



Evaluation & Management of a Patient with Benign or Malignant Breast Disease

Description of the Activity	<p>General surgeons are often called to evaluate patients with breast concerns. These surgeons must be able to evaluate and manage patients who present in the outpatient or elective setting as well as those who present with urgent or emergency conditions.</p>
Functions	<ul style="list-style-type: none">❖ Nonoperative/Preoperative<ul style="list-style-type: none">➤ Obtain a focused history, including family history, cancer risk factors, breast masses, nipple discharge, and skin changes.➤ Perform a focused physical examination of the bilateral breasts, draining lymph node basins, and skin.➤ Synthesize essential information from a patient's history and physical examination, medical records, and existing diagnostic evaluations to develop a differential diagnosis and care plan, including the following processes:<ul style="list-style-type: none">▪ Benign lesions, such as cysts, abscesses, and fibroepithelial lesions▪ High-risk breast lesions, such as atypical ductal hyperplasia (ADH), atypical lobular hyperplasia (ALH), lobular carcinoma in situ (LCIS), papilloma, and flat epithelial atypia (FEA)▪ Invasive breast cancer and stage 0 cancer, such as ductal carcinoma in situ (DCIS)▪ Mastitis versus inflammatory breast cancer➤ Order and evaluate breast imaging, including mammography and ultrasound in all patients and magnetic resonance imaging in selected patients.➤ Perform whole-body staging such as computed tomography (CT)/bone scan or positron-emission tomography (PET)/CT when indicated in a patient with invasive breast cancer.➤ Obtain or perform core needle biopsy or fine-needle aspiration for tissue diagnosis of breast and axillary lesions.➤ Identify the need for and initiate multidisciplinary care of a patient with malignant breast diagnosis, including medical oncology, genetics, radiation oncology, fertility planning, and plastic surgery, and demonstrate understanding of how the timing of breast surgery depends on input from these teams.➤ Use shared decision-making to develop a treatment plan consistent with a patient's goals and beliefs.➤ Use current evidence-based literature to develop correct sequencing of oncologic surgery, reconstructive surgery, chemotherapy, radiation, and antihormonal therapy.➤ Communicate to a patient/caregiver(s) how comorbid conditions will affect the risk/benefit ratio in a decision to pursue surgery and postoperative recovery.➤ Collaborate with anesthesia providers to develop a safe anesthetic approach for a clinical situation.➤ For an anticoagulated patient, demonstrate understanding of the significance of the indication, and apply an algorithm for discontinuation and resumption in the perioperative period.➤ Recognize the multisystemic effects of tobacco use and cessation timing as they relate to perioperative outcomes, including postoperative pulmonary complications and wound healing.➤ Obtain informed consent with cultural humility.<ul style="list-style-type: none">▪ Describe the indications, risks, benefits, alternative therapies, and potential complications of the planned procedure, and incorporate a discussion of the goals of care.▪ Ensure patient/caregiver comprehension using applicable language services and audio/visual aids.



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- Ensure that the patient/caregiver(s) can ask questions, and address any expressed concerns, taking patient/caregiver preferences into account.
- Document the consent discussion.

❖ Intraoperative

- Manage the perioperative environment, including room setup, equipment check, preprocedural time-out, specimen processing, counts, wound classification, and debriefing functions.
- Collaborate with other perioperative health care professionals to create and maintain an intraoperative environment that promotes safe patient care and collegiality.
- Position the patient to expose the operative field, taking precautionary measures to prevent iatrogenic injury.
- Confirm the presence of necessary equipment such as a Geiger counter, blue dye, a localizing device, and specimen imaging.
- Develop an initial operative plan that demonstrates understanding of the pathology, anatomy, physiology, indications, contraindications, and potential complications.
- Perform operative interventions such as:
 - Nonpalpable excisional biopsy or partial mastectomy
 - Perform image-guided preoperative localization of a lesion.
 - Perform image-guided intraoperative resection of a localized lesion.
 - Orient a resected lesion for pathologic margin assessment.
 - Assess the adequacy of a resected lesion with imaging with or without radiologist input.
 - Palpable excisional biopsy or partial mastectomy
 - Perform enucleation versus complete resection technique.
 - Total mastectomy
 - Identify the tissue plane between viable skin and breast tissue.
 - Identify the tissue plane between breast and pectoralis muscle.
 - Demonstrate understanding of the extent of necessary dissection, using borders of the breast (clavicle, inframammary fold, parasternal, latissimus dorsi muscle).
 - Axillary sentinel lymph node (SLN) biopsy
 - Demonstrate understanding of the dual-tracer (technetium [99mTc] sestamibi), blue dye) technique for identification of SLNs.
 - Demonstrate understanding that a complete SLN biopsy includes all blue, all hot, and all palpably abnormal nodes.
 - Axillary node dissection
 - Identify and preserve the axillary vein, thoracodorsal bundle, and long thoracic nerve.
 - Identify borders of level 1 and 2 axillary dissection.
- Integrate new information discovered intraoperatively to modify the operative plan for situations such as:
 - Frozen section evaluation of lymph nodes
 - Inadequate sampling of calcifications
 - Invasion of chest wall musculature
 - Lack of identification of SLNs



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	<ul style="list-style-type: none">▪ Missing localization markers/clip❖ Postoperative<ul style="list-style-type: none">➤ Communicate a postencounter plan to a patient/caregiver(s) and other team members that considers location, postencounter needs, outcome expectations, and a follow-up plan, including:<ul style="list-style-type: none">▪ Intraoperative findings▪ Pain management▪ Wound or drain management➤ Develop a postoperative plan that includes an analysis of patient-specific barriers to care.➤ Recognize and manage the most common complications after breast surgery, including:<ul style="list-style-type: none">▪ Hematoma▪ Lymphedema▪ Nerve injury▪ Seroma▪ Surgical site infection➤ Develop and coordinate a care plan for a patient with malignant disease based on interpretation of postoperative pathology and current evidence.<ul style="list-style-type: none">▪ Management of positive breast margins and positive axillary lymph nodes▪ Referral for adjuvant therapy▪ Postcancer treatment surveillance and survivorship
Scope	<ul style="list-style-type: none">❖ In scope<ul style="list-style-type: none">➤ Diagnosis<ul style="list-style-type: none">▪ Benign breast diagnoses, such as cysts, mastitis, abscess, fibroadenoma, and gynecomastia▪ Higher-risk breast disease, such as fibroepithelial lesions, ADH, ALH, LCIS, atypical papilloma, FEA, and radial scar▪ Malignant breast disease, such as phyllodes, invasive breast cancer, and DCIS➤ Procedures<ul style="list-style-type: none">▪ Axillary node dissection▪ Axillary SLN biopsy▪ Image-localized/palpable excisional biopsy▪ Localized/palpable partial mastectomy▪ Modified radical mastectomy▪ Total mastectomy➤ Populations<ul style="list-style-type: none">▪ All adult patients, including men, pregnant women, and gene mutation carriers❖ Out of scope<ul style="list-style-type: none">➤ Diagnosis<ul style="list-style-type: none">▪ Hidradenitis or idiopathic granulomatous mastitis



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- Mucocele
- Pseudoangiomatous stromal hyperplasia (PASH)
- Spindle cell masses
- Procedures
 - Nipple-sparing mastectomy
 - Oncoplastics
 - Reconstructive procedures
 - Reoperative neck operation
- Populations
 - Pediatric



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Level	Nonoperative/Preoperative	Intraoperative	Postoperative
<p>1</p> <p><u>Limited Participation</u></p> <p>Demonstrates understanding of information and has very basic skills</p> <p><u>Framework:</u> What a learner directly out of medical school should know</p> <p>The attending can show and tell.</p>	<ul style="list-style-type: none"> Obtains a history inclusive of breast disease and performs a breast-focused physical exam with cultural humility; gathers radiology and pathology results but is unable to interpret the images or pathology Develops a limited differential for a patient presenting with breast disease Respectfully communicates basic facts about breast disease to a patient/caregiver(s) but inconsistently uses applicable language services and audio/visual aids Suggests an initial plan for a patient with breast cancer but does not understand the sequencing of interdisciplinary care, including medical oncology, radiation therapy, and other treatment options Communicates the elements that constitute an informed consent discussion but omits some elements when documenting the discussion Identifies evidence regarding the differential and management of breast erythema, including abscess and inflammatory breast cancer 	<ul style="list-style-type: none"> Demonstrates understanding of the principles of labeling and orienting pathology specimens for handoff to nursing staff in the room Assists with surgical positioning and preparation of a patient Maintains a sterile field, assists with adequate exposure by providing retraction, and performs superficial wound closure Handles instruments safely but tentatively and displays a lack of coordination between both hands; follows intraop directions; demonstrates basic skills but is inefficient with them (eg, suturing and knot tying) Performs aspiration or incision and drainage of a breast abscess with supervision Performs a punch biopsy with supervision Identifies tissue planes only with active guidance and retraction; removes the breast from the pectoralis with guidance, sometimes veering off of the correct plane 	<ul style="list-style-type: none"> Communicates postop pain management, drain care, and discharge planning to a patient/caregiver(s) with supervision Communicates intraop procedures, findings, and complications immediately to a patient/caregiver(s) for benign diagnoses Demonstrates foundational knowledge of interdisciplinary care of a patient with breast cancer and safely discharges a patient with routine needs Demonstrates understanding that some form of adjuvant therapy is typically required for a patient with breast cancer but is not able to delineate a plan Identifies early postop complications, including hematoma, infection, seroma, and PE, but is unable to initiate management Manages a patient's postop pain, drain care, and discharge planning with indirect supervision
<p>2</p> <p><u>Direct Supervision</u></p> <p>Demonstrates understanding of the steps of the operation but requires direction through principles and</p>	<ul style="list-style-type: none"> Forms a broad differential that includes benign and malignant disease for a patient with a breast mass, erythema, or nipple discharge; interprets a breast mammogram and ultrasound with guidance Describes a benign or early cancer diagnosis to a patient/caregiver(s) in a culturally sensitive way and answers any 	<ul style="list-style-type: none"> Coordinates combined intraop management of a patient with multicentric or bilateral disease with pathology and plastics colleagues Positions a patient and ensures that a Geiger counter and localization equipment are available During a mastectomy, visualizes and dissects the correct tissue plane between 	<ul style="list-style-type: none"> Immediately communicates operative procedures performed and intraop findings to a patient/caregiver(s) for benign and early cancer diagnoses Begins to develop a postop adjuvant care plan for a patient with early-stage breast cancer, including radiation, chemotherapy, or hormonal therapy, but with some omissions or deficiencies



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<p>does not know the nuances of a basic case</p> <p>Framework: The learner can use the tools but may not know exactly what, where, or how to do it.</p> <p>The attending gives active help throughout the case to maintain forward progression.</p>	<p>questions, consistently using applicable language services and audio/visual aids</p> <ul style="list-style-type: none"> Communicates the elements that constitute an informed consent discussion in a straightforward case and completely documents the discussion Articulates clinical questions and uses evidence to develop a treatment approach for a patient with a breast mass, erythema, or nipple discharge; develops a treatment approach for benign and malignant disease Develops a management plan for a patient with a benign breast diagnosis Develops a management plan for a healthy patient with ductal breast carcinoma Attends and actively listens to interdisciplinary care conferences and presents information from a surgical perspective to other specialists (eg, medical and radiation oncology, pathology, radiology) 	<p>viable skin and breast tissue with multiple redirections</p> <ul style="list-style-type: none"> Handles axillary tissue inconsistently; removes a primary sentinel node with significant assistance Enucleates a benign breast lesion with attention to the correct tissue plane with assistance Requires assistance to dissect tissues to localize an image-guided excisional biopsy and obtain a proper margin Demonstrates understanding of common positioning options but may select an incorrect position; identifies the importance of protecting against nerve and pressure injuries but cannot describe the resulting morbidity Provides a basic description of the operative plan but omits some steps; maintains the plane of dissection if it is identified but cannot independently enter it; frequently deviates from the correct plane Proceeds to the next step of the procedure but sometimes requires direction Controls bleeding only with direction 	<ul style="list-style-type: none"> Coordinates a discharge plan for a patient with drains or wound care needs Develops a follow-up plan for a patient after excision of a benign breast lesion (eg, fibroadenoma) Troubleshoots a clogged drain and removes a drain with limited supervision Identifies early surgical postop complications, including hematoma and PE, and manages them with indirect supervision
<p>3</p> <p>Indirect Supervision</p> <p>Can do a basic operation but will not recognize abnormalities and does not understand the</p>	<ul style="list-style-type: none"> Independently manages a patient presenting with benign breast disease and straightforward ductal breast carcinoma and independently interprets a breast mammogram and ultrasound Communicates a locally advanced cancer diagnosis to a patient/caregiver(s) across barriers and cultural differences and answers any questions; formulates a plan 	<ul style="list-style-type: none"> Supervises a safe and effective transition and handoff to the ICU for postop care of a patient with significant comorbidities and complex resection and reconstruction Draws correct skin incisions for a patient undergoing breast-conserving therapy and mastectomy with or without reconstruction 	<ul style="list-style-type: none"> Communicates intraop procedures, findings, and complications to a patient/caregiver(s) immediately for benign, early, and advanced cancer diagnoses Coordinates a postop adjuvant care plan for a patient with early-stage breast cancer, including radiation, chemotherapy, or hormonal therapy



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<p>nuances of an advanced case</p> <p>Framework: The learner can perform the operation in straightforward circumstances.</p> <p>The attending gives passive help. This help may be given while scrubbed for more complex cases or during a check-in for more routine cases.</p>	<p>with the patient/caregiver(s) with cultural dexterity using shared decision-making</p> <ul style="list-style-type: none"> Develops an evidence-based operative plan for a patient with early-stage breast cancer (stage 0-2), considering patient preferences and sequencing of chemotherapy, radiation, and antihormonal and surgical therapies Conducts an informed consent discussion related to the operative management of breast disease with cultural humility and completely documents the discussion Presents patient cases at an interdisciplinary care conference; discusses care options with other specialists (eg, medical oncology, radiation oncology, pathology, radiology) 	<ul style="list-style-type: none"> Performs technical aspects of breast surgery (eg, creates mastectomy flaps, performs wire-guided biopsy) with occasional guidance and assistance; progresses the case and asks for assistance when needed Uses lymphoscintigraphy to plan an operative approach for a sentinel lymph node biopsy Performs wide local excision and sentinel lymph node biopsy with minimal guidance; respects tissue planes to minimize trauma Correctly orients the specimen for pathology During a mastectomy in a patient with uncomplicated anatomy, visualizes and dissects the correct tissue plane between viable skin and breast tissue with limited redirection Handles axillary tissue gently and without excessive bleeding or trauma to surrounding structures Dissects tissues to localize an image-guided excisional biopsy but requires assistance to obtain a proper margin 	<ul style="list-style-type: none"> Develops an adjuvant care plan for a healthy postmenopausal patient with hormone receptor–positive breast cancer Identifies when a breast abscess is not adequately controlled after incision and drainage Manages postop complications such as hematoma and flap compromise in a patient with complex comorbidities (eg, anticoagulation, prior breast radiation)
<p>4</p> <p>Practice Ready</p> <p>Can manage more complex patient presentations and operations and take care of most cases</p>	<ul style="list-style-type: none"> Independently integrates all clinical information and elicits patient preferences to develop an evidence-based interdisciplinary treatment plan for benign and malignant disease, including sequencing chemotherapy, radiation, and antihormonal and surgical therapies; identifies the need for genetic testing and fertility consultations Develops a plan to manage a patient presenting with complex breast disease 	<ul style="list-style-type: none"> During an axillary node dissection, identifies and preserves the axillary vein, thoracodorsal bundle, and long thoracic nerve while obtaining an adequate lymph node packet with some attending-level guidance During an axillary sentinel node procedure, independently identifies and removes sentinel nodes using radioactive tracer, blue dye, or both 	<ul style="list-style-type: none"> Discusses complex and emotionally difficult postop findings such as advanced disease, positive margins, or metastatic disease with a patient/caregiver(s) with care and cultural dexterity Considers a patient’s preferences and ability to access, afford, and coordinate transportation for adjuvant therapies such as radiation, chemotherapy, or hormonal therapy



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<p>Framework: The learner can treat all straightforward breast conditions and has a strong understanding of surgical options and techniques for less common scenarios.</p> <p>The attending is available at the request of the learner but is not routinely needed for common presentations, though input may be needed for more complex presentations.</p>	<p>(eg, inflammatory breast cancer, lobular carcinoma, locally advanced breast cancer); considers sequencing of multimodal therapy and molecular diagnostics</p> <ul style="list-style-type: none">• Develops a plan to manage a patient with comorbid disease that impacts the treatment plan for their breast cancer• Describes a complex disease process to a patient/caregiver(s), including recurrences, unexpected metastatic disease, and second opinions; formulates a plan with cultural dexterity based on individual patient characteristics and preferences and answers any patient/caregiver questions• Conducts an informed consent discussion for a complex procedure with cultural humility, eliciting patient preferences and documenting the risks and benefits individualized to the patient• Leads and coordinates an interdisciplinary care conference; facilitates professional care discussions with other specialists (eg, medical and radiation oncology, pathology, radiology); resolves conflict when needed	<ul style="list-style-type: none">• Independently performs primary closure, simple reconstruction, and skin grafting• During a mastectomy, independently performs a simple mastectomy with sufficient and viable skin flaps• During an image-guided lumpectomy, localizes the lesion, resects it with adequate margins, and troubleshoots difficulties, including positive margins on frozen section• Identifies when complex wound closure is required• Devises and implements a plan when deviation from the initial operative plan is required• Manages competing tensions between oncologic and reconstructive teams in intraop decision-making• Coordinates an intraop consultation with a patient's caregiver(s) with cultural sensitivity when an unexpected event occurs, navigating any language or cultural differences	<ul style="list-style-type: none">• After reviewing surgical pathology, independently develops a postop adjuvant care plan for a patient with locally advanced cancer, including consideration for further surgery, chemotherapy, or hormonal and radiation therapies• Identifies and manages all immediate postop surgical complications, including hematoma, infection, and skin necrosis, with limited oversight