



Breast Cancer: Management and Follow-Up

Effective Date: October 1, 2013

Scope

This guideline provides recommendations for management and follow-up of biopsy-proven breast cancer in women aged ≥ 19 years. For diagnostic recommendations, please refer to BCGuidelines.ca - *Breast Disease & Cancer: Diagnosis*. Refer to Appendix A for the algorithms associated with these guidelines.

Key Recommendations

- Immediately refer patient to the appropriate specialist by telephone, as soon as a tissue diagnosis of cancer is made.
- Surveillance for an asymptomatic patient is recommended with a physical examination and annual diagnostic mammography.
- A patient should report any symptoms of concern (e.g., new lumps, bone pain, chest pain, persistent headaches, dyspnea, or abdominal pain) immediately to their family physician and/or oncologist.
- No routine laboratory tests are indicated in an asymptomatic patient for surveillance.

Management

► Indications for Referral to Specialist

Surgeon:

As soon as a patient has a confirmed tissue diagnosis of a malignant or atypical proliferative breast lesion, immediately refer the patient to surgeon by telephone. Where possible, refer to a surgeon with experience or special interest in the breast. If a mastectomy is planned, the surgeon may refer the patient to a plastic surgeon to discuss reconstructive options pre-surgery.

Oncologist*:

Referral to an oncologist is typically done by the surgeon post-surgery unless the patient wants a discussion with an oncologist prior to making a decision about surgery. GP can also help facilitate this referral process if indicated.

► Additional Considerations for Referral

Fertility Specialist:

A discussion about fertility preservation with women who have invasive cancer that may require chemotherapy and would like to have children should occur soon after diagnosis. In this situation, consider early referral to a fertility specialist to ensure there is no delay in chemotherapy.

Genetic Counselling:

If not already referred (as per recommended in BCGuidelines.ca - *Breast Disease & Cancer: Diagnosis*), anyone from a family with a confirmed mutation in a hereditary cancer gene can be referred for genetic counselling.

If the patient's family history of close relatives[†] reveals a possible familial or inherited mutation, consider referral for genetic counselling.

* Most oncologists in BC are part of the BC Cancer Agency (BCCA).

[†] Close relatives include: children, brothers, sisters, parents, aunts, uncles, grandchildren and grandparents on the same side of the family. History of cancer in cousins and more distant relatives from the same side of the family may be relevant.

Staging

The major information for staging of the breast cancer is the pathology report.

Staging should start with a history and physical examination focused on signs and symptoms of metastatic disease in the lymph nodes, liver, bone and brain. If there are no concerning findings, no further work-up is required. If metastatic disease is suspected, other laboratory and imaging investigations targeted at the sites of concern may be warranted.

A bone scan can be done to rule out bony metastasis in node positive or locally advanced breast cancer patients. The BCCA suggests that baseline tumour markers carcinoembryonic antigen (CEA), cancer antigen (CA) 15-3 and CA 125 may be considered for metastatic disease work-up.

Treatment

Treatment as recommended by the surgeon and the oncologist/BCCA team.

Follow-Up Care

Once the patient has completed treatment, she will be discharged from the BCCA. Upon discharge, the family physician will be asked to manage the patient's follow-up care.

Follow-up care includes:

- 1) surveillance for breast cancer recurrence or new cancer;
- 2) monitoring and treating complications and/or side effects from treatment; and
- 3) providing patient support.

Below are general recommendations for a patient's follow-up with their family physician. **Specific recommendations will be provided on the patient's discharge letter.** At anytime, the patient and/or family physician may consult with the BCCA with any follow-up questions or concerns.

► 1) Surveillance

Patients are now at-risk for breast cancer recurrences locally or metastatic (most commonly in the lungs, liver or bones). Patients are also at an increased risk of developing colon, endometrium and ovarian cancer.

Asymptomatic patient:

Routine investigations after treatment for ductal carcinoma in situ (DCIS) or invasive breast cancer for an asymptomatic patient who has had:

Breast Conserving Therapy	
YEAR 0 – 5	<ul style="list-style-type: none">• Physical examination: Follow-up at least every 6 months. This includes a physical examination of the breast, chest wall, nodal basins and symptomatic areas.• Mammography: First diagnostic mammogram at 6 months after radiation completion and then annually for five years.
YEAR 5+	<ul style="list-style-type: none">• Physical examination: Annual physical exam as above.• Mammography: Continue annual diagnostic mammograms.
Mastectomy with Reconstruction	
YEAR 0 - 5	<ul style="list-style-type: none">• Physical examination: Follow-up at least every 6 months. This includes a physical examination of the breast, chest wall, nodal basins and symptomatic areas.• Mammography: Requires annual diagnostic mammograms on the unaffected breast. Mammograms are not indicated for the reconstructed breast.
YEAR 5+	<ul style="list-style-type: none">• Physical examination: Annual physical exam as above.• Mammography: Continue annual diagnostic mammograms on the unaffected breast. Mammograms are not indicated for the reconstructed breast.

Mastectomy without Reconstruction	
YEAR 0 - 5	<ul style="list-style-type: none"> Physical examination: Follow-up at least every 6 months. This includes a physical examination of the breast, chest wall, nodal basins and symptomatic areas. Mammography: Requires annual diagnostic mammograms on the unaffected breast.
YEAR 5+	<ul style="list-style-type: none"> Physical examination: Annual physical exam as above. Mammography: Continue annual diagnostic mammogram on the unaffected breast.
Bilateral Mastectomy with or without Reconstruction	
YEAR 0 - 5	<ul style="list-style-type: none"> Physical examination: Annual follow-up. This includes a physical examination of the breast, chest wall, nodal basins and symptomatic areas. Mammography: Does not need annual mammograms.
YEAR 5+	<ul style="list-style-type: none"> Physical examination: Annual physical exam as above.

No other routine radiology or laboratory tests are indicated in an asymptomatic patient for surveillance.

Symptomatic patient:¹

A patient should report any symptoms of concern (e.g., new lumps, bone pain, chest pain, persistent headaches, dyspnea, or abdominal pain) immediately to their family physician and/or oncologist.

Symptom and/or Signs	Follow-up Recommendation
new mass in breast	<ul style="list-style-type: none"> mammography +/- ultrasound (+/- biopsy)
new suspicious rash or nodule on chest wall	<ul style="list-style-type: none"> refer for a biopsy
new palpable lymphadenopathy	<ul style="list-style-type: none"> refer for a biopsy
new persistent bone pain	<ul style="list-style-type: none"> plain x-ray of affected site(s) and bone scan
new persistent cough or dyspnea	<ul style="list-style-type: none"> chest x-ray and/or computed tomography (CT) chest
new hepatomegaly or right upper quadrant (RUQ) abdominal pain	<ul style="list-style-type: none"> ultrasound and/or CT scan of abdomen and liver enzymes
new onset seizures	<ul style="list-style-type: none"> seizure management (as required) and CT/ magnetic resonance imaging (MRI) brain
back pain with limb weakness, change in sensation, change in reflexes, or loss of bowel/bladder control	<ul style="list-style-type: none"> MRI spine
new persistent headache or new concerning neurologic deficits	<ul style="list-style-type: none"> CT/MRI brain

► 2) Complications and/or side effects from treatment

Patients should be monitored and treated for complications that may arise from adjuvant hormonal therapy and long-term side effects from chemotherapy, radiation and/or surgery.

Adjuvant hormonal therapy:

Tamoxifen and aromatase inhibitors (AIs) have been shown to reduce the risk of relapse of estrogen receptor positive breast cancer in women with elevated risk.² There are several strategies a patient could be prescribed with adjuvant hormonal therapy, including the types of drugs (e.g., tamoxifen only, switching to AIs after several years of tamoxifen, AIs only) and the duration of the therapy (e.g., 2, 3, 5 to 10 years). The family physician may be required to consult with the BCCA after 2 years to ensure appropriate adjuvant hormonal therapy is being prescribed.

Patients should be encouraged to adhere to long-term hormonal therapy,³ and helped to reduce side effects.

Premenopausal women should be advised not to become pregnant during tamoxifen treatment and 6 months afterwards, nor should they breastfeed. AIs are not effective for pre-menopausal women.

Tamoxifen⁴	
Common Complications and Side Effects	Follow-up Recommendation
hot flashes	<ul style="list-style-type: none"> • Recommend to avoid triggers: coffee, tea, chocolate, alcohol, colas, stress, hot weather • If required, can prescribe Effexor (lowest effective dose of 37.5 mg/day), clonidine (Dixarit 0.05 mg bid), or Bellergal
vaginal dryness and/or discharge	<ul style="list-style-type: none"> • Recommend use of a water-based lubricant • If ineffective, consider a low-dose topical estrogen – monitor patients carefully and consider short-term use only
bone pain, local disease flare and/or hypercalcemia	<ul style="list-style-type: none"> • Test serum calcium in patients with extensive bony metastases on tamoxifen who have symptoms suggestive of hypercalcemia • If required, treat hypercalcemia
deep vein thrombosis, strokes, pulmonary embolism events	<ul style="list-style-type: none"> • Watch for signs: sudden swelling or pain in an arm or leg, shortness of breath and investigate appropriately • Special caution needed for those with a history of thromboembolic events or receiving anticoagulation therapy
cataract	<ul style="list-style-type: none"> • Watch for changes in vision
endometrial cancer	<ul style="list-style-type: none"> • Watch for menstrual irregularities, abnormal vaginal bleeding or discharge or pelvic pain • Perform routine gynecological assessments • Imaging (ultrasound) and biopsy may be required to rule out malignancy
joint and/or muscle pain	<ul style="list-style-type: none"> • Recommend acetaminophen or ibuprofen for mild to moderate pain
altered lipid profile (e.g., hyperlipidemia)	<ul style="list-style-type: none"> • Perform routine lipid monitoring, and treat accordingly
Aromatase Inhibitors (e.g., letrozole, anastrozole, exemestane)⁴	
Common Complications and Side Effects	Follow-up Recommendation
hot flashes	<ul style="list-style-type: none"> • Recommend to avoid triggers: coffee, tea, chocolate, alcohol, colas, stress, hot weather • If required, can prescribe Effexor (lowest effective dose of 37.5 mg/day), clonidine (Dixarit 0.05 mg bid), or Bellergal
nausea	<ul style="list-style-type: none"> • Recommend taking AI medication after eating
joint and/or muscle pain	<ul style="list-style-type: none"> • Recommend acetaminophen or ibuprofen for mild to moderate pain
loss of bone density, fractures, and/or osteoporosis	<ul style="list-style-type: none"> • Screen and monitor for the increased risk of osteoporosis, as per recommended in BCGuidelines.ca - <i>Osteoporosis: Diagnosis, Treatment and Fracture Prevention</i> • NOTE: Raloxifene should not be prescribed to treat osteoporosis
peripheral edema	<ul style="list-style-type: none"> • Further investigations may be required to determine cause
altered lipid profile (e.g., hyperlipidemia)	<ul style="list-style-type: none"> • Perform routine lipid monitoring, and treat accordingly

These are not exhaustive lists. For more information (for health professionals and patients) on the side effects of these drugs and their interactions with other drugs, refer to the product monograph or BCCA's Cancer Drug Manual, www.bccancer.bc.ca/HPI/DrugDatabase/default.htm.

Chemotherapy, radiation and/or surgery:

Chemotherapy^{1,5}	
Common Complications and Side Effects	Follow-up Recommendation
early menopause	<ul style="list-style-type: none"> • Hormone replacement therapy is generally contraindicated
fatigue	<ul style="list-style-type: none"> • Recommend adequate rest, reducing stress and having an afternoon “nap” • If persistent, further investigations may be required to determine cause (e.g., anemia, depression, dehydration, nutritional deficiencies, medications)
pain	<ul style="list-style-type: none"> • Recommend acetaminophen or ibuprofen for mild to moderate pain • If persistent, may require further investigation and a prescription to a pain reliever
neuropathy	<ul style="list-style-type: none"> • Perform physical exam, including a neurological exam • Further investigations (e.g., electromyography, nerve biopsy, CT or MRI imaging) may be required • If required, may treat with pain relievers, anti-seizures drugs, antidepressants or transcutaneous electrical nerve stimulation
cardiac dysfunction	<ul style="list-style-type: none"> • (those treated with anthracycline-based chemotherapy and/or taking trastuzumab) • Perform cardiac exam • Further investigations (e.g., echocardiogram, electrocardiogram, multigated acquisition scan) may be required • Consultation and/or referral to cardiologist may be required
treatment- related leukemia	<ul style="list-style-type: none"> • Perform complete blood count (CBC) + differential (with peripheral blood smear) • Consultation and/or referral to hematologist may be required
Radiation and/or Surgery^{1,5}	
Common Complications and Side Effects	Follow-up Recommendation
fatigue	<ul style="list-style-type: none"> • Recommend adequate rest, reducing stress and having an afternoon “nap” • If persistent, further investigations may be required to determine cause (e.g., anemia, depression, dehydration, nutritional deficiencies, medications)
pain (breast, chest wall and shoulder)	<ul style="list-style-type: none"> • Recommend acetaminophen or ibuprofen for mild to moderate pain • If persistent, may require further investigation and a prescription to a pain reliever
reduced range of motion	<ul style="list-style-type: none"> • Recommend post-operative physiotherapy
lymphedema	<ul style="list-style-type: none"> • Recommend elevation for early lymphedema to reduce swelling • May require manual lymphatic drainage therapy, physical therapy, compression therapy

There are several long-term side effects to monitor for and treat when required. These are not exhaustive lists. For more information (for health professionals and patients) on the side effects of chemotherapy, refer to BCCA’s Chemotherapy Protocols, www.bccancer.bc.ca/HPI/ChemotherapyProtocols/default.htm.

► 3) Patient Support

After treatment women may require different kinds of support. This may include

- Psychological and emotional support – patients may experience feelings of fear, anger, helplessness or other distressing feelings. For those who have had a mastectomy, they may have concerns about their self-image.
- Sexual health support – patients may experience painful intercourse, loss of sensation or desire, symptoms of menopause and intimacy concerns are common
- Fertility health support – patients wanting birth control, recommend non-hormonal procedures (e.g., barrier techniques, intrauterine device (IUD)).
- Healthy living support – for secondary prevention purposes, patients should be reminded of the importance of a proper diet, being physically active and maintaining a healthy body weight.

Resources

► References

- 1 Alberta Health Services. Follow-up care for early-stage breast cancer (Clinical Practice Guidelines BR-013). Date developed: May 2013. Available from: www.albertahealthservices.ca/1749.asp
- 2 Early Breast Cancer Trialists' Collaborative Group. Effects of chemotherapy and hormonal therapy for early breast cancer on recurrence and 15-year survival: an overview of the randomised trials. *Lancet* 2005; 365:1687-1717
- 3 Hershman DL, Shao T, Kushi LH, et al. Early discontinuation and non-adherence to adjuvant hormonal therapy are associated with increased mortality in women with breast cancer. *Breast Cancer Res Treat* 2011; 126:529-537
- 4 BC Cancer Agency. Cancer Drug Manual: Tamoxifen (last updated June 1, 2013), Anastrozole (last updated April 1, 2005), Exemestane (last updated December 1, 2011), Letrozole (last updated April 1, 2011). Available from: www.bccancer.bc.ca/HPI/DrugDatabase/default.htm
- 5 BC Cancer Agency. Cancer management guidelines: Breast. Available from: www.bccancer.bc.ca/HPI/CancerManagementGuidelines/default.htm

► Resources

- BC Cancer Agency, Screening Mammography Program of BC, Hereditary Cancer Program, www.bccancer.bc.ca, which includes many patient resources.
- HealthlinkBC - Health information, translation services and dietitians, www.healthlinkbc.ca or by telephone 811.
- Canadian Cancer Society, www.cancer.ca
- BC Guidelines, www.bcguidelines.ca - Osteoporosis: Diagnosis, Treatment and Fracture Prevention

► Appendices

Appendix A: Algorithms of Breast Cancer & Disease guidelines

► Associated Documents

The following document accompanies this guideline:

- BCGuidelines.ca - *Breast Disease & Cancer: Diagnosis*

This guideline is based on scientific evidence current as of the Effective Date.

This guideline was developed by the Guidelines and Protocols Advisory Committee, approved by the British Columbia Medical Association, and adopted by the Medical Services Commission.

THE GUIDELINES AND PROTOCOLS ADVISORY COMMITTEE

The principles of the Guidelines and Protocols Advisory Committee are to:

- encourage appropriate responses to common medical situations
- recommend actions that are sufficient and efficient, neither excessive nor deficient
- permit exceptions when justified by clinical circumstances

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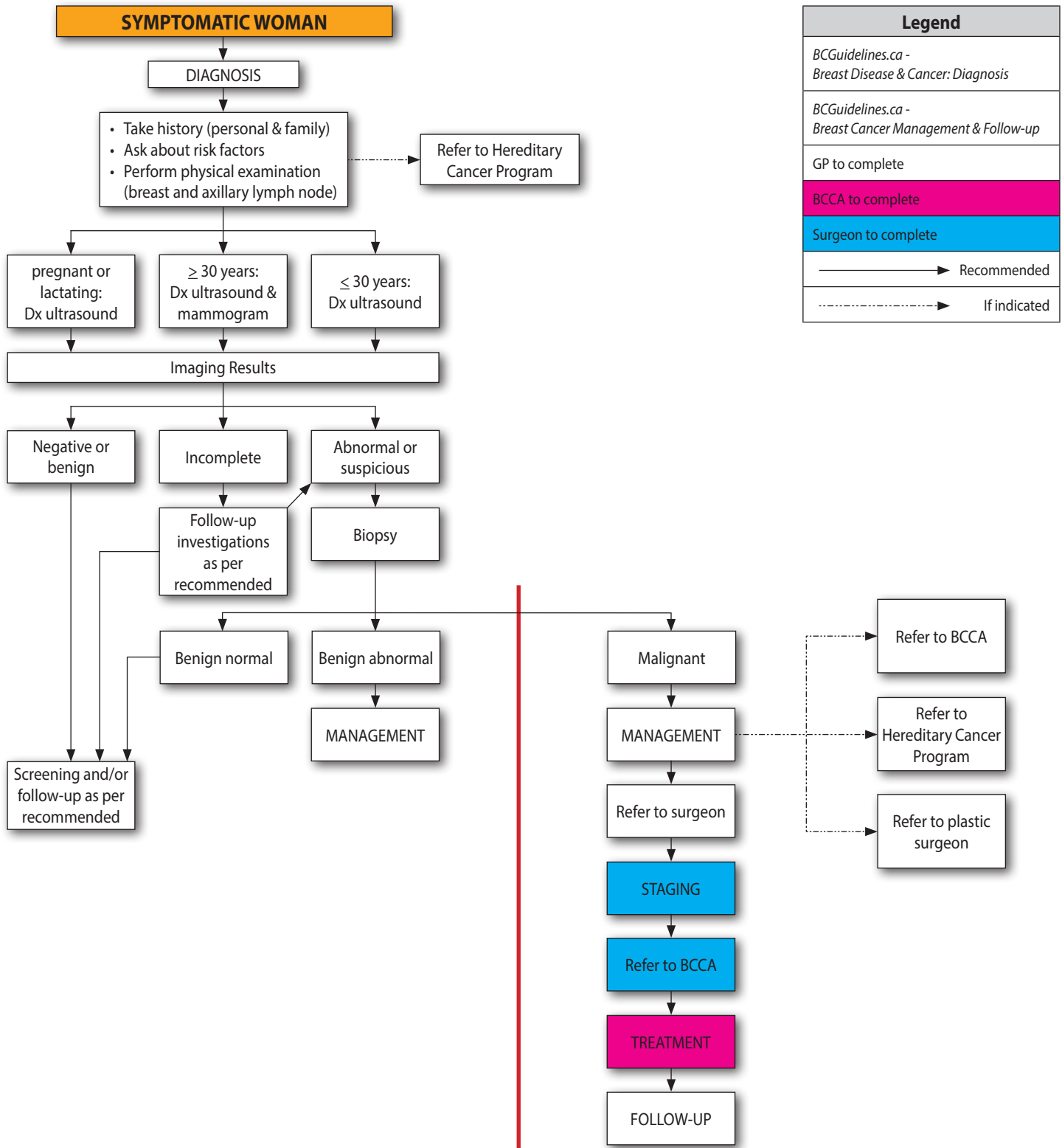
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Disclaimer

The Clinical Practice Guidelines (the "Guidelines") have been developed by the Guidelines and Protocols Advisory Committee on behalf of the Medical Services Commission. The Guidelines are intended to give an understanding of a clinical problem, and outline one or more preferred approaches to the investigation and management of the problem. The Guidelines are not intended as a substitute for the advice or professional judgment of a health care professional, nor are they intended to be the only approach to the management of clinical problem. **We cannot respond to patients or patient advocates requesting advice on issues related to medical conditions. If you need medical advice, please contact a health care professional.**



Appendix A: Algorithms of Breast Cancer & Disease Guidelines



Legend	
BCGuidelines.ca - Breast Disease & Cancer: Diagnosis	
BCGuidelines.ca - Breast Cancer Management & Follow-up	
GP to complete	
BCCA to complete	
Surgeon to complete	
—————>	Recommended
- - - - ->	If indicated

