, in partnership with their sponsoring institutions, must educate residents and faculty members concerning the professional responsibilities of physicians, including their obligation to be appropriately rested and fit to provide the care required by their patients.

2. The learning objectives of the program must:
 - a. be accomplished through an appropriate blend of supervised patient care responsibilities, clinical teaching, and didactic educational events;
 - b. be accomplished without excessive reliance on residents to fulfill non-physician obligations; and,
 - c. ensure manageable patient care responsibilities.
3. The program director, in partnership with the sponsoring institution, must provide a culture of professionalism that supports patient safety and personal responsibility.
4. Residents and faculty members must demonstrate an understanding of their personal role in the:
 - a. provision of patient- and family-centered care;
 - b. safety and welfare of patients entrusted to their care, including the ability to report unsafe conditions and adverse events;
 - c. assurance of their fitness for work, including:
 - i. management of their time before, during, and after clinical assignments; and,
 - ii. recognition of impairment, including illness, fatigue, and substance abuse, in themselves, their peers, and other members of the health care team.
 - d. commitment to lifelong learning;
 - e. the monitoring of their patient care performance improvement indicators; and,
 - f. accurate reporting of clinical and educational work hours, patient outcomes, and clinical experience data.
5. All residents and faculty members must demonstrate responsiveness to patient needs that supersedes self-interest. This includes the recognition that under certain circumstances, the best interests of the patient may be served by transitioning that patient's care to another qualified and rested provider.
6. Programs must provide a professional, respectful, and civil environment that is free from mistreatment, abuse, or coercion of students, residents, faculty, and staff. Programs, in partnership with their Sponsoring Institutions, should have a process for education of residents and faculty regarding unprofessional behavior and a confidential process for reporting, investigating, and addressing such concerns.
7. The GME will provide a healthy and safe educational and work environment in which residents may raise and resolve issues without fear of intimidation or retaliation. Mechanisms to ensure this environment must include:
 - a. An organization or other forum for residents to communicate and exchange information on their educational and work environment, their programs, and other resident issues.
 - b. A process by which individual residents can address concerns in a confidential and protected manner.
8. Vendor interactions shall adhere to "Medical Center Policy 0013" which can be found at <http://www.healthsystem.virginia.edu/docs/manuals/policies/mc>

C. Well-Being

In the current health care environment, residents and faculty members are at increased risk for burnout and depression. Psychological, emotional, and physical well-being are critical in the development of the competent, caring, and resilient physician. Self-care is an important component of professionalism; it is also a skill that must be learned and nurtured in the context of other aspects of residency training. Programs, in partnership with their Sponsoring Institutions, have the same responsibility to address well-being as they do to evaluate other aspects of resident competence.

1. This responsibility must include:
 - a. efforts to enhance the meaning that each resident finds in the experience of being a physician, including protecting time with patients, minimizing non-physician obligations, providing administrative support, promoting progressive autonomy and flexibility, and enhancing professional relationships;
 - b. attention to scheduling, work intensity, and work compression that impacts resident well-being;
 - c. evaluating workplace safety data and addressing the safety of residents and faculty members;

- d. policies and programs that encourage optimal resident and faculty member well-being; and,
 - i. Residents must be given the opportunity to attend medical, mental health, and dental care appointments, including those scheduled during their working hours.
- e. attention to resident and faculty member burnout, depression, and substance abuse. The program, in partnership with its Sponsoring Institution, must educate faculty members and residents in identification of the symptoms of burnout, depression, and substance abuse, including means to assist those who experience these conditions. Residents and faculty members must also be educated to recognize those symptoms in themselves and how to seek appropriate care. The program, in partnership with its Sponsoring Institution, must:
 - i. encourage residents and faculty members to alert the program director or other designated personnel or programs when they are concerned that another resident, fellow, or faculty member may be displaying signs of burnout, depression, substance abuse, suicidal ideation, or potential for violence;
 - ii. provide access to appropriate tools for self-screening; and,
 - iii. provide access to confidential, affordable mental health assessment, counseling, and treatment, including access to urgent and emergent care 24 hours a day, seven days a week.
- 2. There are circumstances in which residents may be unable to attend work, including but not limited to fatigue, illness, and family emergencies. Each program must have policies and procedures in place that ensure coverage of patient care in the event that a resident may be unable to perform their patient care responsibilities. These policies must be implemented without fear of negative consequences for the resident who is unable to provide the clinical work.

D. Fatigue Mitigation

- 1. Programs must:
 - a. educate all faculty members and residents to recognize the signs of fatigue and sleep deprivation;
 - b. educate all faculty members and residents in alertness management and fatigue mitigation processes; and,
 - c. encourage residents to use fatigue mitigation processes to manage the potential negative effects of fatigue on patient care and learning.
 - d. The UVA GME Core Lecture Series addresses this topic every year.
- 2. Each program must ensure continuity of patient care, consistent with the program's policies and procedures referenced in VI.C.2, in the event that a resident may be unable to perform their patient care responsibilities due to excessive fatigue.
- 3. The program, in partnership with its sponsoring institution, must ensure adequate sleep facilities and safe transportation options for residents who may be too fatigued to safely return home.

E. Clinical Responsibilities, Teamwork, and Transitions of Care

- 1. Clinical Responsibilities

The clinical responsibilities for each resident must be based on PGY-level, patient safety, resident ability, severity and complexity of patient illness/condition and available support services.
- 2. Teamwork

Residents must care for patients in an environment that maximizes communication. This must include the opportunity to work as a member of effective interprofessional teams that are appropriate to the delivery of care in the specialty and larger health system.

 - a. Interprofessional teams within the department should include radiation oncologists, medical physicists, radiation therapists, dosimetrists, nurses, dietitians and social workers.
 - b. Interprofessional teams outside of the department should include surgical oncologists, medical oncologists, radiologists, pathologists and primary care physicians.
- 3. Transitions of Care
 - a. Programs must design clinical assignments to optimize transitions in patient care, including their safety, frequency, and structure.

- b. Programs, in partnership with their sponsoring institutions, must ensure and monitor effective, structured hand-over processes to facilitate both continuity of care and patient safety.
- c. Programs must ensure that residents are competent in communicating with team members in the hand-over process.
- d. Programs and clinical sites must maintain and communicate schedules of attending physicians and residents currently responsible for care.
- e. Each program must ensure continuity of patient care, consistent with the program's policies and procedures referenced in VI.C.2, in the event that a resident may be unable to perform their patient care responsibilities due to excessive fatigue or illness, or family emergency.
- f. [Radiation Oncology Policy on Transition of Care](#)

F. Clinical Experience and Education

Programs, in partnership with their Sponsoring Institutions, must design an effective program structure that is configured to provide residents with educational and clinical experience opportunities, as well as reasonable opportunities for rest and personal activities.

1. **Maximum Hours of Clinical and Educational Work per Week**
Clinical and educational work hours must be limited to no more than 80 hours per week, averaged over a four-week period, inclusive of all in-house clinical and educational activities, clinical work done from home, and all moonlighting.
2. **Mandatory Time Free of Clinical Work and Education**
 - a. The program must design an effective program structure that is configured to provide residents with educational opportunities, as well as reasonable opportunities for rest and personal well-being.
 - b. Residents should have eight hours off between scheduled clinical work and education periods.
 - i. There may be circumstances when residents choose to stay to care for their patients or return to the hospital with fewer than eight hours free of clinical experience and education. This must occur within the context of the 80- hour and the one-day-off-in-seven requirements.
 - c. Residents must have at least 14 hours free of clinical work and education after 24 hours of in-house call.
 - d. Residents must be scheduled for a minimum of one day in seven free of clinical work and required education (when averaged over four weeks). At-home call cannot be assigned on these free days.
3. **Maximum Clinical Work and Education Period Length**
 - a. Clinical and educational work periods for residents must not exceed 24 hours of continuous scheduled clinical assignments.
 - i. Up to four hours of additional time may be used for activities related to patient safety, such as providing effective transitions of care, and/or resident education.
 - a) Additional patient care responsibilities must not be assigned to a resident during this time.
4. **Clinical and Educational Work Hour Exceptions**
 - a. In rare circumstances, after handing off all other responsibilities, a resident, on their own initiative, may elect to remain or return to the clinical site in the following circumstances:
 - i. to continue to provide care to a single severely ill or unstable patient;
 - ii. humanistic attention to the needs of a patient or family; or,
 - iii. to attend unique educational events.
 - b. These additional hours of care or education will be counted toward the 80-hour weekly limit.
 - c. A Review Committee may grant rotation-specific exceptions for up to 10% or a maximum of 88 clinical and educational work hours to individual programs based on a sound educational rationale. (The Review Committee for Radiation Oncology will not consider requests for exceptions to the 80-hour limit to the residents' work week).

- i. In preparing a request for an exception the program director must follow the clinical and educational work hour exception policy from the *ACGME Manual on Policies and Procedures*.
- ii. Prior to submitting the request to the Review Committee, the program director must obtain approval from the sponsoring institution's GMEC and DIO.

5. Moonlighting

- a. Moonlighting must not interfere with the ability of the resident to achieve the goals and objectives of the educational program and must not interfere with the resident's fitness for work nor compromise patient safety.
- b. Time spent by residents in Internal and External Moonlighting (as defined in the ACGME Glossary of Terms) must be counted towards the 80-hour Maximum Weekly Hour Limit.
- c. All moonlighting hours must be entered into New Innovations Duty Hour Module so the Program Director can review to determine the potential of fatigue. In addition, all duty hours must be logged during any month in which the resident is moonlighting.
- d. PGY-1 residents are not permitted to moonlight.
- e. A resident may work a maximum of 3 shifts per month at Western State Hospital without having to use vacation time and as long as there is no detrimental impact on his/her residency training.
- f. A resident cannot moonlight when on call for the UVA Department of Radiation Oncology.
- g. Moonlighting will be allowed as defined by [GME Policy #10](#).
- h. The [Radiation Oncology Moonlighting Agreement](#) and the [GME Application for Moonlighting](#) must be turned in and approved before any moonlighting can be done.

6. In-House Night Float

Night float must occur within the context of the 80-hour and one-day-off-in-seven requirements.

7. Maximum In-House On-Call Frequency

Residents must be scheduled for in-house call no more frequently than every-third-night (when averaged over a four week period).

8. At-Home Call

- a. Time spent on patient care activities by residents on at-home call must count towards the 80-hour maximum weekly limit. The frequency of at-home call is not subject to the every-third night limitation, but must satisfy the requirement for one-day in-seven free of clinical work and education, when averaged over four weeks.
 - i. At-home call must not be so frequent or taxing as to preclude rest or reasonable personal time for each resident.
- b. Residents are permitted to return to the hospital while on at home call to provide direct care for new or established patients. These hours of inpatient care must be included in the 80-hour maximum weekly limit.

9. Clinical and Educational Work Hours will be monitored in New Innovations for a four week period annually per the UVA GME guidelines. Our department chooses to log hours for October.

G. Resident Leave Policies

1. Per the ABR policy: Leaves of absence and vacation may be granted to residents at the discretion of the program director in accordance with local rules. Depending on the length of absence granted by your program, the required period of graduate medical education may be extended accordingly. Residency program directors and their intuitional GME offices determine the need for extension of residency training. Therefore, it is not up to the ABR to determine graduation dates for individual residents.
2. This can be found at: <https://www.theabr.org/radiation-oncology/certification-requirements>
3. Additional Time for Completing Board Requirements as per [GME Policy #03](#)
In the event that additional training time is required to meet Board eligibility requirements (due to leave or other circumstances) the Trainee must be reappointed, with pay and benefits to continue for the extension.
4. To request leave, the resident must complete a "Resident Leave Request" email with the information requested using the template available on the Z drive. This email should be

completed for any time out of the clinic (vacation, conferences, etc.) at least two weeks before leave is to be taken.

- a. The following people must be included on the Resident Leave Request email:
 - i. Supervising Attending for your current rotation
 - ii. Program Director
 - iii. Chief Resident(s)
 - iv. Residency Coordinator, Rebekah McComb
 - v. Administrative Coordinator, Caitlin Connelly
 - b. The same format should be followed when a sick day is needed.
 - c. If you know you will be out for an extended timeframe, please be sure to note that information in your email; so the department will be kept informed of your time away.
5. Exceptional Leave will be allowed per [GME Policy #03](#).

VII. **Resident Competency Milestones / Learning Objectives** (described explicitly for Emily Couric Clinical Cancer Center, Moser, and Culpeper Medical Center Radiation Oncology Rotations)

Resident learning and progress will be evaluated through the perspective of the ACGME competencies, which are comprised of:

PC (Patient Care)	ICS (Interpersonal and Communication Skills)
MK (Medical Knowledge)	PBLI (Practice-Based Learning and Improvement)
P (Professionalism)	SBP (Systems-Based Practice)

In addition to competency-based objectives, the residents will be evaluated according to year of training with expectation of progressive learning, achievements and responsibility. At a semi-annual and annual Clinical Competency Committee meeting, the CCC will evaluate the resident/s on the accomplishment of his/her appropriate obtainment of the milestone.

The milestones for the residents are evaluated according to the ACGME Milestones, and summary scores are provided semi-annually by the CCC. Each rotation in the residency program also has specific goals and objectives, which are distributed to resident and faculty at the beginning of each rotation. The evaluations for each rotation are modeled after these objectives. The learning objectives for each rotation are listed below.

A. Rotations

1. Clinical Rotations
 - a. Radiation Oncology Rotations with Learning Objectives
 - i. Showalter
 - a) **Genitourinary Cancer:** The resident will demonstrate an understanding of the proper performance of a Physical Examination of the GU patient including digital examination of the prostate; competency in interpreting Abd/Pelvic CT/MRI scans and Prostate U/S; an understanding of the proper technique of dosimetry of Prostate Brachytherapy; external beam techniques and dosimetry; IMRT and 3D DVH analysis. The resident will have an understanding of the role and integration of hormonal therapy, chemotherapy, and surgery.
 - b) **Pediatric Cancer:** The resident will demonstrate competency in interpreting pediatric CT scans and MRI scans; and in how to review the films with a pediatric radiologist to determine gross disease. The resident will have an understanding of family dynamics. The resident will demonstrate an understanding of the need for anesthesia during external beam therapy; external beam techniques and dosimetry; the results of Major Pediatric Cooperative Trials; and role and integration of chemotherapy and surgery.
 - c) **Soft Tissue and Bone Cancer:** The resident will demonstrate competency in interpreting CT scans and MRI scans of the soft tissues and bone; in external beam techniques and dosimetry; and in understanding of HDR interstitial brachytherapy implants. The resident will have an understanding of the role and integration of chemotherapy and surgery.

- d) **Prostate Brachytherapy:** The resident will learn the indications for prostate brachytherapy, appropriate patient selection for prostate brachytherapy including relative and absolute contraindications, how to perform prostate brachytherapy dosimetry, how to prescribe prostate brachytherapy +/- external beam radiotherapy, how to physically place the needles and sources with ultrasound guidance and perform real time planning, instructions for patients following prostate brachytherapy to minimize exposure to others, and how to describe acute and late toxicity, and potential local control rates of prostate cancer treated with prostate brachytherapy. The resident should have an understanding of physical half-lives of isotopes used for prostate brachytherapy and the rationale for choosing between them and choosing HDR, dose distributions of prostate brachytherapy, specifically doses to the prostate, bladder, and rectum, the integration of hormonal therapy and external beam radiation with prostate brachytherapy, limitations of prostate brachytherapy, acute and late toxicity of prostate brachytherapy, and local control of prostate cancer treated with prostate brachytherapy. The resident demonstrates an understanding of the role of urologists, radiation oncologists, physicists, and dosimetrists in the safe delivery of prostate brachytherapy and the costs of prostate brachytherapy and how this compares to other forms of treatment for prostate cancer.
 - e) **Lymphoma:** The resident will demonstrate the proper examination of the liver, spleen, and lymph nodes; competency in interpreting Head/Chest/Abd/Pelvic CT, PET scans, and Skeletal Surveys. The resident will demonstrate an understanding of the indications for Bone Marrow Biopsy; External beam techniques and dosimetry including DVH analysis and the rationale and techniques for Total Body Irradiation and Total Electron Skin Irradiation. The resident will have an understanding of the role and integration of chemotherapy and monoclonal antibody therapy.
 - f) **Gynecologic Cancer:** The resident will demonstrate the correct performance of a Physical Examination of the gynecology patient in the clinic; and competency in interpreting Abd/Pelvic CT/MRI scans and PET/CT imaging. The resident will be able to discuss HDR intracavitary and interstitial brachytherapy techniques, prescription, and rationale; external beam techniques and dosimetry including DVH analysis. The resident will demonstrate an understanding of the role and integration of chemotherapy and surgery.
- ii. Larner
- a) **Lung Cancer:** The resident will have demonstrate competency in interpreting chest x-rays, chest CT scans, and PET scans; CT PET simulations; external beam techniques; dosimetry; and Stereotactic Body Radiation Therapy (SBRT). The resident will have an understanding of the role of HDR Endobronchial Brachytherapy and the role and integration of chemotherapy and surgery.
 - b) **Central Nervous System Cancer:** The resident will demonstrate competency in performing a full neurological exam; in interpreting head CT scans and MRI scans; in 3D and IMRT External Beam techniques and dosimetry including DVH analysis; in Craniospinal Irradiation (CSI); and in Spinal and Intracranial Stereotactic Radiosurgery. The resident will have an understanding of the role and techniques of GammaKnife and the role and integration of chemotherapy and surgery.
- iii. Read
- a) **Head and Neck Cancer:** The resident will demonstrate the proper examination of the cervical lymph nodes, indirect laryngoscopy, machaidoscopic examination, and competency in interpreting Head and Neck CT scans, MRI scans and PET scans. The resident will demonstrate competency in External Beam techniques and dosimetry including DVH analysis; 3D and IMRT techniques, and Brachytherapy. The resident will have an understanding of the role and integration of chemotherapy, biologically targeted therapies, and surgery.

- b) **Skin Cancer:** The resident will demonstrate competency in identifying early skin cancers; in external beam techniques and dosimetry including DVH analysis. The resident will have an understanding of the role and integration of surgery and radiation (particularly MOHS), and of different fractionation schedules for treating melanoma, and basal cell carcinomas/ squamous cell carcinomas.
- iv. Khandelwal at Culpeper Medical Center
- a) **Head and Neck Cancer:** The resident will demonstrate the proper examination of the cervical lymph nodes, indirect laryngoscopy, machaidoscopic examination, and competency in interpreting Head and Neck CT scans, MRI scans and PET scans. The resident will demonstrate competency in External Beam techniques and dosimetry including DVH analysis; 3D and IMRT techniques, and Brachytherapy. The resident will have an understanding of the role and integration of chemotherapy, biologically targeted therapies, and surgery.
 - b) **Breast Cancer:** The resident will demonstrate the proper performance of a Breast Examination; competency in interpreting Mammograms, Breast MRI, Breast U/S; and an understanding of partial and whole breast external beam techniques, dosimetry including DVH analysis, and Breast brachytherapy techniques. The resident will understand the role and integration of hormonal therapy, chemotherapy, and surgery. The resident will have understanding of the role of genetic counseling.
 - c) **Genitourinary Cancer:** The resident will demonstrate an understanding of the proper performance of a Physical Examination of the GU patient including digital examination of the prostate; competency in interpreting Abd/Pelvic CT/MRI scans and Prostate U/S; an understanding of the proper technique of dosimetry of Prostate Brachytherapy; external beam techniques and dosimetry; IMRT and 3D DVH analysis. The resident will have an understanding of the role and integration of hormonal therapy, chemotherapy, and surgery.
 - d) **Soft Tissue and Bone Cancer:** The resident will demonstrate competency in interpreting CT scans and MRI scans of the soft tissues and bone; in external beam techniques and dosimetry; and in understanding of HDR interstitial brachytherapy implants. The resident will have an understanding of the role and integration of chemotherapy and surgery.
- v. Janowski
- a) **Gastrointestinal and Liver Cancer:** The resident will demonstrate competency in interpreting Chest/Abd/Pelvic CT and MRI and in External beam techniques and dosimetry including DVH analysis. The resident will have an understanding of the potential role and side effects of XRT; and the role and integration of chemotherapy and surgery.
 - b) **Breast Cancer:** The resident will demonstrate the proper performance of a Breast Examination; competency in interpreting Mammograms, Breast MRI, Breast U/S; and an understanding of partial and whole breast external beam techniques, dosimetry including DVH analysis, and Breast brachytherapy techniques. The resident will understand the role and integration of hormonal therapy, chemotherapy, and surgery. The resident will have understanding of the role of genetic counseling.
- vi. Romano
- a) **Gynecologic Cancer:** The resident will demonstrate the correct performance of a Physical Examination of the gynecology patient in the clinic; and competency in interpreting Abd/Pelvic CT/MRI scans and PET/CT imaging. The resident will be able to discuss HDR intracavitary and interstitial brachytherapy techniques, prescription, and rationale; external beam techniques and dosimetry including DVH analysis. The resident will demonstrate an understanding of the role and integration of chemotherapy and surgery.
 - b) **Skin Cancer:** The resident will demonstrate competency in identifying early skin cancers; in external beam techniques and dosimetry including DVH analysis. The

resident will have an understanding of the role and integration of surgery and radiation (particularly MOHS), and of different fractionation schedules for treating melanoma, and basal cell carcinomas/ squamous cell carcinomas.

b. Radiation Oncology Milestone Expectations per Specific Core Competency

i. Lymphoma – Patient Care (Showalter Rotation)

a) Level 1

- Acquires accurate and relevant history and performs a general physical examination.
- Identifies relevant anatomy.
- Recognizes situations with a need for urgent or emergent medical care, including life-threatening conditions.

b) Level 2

- Performs a detailed and directed history and physical examination. Integrates pathology and imaging reports. Accurately stages a patient and designates prognostic factors.
- Lists organs at risk. Understands proper patient positioning and immobilization.
- Recognizes toxicities/ symptoms seen in lymphoma patients treated with radiotherapy.

c) Level 3

- Explains the main treatment options.
- Designs blocks, contours target(s), and contours normal tissue with minimal inaccuracies. States appropriate dose planning objectives for normal tissues and target(s).
- With supervision, manages patients with toxicities/symptoms seen in lymphoma patients treated with radiotherapy.

d) Level 4

- Makes a comprehensive treatment recommendation that is appropriate. Describes evidence that supports the treatment plan.
- Designs blocks, contours target(s), and contours normal tissues accurately. Critically evaluates treatment plan options.
- Independently manages toxicities/ symptoms seen in lymphoma patients treated with radiotherapy.

e) Level 5

- Conducts clinical research.
- Develops special expertise to treat and manage the most complex cases.
- Develops protocols to minimize toxicities/ symptoms *or* has an exceptional understanding of management of toxicities/symptoms.

ii. Head and Neck – Patient Care (Read Rotation and Khandelwal Rotation)

a) Level 1

- Acquires accurate and relevant history and performs a general physical examination.
- Appropriately identifies relevant anatomy.
- Recognizes situations with a need for urgent or emergent medical care, including life-threatening conditions.

b) Level 2

- Performs a detailed directed history and physical examination. Integrates pathology and imaging reports. Accurately stages a patient and designates prognostic factors.
- Identifies treatment options.
- Lists organs at risk. Understands proper patient positioning and immobilization.
- Recognizes toxicities/symptoms seen in head and neck cancer patients treated with radiotherapy.

- c) Level 3
 - Explains the main treatment options.
 - Outlines an appropriate comprehensive treatment plan regarding radiotherapy and other treatment modalities.
 - Contours target(s) and normal tissue with minimal inaccuracies. States appropriate dose planning objectives for normal tissues and target(s).
 - With supervision, manages patients with toxicities/symptoms seen in head and neck cancer patients treated with radiotherapy.
- d) Level 4
 - Makes a comprehensive treatment recommendation that is appropriate. Describes evidence that supports a comprehensive treatment plan.
 - Contours normal tissue and target(s) accurately. Critically evaluates treatment plan options.
 - Independently manages patients with toxicities/symptoms seen in head and neck cancer patients treated with radiotherapy
- e) Level 5
 - Conducts clinical research.
 - Special expertise to treat and manage the most complex cases.
 - Develops protocols to minimize toxicities/ symptoms *or* has an exceptional understanding of management of toxicities/symptoms.
- iii. Genitourinary (GU) – Patient Care (Showalter Rotation and Khandelwal Rotation)
 - a) Level 1
 - Acquires accurate and relevant history and performs a general physical examination.
 - Identifies relevant anatomy.
 - Recognizes situations with a need for urgent or emergent medical care, including life-threatening conditions.
 - b) Level 2
 - Performs a detailed and directed history and physical examination. Integrates pathology and imaging reports. Accurately stages a patient and designates prognostic factors.
 - Lists organs at risk. Understands proper patient positioning and immobilization.
 - Recognizes toxicities/ symptoms seen in GU patients treated with radiotherapy.
 - c) Level 3
 - Explains the main treatment options.
 - Designs blocks, contours target(s), and contours normal tissue with minimal inaccuracies. States appropriate dose planning objectives for normal tissues and target(s).
 - With supervision, manages patients with toxicities/ symptoms seen in GU patients treated with radiotherapy.
 - d) Level 4
 - Makes a comprehensive treatment recommendation that is appropriate. Describes evidence that supports the treatment plan.
 - Designs blocks, contours target(s), and contours normal tissues accurately. Critically evaluates treatment plan options.
 - Independently manages toxicities/ symptoms seen in GU patients treated with radiotherapy.
 - e) Level 5
 - Conducts clinical research.
 - Special expertise to treat and manage the most complex cases.

- Develops protocols to minimize toxicities/ symptoms *or* has an exceptional understanding of management of toxicities/symptoms.
- iv. Palliation – Patient Care (Read Rotation)
- a) Level 1
 - Acquires an accurate and relevant history and performs a general physical examination.
 - Identifies relevant anatomy.
 - Recognizes situations with a need for urgent or emergent medical care, including life-threatening conditions.
 - b) Level 2
 - Performs a detailed directed physical examination. Performs accurate pain assessment. Integrates pathology and imaging reports. Accurately stages a patient and designate prognostic factors.
 - Recognizes toxicities/symptoms seen in the practice of palliative radiation oncology. Aware of options for pain management and end of life issues.
 - c) Level 3
 - Explains the main treatment options.
 - With supervision, manages patients with toxicities/symptoms seen in patients treated with palliative radiotherapy, including pain issues.
 - d) Level 4
 - Makes a comprehensive treatment recommendation that is appropriate. Describes evidence that supports the treatment plan.
 - Independently manages toxicities/symptoms seen in patients treated with palliative radiotherapy.
 - Develops appropriate and effective pain management strategy that requires no modification by attending.
 - e) Level 5
 - Conducts clinical research.
 - Special expertise to treat and manage the most complex cases.
 - Develops protocols to minimize toxicities/ symptoms *or* has an exceptional understanding of management of toxicities/symptoms.
- v. Breast – Patient Care (Khandelwal Rotation and Janowski Rotation)
- a) Level 1
 - Acquires accurate and relevant history and performs a general physical examination.
 - Identifies relevant anatomy.
 - Recognizes situations with a need for urgent or emergent medical care, including life threatening conditions.
 - b) Level 2
 - Performs a detailed directed physical examination. Integrates pathology and imaging reports. Accurately stages a patient and designate prognostic factors.
 - List organs at risk. Understands proper patient positioning and immobilization.
 - c) Level 3
 - Explains the main treatment options.
 - Contours target(s) and normal tissue with minimal inaccuracies. States appropriate dose planning objectives for normal tissues and target(s).
 - d) Level 4
 - Makes a comprehensive treatment recommendation that is appropriate. Describes evidence that supports the treatment plan.
 - Contours normal tissue and target(s) accurately. Critically evaluates treatment plan options.

- e) Level 5
 - Conducts clinical research.
 - Special expertise to treat and manage the most complex cases.
 - Develops protocols to minimize toxicities/ symptoms *or* has an exceptional understanding of management of toxicities/symptoms.
- vi. Gastrointestinal (GI) – Patient Care (Janowski Rotation)
 - a) Level 1
 - Acquires accurate and relevant history and performs a general physical examination.
 - Identifies relevant anatomy.
 - Recognizes situations with a need for urgent or emergent medical care, including life-threatening conditions.
 - b) Level 2
 - Performs a detailed directed physical examination. Integrates pathology and imaging reports. Accurately stages a patient and designates prognostic factors.
 - Lists organs at risk. Understands proper patient positioning and immobilization.
 - Recognizes toxicities/symptoms seen in GI cancer patients treated with radiotherapy.
 - c) Level 3
 - Explains the main treatment options.
 - Contours target(s)/normal tissues and delineates field borders with minimal inaccuracies. States appropriate dose planning objectives for normal tissues and target(s).
 - With supervision, manages patients with toxicities/symptoms seen in GI cancer patients treated with radiotherapy while.
 - d) Level 4
 - Makes a comprehensive treatment recommendation that is appropriate. Describes evidence that supports the treatment plan.
 - Contours target(s)/normal tissues and delineates field borders accurately. Critically evaluates treatment plan options.
 - Independently manages patients with toxicities/symptoms seen in GI cancer patients treated with radiotherapy.
 - e) Level 5
 - Conducts clinical research.
 - Special expertise to treat and manage the most complex cases.
 - Develops protocols to minimize toxicities/ symptoms *or* has an exceptional understanding of management of toxicities/symptoms.
- vii. Gynecologic (GYN) – Patient Care (Romano Rotation and Showalter Rotation)
 - a) Level 1
 - Acquires accurate and relevant history and performs a general physical examination.
 - Appropriately identifies relevant anatomy.
 - Recognizes situations with a need for urgent or emergent medical care, including life-threatening conditions.
 - b) Level 2
 - Performs a detailed directed physical examination. Integrates pathology and imaging reports. Accurately stage a patient and designates prognostic factors.
 - Lists organs at risk. Understands proper patient positioning and immobilization.
 - Recognizes toxicities/symptoms seen in GYN cancer patients treated with radiotherapy.
 - c) Level 3

- Explains the main treatment options which may include observation or radiation.
 - Contours target(s) and normal tissue with minimal inaccuracies. States appropriate dose planning objectives for normal tissues and target(s).
 - With supervision, manages patients with toxicities/symptoms seen in GYN cancer patients treated with radiotherapy.
- d) Level 4
- Makes a comprehensive treatment recommendation that is appropriate. Describes evidence that supports the treatment plan.
 - Describes details of radiation therapy. Cites evidence based practice guidelines or institutional standards.
 - Contours normal tissue and target(s) accurately. Critically evaluates treatment plan options.
 - Independently manages patients with toxicities/symptoms seen in GYN cancer patients treated with radiotherapy.
- e) Level 5
- Conducts clinical research.
 - Special expertise to treat and manage the most complex cases.
 - Develops protocols to minimize toxicities/ symptoms *or* has an exceptional understanding of management of toxicities/symptoms.
- viii. Lung – Patient Care (Larner Rotation)
- a) Level 1
- Acquires accurate and relevant history and performs a general physical examination.
 - Identifies relevant anatomy.
 - Recognizes situations with a need for urgent or emergent medical care, including life-threatening conditions.
- b) Level 2
- Performs a detailed directed physical examination. Integrates pathology and imaging reports. Accurately stages a patient and designate prognostic factors.
 - Lists organs at risk. Understands proper patient positioning and immobilization.
 - Recognizes toxicities/ symptoms seen in lung cancer patients treated with radiotherapy.
- c) Level 3
- Explains the main treatment options.
 - Contours target(s) and normal tissue with minimal inaccuracies. States appropriate dose planning objectives for normal tissues and target(s).
 - With supervision, manages patients with toxicities/symptoms seen in lung cancer patients treated with radiotherapy.
- d) Level 4
- Makes a comprehensive treatment recommendation that is appropriate. Describes evidence that supports the treatment plan.
 - Contours normal tissue and target(s) accurately. Critically evaluates treatment plan options.
 - Independently manages patients with toxicities/symptoms seen in lung cancer patients treated with radiotherapy.
- e) Level 5
- Conducts clinical research.
 - Special expertise to treat and manage the most complex cases.
 - Develops protocols to minimize toxicities/ symptoms *or* has an exceptional understanding of management of toxicities/symptoms.

- ix. Adult Brain Tumor – Patient Care (Larner Rotation)
- a) Level 1
 - Acquires accurate and relevant history and performs a general physical examination.
 - Identifies relevant anatomy.
 - Recognizes situations with a need for urgent or emergent medical care, including life-threatening conditions.
 - b) Level 2
 - Performs a detailed directed physical examination. Integrates pathology and imaging reports. Accurately stages a patient and designate prognostic factors.
 - Lists normal tissue at risk. Understands proper patient positioning and immobilization.
 - Recognizes toxicities/ symptoms seen in patients with brain tumors treated with radiotherapy.
 - c) Level 3
 - Explains the main treatment options.
 - Contours target(s) and normal tissue with minimal inaccuracies. States appropriate dose planning objectives for normal tissues and target(s).
 - With supervision, manages toxicities/symptoms seen in patients with brain tumors treated with radiotherapy.
 - d) Level 4
 - Makes a comprehensive treatment recommendation that is appropriate. Describes evidence that supports the treatment plan.
 - Contours normal tissue and target(s) accurately. Critically evaluates treatment plan options.
 - Independently manages patients with toxicities/symptoms seen in patients with brain tumors treated with radiotherapy.
 - e) Level 5
 - Conducts clinical research.
 - Special expertise to treat and manage the most complex cases.
 - Develops protocols to minimize toxicities/ symptoms *or* has an exceptional understanding of management of toxicities/symptoms.
- x. Brachytherapy – Patient Care (Showalter Rotation and Romano Rotation)
- a) Level 1
 - Observes patients undergoing brachytherapy.
 - b) Level 2
 - Selects appropriate patients and understands relevant radiation safety protocols and procedures.
 - c) Level 3
 - Plans and performs brachytherapy with minimal faculty assistance.
 - d) Level 4
 - Able to independently plan and perform brachytherapy appropriately.
 - e) Level 5
 - Exceptional technical performance of brachytherapy.
- xi. Stereotactic Radiosurgery (SRS)/Stereotactic Body Radiotherapy (SBRT) – Patient Care (Larner Rotation)
- a) Level 1
 - Observes patients undergoing SRS/SBRT.
 - b) Level 2
 - Selects appropriate patients and understands relevant radiation safety protocols and procedures.
 - c) Level 3

- Plans and performs SRS/SBRT with minimal faculty member assistance.
- d) Level 4
 - Is able to independently plan and perform SRS/SBRT appropriately.
- e) Level 5
 - Conducts clinical research.
- xii. Medical Physics – Medical Knowledge (Physics/Dosimetry Rotation)
 - a) Level 1
 - Recognizes the importance of medical physics in radiation oncology.
 - b) Level 2
 - Understands basic concepts of medical physics.
 - c) Level 3
 - Applies concepts of medical physics to clinical situations.
 - d) Level 4
 - Thoroughly understands medical physics concepts for safe delivery of radiation therapy.
 - e) Level 5
 - Performs medical physics research.
- xiii. Radiation/Cancer Biology – Medical Knowledge (Larner Rotation)
 - a) Level 1
 - Recognizes the importance of radiation/cancer biology in radiation oncology.
 - b) Level 2
 - Understands basic concepts of radiation/cancer biology.
 - c) Level 3
 - Applies concepts of radiation/cancer biology to clinical situations.
 - d) Level 4
 - Thoroughly understands radiation/cancer biology concepts for safe delivery of radiation therapy.
 - e) Level 5
 - Performs radiation/cancer biology research.
- xiv. Professionalism 1 (All Rotations)

Compassion, integrity, and respect for others as well as sensitivity and responsiveness to diverse patient populations including but not limited to diversity in gender, age, culture, race, religion, disabilities, and sexual orientation; Knowledge about, respect for and adherence to the ethical principles relevant to the practice of medicine, remembering in particular that responsiveness to patients that supersedes self-interest is an essential aspect of medical practice.

 - a) Level 1
 - Seeks out, learns from and models the attitudes and behaviors of physicians who exemplify appropriate professional attitudes, values and behaviors; includes caring, honest, genuine interest in patients and families and tolerance and acceptance of diverse individuals and groups.
 - Aware of basic bioethical principles; able to identify ethical issues in clinical situations.
 - b) Level 2
 - Exhibits appropriate attitudes, values and behaviors in straightforward situations; includes caring, honest, genuine interest in patients and families and tolerance and acceptance of diverse individuals and groups.
 - Consistently recognizes ethical issues in practice; able to discuss, analyze and manage in common clinical situations.
 - c) Level 3

- Exhibits appropriate attitudes, values and behaviors in most situations; includes caring, honest, genuine interest in patients and families and tolerance and acceptance of diverse individuals and groups.
 - Effectively analyzes and manages ethical issues in most clinical situations.
- d) Level 4
- Exhibits appropriate attitudes, values and behaviors in all situations; includes caring, honest, genuine interest in patients and families and tolerance and acceptance of diverse individuals and groups.
 - Consistently and effectively analyzes and manages ethical issues in all clinical situations.
- e) Level 5
- Develops a protocol to support the application of physician accountability or personal responsibility.
 - Publishes or presents research on physician accountability or personal responsibility.
- xv. Professionalism 2 (All Rotations)
Accountability to patients, society and the profession; personal responsibility to maintain emotional, physical, and mental health
- a) Level 1
- Recognizes when in need of assistance and is able and willing to ask for help.
 - Understands the importance of physician accountability to patients, society and the profession.
 - Aware of the basic principles and aspects of the general maintenance of emotional, physical, and mental health, including issues of fatigue.
- b) Level 2
- Consistently recognizes limits of knowledge in common clinical situations and asks for assistance.
 - Demonstrates physician accountability to patients, society and profession in common clinical situations.
 - Identifies and manages common situations in which maintaining personal emotional, physical and mental health, including issues of fatigue, are challenged.
- c) Level 3
- Consistently recognizes limits of knowledge in most clinical situations.
 - Demonstrates physician accountability to patients, society, and profession in most clinical situations.
 - Identifies and manages most situations in which maintaining personal emotional, physical and mental health, including issues of fatigue, are challenged.
- d) Level 4
- Consistently demonstrates the ability to identify limits of own knowledge in all clinical situations.
 - Demonstrates physician accountability to patients, society, and profession in all clinical situations.
 - Identifies and manages all situations in which maintaining personal emotional, physical and mental health, including issues of fatigue, are challenged.
- e) Level 5
- Develops a protocol to support the application of physician accountability or personal responsibility.
 - Publishes or presents research on physician accountability or personal responsibility.
- xvi. Interpersonal and Communication Skills 1 (All Rotations)

Effective communication with patients, families, and the public, as appropriate, across a broad range of socioeconomic and cultural backgrounds; effective communication with physicians, other health care professionals and health related agencies.

a) Level 1

- Recognizes the importance of effective communication with patients, families, and public.
- Recognizes the importance of effective communication with the healthcare team.

b) Level 2

- Demonstrates effective communication with patients, families, and public in common situations.
- Demonstrates effective communication with the healthcare team in common situations.

c) Level 3

- Demonstrates effective communication with patients, families, and public in most situations.
- Demonstrates effective communication with the healthcare team in most situations.

d) Level 4

- Demonstrates effective communication with patients, families, and public in all situations.

e) Level 5

- Publishes or presents research on interpersonal communication.
- Develops a protocol for physician interpersonal communication.

xvii. Interpersonal and Communication Skills 2 (All Rotations)

Effective member or leader of a healthcare team or other professional group; maintenance of comprehensive, timely and legible medical records.

a) Level 1

- Recognizes the importance of working effectively as a member of a healthcare team.
- Recognizes the importance of maintaining timely and legible records, including HER.

b) Level 2

- Demonstrates the ability to effectively work as a member of a healthcare team, including the consultative role, in common clinical situations.
- Maintains accurate, timely and legible records, including EHR, for some cases.

c) Level 3

- Demonstrates the ability to effectively work as a member of a healthcare team, including the consultative role, in most clinical situations.
- Maintains accurate, timely and legible records, including EHR, for most cases.

d) Level 4

- Demonstrates the ability to effectively work as a member of a healthcare team, including the consultative role, in all clinical situations.
- Maintains accurate, timely and legible records, including EHR, in all cases.

e) Level 5

- Publishes or presents research on teamwork or record maintenance.
- Develops a protocol for teamwork or record maintenance.

xviii. Practice-Based Learning and Improvement 1 (All Rotations)

Identify strengths, deficiencies, and limits in one's knowledge and expertise; Set learning and improvement goals and identify and perform appropriate learning activities utilizing information technology, evidence from scientific studies and evaluation feedback. Systematically analyze practice using quality improvement methods and implement changes with the goal of practice improvement.

- a) Level 1
 - Acknowledges gaps in personal knowledge and expertise and frequently asks for feedback.
 - Understands the importance of setting learning and improvement goals.
 - Can identify problems in health care delivery and see the quality gap in care.
- b) Level 2
 - Begins to assess performance by evaluating feedback and assessments.
 - Begins to develop learning and improvement goals, based on feedback, with some external assistance.
 - Uses information technology to locate scientific studies related to patient health problems.
 - Understands the essentials of quality improvement.
- c) Level 3
 - Frequently assesses performance by evaluating feedback and assessments.
 - Develops learning and improvement goals based on feedback, with minimal external assistance.
 - Critically appraises scientific studies related to patient health problems.
 - Is able to define and construct process and outcomes measures of quality.
- d) Level 4
 - Always assesses performance by evaluating feedback and assessments.
 - Performs self-directed learning independently.
 - Assimilates evidence from scientific studies into practice.
 - Designs and completes a quality improvement project.
- e) Level 5
 - Publishes research on practice quality improvement.
- xix. Practice-Based Learning and Improvement 2 (All Rotations)

Participate in the education of patients, families, students, residents and other health professionals.

 - a) Level 1
 - Understands the importance of the education of patients, families, students, residents, and other health professionals.
 - b) Level 2
 - Participates in the education of patients and their families in common situations.
 - c) Level 3
 - Participates in the education of patients and their families, students, residents, and other health professionals in common situations.
 - d) Level 4
 - Participates in the education of patients and families, students, residents, and other health professionals in all situations.
 - e) Level 5
 - Publishes research on patient education.
 - Develops a protocol for educating patients.
- xx. Systems-Based Practice 1 (All Rotations)

Work and coordinate patient care effectively in various health care delivery settings and systems.

 - a) Level 1
 - Recognizes various health care delivery settings and systems.
 - b) Level 2
 - Works and coordinates patient care in various health care delivery settings and systems for common clinical situations.
 - c) Level 3

- Works and coordinates patient care in various health care delivery settings and systems for most clinical situations.
- d) Level 4
- Works and coordinates patient care in various health care delivery settings and systems for all clinical situations.
- e) Level 5
- Publishes research on coordinating patient care in various health care delivery settings and systems.
- xxi. Systems-Based Practice 2 (All Rotations)
 Incorporate considerations of cost awareness and risk-benefit analysis in patient and/or population based care, as appropriate.
- a) Level 1
- Recognizes the importance of cost awareness and risk-benefit analysis for patient and /or population based care.
- b) Level 2
- Incorporates considerations of cost awareness and risk-benefit analysis for patient and /or population based care for common clinical situations.
- c) Level 3
- Incorporates considerations of cost awareness and risk-benefit analysis in patient and /or population based care for most clinical situations.
- d) Level 4
- Incorporates considerations of cost awareness and risk-benefit analysis for patient and /or population based care for all clinical situations.
- e) Level 5
- Publishes research on cost awareness and risk-benefit analysis for patient and /or population based care.
- xxii. Systems-Based Practice 3 (All Rotations)
 Work in interprofessional teams to enhance patient safety and improve patient care quality; advocate for quality patient care and optimal patient care systems; participate in identifying system errors and implementing potential systems solutions.
- a) Level 1
- Recognizes the importance of working in inter-professional teams to enhance patient safety and improve patient care quality.
 - Recognizes the importance of advocating for quality care and optimal patient care systems.
 - Recognizes the importance of participating in identifying system errors and implementing potential systems solutions.
- b) Level 2
- Works in inter-professional teams to enhance patient safety and improve patient care quality in common clinical situations.
 - Advocates for quality care and optimal patient care systems in common clinical situations.
 - Participates in identifying system errors and implementing potential systems solutions in common clinical situations.
- c) Level 3
- Works in inter-professional teams to enhance patient safety and improve patient care quality, in most clinical situations.
 - Advocates for quality care and optimal patient care systems in most clinical situations.
 - Participates in identifying system errors and implementing potential systems solutions in most clinical situations.
- d) Level 4

- Works in inter-professional teams to enhance patient safety and improve patient care quality, in all clinical situations.
 - Advocates for quality care and optimal patient care systems in all clinical situations.
 - Participates in identifying system errors and implementing potential systems solutions in all clinical situations.
- e) Level 5
- Publishes research on quality patient care or patient safety.
2. Required Elective Rotations
- a. Physics / Dosimetry Rotation (1 month required)
- i. The curriculum in medical physics will include didactic lectures, laboratory demonstrations of radiation safety procedures, calibration of radiation therapy machines, the use of the computer for treatment planning, the construction of treatment aids, and the safe handling of sealed radionuclides. The safe handling of unsealed radionuclides will address quality control procedures for instruments used to determine the activity of dosages and procedures used to perform checks for proper operation of survey meters.
 - ii. Patient Care
 - a) Resident learns the basic physics QA to ensure safe treatment of patients, how to perform a hand calculation for emergency treatment, and the basic operation of dosimetry software for 3D and IMRT treatment planning.
 - iii. Medical Knowledge
 - a) Resident should learn a basic understanding of review of survey meters, types and uses, Physics chart checks, Physics QA for HDR and LDR, Physics QA for IMRT, LINAC maintenance and QA, and radiopharmaceutical QA, dosing, and administration.
 - iv. Practice Based Learning and Improvement
 - a) Resident recognizes and corrects personal errors. Resident can perform a literature search on specific physics topics.
 - v. Interpersonal Skills and Communication
 - a) Resident demonstrates ability to ask appropriate questions.
 - vi. Professionalism
 - a) Resident demonstrates a commitment to dress professionally at all times and to ethical business practice.
 - vii. Systems Based Practice
 - a) Resident demonstrates an understanding of the role of physicists and dosimetrists in the treatment of patients with radiation.
- b. Gamma Knife Rotation (1 month required)
- i. Patient Care
 - a) Resident learns how the headframe placement, imaging, treatment planning, and treatment delivery are performed, emergency procedures for the GammaKnife™, acute and late toxicity of and intracranial radiosurgery.
 - ii. Medical Knowledge
 - a) Resident should learn a basic understanding of indications for Intracranial Radiosurgery, how the GammaKnife™ works to deliver conformal radiosurgery, dose distributions possible with a GammaKnife™ unit, and limitations of the GammaKnife™ treatment system.
 - iii. Practice Based Learning and Improvement
 - a) Resident recognizes and corrects personal errors. Resident can perform a literature search on specific radiosurgery topics.
 - iv. Interpersonal Skills and Communication
 - a) Resident demonstrates ability to ask appropriate questions.
 - v. Professionalism

- a) Resident demonstrates a commitment to dress professionally at all times and to ethical business practice.
- vi. Systems Based Practice
 - a) Resident demonstrates an understanding of the costs of GammaKnife™ radiosurgery and the role of physicists, neurosurgeons, and radiation oncologists in the treatment of patients with the GammaKnife™.
- c. Nuclear Medicine Rotation (1 month required)
 - i. Residents will need to request this rotation to the Program Coordinator who will request from the Radiology Program Coordinator available dates. Residents on this rotation will schedule a meeting with Dr. Patrice Rhem one month prior to their rotation to discuss the specifics of the rotation. Residents on this rotation will need Powerscribe training (Radiology dictation system) 1-2 weeks before the Nuclear Medicine rotation. Resident must have the IT request form for EPIC Radiant training at least a week before the start date.
 - ii. American Board of Radiology and NRC, regulations state: For ABR certification graduating residents must perform at least three (3) cases involving oral administration of >33 mCi of I-131 (i.e., therapeutic dose rather than a diagnostic procedure) and three (3) cases involving parenteral administration of any beta. Also, there must be classroom and laboratory instruction in the use of radiopharmaceuticals. (This regulation will be accomplished by a one month Nuclear Medicine rotation. Additional experience may be gained in radiation oncology specific rotations.)
 - iii. This rotation may be waived by the Program Director in the event that all six (6) required cases are completed prior to the start of the PGY-5 year. The completed [Oral I-131 & Parenteral Administration Log](#) form must be turned in to the Program Coordinator in order for this to occur.
 - iv. Patient Care
 - a) Resident learns the indications for various therapeutic nuclear medicine isotopes, the safe handling, dosing, and administration of therapeutic nuclear medicine isotopes, and doses which require inpatient hospitalization. Resident can verbalize the instructions to patients who leave the nuclear medicine department and explain the instructions to the patient on how to minimize radioactivity exposure and contamination to him/herself and others. Resident demonstrates an understanding of acute and late toxicity of therapeutic nuclear medicine isotopes.
 - v. Medical Knowledge
 - a) Resident should demonstrate a basic understanding of Physical and Biologic half-lives of therapeutic nuclear medicine isotopes and mechanism of action of therapeutic nuclear medicine isotopes. Resident should learn dose distributions (if applicable) of therapeutic nuclear medicine isotopes. Resident should be able to verbalize the limitations of therapeutic nuclear medicine isotope.
 - vi. Practice Based Learning and Improvement
 - a) Resident recognizes and corrects personal errors. Resident can perform a literature search on specific nuclear medicine topics.
 - vii. Interpersonal Skills and Communication
 - a) Resident demonstrates the ability to ask appropriate questions.
 - viii. Professionalism
 - a) Resident demonstrates a commitment to dress professionally at all times and to ethical business practice.
 - ix. Systems Based Practice
 - a) Resident demonstrates an understanding of the role of nuclear medicine radiologists and radiation oncologists in the safe and appropriate administration of isotopes. Resident understands the medical costs of therapeutic nuclear medicine isotopes.

B. Regularly Scheduled Didactic Teaching

1. Conferences and didactic teaching will be provided as described below:

- a. Conferences will be attended by residents, radiation oncologists, physicists, dosimetrists, therapists, and other staff as deemed necessary.
- b. Attendance will be kept at departmental conferences with a written attendance sheet, and by checking the appropriate competency/ies being covered.
2. Simulation Conference/Journal Club which will:
 - a. be held bi-weekly
 - b. be a review of treatment simulation and planning of patients whose treatment plans have been completed the previous week, and the list will be available in Mosaiq.
 - c. be moderated by resident/s (or attending/s, when no resident was involved)
 - i. all new clinical and computer-aided curative simulations
 - ii. palliative initial simulations
 - iii. boost simulations
 - iv. brachytherapy cases
 - d. have the dual purpose of an educational discussion and peer review
 - e. be an open discussion to determine the residents' understanding and ability to discuss the disease process being treated and justification of the design of the target volumes, treatment fields, and all aspects of the treatment plan.
 - f. where the Faculty will be expected to test the knowledge of the residents, provide teaching points and useful comments, and lead a positive and constructive discussion.
 - g. be where the resident at CMC is responsible for presenting the CMC simulations
 - h. be where cases with significant changes (recommended by consensus) in the treatment plan will be re-presented after appropriate modifications for peer review
 - i. Journal Club presentation will be 10-15 minutes on Thursdays and Fridays (designated at the beginning or end of the SIM conference). It will consist of a short presentation (of a recent high impact journal article/s) selected by a resident or an attending, pertaining to patients presented at simulation conference, emphasizing a large randomized clinical trial result/s, published within the last 5 years. They will discuss new treatment modalities (technology advances, translational research, orphan (low incidence) diseases and other review articles) and the study design (including potential study flaws and the appropriateness of the statistical analysis). Chief Resident/s will organize the presentation schedule and document the presentation.
 - j. Two attending faculty must be present for the majority of simulation conference and journal club presentations.
3. Clinical Didactic Lectures
 - a. The clinical didactic lectures will cover site-specific malignancies and their current oncology management; cancer presentation, etiologic risk factors (including molecular biological factors); diagnostic work-up, staging, prognosis, risk of lymphatic and hematogenous spread; current treatment options including the integration of combined modality therapies, simulation and treatment planning, radiation therapy including altered fractionation regimens, radiosurgery, brachytherapy; expected acute reactions and late sequelae, normal tissue tolerances within the treatment field, tumor-dose response, dose prescription, and expectations of local control and survival; and core medical knowledge, where the faculty is expected to discuss particular biomedical ethics and aspects of the medical system that pertain to the cancer site; the sentinel scientific studies from which the current treatment regimens have evolved, but are not to be formatted as a Journal Club.
 - b. The lecture format should be partially didactic and partially Socratic Method with a strong component of appropriate resident questioning directed at the level of the resident as described in the Medical Knowledge Competency Milestone expectations.
4. The basic sciences will be taught through regularly-scheduled lectures, case presentations, conferences, and discussions relevant to the practice of radiation oncology. The department will provide funding for residents to attend national training conferences such as the University of Maryland Department of Radiation Oncology Resident Physics and Radiobiology Conference.
 - a. Radiation Physics

- i. Initially, all residents are required to take the UVA Radiation Safety Course given during the first month of the training program; pass the final examination to document competency in basic radiation safety, including, the safe handling of unsealed sources, the quality control procedures for instruments used to determine the activity of dosages, and procedures used to perform checks for proper operation of survey meters.
 - ii. The residents are required to attend physics lectures during their first and second years. These lectures will be provided by the Division of Medical Radiation Physics.
 - iii. These didactic lectures will cover radiation safety and radiation physics for both x-ray and electron external beam therapy and brachytherapy, and dose calculation, dosimetry, tissue penetration, effects of blocks and wedges, the functioning of a linear accelerator and brachytherapy afterloading devices, handling of sealed and unsealed radioactive sources, manual afterloading techniques, and radiation emergency procedures.
 - iv. *The Physics of Therapeutic Radiology Syllabus & Study Guide*; Revised by S. K. Agarwal, Ph.D.; 2000; 5th Edition; American Association of Physicists in Medicine and American College of Radiology; is used as the syllabus for this course.
 - v. *The Physics of Radiation Therapy*; Faiz M. Khan, Ph.D.; John P. Gibbons, Ph.D.; 2014; 5th Edition; Lippincott Williams & Wilkins; and *Practical Radiation Oncology Physics*; Sonja Dieterich, Eric Ford, Dan Pavord, Jing Zheng; 2016; Elsevier; are the other books used as references for this class.
 - vi. Residents can take this didactic course again if they perform in the bottom quartile on the physics component of the annual In-Service Examination. Residents are welcome to attend the entire course or specific portions of the course during their final two years if they feel there are areas that they wish to improve.
 - vii. Junior Residents will be sent to the national seminar refresher course physics annually held at the University of Maryland.
 - viii. The resident's knowledge level will be assessed with the annual ACR In-Service Examination all years of residency and the RAPHEX exam for the first three years of their residency. They will take the ABR Board examination in radiation physics at the beginning of their fourth year of training as another metric of accomplishment.
- b. Radiobiology
- i. The radiation and cancer biology lectures will be held in the spring of every year. A full, 17 lecture, course in odd numbered years; and a condensed, 6 lecture, course in even years.
 - ii. The curriculum must include didactic lectures on all aspects of radiation effects on normal and neoplastic tissues, as well as the fundamental biology of the causes, prevention, and treatment of cancer. The basics of radiobiology will be broken down into classical radiobiology including normal tissue tolerance to radiation and tumor dose response, molecular techniques, and molecular basis of carcinogenesis, including signal transduction. Covered in a didactic lecture series as outlined in *Radiobiology for the Radiologist* / Eric J. Hall and Amato J. Giaccia. 7th ed. 2011 by Lippincott Williams & Wilkins (the required text for this course).
 - iii. The clinical relevance of radiobiology will be emphasized. The residents are expected to attend Cancer Center Seminars that cover radiobiology topics. The residents will be required to attend Radiobiology lectures for the first two years of their residency and may elect to attend during the final two years. Junior Residents will be sent to national seminar series in radiobiology annually held at the University of Maryland.
 - iv. The resident's knowledge level will be assessed with the annual ACR In-Service Examination every year of their residency and the ASTRO Radiobiology Review Exam the first three years of residency. They will take the ABR Board examination in radiobiology at the beginning of their fourth year of training as another metric of accomplishment.
- c. Medical Biostatistics
- i. The program will familiarize the resident with medical statistics through an organized program of lectures held every other year (even numbered years) in the spring. The 6

- lectures on basic medical statistics given by UVA biostatisticians will include the basics of clinical research.
- ii. The resident will be taught basic statistical methods of research design and analysis; so, they can critically review literature and perform the statistics on their Investigative Projects. These lectures will form a crucial foundation for future Practice Based Learning and Improvement.
5. Other Conferences: Residents are required to attend, prepare for, and participate in,
 - a. Multi-Disciplinary Tumor Board Conferences
 - i. The residents are expected to attend the Multi-Disciplinary Tumor Board Conferences for their current clinical rotation per the [TB schedule](#) provided. All residents are encouraged to ask pertinent questions at these Tumor Boards. Senior residents are expected to take an active part in the discussions at tumor boards. Tumor Boards are used to teach tumor histopathology, neoplastic findings on diagnostic radiology studies, and how inter-disciplinary specialists communicate and use their discussions and interactions to benefit patient care.
 - b. Morbidity and Mortality Conference (M & M)
 - i. Morbidity (defined as RTOG grade 4-5 complications, prolonged hospitalization, or other serious but non-lethal complications that arises as a direct result of radiation therapy) and Mortality (defined as any death that is felt to be a direct result of radiation therapy or combined modality therapy that involves radiation)
 - ii. M & M conference will be held 3-4 times per year and organized by the third year resident/s as part of their QA responsibilities.
 - iii. Residents should keep a list of patients with significant morbidity or mortality and give the list to 3rd year before M&M (appropriate information will be obtained). All records of this conference will be confidential.
 - c. Monthly Clinical Trials Meeting
 - i. Held the first Thursday of each month after Sim Conference (8:30 to 9:00 AM ECCCC G253). Will be attended by the 2nd year residents.
 - d. GME Institutional Core Lecture Series
 - i. The UVA GME office provides a seminar lecture series that covers core ACGME required lectures. It is the 2nd Wednesday of each month from 7:00 – 8:00 AM. Residents who attend 12 hours annually will receive a certificate.
 - ii. The UVA radiation oncology residents must attend the ACGME required lectures and are strongly encouraged to attend the other lectures.
 - e. Residents are encouraged to attend Medical Center Hour, regional and national meetings to enhance their training.
 - f. Residents must be aware of the [Current Lecture / Tumor Board Schedule](#).
 - g. Opioid prescribing CME. Residents are required to complete annual CME credits on opioid prescribing and deterrence of abuse to maintain VA medical licensure. The Medical Director circulates a reminder each year for the requirement, including links to online resources. Due to the timeliness and importance of this topic, live lectures are also frequently available at UVA. This is a CME requirement for all physicians, including UVA faculty, and UVA requires this of all providers. UVA offers a 2 hour version through CME Village (www.cmevillage.com) that is available online at any time to provide credits.

VIII. Innovative Projects

- A. Requests for innovative projects that may deviate from the institutional, common and/or specialty specific program requirements must be approved in advance by the Review Committee.
- B. In preparing requests, the program director must follow Procedures for Approving Proposals for Innovative Projects located in the ACGME Manual on Policies and Procedures.
- C. Once a Review Committee approves a project, the sponsoring institution and program are jointly responsible for the quality of education offered to residents for the duration of such a project.

IX. Residency Documentation Process

A. The Main Residency Documentation will include:

1. Residency Program Guidelines and Requirements
2. Lecture / Tumor Board Schedule & Faculty and Resident Call Schedules
3. Physics Lecture Attendance
4. Radiobiology and Statistics Lecture Schedule and Attendance
5. Clinical Didactic Lecture & Grand Rounds Schedule and Attendance
6. Simulation Conference/Journal Club Attendance
7. Other Presentations and Attendance
8. M&M Conference and Visiting Professor Attendance
9. Resident Meeting Minutes
10. PEC, CCC, and other Meeting Minutes
11. Evaluation Forms
12. Correspondence
 - a. UVA GME correspondence and Internal Reviews and Responses
 - b. ACGME correspondence and Site Visit Reviews and Responses
 - c. NRMP/ERAS data including the rank order list

B. The Resident Documentation will contain:

1. Residency Requirement Checklist
2. Residency Program Guidelines for Rad Onc
3. Professional Information
4. Leave Requests & Calendars of Attendance
5. Rotation Schedules & Resident Call Schedule
6. Resident Patient Logs
7. Resident Research Project Information
8. In-service Exams, Raphex Exam, & Radiobiology Exam Scores
9. Journal Club & Other Presentations
10. Mock Oral Board & ABR Scores
11. Evaluations of the Residents
12. Program Director Evaluations & Residency Confirmations

C. This documentation will be kept in the Program Coordinator's office and is available for inspection.

Residents and Faculty are required to review the 2018 – 2019 Residency Guidelines and return this signed and dated form to the Program Director.

I have read the 2018 – 2019 UVA Radiation Oncology Residency Guidelines, I understand them fully, and I agree to participate in the UVA Radiation Oncology Residency Program in compliance with them.

Signature: _____

Date: _____

Print Name: _____

CURRENT LECTURE / TUMOR BOARD SCHEDULE

(revised 6/04/18)

<u>Monday</u>	8:00 – 9:00 AM	Simulation Conference (ECCCC Conference Room G253)
	12:00 – 1:00 PM	Culpeper Tumor Board (4 th Monday each month)
	12:00 – 1:00 PM	Resident Lecture (ECCCC Conference Room G253)
<u>Tuesday</u>	7:00 – 8:00 AM	Thoracic Tumor Board (ECCCC Conference Room 3303)
	7:30 – 8:30 AM	Head & Neck ENT Tumor Board (Riggs Auditorium)
	4:00 – 5:00 PM	Thyroid Cancer Meeting (last Tuesday of each month) (CA Center Conference Room 6191)
<u>Wednesday</u>	7:00 – 7:50 AM	GME Core Lecture Series (2 nd Wednesday of each month) (Educational Resource Center Conference Room)
	7:00 – 8:00 AM	Physics Lecture (ECCCC Physician Work Room G080)
	7:00 – 9:00 AM	GU Tumor Board (ECCCC Conference Room G253)
	7:00 – 8:00 AM	Neuro- Onc Tumor Board (2 nd Wednesday of each month)
	8:00 – 9:00 AM	Neuro- Onc Tumor Board (4 th Wednesday of each month) (Neurosurgery Conference Room, Barringer 3 rd Floor)
	8:00 – 9:00 AM	Neuropathology/Neuroradiology (1 st Weds of each month) (Neurosurgery Conference Room, Barringer 3 rd Floor)
	12:00 – 1:00 PM	Resident Lecture (ECCCC Conference Room G253)
	12:00 – 1:00 PM	Sarcoma Conference (ECCCC Conference Room 3303)
	4:00 – 5:00 PM	GYN Tumor Board (ECCCC Conference Room 3303)
	4:00 – 5:00 PM	Brain Mets Conference (3 rd Wednesday each month) (EC4 G253)
<u>Thursday</u>	6:45 – 8:15 AM	GI Tumor Board (CA Center Conference Room 6191)
	7:30 – 9:00 AM	Simulation Conference / Journal Club / Clinical Trials (1 st , 3 rd , & 5 th Thursdays [Clinical Trials 1 st Thursday only]) (ECCCC Conference Room G253)
	8:00 – 9:00 AM	Clinical Didactic Lecture (2 nd & 4 th Thursdays) (EC4 G253)
	8:00 – 9:00 AM	Hematologic Malignancy (Lymphoma) TB (ECCCC 3303)
	11:00a – 12:15 PM	Hematopathology Conference (Bone Marrow Reading Room 4231)
	4:00 – 5:00 PM	Physics Lecture (ECCCC Conference Room G253)
4:00 – 5:00 PM	Pediatric Tumor Board (1 st Thursday of each month) (ECCCC Conference Room 3303)	
<u>Friday</u>	7:30 – 8:30 AM	Palliative/Supportive Care Tumor Board (ECCCC 3303)
	7:30 – 9:00 AM	Simulation Conference/Journal Club (2 nd & 4 th Fridays) (ECCCC Conference Room G253)
	8:00 – 9:00 AM	Clinical Didactic Lecture (1 st , 3 rd , 5 th Fridays) (EC4 G253)
	12:00 – 1:30 PM	Hem/Onc Grand Rounds (CA Center Conference Room)
	12:00 – 1:00 PM	Resident Lecture (ECCCC Conference Room G253)
	12:30 – 1:30 PM	Cancer Center Seminar (McKim Hall Auditorium)
	1:30 – 3:00 PM	Breast Tumor Board (ECCCC Conference Room 3303)
3:30 – 4:30 PM	Hepatocellular Tumor Board (Endoscopy Classroom)	

*Note: Pathology and Diagnostic Radiology teaching will be provided at multi-disciplinary oncology tumor board conferences where the pathologist and radiologists will review the results of pertinent studies.

Resident Oral Examination – Radiation Oncology

Date of Exam: _____

Resident: _____

PGY X – 1st 2nd 3rd 4th year Rad Onc

Examiner: _____

Cancer Sites Evaluated: _____

Please provide a score for the resident’s performance for each case (circle best answer).

Case 1: _____ Comments: _____

Level 1		Level 2		Level 3		Level 4		Level 5
1	1.5	2	2.5	3	3.5	4	4.5	5

Case 2: _____ Comments: _____

Level 1		Level 2		Level 3		Level 4		Level 5
1	1.5	2	2.5	3	3.5	4	4.5	5

Case 3: _____ Comments: _____

Level 1		Level 2		Level 3		Level 4		Level 5
1	1.5	2	2.5	3	3.5	4	4.5	5

Overall: Please provide a score for the resident’s overall performance (circle best answer).

Level 1		Level 2		Level 3		Level 4		Level 5
1	1.5	2	2.5	3	3.5	4	4.5	5

****Scoring Key:**

Level 1: The resident demonstrates milestones expected of an incoming resident.

Level 2: The resident is advancing and demonstrates additional milestones, but is not yet performing at a mid-residency level.

Level 3: The resident continues to advance and demonstrate additional milestones, consistently including the majority of milestones targeted for residency.

Level 4: The resident has advanced so that he or she now substantially demonstrates the milestones targeted for residency. This level is designed as the graduation target.

Level 5: The resident has advanced beyond performance targets set for residency and is demonstrating “aspirational” goals which might describe the performance of someone who has been in practice for several years. It is expected that only a few exceptional residents will reach this level.

Faculty signature

Resident signature



**Department of Radiation Oncology
Agreement on Housestaff Extramural Professional Activities
(Moonlighting Agreement 2018 – 2019)**

I, _____ recognize that extramural professional activities are not widely endorsed by the Department of Radiation Oncology. I recognize that graduate medical education is a fulltime educational experience that involves teaching, as well as patient care. However, I feel the need for extramural professional activities due to financial responsibilities.

I recognize that the Department does not openly endorse these activities but does not prohibit them. I clearly recognize that I must provide my own professional liability insurance, as well as, have a permanent license to practice medicine in the Commonwealth of Virginia. It is recognized that this form will be used to inform the Department of my moonlighting activities and my recognition of my liability and responsibilities.

Per Radiation Oncology Guidelines, I will be allowed to work up to a maximum of 3 shifts per month at Western State Hospital without having to use vacation time-- as long as there is no detrimental impact on my residency training. I cannot moonlight when I am on call for the UVA Department of Radiation Oncology. If it is felt that moonlighting is adversely affecting my education, the Program Director and/or the Chairman will request that I stop all moonlighting activities.

I know that Moonlighting cannot begin at Western State Hospital until the above requirements have been met and this form has been signed. I understand that my performance will be monitored for the effect of these activities and that adverse effects may lead to withdrawal of permission to "moonlight". I recognize that engaging in unauthorized extramural professional activities may result in penalties or severe disciplinary action that may include dismissal from the residency program.

Resident

Date

Timothy Showalter, Program Director

Date

James Lerner, Chairman

Date



Cancer Center

**Department of Radiation Oncology
Residency Training Program
Policy on Board Eligibility**

The Department of Radiation Oncology requires each trainee to be aware of issues related to requirements for board eligibility as stated in the guidelines in the "[UVA Radiation Oncology Residency Program Introduction-Section C](#)".

Trainees may find information relating to Board eligibility in Radiation Oncology here:

<http://www.theabr.org/sites/all/themes/abr-media/pdf/BoardEligiblePolicy.pdf>

Trainees must be aware, specifically about the effect of leaves of absence, for any reason, on satisfying the criteria for completion of the training program. That information may be found here: <http://theabr.org>

Effective: Date: February 1, 2010

Revised: May 9, 2013



Department of Radiation Oncology

PHYSICIAN POLICY

- A. SUBJECT: **Resident Supervision**
- B. EFFECTIVE DATE: 11/3/2014

- C. **POLICY:** This policy details resident supervision for clinical activities in the Department of Radiation Oncology, including all clinical sites. This is a clinical policy that summarizes more detailed policy from the residency program manual (available from the Program Director or Program Coordinator, stored on the Share Drive).
- D. **PROCEDURE:** This policy applies generally, but specific topics that warrant special mention include:
 - 1. Image-guidance review by residents
 - 2. Authorized User status for HDR brachytherapy (Ir-192 source)
 - 3. Authorized User status for Gamma Knife radiosurgery

General: Resident physicians are a part of the team in the Department of Radiation Oncology. Residents practice under the supervision of Attending Physicians. Resident responsibility is increased gradually during the residency, as appropriate, and is described in detail in the UVA Radiation Oncology Residency guidelines. The radiation oncology policies for resident supervision are consistent with the UVA [GME Policy #12](#), which is included in the residency guidelines as an appendix item. Although residents may draft notes for patient consultation, simulation, treatment planning, and follow up, an Attending's review, editing and approval is required for each document. If the Attending physician has determined, based on evaluating the resident in the clinic, that it is appropriate, the resident may evaluate on-treatment patients to assist with management of toxicity or other medical problems. However, the Attending physician is required to see all patients with the residents and to document on-treatment visits with a weekly note (called a "to-be-seen" note at UVA). Typically, residents may begin assisting with management of toxicity mid-way through their first year of residency.

Image-guidance Review: All image-guidance films must be approved by an Attending physician prior to the next treatment. After a resident has demonstrated competence in evaluating image-guidance CT images, kV planar images, and port films, as evaluated by radiation oncology faculty members, the Program Director may grant Image-Guidance Review privileges. This typically happens at the beginning of the second year of radiation oncology residency (but may occur later based on faculty input). The Program Director communicates this privilege by sending an e-mail to all residents, physician faculty, physicists and radiation therapists. This privilege gives residents the privilege to review images while the patient is on the treatment table and to authorize the therapists proceed with treatment. Any image approved by a resident in this way is co-signed by an Attending physician prior to the next treatment. This privilege does not extend to stereotactic body radiation therapy or to fraction sizes larger than 5 Gy, which must be reviewed by an Attending prior to treatment.

HDR Brachytherapy Procedures: After a resident has completed the required training and has demonstrated competence in HDR brachytherapy, he/she may be designated as an Authorized User on the UVA license for HDR with Ir-192. This typically happens at the beginning of the 4th and final year of residency. This requires completion of an application process and approval by the UVA Radiation Safety Committee. This is communicated by announcement to all radiation oncology faculty and to the Chief Resident(s). Once an Authorized User, the resident may serve as the Authorized User for HDR brachytherapy with important rules. These important rules include: an Attending physician must review and approve the treatment plan; an Attending physician must be the Authorized User present at time of the first active dwell position; and, an Attending physician must be present in the building and readily available if needed.

Gamma Knife Radiosurgery: After a resident has completed the required training and has demonstrated competence in Gamma Knife radiosurgery, he/she may be designated as an Authorized User on the UVA license for Gamma Knife radiosurgery (with Cobalt). This typically happens at the beginning of the 4th and final year of residency. This requires completion of an application process and approval by the UVA Radiation Safety Committee. This is communicated by announcement to all radiation oncology faculty and to the Chief Resident(s). Once an Authorized User, the resident may serve as the Authorized User for Gamma Knife radiosurgery with important rules. These important rules include: an Attending physician must review and approve the treatment plan; an Attending physician must be the Authorized User present at the start of treatment; and, an Attending physician must be readily available if needed.

RECORD KEEPING: The latest version of this policy is maintained with the Departmental Policies, and updates require approval by the Medical Director and Director of Radiological Physics. The residency program guidelines are also available. A copy of the guidelines is emailed once each year to all departmental faculty and residents.

Created: 11/3/2014: Timothy N. Showalter, MD, MPH.

Last Modification: 11/3/2014: Timothy N. Showalter, MD, MPH.

Last saved: 12/4/2017: Jeffrey Siebers, Ph.D.

**Department of Radiation Oncology
UVA Faculty/Resident Behavioral Code of Conduct**

The "[Graduate Medical Education Committee Policy No. 05](#)" cites the Policy and Procedures for the Assessment of Performance of Graduate Medical Trainees and the consequences for misconduct. "Medical Center Policy No. 0291" states "each member of the Clinical Staff be held to the highest personal and professional standards, with adherence to the University of Virginia Medical Center's Core Values of: respect, integrity, stewardship and excellence".

The University of Virginia Department of Radiation Oncology is committed to a culture of mutual respect and safety. This Code reflects the Department's dedication to a positive working and learning environment in which every member of the Department, as well as those with whom we work in hospitals and other settings, are treated with professionalism and respect.

The Department is also committed to providing patient care of the highest quality, which requires that physician teams operate cohesively in an atmosphere of cooperation and respect. Inappropriate behavior can disrupt the proper functioning of the physician team and can create an environment in which members of the team are afraid to ask questions or make comments concerning appropriate patient care, to the detriment of the patient. Inappropriate behavior by a Department member is also potentially destructive to his/her career. The University has reporting obligations to the National Practitioner Data Bank and must respond truthfully to credentialing questionnaires.

For all of these reasons, the Department has established this Code to address and prevent instances of inappropriate behavior.

C. Purposes:

- To optimize the effectiveness and reliability of the healthcare and departmental teams.
- To enhance communication and interpersonal relations among all individuals involved in patient care, research and education.
- To improve the quality of patient care and safety.
- To reinforce an atmosphere of mutual respect for all who interact with or are associated with the Department.
- To prevent conduct which:
 - Interferes with an individual's ability to practice or work safely.
 - Creates a hostile or intimidating work environment.
 - Disrupts the delivery of patient care, research or educational activities.

D. Scope

This Behavioral Code of Conduct applies to all University of Virginia Department of Radiation Oncology faculty and employees, regardless of where they work.

Department of Radiation Oncology faculty and administrative leaders will be expected to set an example of professional conduct and to model the behaviors expected of all faculty, staff members, and residents in the Department.

E. Standards of Behavior

1. Expected Behaviors:

- Communication will take place in a timely fashion, involving the appropriate person(s), in an appropriate setting.
- Communications, including spoken remarks, written documents, and e-mails, will be honest and direct and conducted in a professional, constructive, respectful and efficient manner.
- Telephone communications will be respectful and professional.
- Cooperation and availability are expected of faculty, residents and staff whenever serving in a professional capacity. When individuals are paged, they will respond promptly and appropriately.
- Recognition that:
 - a variety of experience levels exists and
 - tolerance for those who are learning is expected.

2. Examples of Unacceptable Behaviors:

- Shouting, screaming or yelling
- Threatening or violent behavior
- Profane or disrespectful language
- Criticism of performance and/or competency:
 - delivered in an inappropriate location (i.e., not in private) and/or
 - not aimed at performance improvement
- Inappropriate arguments with patients, family, staff, and other physicians
- Sexual comments or innuendo
- Inappropriate touching, sexual or otherwise
- Racial, ethnic or discriminatory jokes/slurs
- Slamming or throwing objects in anger or disgust
- Hostile, condemning, or demeaning communications
- Other behavior demonstrating disrespect, dishonesty, intimidation, or disruption to the work environment
- Repeated failure to respond to call or pages
- Retaliation against any person who reports or addresses unacceptable behavior

F. Expected Action if Unacceptable Behavior Occurs:

In situations where unacceptable behaviors occur and residents are involved, the Department expects witnessing faculty, residents, or staff member or the involved resident to recognize the unacceptable behavior and report this to the Program Director, Department Chairman, or to any faculty member that is not directly involved who will notify the Program Director or Chairman.

In recognition of the fact that situations involving improper conduct within the Department can involve a variety of circumstances, the Chairman and Program Director must retain flexibility in determining how best to address the problem in each particular situation. In the case of a faculty member with inappropriate behavior towards a resident, the resident will be temporarily removed from that service until the specific issues are resolved. In most instances, efforts will be made to encourage discussion between the individuals involved, with the assistance of a facilitator as appropriate. If necessary to prevent harm to patients, students, staff or faculty, the Department may determine that suspension of the faculty member from participating in the Residency Program for a specific time period is necessary until the issues have been resolved.

In addressing concerns of unprofessional conduct by Department members, the primary objective is to restore a collegial and safe environment for working, learning and patient care. Remedial measures may include, for example, sincere apologies and/or therapy/counseling. Disciplinary measures may also be warranted, including for example oral or written warnings or reprimands.

At the conclusion of the matter, the Department Residency Program Director or Chairman will prepare a written report summarizing: the complaint or concern; the Department’s review; and the outcome of the matter. This report will be saved in the Residency Program Files and Faculty’s records.

Retaliation against any individual who reports or addresses concerns under this Code is prohibited and will not be tolerated. Allegations of retaliation will be promptly reviewed by the Program Director and the Department Chair.



Cancer Center

Department of Radiation Oncology Policy

- A. SUBJECT: Policy on Transitions of Care
- B. EFFECTIVE DATE: September 24, 2012
- C. POLICY: Policy on Transitions of Care

- I. PURPOSE:
Per UVA Graduate Medical Education Committee Policy No. 24 the Radiation Oncology Department has developed a Policy on Transitions of Care to ensure quality of care and patient safety.
- II. DEFINITION AND SCOPE:
A transition of care (“handoff”) must include a communication of information to support the transfer of care and responsibility for a patient/group of patients from one service and/or team to another. The transition/hand-off process is an interactive communication process which must pass specific, essential patient information from one caregiver to another.
- III. POLICY:
When a resident is scheduled: for a department clinical rotation, to go on vacation, or has an educational leave; they will observe the following transition/hand-off process. The hand-off process will involve a face-to-face interaction with both verbal and written/computerized communication. A sign-out sheet (see attached template); of the patients on treatment and the patients who are scheduled to undergo simulation in the next week, will be provided to the resident who will be covering the service of the on-leave resident. A copy of the Radiation Oncology Transitions of Care Sign-Out Sheet will be available on the secured network location to ensure compliance and patient safety.
The sign-out sheet will include:
 - Identification of the patient, including:
 - name,
 - medical record number,
 - age,
 - diagnosis,
 - treatment unit,
 - site being treated, and
 - the dose and number of fractionation
 - Whether the patient is receiving concurrent chemotherapy
 - Identification of the attending physician
 - Outstanding tasks – what needs to be completed (i.e., boost plan)
 - Recent notable events, including changes in condition or treatment

In Radiation Oncology, the faculty does not rotate off-service; so, the patient has built-in continuity of care. As outlined in the Radiation Oncology Guidelines, faculty coverage (the appropriate supervision level) is available according to the “Progressive Radiation Oncology Milestone Expectations” per residency year of the scheduled resident and/or as needed to ensure patient safety. Each resident must know the limits of his/her scope of authority, and the circumstances under which he/she is permitted to act with conditional independence.

Each academic year, the Program Director of the Residency Program distributes the ‘Resident Schedule’ to all faculty and staff which documents the attending and resident rotations for the year. At the beginning of each academic year, the hospital operators receive the ‘Radiation Oncology Call Schedule’ and any changes during the year will be emailed to the operators as they occur. Weekly, the department-specific ‘Clinic Coverage Schedule’ is sent to the department staff and faculty showing any changes to clinic coverage. This process creates safeguards for unexpected coverage changes in patient care due to circumstances, such as; resident illness, fatigue, or emergency.

During the semi-annual ‘Clinical Competency Committee Meeting’ each resident will be evaluated for his/her compliance with this Policy on Transitions of Care. At each semi-annual evaluation, the Program Director will document the committee’s assessment of the resident, discuss the analysis with the resident trainee, and create an action plan should one be needed with regards to this Policy on Transitions of Care.

Patient confidentiality and privacy is ensured in accordance with HIPAA guidelines; this includes the appropriate disposal of any written material in HIPAA-compliant receptacles, and encryption of any electronic devices used during the handoff process.

Reviewed: September 24, 2012

Reviewed/Approved: September 28, 2012

Revised: September 19, 2013

GRADUATE MEDICAL EDUCATION COMMITTEE POLICY NO. 02

- A. SUBJECT: Recruitment, Selection, and Appointment of Graduate Medical Trainees
- B. EFFECTIVE DATE: December 20, 2017 (R)
- C. POLICY: Policy on Recruitment, Selection, and Appointment of Graduate Medical Trainees

The University of Virginia Medical Center Graduate Medical Education (GME) Programs shall seek to provide all resident and fellow (hereinafter “graduate medical trainee”) applicants the right to a fair application process based on the criteria required by the accreditation organizations and/or specialty board in addition to the criteria set forth by the individual residency and fellowship programs.

In its recruitment of graduate medical trainees (GME Trainees), the University of Virginia Medical Center is committed to equal employment opportunity and affirmative action. To fulfill this commitment, the University of Virginia Medical Center administers its GME programs, procedures and practices without regard to age, color, disability, marital status, national or ethnic origin, political affiliation, race, religion, sex (including pregnancy), sexual orientation, veteran status, and family, medical or genetic information as required by Title IX of Education Amendments of 1972, the American Disabilities Act of 1990, as amended, Section 504 of the Rehabilitation Act of 1973, Titles VI and VII of the Civil Rights Act of 1964, the Age Discrimination Act of 1975, the Governor’s Executive Order Number One (2014), and other applicable statutes and University policies.

All Accreditation Council for Graduate Medical Education (ACGME) accredited training programs must have a program specific policy addressing their eligibility and selection of trainees.

Definition

The term GME Trainees shall include those who are in either in a residency position or a fellowship position.

Graduate Medical Trainee Eligibility

1. The ACGME accredited training programs must adhere to the graduate medical trainee eligibility set forth by the ACGME’s Institutional, Common and Specialty specific program requirements. GME programs granted eligibility exceptions by their specialty Review Committee must seek the GMEC approval prior to submitting an offer through the Match or directly to the trainee.
2. Non-ACGME accredited programs or non-accredited programs must follow relevant GME policies and any eligibility requirements set forth by their accreditation organization when applicable.

GME Trainee Recruitment

All candidates for programs (applicants who are invited for an interview) must be informed, in writing or electronic means, of the terms, conditions, and benefits of their appointment, including financial support; vacations, parental, sick, and other leaves of absence; professional liability, hospitalization, health, disability and other insurance provided for the graduate medical trainee and their families; and the conditions under which the Sponsoring Institutions provides call rooms, meals, laundry services, or their equivalents (IR IV. A.3)

Graduate Medical Trainee Selection

1. Each program must ensure that it selects GME Trainees from among eligible applicants based on the applicants' readiness, ability, aptitude, academic credentials, communication skills, and personal qualities such as motivation and integrity. Programs must not discriminate with regard to age, color, disability, marital status, national or ethnic origin, political affiliation, race, religion, sex (including pregnancy), sexual orientation, veteran status, and family medical or genetic information in the selection of GME Trainees.
2. In selecting from among qualified applicants, ACGME-accredited residency programs should participate in an organized matching program, such as the National Resident Matching Program (NRMP) or San Francisco Matching Program, and adhere to its policies. Additionally, programs that do not fill through the Match are encouraged to register for the Supplemental Offer and Acceptance Program (SOAP) if applicable.
3. ACGME-accredited fellowship programs should follow any specialty requirements to participate in the Match.
4. The program director of any GME program into which a graduate medical trainee is transferring must obtain written or electronic verification of previous educational experiences and a summative competency-based performance evaluation of the transferring graduate medical trainee.

Graduate Medical Trainee Appointment

1. Appointment to the University of Virginia Medical Center shall only be made once the applicant has fulfilled all the documentation required by the GME Office.
2. The Sponsoring Institution and the program directors must assure that GME Trainees are provided with a written agreement of appointment/contract (i.e. GME Contract) outlining the terms and conditions of their appointment to a program (IR IV.B.1).

Reviewed/Approved by GMEC: June 1, 2007
 Reviewed/Approved by GMEC: November 18, 2009
 GMEC Policy Subcommittee Reviewed: January 11, 2011, February 8, 2011
 Reviewed/Approved by GMEC: February 16, 2011
 GMEC Policy Subcommittee Reviewed/Revised: April 08, 2014
 GMEC Reviewed/Approved: April 16, 2014
 GME Policy Subcommittee Reviewed and Revised: September 08, 2015
 GMEC Reviewed/Approved: September 16, 2015
 GME Policy Subcommittee Reviewed/Revised: March 14, 2017
 GMEC Reviewed/Approved: March 15, 2017
 GME Policy Subcommittee Reviewed/Revised: December 12, 2017
 GMEC Reviewed/Approved: December 20, 2017



Office of Graduate Medical Education

GRADUATE MEDICAL EDUCATION COMMITTEE POLICY NO. 03

- A. SUBJECT: Absence from Graduate Medical Training
- B. EFFECTIVE DATE: March 21, 2018 (R)
- C. POLICY: Policy on Leave or Request for Absence

The University of Virginia Health System shall seek to provide its residents and fellows (hereinafter "Trainees") with appropriate time off to ensure the Trainee's well-being and to comply with the Accreditation Council for Graduate Medical Education (ACGME) requirements. Furthermore, any time away from training must adhere to department program policies and specific specialty/subspecialty board requirements.

D. PROCEDURE:

All GME Programs must have a policy on Leave of Absence, and all such policies must be consistent with the GME Institutional Policy. Program Directors must approve all leaves of absence; all leaves of absence must be reported in New Innovations within 30 days of the planned absence. Any leave of absence resulting from a Disciplinary Action, an Administrative Leave, or any leave requiring an extension of the training period must be reported to the Office of Graduate Medical Education (GMEO).

Unexcused Leave of Absence is defined as an absence from duty not approved by the Program Director. Disciplinary or remedial action resulting from an unexcused leave of absence shall be at the discretion of the Program Director based on individual Department and/or RRC regulations.

Vacation Leave: The GMEO recommends that Trainees be provided fifteen business days of vacation time per academic year (unless otherwise specified by their Program Director). Vacation time does not carry forward, although exceptions can be made on an individual basis when specifically allowed by Trainee's certification board and approved in advance by Program Director.

Professional Leave: This leave is determined and granted by the individual Program Directors. Time spent attending professional meetings, job or fellowship interviews, or taking board examinations or other examinations is not counted as vacation if the activity is approved by the Program Director.

Sick Leave: Trainees are provided up to fourteen calendar days per academic year of paid sick leave, inclusive of time needed for mental health. Beyond this, exceptional cases will be considered on an individual basis. In this regard, up to twenty-eight calendar days of additional paid leave time *may* be granted in cases of unusual illness or disability. Such additional leave would be granted through the Office of Graduate Medical Education only when the Program Director, DIO, or GME Office deem it acceptable. Paid sick leave does not carry forward.

Maternity Leave: Maternity leave is granted as 4 paid, consecutive weeks of exceptional leave, plus any remaining unused annual sick leave or annual vacation time. The total leave period must be approved by the Program Director who must communicate this to the GMEO. (N.B. Trainees wishing to add a new baby or new adoptee to their University-sponsored health insurance plan, must call Human Resources within thirty days after birth or formal adoption to add the new child to the health insurance plan.)

Paternity Leave: Paternity leave may be granted as one paid week (seven consecutive days) of exceptional leave, plus any remaining unused sick time or unused annual vacation time. The total leave period must be approved by the Program Director who must communicate this to the GMEO.

Adoption Leave: Adoption leave may be granted as 4 paid, consecutive weeks of exceptional leave for the primary care giver, plus any remaining unused sick time or unused annual vacation time. The total leave period must be approved by the Program Director who must communicate this to the GMEO.

Family and Medical Leave: The Health System provides family/medical leave of absence in accordance with the Family and Medical Leave Act of 1993 to eligible employees. Information related to the policies and procedures for securing such leave can be found in Medical Center Policy #600 accessed through the Repository for Medical Center Policy. The total leave period must be approved by the Program Director who must communicate this to the GMEO.

Military Leave – The Health System shall provide the Trainee with the necessary time off from training if called upon by the government for service in the U.S. Armed Forces. For a Trainee in good standing, re-entry into the program upon completion of any military time shall be guaranteed by the residency program in which the trainee was granted the leave of absence. The postgraduate level at which the trainee returns to the program shall be at the discretion of the Program Director. The total leave period must be approved by the Program Director and communicated to the GMEO.

Administrative Leave - The Health System provides Administrative Leave in accordance with Medical Center Policy #600.

Additional Time for Completing Board Requirements: In the event that additional training time is required to meet Board eligibility requirements (due to leave or other circumstances) the Trainee must be reappointed, with pay and benefits to continue for the extension.

Revised/Approved, Graduate Medical Education Committee, 02/16/2005,
Revised/Approved, Graduate Medical Education Committee, 2/20/2008
Revised, GMEC Policy Subcommittee, 1/12/2012
Revised, GMEC Policy Subcommittee, 3/7/2012
Reviewed/Approved, GMEC, May 16, 2012
Revised, GMEC Policy Subcommittee, 12/10/2013
Reviewed/Approved, GMEC, 12/18/2013
Revised/Approved, GMEC, 02/15/2017
GMEC Policy Subcommittee Reviewed/Revised: March 13, 2018
GMEC Approved: March 21, 2018



Office of Graduate Medical Education

GRADUATE MEDICAL EDUCATION COMMITTEE POLICY NO. 05

A. SUBJECT: Performance Assessment of Graduate Medical Education Trainees

B. EFFECTIVE DATE: June 15, 2016 (R)

C. POLICY

The following Performance Assessment of Graduate Medical Education Trainees Policy (hereinafter "Performance Policy") shall apply to all graduate medical education trainees (GME Trainees) at the University of Virginia Health System. The Performance Policy governs the qualification of GME Trainees to remain in training, promotion within their training program, as well as the certification requirements for completion of their training program, and its provisions shall apply in all instances in which such qualification, promotion and/or certification is in question.

Definition:

Deficiency: Inadequate acquisition of or performance in any of the core competency areas, as expected for the GME Trainee's level of experience and education.

Remediation: A period of time at the discretion of the program director with advisement by the program's Clinical Competency Committee's recommendation imposed on a GME Trainee to improve the competency area(s) of deficiency. Remediation can include repeating one or more rotations or participation in a special remedial program and will be at least three months. Remediation per se is not appealable, but may be reportable. Adverse actions resulting from unsuccessful completion of remediation are appealable.

Non-promotion: The decision by a program director in collaboration with the program's Clinical Competency Committee not to advance a GME Trainee to the next level of training based on deficiency in core competency areas. The GME trainee may be required to repeat a full or part of an academic year, or the end date (i.e., graduation) of the training program may be extended based on requirements from either the program or the certification board.

Non-renewal: See [GME Policy](#) No. 04, Non-renewal of GME Trainees' Appointment.

Misconduct: See [GME Policy](#) No. 31, GME Procedures to Address Trainee Misconduct

Adverse Action: An adverse action may include suspension, non-promotion, nonrenewal of appointment, or dismissal of a GME Trainee from his or her training program. Adverse actions are generally reportable events and appealable. Reportable Events: Those actions the program or institution must disclose to others upon request, including, but not limited to, future employers, privileging hospitals, and licensing and specialty certification boards and, if applicable, the Educational Commission for Foreign Medical Graduates (ECFMG).

D. PROCEDURE

1. PERFORMANCE ASSESSMENT AND REVIEW OF GME TRAINEES

GME Trainees shall be evaluated in a timely manner during each rotation or similar educational assignment in line with the relevant accreditation organization's requirements.

The evaluations of GME Trainee performance must be accessible for review by the GME Trainee, in accordance with institutional policy.

The program director for each training program has primary responsibility for monitoring the competence of the program's GME Trainees, for recommending promotion and board eligibility, and, when necessary, imposing any remediation or adverse action.

A Clinical Competency Committee (CCC) in each ACGME-accredited program should review all GME Trainee evaluations regularly but no less than every six months. The CCC should evaluate each trainee with respect to the specialty specific Milestones that each specialty's Residency Review Committee has designated. The CCC should advise the program director regarding GME Trainee progress, including promotion, remediation, and dismissal. There must be a written description of the responsibilities of the Clinical Competency Committee in each program. The program director must provide a summative evaluation for each GME Trainee upon completion of each training year and at time of graduation from the training program. The specialty-specific Milestones must be used for the ACGME accredited programs as one of the tools to ensure GME Trainees are able to practice core professional activities without supervision.

2. PROMOTION

Those GME Trainees judged by the program director in collaboration with the program's Clinical Competency Committee to have completed satisfactorily the requirements for a specific level of training will be promoted to the next level of training unless the GME Trainee is enrolled in a training track of limited duration that is not designed to achieve full certification (e.g., a one-year preliminary position).

No GME Trainee shall remain at the same level of training for more than 24 months, exclusive of leave. A GME Trainee whose performance is judged to be satisfactory shall advance until the completion of the program/certification requirements.

A program director must provide timely verification of residency or fellowship education and summative performance evaluations for GME Trainees who may leave the program prior to completion. (CPR III.C.2)

3. DEFICIENCY

- i. Letter of Deficiency: When one (or more) deficiency(ies) is identified, the Program Director will issue the GME Trainee a Letter of Deficiency. The GME Trainee must be informed in person of this decision and must be provided with a hard copy that includes the following:
 - a. A statement identifying the area(s) of deficiency;
 - b. A plan for remediation including duration of the remediation;
 - c. Criteria by which successful remediation will be judged; and
 - d. Written notice that failure to meet the conditions of remediation could result in additional remediation or extended training and/or suspension or dismissal from the training program at any point during the remediation period, or at the conclusion of the remediation period.
- ii. The Program Director or designee must document that that meeting with the GME Trainee has occurred and that the trainee was provided the Letter of Deficiency. The Designated Institutional Official ("DIO") and the program's Clinical Competency Committee Chairperson must receive a copy of the Letter of Deficiency.
- iii. At the end of remediation period, the program's CCC shall convene to determine if the remediation of the GME Trainee was successful. If the GME Trainee successfully completes the remediation, the Program Director shall notify the Trainee of successful completion. Written documentation must be included in the GME Trainee's file describing the satisfactory completion of the remediation. The DIO and the program's CCC Chairperson must receive a copy of the documentation.
- iv. In the case of unsuccessful completion of the initial remediation, the CCC must determine further actions which may include extension of remediation or suspension of clinical activities or dismissal from the training program. If an adverse action is taken, the Trainee must be given a copy of GME Policy 32, Adverse Actions and Appeals Process in Graduate Medical Education. The DIO and the GME Office must be notified of such decisions.
- v. A Letter of Deficiency issued to a GME trainee constitutes notification that dismissal from the program can occur at any time during or at the conclusion of remediation. Dismissal prior to the conclusion of a remediation period may occur if the deficiency that gave rise to the Letter of Deficiency is repeated and jeopardizes patient safety and quality of patient care.

MPC 06/06/2000;
GMEC Reviewed and approved: June 19, 2002
GMEC Reviewed and Approved: June 19, 2002
GMEC Review and Approved: November 18, 2009
Reviewed/Revised: GMEC Policy Subcommittee, June 22, 2010
Reviewed: GMEC, July 21, 2010
GMEC Reviewed/Approved: August 18, 2010
GMEC Reviewed/Approved: January 19, 2011
GMEC Reviewed/Approved: April 20, 2011
GMEC Reviewed/Approved: September 21/27, 2011
GME Policy Subcommittee Reviewed/Revised: August 12, 2014
GMEC Policy Subcommittee Reviewed/Revised: January 12, February 9, & March 8, and April 12, 2016
GME Reviewed/Approved: June 15, 2016



Office of Graduate Medical Education

GRADUATE MEDICAL EDUCATION COMMITTEE POLICY NO. 06

- A. SUBJECT: Grievance
- B: EFFECTIVE DATE: January 17, 2018 (R)
- C: POLICY: Policy on Grievance

This policy is established to provide a mechanism for resolving disputes and complaints that may arise between a graduate medical education trainee (herein after "GME Trainees") and his or her program director or other persons involved with the administration of the graduate medical education (GME) program.

There shall be a process for adjudicating GME Trainee complaints and grievances related to the work environment or non-academic issues related to individual GME program or faculty.

Definitions

Complaint – A written or verbal expression of dissatisfaction with the working and learning environment, individual residency programs or the faculty.

Grievable Complaints ("Grievance") - A grievable complaint is a concern or issue that a GME Trainee may feel is unjust and/or an unfair practice that may affect his or her ability to carry out duties as required by both the Accreditation Council for Graduate Medical Education (ACGME) and the GME program.

Grievable complaints include the following:

- 1) A program's consistently exceeding the ACGME Duty Hour regulations without regard to the GME Trainee's well-being.
- 2) Complaints related to a GME Trainee feeling unsafe and/or unprotected due to lack of security provided by the program or Medical Center.
- 3) Complaints related to a disciplinary action other than adverse actions including nonrenewal of Trainee appointment or dismissal (please refer to GME Policy 04-Renewal and Non-Renewal of the GME Trainee Appointment and 05 – Performance Assessment of GME Trainees) brought forth by the Program Director as a result of GME Trainee misconduct.
- 4) Complaints related to inappropriate behavior, including mistreatment, by any member of the clinical learning environment as outlined in Medical Center Policy 0262: Standards for Professional Behavior.

Complaints based solely on the following actions are not subject to this process and thus are considered "not grievable":

- 1) Decisions regarding and/or documentation of areas of deficiencies in academic performance or remediation (see GME Policy 05: Performance Assessment of GME Trainees).
- 2) Establishment and revision of stipends, position classifications, or general benefits

- 3) Work activity accepted by the GME Trainee as a condition of employment or work activity that may be reasonably expected to constitute a part of the job
- 4) The content of policies, procedures and other rules applicable to GME Trainees
- 5) Work and duty assignments within the Medical Center
- 6) Grievances related to discrimination on the basis of age, color, disability, gender identity, marital status, national or ethnic origin, political affiliation, race, religion, sex (including pregnancy), sexual orientation, veteran status, and family and genetic information shall be referred to Catherine Spear, Assistant Vice President, Office of Equal Opportunity Programs, P.O. Box 400219, Washington Hall, Charlottesville, VA 22904, (434) 924-3200, UVaEOP@virginia.edu

PROCEDURE:

- **Step 1:** (If Grievance is with Program Director, skip to Step 2.) The GME Trainee and program director shall make a good faith effort to resolve complaints informally. If the complaint is not resolved informally and if the complaint is grievable, as defined above, the GME Trainee shall, notify the program director in writing of the nature of the grievance, all pertinent information and evidence supportive of the grievance and a statement of the relief requested. Within 7 calendar days after receipt of this notice, the program director shall meet with the GME Trainee and attempt to reach a resolution along with a mutually agreeable third party (e.g., member of GME Office). Within 5 calendar days of this discussion, the program director shall notify the GME Trainee in writing of the resolution of the grievance and shall address both the issues raised and the relief requested. A copy of the program director's notification shall be provided to the appropriate Department Chair and to the Designated Institutional Official (DIO) and Associate Dean of Graduate Medical Education.
- **Step 2:** If the program director's written resolution is not acceptable to the GME Trainee the GME Trainee shall notify the Department Chair (if Program Director is Department Chair, skip to Step 3) in writing within 10 calendar days of receipt of the program director's notification of resolution. The GME Trainee's notification to the Department Chair shall include a copy of the program director's resolution and all other information supportive of the GME Trainee's grievance. Within 7 calendar days of receipt of the grievance, the Department Chair shall meet with the GME Trainee to discuss the grievance and attempt to reach a resolution with third party present. Within 5 business days of this meeting, the Department Chair shall send to the GME Trainee a written response to the issues and relief requested. A copy of this response shall be provided to the DIO.
- **Step 3:** If the GME Trainee disagrees with the decision by the Department Chair or the Program Director is the Department Chair, the GME Trainee shall present a written statement to the DIO within 10 calendar days of the receipt of the Program Director/Department Chair's decision. The statement shall describe the nature of and basis for the grievance and include copies of the decisions of the Program Director and the Department Chair. Failure to submit the grievance in the ten day period shall constitute waiver of the grievance process and the decision of the Program Director/Department Chair will be final. The DIO shall review all written information and decide whether further meetings or inquiry could be helpful to resolve the issue. If the DIO has a conflict, this responsibility would fall to the Associate DIO; if both have a conflict, this responsibility would fall to the Vice-Chair of the GMEC. Within 10 calendar days of receipt of the GME Trainee's statement, the DIO or her designee shall provide to the graduate medical trainee a written decision on the grievance. This decision shall be final.

D: The DIO or her designee may extend these times for good cause.

Confidentiality

All participants in Steps 1, 2 and 3 of the grievance process shall not discuss the matter under review with any third party except as may be required for purposes of the grievance procedure. The Chief Executive Officer of the Medical Center and the Dean of the School of Medicine may be notified of a grievance and such notification shall not constitute a breach of this confidentiality requirement.

GMEC Approval: January 19, 2000

GMEC Approval: April 2007

GMEC Approval: September 16, 2009

Reviewed/Revised: GME Policy Subcommittee, December 10, 2013

Approved: GMEC, December 18, 2013

GME Policy Subcommittee Reviewed/revised: December 8, 2015 & January 12, 2016

GMEC Approval: January 20, 2016

GMEC Revised/Approved: January 18, 2018



Office of Graduate Medical Education

GRADUATE MEDICAL EDUCATION COMMITTEE POLICY NO. 07

A. SUBJECT: United States Medical Licensing Examination

B. EFFECTIVE DATE: December 20, 2017 (R)

C. POLICY:

This policy outlines minimum standards regarding licensing examinations to ensure Graduate Medical Education (GME) trainees' qualification for matriculation into a GME training program, promotion to advanced levels of training, and achieving board eligibility. This policy applies to all physician residents and fellows in the GME programs sponsored by the University of Virginia Medical Center.

1. Prior to matriculation into a GME program

Residents must successfully pass Step 1 and both parts of Step 2 of the United States Medical Licensing Examination (USMLE) or the Comprehensive Osteopathic Medical Licensing Examination (COMLEX) by contract start date in order to enroll in a GME program at the University of Virginia Medical Center. Exceptions must be approved by the Graduate Medical Education Committee (GMEC) in advance.

Fellows entering a GME training program must successfully pass USMLE or COMLEX Step 3 (or its equivalent) prior to entering their fellowship program. Exceptions must be approved by the GMEC in advance.

2. Following entry into a GME program

All residents who are currently enrolled in a GME training program must take and pass Step 3 of the USMLE or COMLEX by March 1st of their PGY-2 year. Failure to pass USMLE or COMLEX Step 3 by March of the PGY-2 year may result in non-renewal of their appointment.

Residents should register for the USMLE or COMLEX Step 3 examination (or its equivalent) no later than November 1st of their PGY-2 year to allow for scheduling, grading, and notification of results by March 1.

Residents who fail USMLE or COMLEX Step 3 (or its equivalent) after two attempts must be presented to the GMEC by the Program Director or Chair of the Department for discussion.

Since residents will not be expected to use vacation time to take the exam since it is a GME requirement, time spent taking the exam will be logged as duty hours.

Programs will be responsible for monitoring satisfactory completion of the USMLE or COMLEX Step 3 requirements for each of their residents. In compliance with the ACGME Institutional Requirements (IV.C. 1. a), programs must provide a resident/fellow who fails to meet the policy defined deadline with a written notice of intent when that resident's/fellow's agreement will not be renewed, when that resident/fellow will not be promoted to the next level of training, or when that resident/fellow will be dismissed.

3. Provisions for exception

Trainees who take extended sick leave or leave of absence for personal reasons may be granted an extension at the discretion of the trainee's Program Director. The Program Director need not present this extension to the full GMEC but must inform the GME Office in advance. Once the trainee returns to full duty, a plan for completion of the USMLE must be instituted and communicated to the GME Office.

The trainee will be given six months to pass the examination from the date of GMEC approval of his/her exception. The Program Director or trainee must report back to the GME Office successful completion (or failure to complete) of this requirement.

Trainees who fail to schedule the USMLE Step III must be brought before the GMEC where a plan will be established.

4. International Medical Graduates

International medical graduate is defined as a physician who received his/her medical degree or qualification from a medical school located outside the United States. Citizens of the United States who have completed their

medical education in schools outside the United States are considered international medical graduates; non-U.S. citizens who have graduated from medical schools in the United States are not considered international medical graduates.

The Educational Commission for Foreign Medical Graduates (ECFMG), through its certification program, assesses whether international medical graduates have met minimum standards of eligibility to enter residency or fellowship programs in the United States accredited by the Accreditation Council for Graduate Medical Education (ACGME). ECFMG Certification is a requirement for international medical graduates who wish to enter GME training programs. To be eligible for ECFMG Certification, a physician must pass the USMLE Step 1 and Step 2. International medical graduate who received his/her medical training from a medical school accredited by the Royal College of Physicians and Surgeons of Canada and successfully passed the Medical Council of Canada Qualifying Examination (MCCQE) Part I and II are exempted from the USMLE requirements outlined in this policy. Specifically, MCCQE Part II is equivalent to the USMLE Step 3 in that it requires postgraduate training and measures equivalent areas of medical knowledge and skills assessed in the USMLE Step 3.

GMEC will consider exception request for International medical graduate entering fellowship programs when the host Program Director has sufficient evidence to prove the fellow's competency including, but not limited to, the following conditions;

- Trainee has obtained board certification in a country other than the United States in the specialty area that he/she is pursuing;
- Trainee has been an independent practitioner at least for one year in the specialty area that he/she is pursuing; and
- Trainee does not have intention to pursue specialty board certification in the United States.

These exceptions will be reviewed by the GME Education Subcommittee and presented in the full GMEC for approval.

GMEC Approval: November 19, 2008; applies to all residents and fellows matriculating July 1, 2009 and thereafter.

GMEC Policy Subcommittee Review – May 11, 2010 / GMEC Review/Approval: May 19, 2010

GMEC Reviewed: July 21, 2010 GMEC Reviewed/Approved: August 18, 2010

GMEC Policy Subcommittee Reviewed/Approved: February 14, 2012

GMEC Reviewed/Approved: February 15, 2012

GMEC Approved the amendment on the score reporting deadline: May 18, 2014

GMEC Policy Subcommittee Revised: February 10, 2015

GMEC Approved: February 18, 2015

GMEC Subcommittee Reviewed/Revised: December 12, 2017

GMEC Approved: December 20, 2017



Office of Graduate Medical Education

GRADUATE MEDICAL EDUCATION COMMITTEE POLICY NO. 10

(PLEASE NOTE: THIS IS NOT THE FULL GMEC POLICY! To consolidate space, this is only the portion pertaining to Moonlighting. The full policy can be found here: <https://med.virginia.edu/gme/institutional-policies/>)

A. SUBJECT: Learning and Working Environment for GME Trainees

B. EFFECTIVE DATE: May 16, 2018 (R)

C. REASONS FOR POLICY

The University of Virginia Medical Center (UVAMC) strives to provide excellence, innovation and superlative quality in the care of patients, the training of health professionals, and the creation and sharing of health knowledge within a culture that promotes equity, diversity and inclusiveness. To promote these goals, the UVAMC is committed to a safe and supportive learning and working environment for all members of its community. This policy outlines the responsibilities for Graduate

Medical Education (GME) programs and the steps to be taken to ensure well-being and quality of clinical experiences and education of GME Trainees.

This policy shall apply to all GME Trainees at the UVAMC.

Definition of Terms:

Internal Moonlighting: Voluntary, compensated, medically-related work (not related with training requirements) performed within the institution in which the GME Trainee is in training or at any of its related participating sites.

External Moonlighting: Voluntary, compensated, medically-related work performed outside the institution where the GME Trainee is in training or at any of its related participating sites.

D. POLICY STATEMENT

3. Clinical Experience and Education

Programs, in partnership with their Sponsoring Institutions, must design an effective program structure that is configured to provide GME Trainees with educational and clinical experience opportunities, as well as reasonable opportunities for rest and personal activities.

e) Moonlighting

- Moonlighting must not interfere with the ability of the GME Trainee or other Trainees in the program to achieve the goals and objectives of the educational program, and must not interfere with the GME Trainee's fitness for duty nor compromise patient safety.
- Time spent by GME Trainees in internal and external moonlighting must be counted toward the 80-hour maximum weekly limit.
- All ACGME-accredited GME Trainees in PGY-1 year are not permitted to moonlight.
- A GME Trainee who wishes to moonlight must follow the Moonlighting protocols outlined in Appendix B which is incorporated into this Policy.

GMEC Reviewed and approved: January 19, 2000 MPC 06/06/2000;

GMEC Reviewed and approved: June 19, 2002

GMEC Reviewed and Approved: June 19, 2002

GMEC Review and Approved: November 18, 2009

Reviewed/Revised: GMEC Policy Subcommittee, June 22, 2010

Reviewed: GMEC, July 21, 2010

GMEC Reviewed/Approved: August 18, 2010

GMEC Reviewed/Approved: January 19, 2011

GMEC Reviewed/Approved: April 20, 2011

GMEC Reviewed/Approved: September 21/27, 2011

GME Policy Subcommittee Reviewed/Revised: August 12, 2014

GMEC Policy Subcommittee Reviewed/Revised: January 12, February 9, March 8, & April 12, 2016

GMEC Policy Subcommittee Reviewed/Revised: May 9, June 13, July 11, August 8, 2017, April 10, 2018, and May 8, 2018

GMEC Reviewed/Approved: May 16, 2018

Appendix B: MOONLIGHTING PROTOCOLS

1. Programs and departments may have policies which are more restrictive than the institutional policy. Programs must not require GME Trainees to engage in moonlighting activities. Each department's policy regarding moonlighting activities must be well-publicized to its GME Trainees (e.g., handout materials; intranet).
2. Should a GME Trainee be approved by his/her program director for moonlighting, then an [application to moonlight](#) must be submitted to the Graduate Medical Education Office (GMEO) no less than 60 days prior to the intended start date of the moonlighting activity. Applications will be referred to the DIO for review and approval. GME Trainees shall not begin moonlighting prior to receiving DIO approval.
3. Approval of moonlighting by DIO is subject to the program director's attestation that the proposed moonlighting does not interfere with the ability of the GME Trainee to achieve the goals and objectives of the required educational program, and that the GME Trainee is in good standing in his/her training program.
4. Approval for moonlighting may be valid for an academic year. Any granted moonlighting shall expire on the proposed ending date or June 30th each year, whichever comes first. A new application must be submitted at the beginning of each academic year.

5. The program director has primary responsibility to monitor fatigue levels of all GME Trainees participating in all moonlighting activities. Additionally, faculty members and GME Trainees must be educated to recognize the signs of fatigue and sleep deprivation and in alertness management and fatigue mitigation processes. Each GME programs must adopt policies to prevent and counteract potential negative effects of fatigue on patient care and learning.
6. Approval for moonlighting can be revoked at any point by the program director or DIO in any of the following cases. Reinstating the revoked approval for moonlighting is at the program director's discretion.
 - a) When it is determined that a GME Trainee's moonlighting activities negatively impact his/her ability to fulfill their clinical duties and patient care; or
 - b) When it is determined that a GME Trainee's moonlighting activities negatively impact the learning and working environment for other trainees in the program; or
 - c) When the GME Trainee is deemed unfit for clinical and/or non-clinical duties due to mental or physical impairment including injury, illness, and fatigue; or
 - d) When the program director or the program's Clinical Competency Committee issued a Letter of Deficiency to a GME Trainee: or
 - e) When the GME Trainee is suspended from his/her training program activities or clinical activities; or
 - f) When the GME Trainee is found to be non-compliant with the Medical Center and GME policies and regulations including, but not limited to, non-compliance with the mandatory NetLearning courses, flu-shot, TB-testing, and respiratory mask-fit deadlines; or
 - g) When the GME Trainee is found to be in Clinical and Educational Work Hours violation.
7. Time spent by trainees in any moonlighting activity must be counted towards the 80 hour Maximum Weekly Clinical and Educational Work Hours Limit. All moonlighting hours must be recorded in New Innovations as moonlighting hours in addition to the Clinical and Educational Work Hours for the regular educational activities.
8. In consideration of Clinical and Educational Work Hours restrictions, no GME Trainees assigned to inpatient service requiring in-house call shall engage in any moonlighting activity during that rotation.
9. Audits of moonlighting hours logged will be performed by the GMEO and the GME trainee's program director.
10. In view of the serious legal implications of GME Trainees engaging in unauthorized moonlighting activities, noncompliance with this policy may result in certain disciplinary or adverse actions, including dismissal from the residency or fellowship training program. Specific disciplinary or adverse actions will be determined by the program director, department chair, or DIO.



Office of Graduate Medical Education

GRADUATE MEDICAL EDUCATION COMMITTEE POLICY NO. 12

A. SUBJECT: Graduate Medical Education Trainee Supervision Policy

B. EFFECTIVE DATE: November 9, 2017 (R)

C. POLICY:

This policy outlines the University of Virginia Graduate Medical Education (GME) requirements regarding progressive responsibility of GME Trainees (hereinafter "Trainees") and Trainee supervision. The Policy incorporates all applicable University of Virginia Medical Center and Accreditation Council of Graduate Medical Education institutional policies, procedures and standards of accreditation. Note that where appropriate, program-specific standards for supervision may exist and supersede institutional requirements, which are minimum standards.

D. Procedure

1. Levels of Supervision

To promote oversight of GME Trainee supervision while providing for graded authority and responsibility, the following classification of supervision must be employed:

- a. Direct Supervision – the supervising physician is physically present with the trainee and patient.
- b. Indirect Supervision:
 - with Direct Supervision immediately available – the supervising physician is physically within the hospital or other site of patient care, and is immediately available to provide Direct Supervision.
 - with Direct Supervision available – the supervising physician is not physically present within the hospital or other site of patient care, but is immediately available by means of telephonic and/or electronic modalities, and is available to provide direct supervision within 30 minutes after contact.
- c. Oversight – The supervising physician is available to provide review of procedures/encounters with feedback provided after care is delivered.

2. Supervision and Accountability

GME Programs, in partnership with UVA Health System, must:

- a. Ensure that each patient must have an identified, appropriately credentialed and privileged attending physician who is ultimately responsible for that patient's care; this information must be available to Trainees, faculty members, other members of the health care team, and patients;
- b. Assure Trainees and faculty must inform each patient of their respective roles in that patient's care when providing direct patient care;
- c. Demonstrate that the appropriate level of supervision in place for all residents is based on each resident's level of training and ability, as well as patient complexity and acuity. Supervision may be exercised through a variety of methods, as appropriate to the situation. Programs must be in compliance with relevant accreditation requirement(s) which specifies which activities require different levels of supervision;
- d. Delegate each Trainee progressive authority and responsibility, conditional independence, and a supervisory role in patient care assigned by the program director and the program's Clinical Competency Committee;
- e. Ensure that senior residents or fellows should serve in a supervisory role to junior residents in recognition of their progress towards independence, based on the needs of each patient and the skills of the individual resident or fellow;
- f. Establish a mechanism of 1) providing feedback and program notification if either a member of the faculty or a Trainee identifies a problem with supervision; 2) action to be taken if the supervising attending physician is unavailable, does not respond to attempts at communication, or does not provide adequate supervision and 3) action to be taken in emergency situations where a Trainee is beyond his/her level of experience or competence;
- g. Ensure sufficient duration of faculty supervision assignments in assessing the competency of each Trainee and in delegating the Trainee the appropriate level of patient care authority and responsibility; and
- h. Ensure that adequate supervision is provided to the Trainee rotating to participating institutions and at away elective rotation sites.

3. Trainee Responsibilities

- a. Trainees must be aware and adhere to the institutional and program-level policies on Trainee supervision.
- b. Licensed Trainees at all levels of training may write orders under the supervision of an attending physician. All orders shall include the date signed by the Trainee. Requirements for the completeness and timing of the patient history and physical exam ("H&P"), including a listing of the minimum contents to be included in the medical record by trainees, shall comply with appropriate medical records policies and applicable hospital licensing and Joint Commission standards.
- c. Trainees must request supervision from the attending physician or supervisor if asked to perform a procedure when he/she has insufficient experience with the procedure and/or universal protocol, or when the procedure is beyond the Trainee's competence.
- d. If IRPA (In-house Rescue Physician Adult) is activated, the attending IRPA physician can assume the supervisory role for that patient for the IRPA event, but the Trainee must notify the regular attending of the activation within 90 minutes.
- e. A Trainee must notify the responsible Attending Physician within 90 minutes of any of the following events in line with the Medical Center Policy 0324: Clinical Communication and Escalation of Care/Inpatient Services. Individual departments may have additional events or more urgent time restrictions that qualify for notifying the responsible Attending Physician. The attending must review this list and discuss their expectations for Escalation of Care at the start of each rotation.
 - Patient admission to hospital and/or service
 - Transfer of patient to or from the intensive care unit or to a higher level of care

- Need for intubation or ventilator support
- Cardiac arrest or significant changes in hemodynamic status (e.g. Code 12 or MET team activation)
- Significant change in clinical status
- Development of significant neurological changes
- Development of major wound complications
- Medication errors requiring clinical intervention
- Any significant clinical problem that will require an invasive procedure or operation
- Patient death
- Notification of patient representative that family wishes to lodge a formal complaint
- Activation of IRPA for anything other than routine procedures
- Patient and/or family request to see, or to speak with the attending physician
- Whenever a GME Trainee believes that his/her ability to provide care to the patient is impeded.

Approved, GMEC, University of Virginia Health System: September 1992
 Revised: GMEC, June 20, 2001
 Approved, Medical Policy Council, October 2, 2001
 Reviewed: GMEC, November 20, 2002
 Reviewed and Approved GMEC, May 31, 2007
 Reviewed GMEC, November 18, 2009
 Reviewed: GMEC Policy Subcommittee, April 13, 2010
 Reviewed/Approved: GMEC, April 21, 2010
 Reviewed/Approved: GMEC Policy Subcommittee, July 5, 2011 and August 23, 2011
 GMEC Reviewed/Approved: March 21, 2012
 GMEC Policy Subcommittee Reviewed: August 14, 2012
 GMEC Reviewed/Approved: August 15, 2012
 Reviewed/Approved: GMEC Policy Subcommittee, August 20, 2013
 Revised/Approved: GMEC: January 21, 2015
 GMEC Policy Subcommittee Reviewed/Revised: October 11 and Online, 2017
 GMEC Reviewed/Approved through Online Review and Voting: November 9, 2017



Office of Graduate Medical Education

GRADUATE MEDICAL EDUCATION COMMITTEE POLICY NO. 13

- A. SUBJECT: Other Learners
- B: EFFECTIVE DATE: October 18, 2017 (R)
- C: POLICY: Policy on Presence of Other Learners

The presence of other learners in the GME programs clinical learning environment must not interfere with the appointed trainees’ education. The program director must report the presence of other learners who interfere with trainee education to the DIO and GMEC. GME trainees can also report presence of other learners who interfere with their education.

The GMEC encourages programs to review the results of the anonymous ACGME resident survey with their graduate medical trainees, addressing the question of interference from other learners.

GMEC Reviewed/Approved: March 18, 2009
 GMEC Reviewed/Approved: July 15, 2009
 GMEC Policy Subcommittee: February 11, 201 and March 8, 2011
 GMEC Reviewed/Approved: March 16, 2011
 GMEC Policy Subcommittee Reviewed/Revised: April 08, 2014
 GMEC Reviewed/Approved: April 16, 2014
 GMEC Policy Subcommittee: September 12, 2017
 GMEC Reviewed/Approved: October, 18, 2017



Office of Graduate Medical Education

GRADUATE MEDICAL EDUCATION COMMITTEE POLICY NO. 15

- A. SUBJECT: Trainees Rotating Off Service
- B: EFFECTIVE DATE: October 18, 2017 (R)
- C: POLICY: Graduate Medical Trainees rotating in other program's services

Definitions:

Primary Program – Residency/Fellowship Program in which Graduate Medical Education (GME) Trainee is based.

Host Program – Residency/Fellowship Program in which GME Trainee from another UVA GME program rotates.

Off-Service Trainee – GME Trainee within the UVA system rotating to another clinical service other than his/her primary/home program.

D: PROCEDURE:

The University of Virginia Medical Center seeks to provide the appropriate educational experiences for GME Trainees. This often involves GME Trainees rotating from their primary program to another program within the sponsoring institution. In order to formalize this interaction, the following guidelines govern this interaction:

1. If any GME training requires a rotation to another Department other than the GME Trainee's primary Department, program directors from both the primary and host residency programs must agree to this collaboration.
2. The host program must distribute level specific goals and objectives of the rotation to the off service trainee and the primary program's Program Director along with any other education materials.
3. A rotation schedule must be made in advance allowing the two programs involved to make the needed adjustments to accreditation and/or board certification requirements and regulations as well as the individual needs of each Department. It is suggested that rotation schedules are distributed to the other services as early as April, but no later than May.
4. If a host program is no longer able to accommodate GME Trainees other than their own, a minimum of 6 months must be given to the primary residency to make the necessary schedule/rotation adjustments.
5. Host program will determine availability of leave, and will be communicated between Program Directors. If scheduled leave is allowed, off-service trainees will submit requests for leave at the time yearly schedules are made. However, a request for leave must be made at least 60 calendar days prior to the start of the rotation in which the leave is being requested. Requests for leave will be submitted by the off service trainee to the host program's Chief Resident or other individual who is responsible for that program's scheduling.
6. In programs where off-service trainees are scheduled on a regular basis and/or where the presence of those trainees is required to meet the patient care needs of the host program, any changes in the complement of those trainees must be communicated by the primary program to the host program well in advance of the deadline for NRMP or similar match programs are declared (in general, February) to allow the host program adequate time for any necessary adjustments.
7. In the event an off service trainee has continuity clinic and/or mandatory didactic session during his/her rotation with the host program, the host Department in which the trainee is rotating must be informed of this at the time of initial agreement to host the trainee. Upon completion of the continuity clinic and/or mandatory didactic program, the off service trainee must return or at a minimum check with the hosting Department to see if he or she needs to return for clinical duties.
8. Host Program Directors and/or program faculty are responsible for the evaluation of the off service trainee on their service. However, it is the responsibility of the primary residency program to distribute the evaluation to the host program in a timely manner (suggested end of rotation basis).

9. The off service trainee will follow the Clinical and Educational Work Hours requirements of the host program.

Reviewed/Approved GMEC: October 3, 2007, January 13, 2011

Reviewed/Approved Policy Subcommittee: April 12, 2011

Reviewed/Approved GMEC: April 20, 2011

Reviewed/Approved GMEC: July 16, 2014

GMEC Policy Subcommittee: October 10, 2017

GMEC Reviewed/Approved: October 18, 2017

**Radiation Oncology
Oral I-131 & Parenteral Administration Log**

Resident Name	<u>University of Virginia Radiation Oncology</u> Program	<u>48-01-01-3</u> Program Number
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Date	Disorder	Radionuclide	Dose Administered	Preceptor Name / Signature
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Oral I-131 (>33 mCi)

1.	_____	<u>I-131</u>	_____	_____
2.	_____	<u>I-131</u>	_____	_____
3.	_____	<u>I-131</u>	_____	_____

Parenteral

1.	_____	_____	_____	_____
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____