

**University of California, San Francisco,
Department of Radiation Oncology
Residency Training Program
Neuro-Oncology Educational Objectives for PGY-3 Residents
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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-3 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 junior resident should be able to accurately set up of whole brain and spinal radiotherapy
- The junior 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 and Communication Skills

- 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