University of Minnesota Therapeutic Radiology Residency
UMMC, FV—Dr. Reynolds' Rotations

Goals and Objectives

Introduction: Residents spend a majority of their time during our residency program working with faculty at UMMC. The rotations are structured so that each three month block at UMMC is spent working directly with a faculty member (primarily Dr. Dusenbery, Dr. Reynolds, and Dr. Cho). This apprenticeship-like structure allows for continuity of experience with the faculty member and his/her patients and opportunities to focus on different clinical aspects of radiation oncology in which each faculty members specializes.

Each faculty member has developed his/her own learning objectives and expectations for their rotation blocks. While there is some overlap among the three attendings, each has defined additional areas of learning and performance expected of residents rotating on his/her service. The special areas of emphasis when working with Dr. Reynolds include: head and neck, gynecologic, gastroenterology and CNS. You will also focus on the use of HDR and LDR brachytherapy for treating gynecologic cancers.

Specific learning objectives are provided for each rotation with Dr. Reynolds (Year 1, Year 2, Year 3 and Year 4). The learning objectives are referenced to the appropriate ACGME core competencies: Patient Care=PC, Medical Knowledge=MK, Professionalism=Prof, Communication Skills=CS, Practice Based learning and Improvement=PBI, and Systems-based practice=SBP.

Areas of Focus Include: Treatment of head and neck, gynecologic, GI and CNS malignancies. You will also focus on the use of HDR and LDR brachytherapy for treating gynecologic cancers.

Learning Goals: Through progressive participation in Dr. Reynolds’s service over the four years of your training, residents are expected to:

1. Understand the staging, anatomy, natural history and treatment of Head and Neck, Gynecologic, GI and CNS tumors.
2. Effectively perform HDR and LDR brachytherapy for treating gynecologic cancers.
3. Plan the treatment of patients including: type of radiation, possible concurrent agents, contouring, dose and dose limitations.

First-Year Rotation Objectives: The most important priorities for your participation in this rotation are:

1. Learning the language of Radiation Oncology (terminology, diagnoses, treatments so you can work effectively as a member of the treatment team. (PC, MK, CS)
2. Developing a solid understanding of and familiarity with the “process” of Radiation treatment (PC, MK, SBP).

Upon completion of this rotation residents are expected to demonstrate:

- History Taking Ability - demonstrates completeness/accuracy of dictated history from consult/follow-up (PC, MK, CS)
- Physical Examination Ability – demonstrates examination thoroughness and accuracy from dictated consult/follow-up (PC, MK, CS)
• Timeliness - completes interview and exam in timely manner (PC, CS, Prof)
• Provides timely responses to pages, calls, requests (PC, CS, Prof)
• Treatment Managements - Manages complex problems of patients on treatment (grade 3-4 complications) (PC, MK)
• Simulation Set up - appropriately completes simulation sheet (PC, MK, CS)
• Provides assistance at simulation (PC, MK)
• Simulation Contouring –Demonstrates the ability to do simple organ contouring (PC, MK)
• Knows appropriate field definitions in the simulation of metastatic disease (MK, PC)
• Knows fraction/dose information in the simulation of metastatic disease (MK, PC, PBLI)
• Documentation - competes notes in a timely manner, reasonable length
• Investigatory thinking-Demonstrates evidence of reading of texts/literature (MK, PBLI)
• Empathy- demonstrates compassion in patient interactions (PC, CS, Prof)
• Attitude - creates a constructive environment for patient/family (PC, Prof)
• Department Citizenship - Demonstrates an ability to work with others in cooperative/respectful manner (PC, Prof)
• Uses med line searches - Uses technology to find answers to clinical questions (PC, PBLI)
• Understands the participation of other physicians and patient care staff and their respective roles in the Health care system (PC, SBP)

Second Year Rotation Objectives: Upon completion of this rotation residents are expected to demonstrate:
• Simulation Contouring Accurately contours complex tumors/multiple organs without supervision (PC, MK)
• Multitasking -Manages multiple difficult patients without assistance (PC, MK, SBP)
• Communication with Patients/Families – Answers patient/family questions and responds to requests (PC, CS, Prof).
• Communication/presentation of data – Effectively transmits written and verbal information to therapists (PC, SBP, CS)
• Patient-centered Care - Puts patient and his/her preferences at the center of discussions and care planning (PC, CS, Prof).
• Intellectual curiosity- Looks up/ask probing questions to clinical dilemmas (MK, PBLI)
• Assessment of research - Evaluates and integrates findings from current literature (PC, PBLI, MK).
• Dosimetry knowledge- Demonstrates understanding of the abilities and limitations of dosimetry (MK, PC)
• Ethics - Demonstrates ethical behavior in mgt in all clinical arenas (Prof, PC)
• Quality Assurance/Improvement: Understands the required safety and quality assurance steps required in brachytherapy (PC, SBP).
• Interpretation of information - Able to critically review, discern and optimize treatment plans (MK, PC, PBLI)
• Access of local medical system - Demonstrates ability to coordinate care for patient – social services/PMR/DDS, etc. (PC, SBP)

Year 3 Objectives: Upon completion of this rotation residents are expected to:
• Procedural abilities-Demonstrates competency in provision of brachytherapy without direction (PC, MK)
• Brachytherapy and brachytherapy dosimetry-Able to apply brachytherapy in an appropriate setting (PC, MK, SBP)
• Understands and applies brachytherapy dosimetry (MK, PC)
• Brachytherapy technical skills-Demonstrates technical skills that allow independent use of brachytherapy (PC, MK)
• Teaching-Demonstrates the ability to convey information (MK, PBLI, CS)
• Fund of Knowledge-Able to demonstrate a well rounded fund of knowledge (MK, PC, PBLI)
• Interaction with professionals - Coordinates local care of patient during RT (PC, MK, SBP)

Year 4 Objectives: Upon completion of this rotation residents are expected to:

• Accurately evaluate complex patient situations (PC, MK, PBLI)
• Appropriately manage complex patient cases (PC, MK, PBLI)
• Integrates complex issues in diagnosis and treatment planning (PC, MK, PBLI)
• Demonstrates cost consciousness when recommending treatments and in use of technology (PC, MK, SBP)
• Facilitates learning of others – Effectively shares knowledge with others (MK, PBLI, CS)
• Accurately document complex patient care situations for clinical as well as billing and medico-legal purposes (PC, CS).
• Coordinates patient care outside of radiation oncology service and treatment center by serving as a patient advocate (PC, SBP)
• Independent function-Works as SRA with minimal correction on supervision (PC, MK, SBP)
• Difficult scenario-Effectively manages social and emotional aspects of difficult patient care situations (PC, Prof, CS)

Learner Performance Assessment: Resident performance on this rotation is assessed through:

• Attending evaluation of resident performance using global form.
• Direct observation of procedures
• Regular feedback from attending.
• Performance on mock oral exams

Note: Residents will be given Mock Orals near the end of each academic year and must receive a passing grade. If the mock oral demonstrates that the resident does not have an appropriate understanding of the topic for their level of training, then the resident will be asked to give a short talk to the group on a topic assigned by the supervising staff

Text Books:
Devita Hellman, Rosenbunk: Cancer, Principle and Practice of Oncology
Leibel and Philips: Textbook of Radiation
Gunderson & Tepper: Clinical Radiation Oncology

Journals:
• Journal of Clinical Oncology
• International Journal of Radiation Oncology Biology and Physics
• Seminars in Radiation Oncology

For this rotation, I have reviewed the following brachytherapy procedures:
Curator and Checker Source Preparation, Loading and Logging.
Low Dose Rate Implant Emergency Procedures.

For this rotation, I have reviewed the Brachytherapy procedures: Curator and Checker Source Preparation, Loading, and Logging. Low Dose Rate Implant Emergency Procedures.