

**University of California, San Francisco,
Department of Radiation Oncology
Residency Training Program
Breast Cancer Service Educational Objectives for PGY-4 Residents**

Patient Care

In addition to the guidelines listed by the ACGME, PGY-4 residents must be able to provide compassionate, appropriate and effective treatment for patients. They must promote health maintenance both during and after treatment. For each breast cancer patient, PGY-4 residents will be expected to:

- (i) Communicate effectively and demonstrate respectful behavior when interacting with the patient and their families/caregivers.
- (ii) Gather essential and accurate information about the patient from the review of all pertinent medical records and diagnostic tests
- (iii) Gather pertinent information from the patient through interview history and physical
- (iv) Counsel and educate patients and their families
- (v) Develop and carry out management plans
- (vi) Select the appropriate technique and competently perform the procedures with increased proficiency that are considered essential for the radiotherapeutic management and follow-up of breast cancer patients encountered on the service, including:

- External beam (forward planning IMRT) for intact breast
- External beam (forward planning IMRT) for post mastectomy patients with or without reconstruction
- Regional node irradiation techniques
- Indications for and use of bolus
- Intra-operative radiation for partial breast irradiation
- Electron beam boost technique
- Dose volume histograms for normal and tumor tissues

This process will include knowledge of all aspects of the simulation and treatment planning process including delineation and design of treatment fields, selection of photon/electron energy, beam modifiers, radiotherapy dose and fractionation, identification and outline of tumor and critical organs on CT scans for the purpose of treatment planning, evaluation of treatment plans, evaluation of port films.

Medical Knowledge

PGY-4 residents will be expected to have a more in depth knowledge of the following with an increased emphasis on evidence based medicine and knowledge of the pertinent literature:

- Understand the epidemiology, anatomy, natural history and pathophysiology of breast cancer
- Be familiar with the role of molecular markers and gene expression profiles as predictive and prognostic markers for local-regional recurrence, disease free survival and response to treatment
- Know the staging of breast cancer
- Demonstrate proficiency in the breast and regional node physical examination as well as basic physical exam
- Demonstrate familiarity with imaging modalities breast cancer (mammogram, ultrasound, MRI, CT, and PET-CT)
- Discuss treatment options ranging from breast conserving surgery with or without radiation to mastectomy with or without radiation and rationale for recommendations
- Demonstrate knowledge base of factors that influence treatment decisions (clinical, pathologic and biologic)
- Demonstrate knowledge base of the role of systemic therapy breast cancer and integration systemic therapy with radiation including chemotherapy, targeted therapies and hormonal therapies
- Demonstrate familiarity with acute and long term side effects of radiation for breast cancer and their management
- Demonstrate knowledge of the role of palliative radiation in the treatment of metastatic breast cancer

Practice-Based Learning and Improvement

PGY-4 residents will demonstrate the ability to use information technology and feedback to improve their fund of knowledge and skills

Interpersonal Skills and Communication

PGY-4 residents will :

- Communicate with patients and their families/caregivers in an easily understood, culturally-sensitive manner
- Communicate with other physicians and health-care professionals
- Work effectively as a team member, progressively accepting more responsibility and participate in a leadership role as they progress through their residency
- Maintain comprehensive, accurate and timely medical records

Professionalism

PGY-4 residents will:

- Demonstrate compassion, respect and integrity and responsiveness to patients' needs
- Be accountable to their patients and the profession
- Demonstrate a commitment to excellence and on-going professional development
- Function well as a member of the team
- Practice in an ethical manner with regard to provision or withholding of care, confidentiality of PHI, informed consent
- Maintain comprehensive, accurate and timely medical records
- Function as role models and mentors for junior residents

Systems-Based Practice

PGY-4 residents will demonstrate an awareness of and responsiveness to the health care system and ability to call on resources to provide care.

They will:

- Understand how their professional patient care practices affect other health care professionals, the health care organization and the community
- Practice cost-effective health care that does not compromise quality of care
- Advocate for quality patient care practices and help patients navigate through complexities in the health care system
- Be able to partner with health care managers and providers to assess coordinate and improve health care; be aware of how these activities affect system performance

List of Specific Expectations

The following is a list of specific expectations for resident physicians in training at UCSF while assigned to the Breast Service in Radiation Oncology. The goal of the list is to facilitate learning, improve patient management skills, and to improve knowledge of relevant literature and its application to the individual patient.

1. Be prepared to discuss relevant literature with the attending physician(s). Literature should be reviewed *in advance* of patient presentation to the attending physician. The reference reading list is located on the department server and many seminal articles which apply to the daily practice are provided on the server in PDF format. Additional reading recommendations will be made by the attending physician as indicated.
2. Attend relevant breast conferences including:
 - a. Monday UCSF Breast Tumor Board 0830-1030, arrive following Radiation Oncology teaching/didactic lectures

- b. Attend Wednesday morning Breast Oncology Program meetings in the Lurie Conference room when appropriate
 - c. Weekly chart rounds Wednesdays at 12 noon – present patients on treatment and review films.
- 3. Check port films with attending for patients on treatment weekly.
- 4. Read/Study

A reference list is located on the Resident Server with relevant articles in PDF or abstract form.
- 5. New patients:
 - a. Obtain records and prep for patient prior to their arrival. Present case to attending as indicated. Identify clinical issues and questions raised by specific case. Make recommendations for the patient's care based on evidence found in literature. Cite relevant literature in summary write-up. Discuss related literature with attending.
 - b. Devise and review treatment plan based on patient indications and planning.
 - c. Follow up on pending surgeries, pathology, x-rays on new patients.
 - d. Attend all Simulation visits.
 - e. Be prepared to discuss risks and benefits of radiation therapy with patients when requested by the attending physician.
 - f. Attend all new starts and review port films.
 - g. In treatment planning, contour tumor cavity, nipple, surgical scars, axillary nodes (if indicated), lung, left and right ventricles, both ventricles together and whole heart. Calculate DVH and understand relevant thresholds.
 - h. Become familiar with available skin care products and their use during radiation for acute reactions. Place skin care orders in Lantis for patients who are recommended to have treatment. A typical order will have product name, where to apply, how often, etc. (i.e., LotionSoft to left breast twice daily in thin layer topically. Patient to receive skin care instructions and information booklet by Rad Onc RN prior to starting XRT).
 - i. Place diagnosis, clinical staging and care plan under "Diagnosis and Interventions" heading in Lantis at time of chart prep.
 - j. Notify nurse practitioner if TLD measurements are needed for patients (mastectomy with or without reconstruction, TRAMs, etc) in advance of their new start.
- 6. On treatment patients:
 - a. Be aware of issues and status during treatment.
 - b. Maintain work list of patients on treatment with nurse practitioner and attending
 - c. Review placement and use of TLDs on mastectomy patients. Review TLD data with attending physician once finalized by physicist.
- 7. Follow up patients:
 - a. See follow-up patients with attending physician.
 - b. Obtain recent test results and clinical notes on patients in advance of appointments and review with attending

