

**University of California, San Francisco
Department of Radiation Oncology
Residency Training Program
Resident Rotation Objective for PGY-2 Residents
In NeuroOncology
Jean L. Nakamura, M.D./Penny K. Sneed, M.D.**

Patient Care

- Manage and prescribe medications in a careful and thoughtful way to patients undergoing radiation therapy, with emphasis on appropriate use of steroids and the management of cerebral edema

Medical Knowledge

PGY-2 Resident Goals:

- Learn basic neuroanatomy, with an emphasis on axial based imaging such as computed tomography and magnetic resonance imaging as well as plain film radiography (use of bony landmarks to localize lesions/radiotherapy targets)
- Learn the relative advantages and disadvantages of the following modalities in the management of central nervous system tumors: MRI, perfusion/blood volume, MRS, CT, PET
- Become proficient in neurological examination with particular emphasis on recognizing neurologic syndromes which reflect the lesion(s), and the subsequent evolution of these signs/symptoms during the course of therapy/disease.
- Learn about the incidence and natural history of primary and metastatic brain and spinal cord tumors
- Learn about the management of primary and metastatic brain tumors, including indications for surgery and systemic therapy, and how these modalities are integrated with radiation therapy.
- Learn about the rationale for whole brain and focal brain radiotherapy approaches
- The PGY-2 resident should be able to accurately set up of whole brain and spinal radiotherapy
- The PGY-2 resident should be able to use the Linear-Quadratic Model to predict acute and late toxicity, and adjust fractionation schedules
- Know basic radiation safety principles, particularly with respect to use of sealed sources
- Participate in NeuroOncology Tumor Board and Gamma Knife Conference including the follow-up portion of Gamma Knife Conference

Practice-Based Learning and Improvement

- Demonstrate the ability to use information technology to improve fund of knowledge and improve patient care

Interpersonal Skills and Communication

- Communicate effectively with medical staff
- Demonstrate compassionate and clear communication with patients from different cultures
- Maintain comprehensive, timely, and legible medical records

Professionalism

- Demonstrate sensitivity and responsiveness to patients' culture, age, gender and disabilities
- Demonstrate commitment to ethical principles regarding provision or withholding of medical care, patient confidentiality, and informed consent

Systems-Based Practice

- Understand how their patient care affects other health professionals, the health care organization, and the larger society and how these elements of the system affect their own practice
- Know how to coordinate with health care managers and health care providers to improve care

Resident Time Allocation for Multi-Attending Services

The resident assigned to the Sneed/Nakamura rotation will generally work full-time with Dr. Nakamura whenever she is in clinic (~1.5 days per week) and work with Dr. Sneed on the other 3.5 days per week. As much as possible, scheduling will take this into account to avoid competing clinical duties between Dr. Sneed's service and Dr. Nakamura's service, but in case of competing clinical duties, the choice of which duty the resident will perform will be based on which duty has more educational value for the resident. Residents will not be required to prepare H&P or follow-up notes for patients they won't be seeing along with an attending physician.

How the Service Will Ensure One-On-One Teaching

Each attending physician is responsible for spending one hour of one-on-one teaching time with the resident every other week, on average. Dr. Nakamura will provide residents with papers to review in advance of the teaching session, and the teaching session will be scheduled on a week-by-week basis. Dr. Sneed and the resident will discuss on a week-by-week basis when to schedule the teaching session and what topic(s) to cover.

How the Service Will Ensure Contour and Plan Review

Most contouring of target volumes and critical structures will be performed by the resident; resident contours will be reviewed by the resident and attending physician

before they are turned in for planning, and plans will generally be reviewed by the resident and attending physician together. If the resident is unavailable to contour and/or review plans with the attending physician because of competing clinical duties, absence, and/or time constraints, the resident will notify the attending physician when he or she is available, and the resident and attending physician will sit down together to review the contours and/or plans in retrospect for teaching purposes, with a goal of 100% of contours and plans to be reviewed together.