



## Evaluation & Management of Patients with Breast Cancer

<b>Description of the Activity</b>	Surgical oncologists are expected to evaluate and manage patients who present with signs and symptoms of a breast mass, breast imaging abnormalities, and biopsy-proven breast cancers. Surgical oncologists must be able to accurately and cost-effectively diagnose, treat, and provide surveillance for adult patients with breast disease/cancer and recognize complex disease that requires multidisciplinary treatment.
<b>Functions</b>	<ul style="list-style-type: none"><li>❖ Nonoperative/Preoperative<ul style="list-style-type: none"><li>➤ Synthesize essential information from a patient’s records, personal and family history, physical examination, and initial diagnostic evaluations to develop a differential diagnosis.</li><li>➤ Identify and treat benign breast lesions, high-risk breast lesions, and phyllodes tumors.</li><li>➤ Identify and treat malignant breast disease.</li><li>➤ Know the indications for and interpret breast imaging, including age- and risk-appropriate screening guidelines.</li><li>➤ Complete a cost-effective, evidence-based diagnostic or staging evaluation (breast magnetic resonance imaging, positron-emission tomography/computed tomography), including molecular testing (genetics).</li><li>➤ Use an evidence-based high-risk assessment tool, and implement a high-risk screening protocol.</li><li>➤ Identify patients for genetic testing, and manage patients with hereditary breast cancer. Refer patients to subspecialties as needed for risk-reduction interventions.</li><li>➤ Communicate a diagnosis and potential treatment options to a patient/caregiver(s) and a multidisciplinary team/consultants. Use shared decision-making to develop a treatment plan consistent with the patient’s goals and beliefs.</li><li>➤ Coordinate with the multidisciplinary team regarding correct sequencing of oncologic treatment, including oncofertility evaluation as indicated, surgery, neoadjuvant or adjuvant chemotherapy, radiation, and other treatments as necessary.</li><li>➤ Recognize and mitigate patient-specific barriers to care.</li><li>➤ Present options and counsel patients regarding breast conservation, oncoplasty, and mastectomy.</li><li>➤ Refer as needed to the plastic surgery team for oncoplasty and immediate/delayed reconstructive options.</li><li>➤ Refer as needed to preoperative rehab/physical therapy (including lymphedema evaluation), psychosocial, and nutrition services. Perform medical clearance and optimize the patient.</li><li>➤ Manage patients with locally advanced breast cancer/metastatic disease, and offer palliative surgical options.</li><li>➤ Succinctly identify treatment goals (curative intent, life prolongation without curative option, palliation, end-of-life care). Communicate sympathetically in a culturally sensitive manner when de-escalation of care is indicated because of poor prognosis or based on the patient/caregiver’s goals of care.</li><li>➤ Screen patients for and propose clinical trials when appropriate.</li><li>➤ Obtain informed consent with cultural sensitivity.<ul style="list-style-type: none"><li>▪ Describe the indications, risks (potential skin/nipple/flap necrosis rates, re-excision rates, breast edema/lymphedema incidence, paresthesia, nerve injury), benefits, and alternative interventions.</li><li>▪ Ensure patient/caregiver comprehension using applicable language services and audio/visual aids as necessary.</li></ul></li></ul></li></ul>



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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, image availability as necessary, anesthetic approach, collaboration with the anesthesiology team, preprocedural time-out, specimen orientation and processing, counts, wound classification, and debriefing functions.
- Create and maintain an intraoperative environment that promotes safety and patient-centered care.
- Position the patient to expose the operative field, taking precautionary measures to prevent iatrogenic injury.
- Confirm the accessibility of necessary equipment.
- Perform the procedures required to manage breast cancer, including:
  - Partial mastectomy (with image guidance, wireless/seed localization)
    - Techniques for intraoperative margin assessment
    - Indications for oncoplastic techniques
  - Mastectomy: nipple-sparing, skin-sparing, modified-radical, risk-reduction procedures
  - Staging of the axilla:
    - Sentinel lymph node removal
    - Targeted lymph node dissection, removal of a clipped node
  - Axillary lymph node dissection, including identification of critical structures
  - Terminal duct excision/central duct excision
- Adapt operative steps and the operative plan to information discovered intraoperatively, calling consulting services as necessary.

### ❖ Postoperative

- Oversee postoperative care.
- Manage common early and late complications related to in-scope procedures, including:
  - Skin, nipple, flap necrosis
  - Seroma, lymphoceles, lymphedema, chest wall/breast edema
  - Chest wall numbness and pain
- Assess pathology, including margin evaluation and the need for genomic tumor profiling testing.
  - Evaluate the concordance of the pathology report to imaging, and direct treatment accordingly.
  - Determine if margins are clear or if further surgery is indicated.
- Review intraoperative and pathologic findings in a multidisciplinary tumor board, and modify the treatment plan if indicated.
  - Determine if nodal evaluation is complete or if further nodal surgery is indicated.
  - Describe indications for completion axillary lymph node dissection.
- Communicate a postencounter plan with a patient/caregiver(s) and other health care team members that considers intraoperative and pathologic findings, future treatment needs, postencounter needs, outcome expectations, and follow-up.



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	<ul style="list-style-type: none"><li>➤ Recognize and mitigate patient-specific barriers to care.</li><li>➤ Coordinate care with other specialties and ancillary care as needed (physical therapy, rehabilitation, nutrition services).</li><li>➤ Develop a plan for surveillance according to consensus guidelines.</li><li>➤ Counsel patients regarding quality of life, survivorship, and side effects of long-term therapies, including hormone blockers, radiation, and chemotherapy-related treatment effects.</li></ul>
<b>Scope</b>	<ul style="list-style-type: none"><li>❖ In scope<ul style="list-style-type: none"><li>➤ Diagnoses<ul style="list-style-type: none"><li>▪ Evaluation of:<ul style="list-style-type: none"><li>○ High-risk and genetic predisposition scenarios</li><li>○ High-risk lesions (eg, atypical ductal hyperplasia, radial scar)</li><li>○ Imaging abnormality</li><li>○ Nipple discharge</li><li>○ Palpable mass</li></ul></li><li>▪ Carcinoma arising from the breast<ul style="list-style-type: none"><li>○ In situ disease</li><li>○ Invasive</li><li>○ Phyllodes</li></ul></li><li>▪ Angiosarcoma of the breast</li><li>▪ Axillary lymphadenopathy related to breast disease</li><li>▪ Inflammatory breast cancer</li></ul></li><li>➤ Procedures<ul style="list-style-type: none"><li>▪ Mastectomy, total or partial<ul style="list-style-type: none"><li>○ Image-guided partial mastectomy</li><li>○ Nipple-sparing</li><li>○ Skin-sparing</li><li>○ Total</li><li>○ Oncoplastic techniques</li></ul></li><li>▪ Lymphadenectomy: sentinel, targeted, or complete</li><li>▪ Risk-reduction procedures</li><li>▪ Integration of reconstructive approaches</li><li>▪ Terminal duct excision/central duct excision</li></ul></li><li>➤ Populations<ul style="list-style-type: none"><li>▪ Male and female patients with breast cancer</li><li>▪ Pregnant patients</li></ul></li></ul></li><li>❖ Out of scope</li></ul>



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- Diagnoses
  - Breast abscess
  - Breast pain
  - Cutaneous malignancies of the breast
  - Fibroadenoma
  - Gynecomastia
  - Hidradenitis
  - Mastitis
- Procedures
  - Ablation
- Populations
  - Patients younger than 12 years



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<p><b>1</b></p> <p><b><u>Limited Participation</u></b></p> <p><b>Demonstrates understanding of information and has very basic skills</b></p> <p><b><u>Framework:</u></b>  <b>Performs at the general surgery resident level, lower than expected for a typical residency graduate. Has some experience with simple cases but has been an observer of complex cases</b></p>	<ul style="list-style-type: none"> <li>• Synthesizes essential information from a patient’s records, H&amp;P, family history, and initial diagnostic evaluations to develop a differential</li> <li>• Discusses surgical options for treatment in the breast and axilla; needs guidance with management of the axilla in a complex case or when completion axillary dissection is needed in a surgery-first setting</li> <li>• Describes a tumor-specific biopsy technique but may require guidance to ensure key diagnostic information is obtained</li> <li>• Describes common staging studies performed but may not identify the most cost-effective and evidence-based imaging required</li> <li>• Recognizes a patient needing surgical intervention but requires prompting to recognize a patient needing neoadjuvant therapy</li> <li>• Identifies some relevant evidence-based guidelines for management but needs guidance to understand sequencing of treatment approaches</li> <li>• Considers the role of multidisciplinary tumor board and participates in case</li> </ul>	<ul style="list-style-type: none"> <li>• Needs guidance to determine the necessary equipment (radiology, Geiger counter, localizing technique) for the operation</li> <li>• Needs guidance on axillary management in a complex setting, such as neoadjuvant chemotherapy with a positive lymph node</li> <li>• Needs direct assistance with a complex closure and operation</li> <li>• Creates a basic operative note but omits some important information; may need prompting for timeliness</li> </ul>	<ul style="list-style-type: none"> <li>• Writes postop orders, provides PACU staff with contact information, and reviews postop lab studies</li> <li>• Considers the role of a multidisciplinary tumor board and participates in but cannot lead the case discussion; needs guidance to develop a multidisciplinary treatment plan</li> <li>• Accesses evidence-based guidelines for staging and surveillance of breast cancer but needs assistance to develop a detailed plan</li> <li>• Demonstrates limited knowledge of implications of pathology results (margin status, lymph node involvement, further treatment options including return to the OR and adjuvant treatment options)</li> <li>• Needs guidance to select consultation with medical and radiation oncology for ongoing treatment</li> <li>• Describes the basic principles of clinical study design and levels of evidence as they apply to the selection of a treatment plan</li> <li>• Documents postop care but may omit nuances of progress or minor</li> </ul>



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	<p>discussion; needs guidance to develop a multidisciplinary treatment plan</p> <ul style="list-style-type: none"> <li>• Describes the basic principles of clinical study design and levels of evidence as they apply to the selection of a treatment plan</li> <li>• Respectfully communicates basic facts about the condition to a patient/caregiver(s) but needs assistance with nuances of treatment decisions and potential outcomes</li> <li>• Communicates the elements of an informed consent discussion but omits some elements (eg, chest wall numbness, nerve injury) when documenting the discussion</li> <li>• Accurately records information in a patient's record but may omit some important information or include some extraneous information; frequently requires correction or augmentation of documentation of services; may need prompting for timeliness</li> </ul>		<p>complications; may choose an inappropriate means of communication (paging for minor details or email for urgent issues)</p>
<p><b>2</b></p> <p><u>Direct Supervision</u></p> <p>Manages cases at the level of a newly graduated general surgery resident.</p>	<ul style="list-style-type: none"> <li>• Discriminates the quality of the relevant information to determine if additional information (diagnostics) is needed and discusses the multidisciplinary options</li> <li>• Orders cost-effective staging studies in accordance with guidelines</li> </ul>	<ul style="list-style-type: none"> <li>• Identifies the necessary equipment for the operation but may need assistance to set up or troubleshoot specialized equipment (eg, intraop mammo)</li> <li>• Identifies normal anatomy but needs assistance with distorted or complex anatomy</li> </ul>	<ul style="list-style-type: none"> <li>• Writes postop orders, provides PACU staff with contact information, and reviews postop lab studies</li> <li>• Participates in a multidisciplinary tumor board discussion to develop a treatment plan but needs assistance to guide the discussion; demonstrates</li> </ul>



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<p>Manages less complicated cases independently but needs active guidance for complex cases.</p> <p><u>Framework:</u> The learner can manage simple or straightforward cases.</p> <p>The learner may require guidance in managing multidisciplinary care (eg, planning neoadjuvant treatment or postoperative chemotherapy).</p> <p>During surgery, the attending gives active help throughout the case to maintain forward progression.</p>	<ul style="list-style-type: none"> <li>Recognizes the potential need for neoadjuvant chemotherapy in HER2+, node+, and triple-negative breast cancer</li> <li>Identifies relevant evidence-based guidelines for the management of breast cancer and a patient at high risk</li> <li>Participates in a multidisciplinary tumor board discussion to develop a treatment plan but needs assistance to guide the discussion; demonstrates awareness of multidisciplinary treatment options but needs guidance to formulate multimodality treatment</li> <li>Obtains a patient’s history and communicates their medical condition, considering barriers and cultural differences in a respectful way; formulates a treatment plan incorporating the patient’s preferences</li> <li>Communicates the elements of an informed consent discussion in a straightforward case and completely documents the discussion</li> <li>Demonstrates understanding of the different phases of oncologic clinical trials</li> <li>Demonstrates organized diagnostic and therapeutic reasoning through notes in a patient’s record; demonstrates timely and efficient use of the EHR to communicate with the health care team</li> </ul>	<ul style="list-style-type: none"> <li>Performs the initial steps of a total mastectomy such as raising viable skin flaps and removal of the breast from the chest wall</li> <li>Identifies the location of a lesion on imaging for breast-conserving surgery but cannot localize the lesion in the OR independently</li> <li>Orients the specimen for pathology with assistance</li> <li>Closes a routine incision independently; requires assistance for a complex oncoplastic closure</li> <li>Creates an operative note with a complete description of the procedure</li> </ul>	<p>awareness of multidisciplinary treatment options but needs guidance to formulate a multimodality treatment plan</p> <ul style="list-style-type: none"> <li>With guidance, coordinates multidisciplinary care; respectfully requests a consultation with medical and radiation oncology for ongoing treatment</li> <li>Interprets postop pathology results (margin status, lymph node involvement); requires assistance to develop further treatment options, including return to the OR and adjuvant treatment plans</li> <li>Uses evidence-based guidelines to plan surveillance of breast cancer</li> <li>Demonstrates understanding of the different phases of oncologic clinical trials</li> <li>Thoroughly documents a patient’s postop progression and the presence of any complications within the plan of management</li> </ul>



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<p style="text-align: center;"><b>3</b></p> <p><u>Indirect Supervision</u></p> <p>Can do a basic operation but will not recognize abnormalities and does not understand the nuances of an advanced case.</p> <p>Manages multidisciplinary care of straightforward cases. Seeks assistance in managing complex cases.</p> <p><u>Framework:</u> The learner can perform the operation in straightforward circumstances. The attending gives passive help. This help may be given while scrubbed for more complex cases or during check-in for more routine cases.</p>	<ul style="list-style-type: none"> <li>Integrates oncologic information with patient-specific factors (eg, genetic testing) to design a diagnostic, workup, and medical/surgical treatment plan, creating a multidisciplinary treatment plan with assistance</li> <li>Applies current guideline-based indications for the operative and nonoperative treatment of breast cancer</li> <li>Independently develops a plan to manage comorbidities that will affect treatment (chronic anticoagulation, cardiac disease, immunosuppression)</li> <li>Conducts an informed consent discussion with cultural humility and completely documents the discussion related to operative management</li> <li>Recognizes how neoadjuvant therapies can alter surgical management and develops a postchemotherapy imaging and surgical plan</li> <li>Applies a cost-effective, evidence-based diagnostic evaluation; identifies patient and tumor-specific factors relevant to oncological therapy</li> <li>Leads a discussion of routine cases at an interdisciplinary cancer care conference, incorporating multimodality treatment options in the formulation of a treatment</li> </ul>	<ul style="list-style-type: none"> <li>Coordinates a complex oncoplastic and reconstructive procedure with plastic surgery</li> <li>Independently moves fluidly through the course of a common operation and anticipates next steps in a sentinel node biopsy and palpable lumpectomy; needs assistance with completion axillary node dissection</li> <li>Independently identifies a lesion using imaging and intraop localization techniques; needs assistance with complete excision</li> <li>Independently orients the specimen for pathology</li> <li>Performs a total skin-sparing mastectomy with minimal guidance</li> <li>Creates an operative note with a complete description of the procedure, including key intraop findings; documents anatomic or disease variants in a thorough and understandable way</li> </ul>	<ul style="list-style-type: none"> <li>Leads a discussion of routine cases at an interdisciplinary cancer care conference, incorporating multimodality treatment options in the formulation of a treatment plan; requires assistance to develop a plan for a complex case or when conflicting opinions exist</li> <li>Reviews postop pathology results and recognizes features that impact prognosis or indicate a need for reoperation</li> <li>Describes a guideline-adherent plan for staging and surveillance after initial treatment and recognizes the need for a survivorship care plan</li> <li>Demonstrates general knowledge of clinical trial design and clinical trial infrastructure; identifies a patient who qualifies for clinical trials and assists research coordinators with enrollment</li> <li>Appropriately selects direct (telephone, in-person) and indirect (progress notes, secure text messages) forms of communication based on context and urgency</li> </ul>





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	<p>plan; requires assistance to develop a plan for a complex case or when conflicting opinions exist</p> <ul style="list-style-type: none"> <li>• Demonstrates general knowledge of clinical trial design and clinical trial infrastructure; identifies a patient who qualifies for clinical trials and assists research coordinators with enrollment</li> <li>• Establishes a therapeutic relationship in a challenging patient encounter and acknowledges uncertainty in alignment of goals</li> <li>• Concisely integrates all relevant data from outside systems and prior encounters and reports diagnostic and therapeutic reasoning in a patient's record</li> </ul>		
<p style="text-align: center;"><b>4</b></p> <p style="text-align: center;"><u>Practice Ready</u></p> <p style="text-align: center;"><b>Manages complex disease presentations and performs complex operations independently. Guides a multidisciplinary approach to complex cases. Performs as an expert consultant in surgical oncology</b></p> <p style="text-align: center;"><u>Framework:</u></p>	<ul style="list-style-type: none"> <li>• Independently integrates oncologic information with patient-specific factors (genetics, pregnancy) to design a succinct diagnostic staging workup and a multidisciplinary treatment plan</li> <li>• Comprehensively describes surgical and nonsurgical treatment options and recommends the best evidence-based options</li> <li>• Refers to fertility specialists, taking into consideration patient factors, tumor biology, and anticipated surgical planning</li> </ul>	<ul style="list-style-type: none"> <li>• Independently formulates a surgical plan based on new information discovered intraoperatively (unexpected suspicious adenopathy, unexpected tumor invasion of adjacent structures, detection of unexpected metastatic disease)</li> <li>• Independently moves fluidly through the course of a breast surgical procedure, including completion axillary node dissection, nipple-sparing mastectomy, and complex bracketing for breast-conserving treatment</li> <li>• Coordinates with other members of the OR team to use specialized equipment</li> </ul>	<ul style="list-style-type: none"> <li>• Leads a multidisciplinary cancer care conference to synthesize patient care plans for routine and complex cases, resolving conflict when needed; independently coordinates multidisciplinary care</li> <li>• Critically appraises and applies evidence-based guidelines, adapting to a complex clinical scenario and tailoring recommendations to a patient's preferences and needs; recognizes when deviation from standard guidelines is appropriate</li> </ul>



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<p>The learner can treat all common variations of the disease and has a strong understanding of surgical and medical options for different presentations.</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 or unusual presentations.</p>	<ul style="list-style-type: none"><li>Formulates a comprehensive treatment plan for a patient with locally advanced breast cancer, metastatic disease, and unusual tumor biology; demonstrates knowledge of cancer biology</li><li>Recognizes when curative options are not available and discusses noncurative and palliative options, including supportive care without cancer-directed therapy</li><li>Leads a multidisciplinary cancer care conference to synthesize patient care plans for routine and complex cases, resolving conflict when needed; independently coordinates multidisciplinary care</li><li>Demonstrates advanced knowledge of clinical trial design and clinical trial infrastructure; identifies potential clinical research questions and designs a clinical trial to address them, either real or hypothetical</li><li>Communicates a treatment plan, potential outcomes, and a prognosis to a patient/caregiver(s) in an emotionally sensitive, culturally aware, and compassionate manner</li><li>Independently recognizes personal biases while attempting to proactively minimize communication barriers</li><li>Communicates diagnostic and therapeutic reasoning clearly, concisely, promptly, and</li></ul>	<p>and with the plastic surgery team in a reconstructive case</p> <ul style="list-style-type: none"><li>Communicates with others clearly and respectfully even in challenging settings such as massive bleeding</li><li>Creates an operative note with a complete description of the procedure, a rationale for modifications of the operative plan, and documentation of anatomic or disease variants</li></ul>	<ul style="list-style-type: none"><li>Describes an evidence-based plan for staging and surveillance after initial treatment; institutes a survivorship plan</li><li>Demonstrates advanced knowledge of clinical trial design and clinical trial infrastructure; identifies potential clinical research questions and designs a clinical trial to address them, either real or hypothetical</li><li>Communicates clearly, concisely, promptly, and in organized written form so the postop plan of care, including anticipatory guidance, is clear to other members of the health care team</li></ul>



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	in organized written form, including anticipatory guidance; written or verbal communication (patient notes, email) serves as an example for others to follow		