

## **Radiation Oncology**

### **1. Rotation Name**

Radiation Therapy

### **2. Educational Purpose of the Rotation**

The Radiation Therapy rotation is designed to give the sub-specialty resident experience and expertise in the techniques and appropriate uses of radiation treatment of cancer patients. Topics covered during this rotation include basic principles of radiation therapy, introduction to brachytherapy of Hodgkin's Disease, Non-Hodgkin's Lymphoma, multiple myeloma, squamous carcinomas of the head, neck and skin, lung cancer, early and late stage breast cancer, upper and lower GI tumors, sarcomas, prostate cancer, GYN cancer, other GU malignancies, brain tumors and palliative uses of radiation therapy.

### **3. Staffing of the Rotation**

This rotation is supervised by radiation therapy faculty housed at Ingham Regional Medical Center in Lansing which include David DeBiase, D.O. and Jeff Richmond, MD. Participating faculty members hold dual faculty appointments at Michigan State University and University of Michigan therefore allowing for additional educational experiences at University of Michigan facilities as well.

### **4. Resources**

Sub-specialty residents attend outpatient clinics at the Radiation Therapy Unit at Ingham Regional Medical Center and the Breslin Cancer Center also located at Ingham Regional Medical Center. Additional resources include didactic lectures at University of Michigan's Radiation Therapy Unit and the MSU Hematology/Oncology Seminar series.

### **5. Patients**

The attending physician maintains ultimate responsibility for patient care. As the resident's understanding and competencies increase, so does their role in patient decision-making. Residents are exposed to a variety of radiation therapy techniques relating to various hematologic and/or oncologic conditions.

### **6. Responsibilities**

Goal: The resident will understand the physics and biological consequences of radiation therapy, gain exposure to a variety of malignancies requiring radiation therapy including recognition of when radiation therapy is appropriate or not appropriate for the various types/stages of malignancies, gain understanding regarding radiation therapy side effects and learn how to plan dosimetry.

Duties: The oncology resident is expected to:

- a. Care for patients, including a complete work-up with a history and physical examination in both inpatient and outpatient settings.
- b. Be responsible for daily patient follow-up including appropriate medical record documentation.
- c. Be prepared to discuss all aspects of a patients' illness as it relates to significant findings, progress and treatment plans.
- d. Attend inpatient rounds with the attending physician on weekdays and assigned weekends.
- e. Prepare case presentations for oncology conferences that include tumor board, Hematology/Oncology Conference and other patient-related conferences including the Breast Cancer Conference, the Head and Neck Conference and the Ob-Gyn Tumor Boards.
- f. Participate in radiation therapy conferences and other oncology -related conferences.
- g. Learn by assisting in the planning of radiation therapy protocols and dosimetry.
- h. Participate in outpatient clinics and patient management of oncological conditions under the supervision of an attending physician.
- i. Read and be prepared to discuss key literature including articles as listed in the recommended reading section.

## **7. Instructional Methods**

For the radiation therapy rotation, a variety of instructional modalities are included. All sub-specialty residents are required to read Radiation Therapy for the House Officers from Fox Chase Cancer Center. Didactic lectures relating to radiation therapy are also required and include lectures at the University of Michigan as included on the weekly schedule and lectures by participating faculty members who hold dual appointments at the University of Michigan and Michigan State University at the Friday morning Hematology/Oncology seminar. Sub-specialty residents will observe a dosimetrist and physicist to gain expertise in planning dosimetry. Issues regarding radiation therapy side effects are addressed by exposure to patients either by observing acute side effects via physical examination on treatment days and by observing chronic side effects via physical examination during regularly scheduled outpatient clinic follow up. Additionally, all faculty members are responsible for the following educational guidelines:

1. Supervision of the resident in accordance with the supervision policy.
2. Respond promptly to the resident's questions/concerns.
3. Organize and conduct four hours of formal teaching/week, utilizing appropriate lectures, teaching material and literature.
4. Provide the resident with ongoing performance feedback and opportunities for skill progression.
5. Increase the resident's level of responsibility as his/her individual skill level progresses.

## 8. Evaluation

5. At the conclusion of each rotation faculty members will summarize and accurately describe the resident's performance on the provided form, discuss this evaluation with the resident and return the form to the residency director.
6. The resident will summarize and accurately describe faculty performance and return it to the program office for inclusion in a computer-generated report to insure resident anonymity.
7. Twice per year the resident will be evaluated by the program director in a formal, written evaluation session. These evaluations will be transcribed and signed by both the residency program director and the resident.

## 9. Schedule

	Monday	Tuesday	Wednesday	Thursday	Friday
AM	<b>7:30 am Journal Club</b>  University of Michigan Conf.  Clinic/DD	Clinic/DD	<b>7:00 am EWS Tumor Board</b>  Clinic/JM Clinic	<b>7:00 am IRMC Tumor Board</b>  University of Michigan Conf.  Clinic/JM  11:00 Breast Tumor Board	<b>7:30 am Hem/Onc Core Conference</b>  Clinic/JM
PM	Clinic/JR	Clinic/DD	Clinic/JR	Clinic/DD	Treatment Planning Conference (ROA) Chart Rounds (ROA)

**All activities in bold are required activities for all sub-specialty residents.**

Didactic lectures and teaching conferences listed are given to all the Sub-specialty residents together during the Friday morning MSU Hematology/Oncology seminar.

Note: During the week the sub-specialty resident attends two outpatient clinics at Ingham Regional Medical Center. The times for this clinic vary from resident to resident and as such have not been including in this table.

## 10. Radiation Therapy - Rotation Competency Objectives

### 1. Patient Care

- a) By the conclusion of the rotation, the Hematology/Oncology resident will have been exposed to a variety of malignancies requiring radiation therapy including recognition of when radiation therapy is appropriate or not appropriate for the various types/stages of malignancies, gain understanding regarding radiation therapy side effects and learn how to plan dosimetry. By the conclusion of the rotation, the Hematology/Oncology Resident will be able to complete an efficient oncologic work up inclusive of history and physical, diagnostic procedures, problem list, working diagnosis and treatment plan. Be able to follow assigned patients appropriately, adjusting treatment plans as additional information or changes in the physical examination becomes evident.
- b) Demonstrate the ability to respond appropriately to abnormal test results.
- c) Participate in outpatient clinics and patient management of oncological conditions under the supervision of an attending physician.
- d) Demonstrate the ability to complete an efficient oncologic work up inclusive of history and physical, diagnostic procedures, problem list, working diagnosis and treatment plan.
- e) Follow assigned patients appropriately, adjusting treatment plans as additional information or changes in the physical examination becomes evident.
- f) Demonstrate the ability to respond appropriately to abnormal test results.

### 2. Medical Knowledge

- a) The subspecialty resident will gain experience and expertise in the techniques and appropriate uses of radiation therapy. The resident will gain medical knowledge in the basic principles of radiation therapy, introduction to brachytherapy of Hodgkin's Disease, Non-Hodgkin's Lymphoma, multiple myeloma, squamous carcinomas of the head, neck and skin, lung cancer, early and late stage breast cancer, upper and lower GI tumors, sarcomas, prostate cancer, GYN cancer, other GU malignancies, brain tumors and palliative uses of radiation therapy.
- b) Demonstrate a sound knowledge base pertinent to the broad range of illnesses common to the practice of radiation oncology.
- c) Work effectively with Internal Medicine Residents as well as Residents from other sub-specialties to coordinate patient care including development of a comprehensive treatment plan.

### 3. Interpersonal and Communication Skills

- a) Communicate effectively with patients and their families, including conducting a family conference.
- b) Demonstrate the ability to effectively work with other members of the health care team, including other residents, attending physicians and other health care providers.
- c) Communicate effectively with patients and their families, including conducting a family conference.

- d) Work effectively with Internal Medicine Residents as well as Residents from other sub-specialties to coordinate patient care including development of a comprehensive treatment plan.
4. Professionalism
- a) Throughout the rotation, residents are expected to exhibit reliability in their clinical duties, as well as integrity and respect in their interactions with patients and colleagues.
  - b) Residents will be able to demonstrate appropriate consultative principles of communication and responsiveness to professional consultative requests.
5. Practice Based Learning and Improvement
- a) Rotating residents will demonstrate self-initiative in the use of information technology available via the MSU electronic library to access and retrieve materials for self-education regarding radiation oncology cases.
  - b) Rotating residents will be expected to show progressive learning throughout the rotation, with emphasis on learning from any cognitive or procedural errors. They are also expected to facilitate any quality improvement initiatives in place at the Radiation Oncology clinical office practice.
  - c) Read Radiation Therapy for the House Officers from Fox Chase Cancer Center.
6. Systems Based Practice
- a) All residents will demonstrate conscientious awareness of the impact of their professional activities at the Radiation Oncology office practice site, and will conscientiously avoid inappropriate use of the practice resources.
  - b) Residents must demonstrate understanding of cost-effectiveness of care incorporating cost-effectiveness into their development of diagnosis and treatment plans.