July 1 2016

RUTGERS CANCER INSTITUTE OF NEW JERSEY - ROBERT WOOD JOHNSON MEDICAL SCHOOL INTERDISCIPLINARY BREAST SURGERY FELLOWSHIP

CORE EDUCATIONAL OBJECTIVES

At the completion of Breast Fellowship training, the fellow should be able to apply an integrated interdisciplinary approach to the management of women with benign and malignant breast diseases in a compassionate manner.

The core educational objectives are outlined for each area: Breast Imaging, Breast Surgery, Community Service and Outreach, Genetics, Medical Oncology, Pathology, Plastic and Reconstructive Surgery, Psycho-Oncology, Radiation Oncology, and Research. They form the core educational experiences for an interdisciplinary Breast Fellowship program.

The SSO provides a separate set of requirements for Medical Knowledge and expected numbers of Procedures on their web site. These objectives here reflect the overall philosophy of the program at Rutgers. They are based on requirements previously developed by the SSO and serve as a general outline of the years educational activities.

1) Breast Imaging

1.1 Understand the techniques of diagnostic mammography including the BIRADS nomenclature, recommendations for additional views, and identify mammographic characteristics of benign and malignant disease.

1.2 Demonstrate experience in the performance of breast sonography. Distinguish normal breast sonographic anatomy, sonographic characteristics of simple cysts, complex cysts, well-circumscribed probably benign mass, and solid masses of suspicious nature.

1.3 Demonstrate experience in performance of image-guided biopsy techniques.

1.4 Demonstrate experience in selecting image-guided breast intervention procedures such as ductograms and image-guided fine needle aspiration, and core biopsies.

1.5 Discuss evolving breast imaging technologies.

1.6 Evaluate the present indications for and possible future applications of MRI in the management of malignant and benign breast disease.

1.7 Understand the techniques of breast lymphoscintigraphy.

1.8 Discuss the complexities, advantages and disadvantages of breast screening trials in women at different age groups.

2) Breast Surgery

2.1 Evaluate and manage common benign and malignant breast conditions.

2.2 Assess the indications and contraindications for, and demonstrate proficiency in the performance and interpretation of the results of common in-office procedures, including but not limited to breast sonography, cyst aspiration, and fine needle aspiration, percutaneous core biopsy with and without image guidance and punch biopsy of skin.

2.3 Assess the indications for techniques to optimize cosmetic outcome, minimize surgical trauma and achieve best oncologic outcome for cancer operations for all major breast procedures. This includes surgical breast biopsy and wire localization biopsy, duct excision, lumpectomy, simple mastectomy, modified radical mastectomy with or without skin sparing, chest wall resection, axillary lymph node dissection, and sentinel lymph node mapping. The Breast Fellow must demonstrate proficiency in the performance of these procedures.

2.4 Demonstrate proficiency in interdisciplinary evaluation and pre-surgical treatment planning with multiple disciplines, including but not limited to radiology, plastic and reconstructive surgery, medical oncology, radiation oncology, medical oncology and pathology.

2.5 Identify the indications for and techniques of palliative surgical procedures for loco regional relapse as well as metastatic foci.

2.6 Evaluate and manage arm lymphedema as a side effect of breast cancer treatment.

2.7 Explain evolving surgical technologies such as percutaneous ablation, core vacuum resection, focused ultrasound, ductal lavage and ductoscopy.

3) Community Service and Outreach

3.1 Identify and contact local patient advocate organizations. Participate in relevant activities.

3.2 Identify and participate in ways to provide public service to the community.

3.3 Promote the best standard of breast care and screening.

4) Genetics

4.1 Identify patients at high risk for developing breast cancer, including risk factors such as pathologic, familial, genetic, and previous cancer inducing therapies (i.e., childhood radiation).

4.2 Discuss the epidemiological evidence of the effect of environmental factors (broadly defined as nutrition, lifestyle, pollutants, chemicals, social economic status, etc.) on high-risk patients.

4.3 Advise patients regarding estimations of risk by contemporary models and risk reduction by screening, medication, and surgery.

4.4 Review the available clinical trials for breast cancer risk reduction.

4.5 Advise patients regarding indications, usefulness, costs, complications and privacy issues of genetic testing.

4.6 Take a detailed family pedigree and history.

4.7 Interpret the various pathology findings as they influence risk.

4.8 Describe and evaluate surgical and medical options for patients suspected of an inherited susceptibility.

4.9 Identify resources available for genetic testing and counseling.

5) Medical Oncology

5.1 Assess the indications and contraindications for adjuvant systemic chemotherapy and hormonal therapies.
5.2 Describe the mechanism of action, risks, benefits and indications of existing and developing targeted therapies.
5.3 Describe the prominent molecular pathways in the development and progression of breast cancer.
5.4 Describe the most commonly prescribed chemotherapy and hormonal agents and their associated acute and chronic toxicities.
5.5 Identify and manage toxicities of prescribed agents.
5.6 Identify indications, techniques and interdisciplinary coordination required for neo-adjuvant chemotherapy.
5.7 Demonstrate proficiency in the interdisciplinary management of recurrent and metastatic disease including palliative care.
5.8 Describe the use, benefits, side effects and cost of systemic chemotherapy and hormonal agents in the patient with metastatic disease.
5.9 Manage the patient and familial needs for psychosocial support, intervention, hospice, and crisis management in the patient with metastatic disease.

6) Pathology.

6.1 Explain and evaluate the benign and malignant pathological aspects of breast disease.
6.2 Understand optimal techniques for marking, processing and assessing the pathology specimen.
6.3 Identify special pathology issues pertinent to the treatment of breast cancer.
6.4 Explain and evaluate immunohistochemical stains, cytology, and tumor markers and other indicators of prognosis and their relevance to treatment.
6.5 Discuss evolving pathology technology.
6.6 Stage breast cancer clinically and pathologically.

7) Plastic and Reconstructive Surgery

7.1 Demonstrate an understanding of tissue expander, implant and a variety of flap reconstruction techniques for immediate and delayed reconstruction in the setting of post mastectomy reconstructive surgery.
7.2 Discuss the onco-plastic techniques of breast conservation.
7.3 Describe general breast plastic procedures such as augmentation and reduction as they relate to total management of women with benign and malignant breast disease.
7.4 Explain and evaluate the interrelationship of adjuvant therapies on planning and timing of plastic and reconstructive surgery.

8) Psycho-Oncology

8.1 Recognize changing needs for social support systems for patients and their families throughout diagnosis, treatment, and transition to surveillance, and relapse.
8.2 Recognize cultural diversity and the different needs of patients and their families with regard to illness and treatment.
8.3 Exhibit a sensitive and culturally appropriate style of communicating with patients and their families.
8.4 Explain and discuss all aspects of a patient's treatment and care with them in lay terms.
8.5 Recognize patients at psychosocial high risk and identify resources for referral.
8.6 Participate in existing support groups.
8.7 Discuss complementary therapies and integrated care.

9) Radiation Oncology

9.1 Describe the process the patient experiences undergoing radiation therapy to the breast, including: simulation, treatment planning, treatment delivery, and acute and chronic effects of therapy.
9.2 Assess the indications and contraindications for and complications of:
9.2a Post breast conservation radiation therapy in both ductal carcinoma in situ and invasive carcinomas.
9.2b Post mastectomy radiation therapy.
9.2c The management of chest wall recurrences.
9.2d Inclusion or exclusion of supraclavicular or internal mammary fields.
9.3 Describe the common DCIS scoring systems and issues pertaining to the use of radiation therapy for DCIS.
9.4 Describe and evaluate the considerations in combining systemic and radiation therapy.
9.5 Describe and apply interdisciplinary management of recurrent disease.
9.6 Identify the indications for and techniques of palliative radiation procedures for locoregional relapse as well as metastatic foci.
9.7 Assess the impact of radiation therapy on various surgical options for reconstruction.
9.8 Discuss the evolving technologies of more localized radiation techniques.

10) Clinical Research

10.1 The fellow should be able to participate in clinical trials development and patient enrollment.
10.2 The fellow will develop and complete a retrospective clinical research project.
10.3 The fellow will describe the cooperative group system and identify current cooperative breast research trials.
10.4 The fellow will critically review published research studies.
10.5 The fellow will prepare a manuscript suitable for publication in lay or professional journals.

July 1 2016

RUTGERS PROGRAM REQUIREMENTS

General Requirements

The Breast Fellowship consists of a minimum of one year of continuous education and training following successful completion of a residency program leading to board eligibility. At least 6 months of this period must be devoted to training in breast surgery. The training must include formal rotations on surgical and non-surgical breast services. A portion of the program must be devoted to clinical or laboratory research. Fellows should have access to faculty who can mentor them in basic science research and have time for such an experience if desired. Scholarly activity must be pursued

There should be adequate opportunity to interact with clinicians in companion breast specialties, primarily medical oncology, radiation oncology, radiology, and plastic and reconstructive surgery and rehabilitation in order to gain experience in these areas. These experiences should be obtained by formal rotations on subspecialty services, as well as participation in structured multidisciplinary conferences, attendance of subspecialty tumor clinics or inclusion of subspecialty patients on a single breast service.

Initial outpatient assessment, preoperative decision making, operative management and patient follow-up are essential to the training experience. To the greatest extent possible, fellows should participate in the preoperative evaluation, assessment, treatment planning, and postoperative ambulatory care of patients in whose surgery they participate. As a guide, fellows should see preoperative and postoperative ambulatory patients at least one full day out of five, or its equivalent.

Clinical experience alone is insufficient education in the Breast Fellowship training. Fellows must participate in regularly scheduled didactic programs, such as conferences, lectures, debate series, and journal clubs, covering not only clinical breast problems but also, basic science, clinical research, and ethical problems.

The Breast Fellowship program must not conflict with the regular residency programs at any participating institution. The Breast Fellows' clinical responsibilities must be in accordance with the guidelines of governing residency review bodies. In institutions with Accreditation Council for Graduate Medical Education-approved training programs, a fellow cannot be responsible for the same patients or for the same service as the chief resident. In other systems, the fellows' experience should not be diluted by, nor should it diminish, the experience of residents in their final year of training. Rather, a Breast Fellowship program should complement an institution's residency program by developing a focus of excellence in the management of patients with benign and malignant breast disease, which can be observed, experienced, and participated in by all residents and the attending staff.

The fellowship sponsoring institution must be accredited by the responsible national organization overseeing healthcare quality issues (Joint Commission on Accreditation of Healthcare Organizations or equivalent). The residency training programs related to the Breast Fellowship (i.e. medicine, radiation oncology, pathology etc.) of the sponsoring institution (if applicable) must be fully accredited by the appropriate national governing body charged with oversight of training programs.

The institution must provide an appropriate educational environment, ensuring appropriate trainee supervision and responsibility to deliver quality care. Patient support services, work hours, and on-call schedules should be reasonable and allow fellows to participate

in scholarly activities such as local, regional, and national meetings. Access to a major library and on-site electronic literature retrieval capabilities are required.

The program director or co-director should be board certified and a member of the SSO, as well as the American Society of Breast Surgeons or the American Society of Breast Diseases. The faculty should demonstrate evidence of scholarly activity in breast diseases as evidenced by participation in basic science research; clinical research protocols; or presentations at local, regional, or national meetings.

Each fellow's progress during the program must be formally evaluated in writing and feedback provided to the fellow at least semi-annually by the Breast Fellowship program director and faculty. The fellow should be advised of any deficiencies in time to correct problems prior to completion of the fellowship.

Fellows must be given the opportunity to evaluate the program overall, as well as all rotations, conferences, and faculty. These evaluations should be obtained in as confidential a manner as possible. The program director should regularly assess the post-training clinical and research activities of past fellows to determine whether the goals of the training programs are being achieved, namely, the production of effective academic and community-based breast specialists.

Clinical Training in Breast Diseases

A minimum of two months of clinical training in surgical management of breast diseases is required. Each Breast Fellow must participate in a minimum of 50 operative procedures (as surgeon or first assistant). The experience should include diagnostic biopsies, partial mastectomies, mastectomies, axillary node dissections, sentinel node biopsies, and reconstructive procedures. In addition to open breast procedures, experience with stereotactic and ultrasound guided breast biopsy is mandatory.

Each fellow must gain a multidisciplinary experience to meet the educational objectives delineated above. In order to accomplish this, the following are required elements of the CINJ fellowship program. Vacation is taken during Breast Surgery (CINJ) to allow for a full experience in the elective outside rotations.

Rotation	Months
Breast Surgery	8
Medical Oncology	1
Radiation Oncology	1
Surgical Pathology	1
Breast Imaging	1

Each training program must utilize the SSO web-based operative log to document and record trainee operative experiences. Each fellow's operative log should be reviewed regularly. The program director should have a system to address and correct operative experience deficiencies promptly.

Additional Essential Training

The fellowship must provide exposure to and experience in the multidisciplinary management of breast disorders. Rotations on non-surgical services alone will not substitute for an understanding of the integration of multiple oncologic specialties in the treatment of cancer patients. The fellowship must provide opportunities to participate in multidisciplinary clinics, tumor boards, or conferences. Required non-surgical experiences are specified below. Each program should establish a plan to meet the provided objectives for these non-surgical experiences.

Radiation Oncology – A minimum of one month dedicated to learning the principles and practice of radiotherapy, as related to the multidisciplinary management of breast cancer as outlined in the educational objectives.

Surgical Pathology – A minimum one-month rotation in the surgical pathology department or a documented equivalent exposure encompassing benign and malignant histology

Medical Oncology – A minimum of one month dedicated to medical oncology. Fellows should gain experience in evaluating and managing patients receiving chemotherapy, and hormonal therapy. Fellows must know the indications, risks, and benefits of adjuvant systemic therapy in various clinical settings. The training should also provide an understanding of the biologic, pharmacologic, and physiologic rationale for each form of therapy.

Clinical Investigation – Training in basic methodology for conducting clinical trials, including biostatistics, clinical research design, ethics, and implementation of computerized databases.

Supportive and Rehabilitative Care – Experience in providing supportive care to cancer patients, including psychosocial interventions, pain management, sexual rehabilitation and treatment of lymphedema should be provided.

Research Training

Clinical research must be included in the training program. Fellows should have opportunities to design and implement clinical protocols. Each fellow should initiate or participate in an investigative project and should be sufficiently familiar with statistical methods to properly evaluate research results. Scholarly activity such as presentations at national meetings, lectures, and publications is expected.

Each fellow must complete a course on clinical research on human subjects, such as the courses approved by the National Institute of Health Office for Human Research Protections, or an institution-based equivalent. Ethics of research or human subjects must be included in the curriculum. The opportunity to participate in laboratory research is highly desirable. Fellows who request this experience should have access to basic science research faculty mentors (on or off site) and time for such research. In some cases, this might be carried out in a second year of training.