RADIATION ONCOLOGY

Location: USC Norris Cancer Center & LAC + USC

DIRECTOR
Leslie Ballas, MD
PHONE #: 323-865-0714

Coordinator
Sandra Gonzalez
Email: sandra.gonzalez@med.usc.edu
REPORT TO: 9:00 a.m. on the first day of the rotation. USC Norris Comprehensive Cancer Center, Department of Radiation Oncology, Ground Floor.
DURATION: 4 weeks

DATES OFFERED: June - November
Rotation scheduled: 6/26, 7/24, 9/5 and every first Monday of the month following

NUMBER OF STUDENTS: 2

VISITING STUDENTS: Yes

PREREQUISITES: None

SUPERVISION:
80% Faculty
20% Residents

COURSE OBJECTIVES
1. To learn the natural history, diagnosis, staging, workup, and various treatment options and outcomes of cancers patients
   a. This will include clinical evaluation and staging of cancer patients, including specific patient history and cancer-specific physical examinations (head and neck exams, lymph node exams, gynecologic examinations).
   b. Students should understand
      i. when radiation is an appropriate treatment modality to be used (curative and palliative settings)
      ii. simulation, immobilization, image fusion, target delineation, and the development and execution of a radiotherapy plan
      iii. the potential acute, subacute and late side effects of treatment and how to manage acute and late radiation induced complications
      iv. the appropriate follow up required in the management of radiation patients.

2. Students are required to give a 30 minute power-point presentation to the entire department that will includes a case presentation on a patient they have seen during the rotation, an accompanying landmark paper presentation and brief review of pertinent literature. Guidance on this presentation will be provided by both the resident and attending related to the case.

3. Students will have the opportunity to gain practical, hands-on experience of radiation treatment planning by planning a whole brain radiation treatment with a medical dosimetrist.

Student responsibilities:

1. To learn the general principles of oncology including
   a. Radiobiological principles
   b. Diagnostic workup and staging of cancer
   c. Ability to synthesize oncologic information that allows formulation of a treatment plan for simple cases
   d. Integration of radiation therapy with surgery and systemic therapy
   e. Role of radiation therapy in providing palliative care of a cancer patient in both outpatient and inpatient settings.
   f. Ability to critically read a landmark paper related to radiation oncology and interpret its results

2. New patient consults
3. On treatment visits when not seeing consults or follow-ups
4. Follow-up clinics
5. To observe the procedures in radiation therapy
   a. CT-simulation and treatment planning of common disease sites including lung, breast, prostate, and head and neck, CNS
   b. At least 1 Gamma knife, 1 Cyberknife, and 1 vaginal cylinder or tandem and ovoid procedure if possible

6. Attend didactic lectures and departmental conferences
7. Attend pertinent multidisciplinary conferences
8. To spend at least one half day during the rotation with dosimetrists, physicists, and therapists
9. Medical Students are expected to be an active team member between approximately 8am – 5pm
ADDITIONAL PETITION INSTRUCTIONS: Please email recent CV to Sandra Gonzalez at sandra.gonzalez@med.usc.edu.

DESCRIPTION:
The USC medical student elective in radiation oncology is a 4-week rotation on our clinical services starting at the beginning of each calendar month; it is offered to students interested in an introduction to radiation oncology and who plan to apply into this highly competitive specialty for residency training or for those who wish to learn more about radiation oncology, and the field of oncology. Medical student education is accomplished through direct one-on-one interactions with attendings and residents in the outpatient and inpatient settings at both Norris Cancer Hospital and LAC+USC Medical Center, as well as through formal didactic sessions.

An emphasis is made on helping the medical student to acquire the skills necessary to take an accurate detailed history and physical examination on a cancer patient who may be a candidate for radiation therapy.

The major objective of the rotation is to introduce students to the fundamental concepts of radiation oncology. Students will be exposed to the thought process and some key papers in the literature relevant to patients they have seen. They will be exposed to the process of radiation oncology simulation including immobilization with treatment devices, CT simulation, target delineation, treatment planning, and treatment delivery. They will also gain an understanding of how radiation oncology fits into the multi-disciplinary care of the cancer patient.

EVALUATION:
Both attendings and residents who have worked with the medical student will provide written comments on the student’s clinical performance and ability to:

1. Synthesize complex oncologic history and organize it into a H+P presentation that is sufficiently detailed, but concise, focused, and relevant to the clinical problem at hand.
2. Give clear and well-organized oral and written presentations
3. Combine clinical and radiographic findings into a properly staged diagnosis
4. Demonstrate a solid understanding of the basic indications for radiation therapy as a consultative service
5. Demonstrate outstanding work habits, professionalism, and interpersonal skills with the radiation oncology team, and oncologic specialists and allied health providers

*Selective Attendance and Illness Policy*
In order to ensure adequate clinical exposure, no more than 3 days of excused absences (to include official holidays) can be allowed during a selective. This policy does not imply that absences are guaranteed; absences may be excused at the discretion of the faculty. Absence due to illness must be reported to the faculty or his/her designee as soon as possible. In case of extended absence (2 days or more), a note from a physician (who is not a relative) is required and the absence will be reported to the Office of Student Affairs. A physician note may be requested for any absence, at the discretion of the faculty.

Students will generally be required to make up days before a passing grade can be assigned. All absences must be excused and any planned absence must be registered with the preceptor prior to the first day of the selective. Students should take vacation time if he/she anticipates a need for more than 3 absences during a selective. USMLE and BLS/ACLS will not be considered excused absences.