Classification System

Diseases/Conditions

- **BROAD** – A graduate of the Breast Oncology training program should be able to care for all aspects of disease and/or provide comprehensive management. When referring to a discipline of training (e.g. research or community outreach), the graduate should be able to carry out the endeavor from its conception through completion.

- **FOCUSED** – A graduate of the Breast Oncology training program should be able to make the diagnosis and provide initial management, but will not be expected to be able to provide comprehensive management. For disciplines of training, the graduate should be able to implement and participate in the activity, but would not be expected to complete it on their own.

Operations/Procedures

- **ESSENTIAL-COMMON** - Frequently performed operations, procedures, or endeavors for a breast surgeon; specific procedure competency is required by end of training and should be attainable primarily by case volume or active participation in the activity/endeavor.

- **ESSENTIAL-UNCOMMON** – Uncommon operations, procedures, or endeavors for a breast surgeon in practice and not typically done in significant numbers by trainees; specific procedure competency required by end of training, but cannot be attained by case volume or participation in the activity/endeavor alone.

- **COMPLEX** – Not consistently performed by a breast surgeon in training and not typically performed in practice. Generic experience in complex procedures or endeavors in training is required, but not competence in individual procedures/endeavors.
BENIGN BREAST DISEASE

Breast Diseases/Conditions
BROAD
- Breast pain
- Breast mass:
  - Cyst
  - Fibroadenoma
  - Phyllodes:
    - Benign
    - Borderline
  - Diabetic mastopathy
  - Fat necrosis
  - Galactocelect
  - Mondor’s disease
- Nipple discharge:
  - Intraductal papilloma:
  - Duct ectasia
- Breast infections:
  - Lactational mastitis
  - Non-lactational mastitis
  - Subareolar abscess
- Granulomatous mastitis
- High risk lesions:
  - Flat epithelial atypia
  - Columnar cell change with atypia
  - Atypical lobular hyperplasia
  - Atypical ductal hyperplasia
  - Lobular carcinoma in situ - classic form
  - Radial scar
- High risk patients:
  - Family history
  - Childhood radiation:
    - Mantle radiation for lymphoma
  - BRCA 1 and 2 mutation carriers
  - Other mutation carriers: CDH1, PALB2, PTEN, P53, ATM
- Role for and utility of chemoprevention

BREAST IMAGING

Breast Diseases/Conditions
BROAD
- Ultrasound
- Mammogram
- MRI
- BIRADS classification
• Indications and contraindications for stereotactic biopsy
• Digital tomosynthesis
• Knowledge of advanced breast imaging indications

FOCUSED
• PEM
• Molecular breast imaging

MALIGNANT BREAST DISEASE

Breast Disease/Conditions

BROAD
• Lobular carcinoma in situ- pleomorphic
• Paget’s disease of the nipple
• Ductal carcinoma in situ
• Invasive ductal carcinoma
• Invasive lobular carcinoma
• Locally advanced breast carcinoma
  o Operable
  o Non-operable
• Inflammatory breast carcinoma
• Tubular carcinoma
• Mucinous carcinoma
• Other variants
• Metaplastic breast cancer
• Malignant Phyllodes
• Pregnancy associated/lactation associated breast carcinoma
• Occult primary breast carcinoma with axillary metastasis
• Male breast cancer
• Hereditary breast cancer:
  o Family history positive
  o BRCA 1 and 2
  o Appropriate ordering of genetic germline mutation testing
• Hormone receptor status:
  o ER/PR positive
  o Her2 positive
  o Triple negative
• Recurrent Breast CA
  o S/P mastectomy
  o In breast recurrence s/p partial mastectomy

FOCUSED
• Metastatic disease to the breast:
  o Lymphoma
  o Melanoma
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- Thyroid
- Primary sarcoma of the breast
- Metastatic breast cancer to other sites
- Hereditary breast cancer
  - P53, PTEN, CHEk

**Operations/Procedures**

**ESSENTIAL-COMMON**
- Breast ultrasound
- Cyst aspiration
- FNA
- Percutaneous core needle sampling
- Skin punch biopsy
- Diagnostic excisional biopsy, with/without wire/seed/ultrasound localization
- Central/Major/Terminal duct exploration and excision
- Partial mastectomy, with/without image-guided localization (wire/seed/ultrasound)
- Oncoplastic partial mastectomy
- Mastectomy:
  - Total mastectomy
  - Skin-sparing
  - Nipple/areolar sparing
- Axillary sentinel node dissection
  - Blue dye
  - Nuclear injection
  - Both
- Axillary node dissection

**ESSENTIAL-UNCOMMON**
- Percutaneous core needle sampling
  - Ultrasound guided
- Level 3 node dissection
- Radical mastectomy
- Chest wall resection

**COMPLEX**
- Stereotactic core biopsy
- MRI biopsy

**PLASTIC AND RECONSTRUCTIVE SURGERY**

**Diseases/Conditions**

**BROAD**
- Partial mastectomy breast defects
- Post-mastectomy defects
FOCUSED
- Breast asymmetry after breast conservation
- Chest wall defects following resection of locally advanced breast cancer

Operations/Procedures
ESSENTIAL-COMMON
- Oncoplastic closure of partial mastectomy defects

ESSENTIAL-UNCOMMON
- Local tissue flap closure for acquired surgical defect

COMPLEX
- Tissue expander placement
- Permanent silicone implant placement
- Pedicle flaps for breast reconstruction:
  - Latissimus dorsi
  - TRAM
- Free flap for breast reconstruction:
  - DIEP
  - Gluteal
  - TUG
- Mastopexy for symmetry
- Fat grafting and lipofilling

MEDICAL ONCOLOGY
Diseases/Conditions
BROAD
- Chemotherapy principles and mechanisms of action

FOCUSED
- Management of common complications of chemotherapeutic administration
- Use of gene signatures to direct systemic treatment recommendations
- Management of hormone receptor positive breast cancers
  - Early stage
  - Late stage
- Management of hormone receptor negative breast cancers
  - Early stage
  - Late stage
- Management of Her2 neu positive breast cancers
- Management of cancers by stage:
  - T stage
  - Node negative
  - Node positive
• Indications for neoadjuvant systemic therapy, specifically with regards to optimization of breast conserving therapy 
• Systemic treatment for the de novo stage 4 patient 
• Palliative/end of life care, supportive care, cancer pain, nutrition, exercise and weight management options

RADIATION ONCOLOGY

Diseases/Conditions
BROAD
• Radiation biology principles
• Radiation indications:
  o Breast conservation:
    ▪ Whole breast radiation
    ▪ Partial breast radiation
  o Post-mastectomy radiation

FOCUSED
• Management of common radiation complications
• Partial breast radiation:
  o Interstitial brachytherapy
  o Balloon brachytherapy
  o External beam partial breast
• Radiation therapy for metastatic disease:
  o Regional
  o Distant
    ▪ Treatment
    ▪ Palliation
• Radiation simulation/planning

Operations/Procedures
COMPLEX
• Partial breast radiotherapy techniques
• Intraoperative radiation therapy

SURGICAL MANAGEMENT/COUNSELING FOR GENETIC SYNDROMES

Diseases/Conditions
BROAD
• Family history
• BRCA 1
• BRCA 2
• P53 mutations (Li Fraumeni)
• Cowden’s syndrome
• CHEK
• Knowledge of other panels
PALLIATIVE INTENT SURGERY

Diseases/Conditions
FOCUSED
- Asymptomatic Stage 4 breast cancer
- Symptomatic Stage 4 breast cancer
  - Resectable breast/node disease
  - Unresectable breast/node disease
    - Chest wall involvement
    - Skin involvement

Operations/Procedures
ESSENTIAL-UNCOMMON
- Palliative mastectomy

CLINICAL AND BASIC RESEARCH

Diseases/Conditions
BROAD
- Protection of Human Subjects
- Inclusion of diverse study populations
- Basic Statistical Analysis
- Institutional Review Board process and application
- Database management, Retrospective Reviews
- Defining Hypothesis and Study Aims
- Evaluation of Study Design

FOCUSED
- Assessment of Clinical Trial, Defining levels of Evidence/meta-analysis
- Selection of primary and secondary endpoints
- Defining study populations, sample size, power
- Basic Survival Analysis
- Assessment of Health Related QOL
- Fundamentals of Health Outcomes Studies

Application
ESSENTIAL-COMMON
- Participation in a journal club – clinical or science
- Retrospective review study of a database or case study
- Writing, submission and presentation of a cancer-related abstract
- Manuscript preparation, writing and submission
- Identification and Recruitment of patients to a clinical trial
ESSENTIAL-UNCOMMON

- Participation in a cooperative trial group meeting

COMPLEX

- Writing a grant – clinical or scientific
- Writing an IRB application

COMMUNITY OUTREACH AND LEADERSHIP

Diseases/Conditions

BROAD

- Communication with and education of the non-medical community
  - Cancer screening
  - Cancer prevention
  - Cancer diagnosis
  - Cancer treatment
- Communication and interaction with cancer support groups
  - Breast disease
- Communication with and education of non-oncologic physicians
  - Cancer screening
  - Cancer prevention
  - Cancer diagnosis
  - Cancer treatment
- Communication and interaction with non-oncologic surgeons
  - Clinical trials
  - Multidisciplinary conferences
- Understand disparities in screening, diagnosis, and treatment of cancer
- Presentation skills
  - Slide presentation
  - Public speaking skills
  - Panel discussion skills
- Effective preparation of educational material
  - For general public
  - For patients
  - For families of patients
  - For fellows, residents, students
  - Computer/web-based
  - Print material

FOCUSED

- Role within American Cancer Society, Komen, etc.

COMPLEX
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- Understanding of and possible effective preparation of outreach or screening grants
- Effective presentation at community outreach

**Operations/Procedures**

**ESSENTIAL-COMMON**
- Attend and participate in cancer-support groups
- Conference participation with general surgery and subspecialty colleagues
- Lecture/talk to other fellows, residents, medical students

**ESSENTIAL-UNCOMMON**
- Lecture/talk to non-oncologic physicians
- Participation in American Cancer Society, Komen or similar screening and outreach events
- Prepare outreach/screening material
- Prepare outreach/screening grant

**COMPLEX**
- Attend Commission on Cancer
- Attend other Society/foundation meetings

**PATHOLOGY**

**Diseases/Conditions**

**BROAD:**

**FOCUSED:**
- Solid tumor margin assessment
- Nodal evaluation
  - Sentinel lymph node
  - Nodal dissection specimen
- Pathologic Analysis
- Frozen section, routine staining, immunohistochemistry
- Pathologic staging of tumors
- Intraoperative analysis

**Operations/Procedures**

**ESSENTIAL-COMMON**
- Fine needle aspiration biopsy

**ESSENTIAL-UNCOMMON**

**COMPLEX**
- Margin assessment and preparation
  - Lumpectomy
  - Mastectomy
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- Cytologic analysis
- Frozen section preparation and analysis
- Touch preparation
- Sentinel node processing and analysis
- Handling and pathologic assessment of regional lymphadenectomy specimen

CANCER REHABILITATION

Diseases/Conditions

BROAD
- Preoperative assessment of disability
- Preoperative assessment of impact on activities of daily life

FOCUSED
- Postoperative/treatment evaluation and management of disability
- Postoperative/treatment evaluation and management of impact on activities of daily life
- Postoperative/treatment evaluation and intervention for
  - Home
  - Place of work
  - Family/support network
- Lymphedema management
  - Preoperative assessment
  - Postoperative monitoring and treatment

Operations/Procedures:
ESSENTIAL-COMMON

ESSENTIAL-UNCOMMON

COMPLEX
- Physical therapy
- Occupational therapy
- Lymphedema prevention and treatment
Classification System

Operations/Procedures

- **ESSENTIAL-COMMON** - Frequently performed operations, procedures, or endeavors for a breast surgeon; specific procedure competency is required by end of training and should be attainable primarily by case volume or active participation in the activity/endeavor.

- **ESSENTIAL-UNCOMMON** – Uncommon operations, procedures, or endeavors for a breast surgeon in practice and not typically done in significant numbers by trainees; specific procedure competency required by end of training, but cannot be attained by case volume or participation in the activity/endeavor alone.

- **COMPLEX** – Not consistently performed by a breast surgeon in training and not typically performed in practice. Generic experience in complex procedures or endeavors in training is required, but not competence in individual procedures/endeavors.

**ESSENTIAL-COMMON**

- Breast ultrasound – 15 (hands on) or 30 (observation only)

- Percutaneous Procedures – 13
  - Fine needle aspiration
  - Cyst aspiration
  - Percutaneous core needle sampling, palpation or image guided
  - Seroma aspiration with/without drain placement

- Major ductal exploration and excision for nipple discharge – 1

- Partial mastectomy or diagnostic excisional biopsy – 50
  - Palpation guided
  - Image guided
  - Oncoplastic partial mastectomy

- Mastectomy – 40 spread over all categories
  - Total mastectomy
  - Skin-sparing mastectomy
  - Nipple/areolar sparing mastectomy

- Axillary sentinel node biopsy – 50

- Level 1, 2 completion axillary node dissection – 5
ESSENTIAL-UNCOMMON (No numbers set)
- Level 3 node dissection
- Palliative mastectomy for stage 4 disease
- Chest wall recurrence/radical resection

Plastic Surgery
- Local tissue flap closure for tissue defect
- Breast Reconstruction with Tissue Expander
- Tissue expansion procedure
- Exchange of Expanders to Implants
- Breast Reconstruction with Autologous Tissue Transfer
  - Pedicle flaps (latissimus, TRAM)
  - Free flaps (free TRAM, DIEP, etc.)
- Nipple reconstruction
- Areolar tattooing
- Breast reduction
- Mastopexy for symmetry

COMPLEX – EXPERIENCE AS AVAILABLE (No numbers set)
- Vacuum-assisted core biopsy (must have experience with and exposure to listed biopsy techniques)
  - Image guided
    - Stereotactic
    - Ultrasound
    - MRI
- Clip placement
  - Image guided
    - Stereotactic
    - Ultrasound
    - MRI
- Placement of localizing wire or seed
  - Image guided
    - Stereotactic
    - Ultrasound
    - MRI
- Tumor ablation
  - Palpation guided
  - Image guided
- Subcutaneous mastectomy for gynecomastia
- Radical mastectomy
- Radiation Oncology
Partial breast techniques
- Interstitial brachytherapy catheters
- Intracavitary balloon radiation
- External beam

Intraoperative radiation therapy

NON-OPERATIVE EXPOSURE

Medical oncology
- 15 new breast cancer / recurrent disease consultations
- 15 follow-up visits

Radiation oncology
- 15 new breast cancer consultations
- 5 new breast cancer or recurrent breast cancer simulations
- 15 f/u visits and/or physics reviews

Pathology
- 8 cancer case sign-outs
- 8 frozen or intra-op evaluations
- 8 benign and/or high risk lesions

Plastic Surgery
- 8 reconstructive cases

Imaging
- 8 screening cases
- 8 breast ultrasound and/or nodal ultrasound
- 8 diagnostic mammograms
- 8 breast MRIs