

Elective Description

Campus: Southwest (Bismarck)

Elective/Experience Title: Radiation Oncology

Location of Elective: Bismarck Cancer Center – Bismarck, ND

Department: Radiology

Course Number: RAD 9104

Preceptor(s): Cole Kreofsky, MD; Robert Reynolds, MD; John Watkins, MD

Period(s) Offered: All periods

Number of students per period: 1

Course Prerequisites:

Revised Curriculum Phase(s): 2 & 3

Purpose: To gain education and clinical experience in the care of patients requiring radiation oncology services.

Objectives: Following successful completion of this elective, the student will be able to:

1. Evaluate patients with malignant or benign disease with indications for radiation therapy.
2. Manage common complaints of radiation injury and side effects, both acute and late in the course of treatment.
3. Describe the basic evaluation and management of the cancer patients, including problem-focused interview and physical examination.
4. Interpret basic imaging studies related to cancer staging and radiation treatment planning.
5. Formulate a differential diagnosis on a cancer patient and describe the appropriate pathway to diagnosis and staging evaluation.
6. Demonstrate basic knowledge and understanding of cancer biology, radiobiology, radiation physics, and radiation dosimetry for treatment planning.
7. Document appropriately (via computer note or dictated note) interactions with the patients during consultation, follow up, or on treatment visits.
8. Describe the different radiation treatment modalities, including external beam radiation therapy (linear accelerators, including TomoTherapy), high dose rate brachytherapy, and radionuclide therapy.

Instructional Activities: During this elective, the student will be involved in/experience:

1. Reading of standard radiation oncology textbooks and primary literature to support and expand clinical knowledge and didactic teaching.
2. Assisting the preceptor with radiation implantation procedures, such as breast, gynecologic, or prostate brachytherapy when the opportunity arises.
3. Reviewing recommended readings in textbooks/literature one to two hours per day with instructor.
4. Developing patient treatment plans, computer plan designs and block fabrications under the direction of the preceptor.
5. Assisting the preceptor in the outpatient and inpatient management of malignant diagnoses.
6. Participating in weekly Tumor Board meetings, including case presentations.

Criteria for Grading: During and following this elective, the preceptor will:

1. Evaluate by direct observation and review of the patient medical record documentation, the student's ability to perform an efficient history and physical exam on a cancer patient. Students will be graded on consultation, follow up and progress notes.
2. Evaluate by direct observation and review of the patient medical records, the student's ability to use cancer staging tools. Grading will involve the student's ability to report appropriate staging studies related to evidence-based guidelines.
3. Evaluate by direct observation the student's level of proficiency in evidence-based treatment suggestions for malignant diseases.
4. Evaluate by direct observation, the student's ability to work as member of an integrated healthcare team, including team work, communication skills, and bedside manner.
5. Evaluate by direct observation, the student's ability to efficiently present cases and integrate, assess and learn new information in the clinical setting and during Tumor Board meetings.
6. Utilize the standardized UNDSMHS senior elective form.