

## MEDICAL STUDENT OBJECTIVES

### Objective 1: Understand the Basics of Radiation Oncology

- Watch UCLA [“Intro to Radiation Oncology”](#) video by Dr. Trudy Wu
- Watch [“Introduction to Radiation Oncology”](#) video by Dr. Dan Golden
- Read [Primer for Medical Students](#)
- Listen to [At the Beam](#) episode [“RadOnc 101 feat. Hefei Liu”](#)
- Attend ROCCLS on Mondays and Wednesdays from 8 AM to 9 AM
- Attend Chart Rounds on Tuesday and Thursday from 8:15 AM to 9 AM
- Familiarize yourself with the terms SRS, SBRT, and IMRT
- Recognize common dose-fractionation schema

### Objective 2: Understand the Workflow from Initial Consultation to Treatment

#### 1. Consultation

- Obtain the relevant history and diagnostic workup and perform thorough physical examinations of the patient (H&P)
  - Understand the important aspects of an oncologic history
  - Present the relevant details of the H&P and workup to the attending physician
  - Review appropriate imaging and pathology
  - Discuss relevant literature so that evidence-based decision-making can occur
  - Formulate a cancer treatment plan with the attending physician
  - Understand contraindications to radiation therapy
- See and write consult notes for at least 4 definitive cases (ideally including 2 post-op) and 2 palliative cases

#### 2. Simulation

- Assist in the careful design of a course of radiation treatment during patient simulation and treatment planning
  - Understand how basic anatomy and knowledge of cancer spread influences radiation planning and delivery
  - Learn the workflow in radiation planning and the involvement of radiation therapists, dosimetrists, and physicists
- Observe 1 head and neck/brain simulation
- Observe 1 body simulation using a Vac-Lok device
- Place a CT simulation order

#### 3. Treatment Planning

- Understand the importance of accurately delineating organs at risk (OARs)
  - Understand the meaning of gross target volume (GTV), clinical target volume (CTV), and planning target volume (PTV)
- Practice contouring common OARs (rectum, bladder, bowel, kidney, heart, esophagus, spinal cord, brainstem)
- Contour a definitive prostate case
- Contour a definitive breast case
- Review plans for contoured cases using the mnemonic CB-CHOP

#### 4. On-Treatment

- Observe the setup and on-board imaging process for 1 fractionated case
- Observe the setup and on-board imaging process for 1 SRS case
- Observe a brachytherapy case
- Observe an MRI-guided case on ViewRay (preferably adaptive)
- Attend on-treatment visits with your service
- Understand common acute and late treatment toxicities

#### **Objective 3: Appreciate how Radiation Oncology Integrates into a Multidisciplinary Setting**

- Attend site specific tumor boards
- See 2-3 follow-up visits each week

#### **Objective 4: Recognize Common Radiation Oncology On-Call Scenarios**

- See and/or discuss 2 cases with the call resident
- Discuss the management of common call scenarios (symptomatic metastasis, brain metastasis, GI bleeding)
- Understand frequently used palliative fractionation schema
- Reflect on strategies for approaching goals-of-care discussions
- Understand the importance of choosing our words carefully when discussing cancer
  - Read the [IASLC Language Guide](#)
  - Optional: Read [“The Combative Language of Cancer: A Plea for an Armistice”](#) or [“Delivering Bad News Badly”](#) by Dr. Matthew Farrell

#### **Objective 5: Share Your Knowledge with Us!**

- Deliver a 20-minute presentation on a topic of your choice related to oncology (on the Thursday of your last week)