



Caring for the Breast Cancer Patient: A GP's Role

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With approximately 22,000 new cases in Canada per year, breast cancer is the most common malignancy among women.¹ Fortunately, significant advances in screening, diagnostic and therapeutic strategies have resulted in improved clinical outcomes. Mortality from breast cancer has been decreasing since the 1990's owing to these developments and currently accounts for about 5,300 deaths annually in Canada.^{1,2} For early stage disease, the estimated five-year overall survival is as high as 70% to 95%.^{3,4} As survivorship from breast cancer continues to increase, there will be a need for GPs to play a more integral role in the management and follow-up of breast cancer patients.

Early breast cancer management

At diagnosis, patients may have either:

- early,
- locally advanced, or metastatic disease.

Depending on the stage of cancer and additional prognostic features (Table 1), neoadjuvant, adjuvant or palliative systemic therapy can be offered. Neoadjuvant and adjuvant systemic treatment refers to the administration of hormonal and/or chemotherapy agents before and after curative breast surgery, respectively. The primary goal of such systemic therapies is to eradicate occult micrometastatic disease that can lead to future disease recurrences.

Table 1

Prognostic features in breast cancer

- Lymph node (LN) status
- Tumour size
- Tumour grade
- Lymphovascular invasion (LVI)
- Hormone receptor (HR) status
- Her-2/*neu* status
- Mid-cycle pain

* Tumours with larger size (> 2 cm), high grade (II or III), LN involvement, positive LVI, negative HR or positive Her-2/*neu* status pertain a worse prognosis.

The use of adjuvant tamoxifen, a selective estrogen receptor modulator, has been the standard of care in the treatment of hormone receptor positive (HR+) early breast cancers due to its ability to prevent breast cancer recurrences and improve survival. Patients are placed on tamoxifen for five years as longer courses have failed to consistently show increased efficacy.⁵ Recent studies have introduced two new classes of drugs, namely aromatase inhibitors (AIs) and molecular agents (e.g., trastuzumab), to the growing repertoire of adjuvant treatments.

AIs

AIs suppress the enzyme aromatase, which normally converts androgens into estrogens in the body. Commonly used AIs include anastrozole, letrozole and exemestane. For HR+ post-menopausal women, five years of adjuvant AI has been shown to be superior to

tamoxifen in reducing:

- recurrences,
- distant metastasis and
- contralateral new breast cancers.^{6,7}

However, for those already on tamoxifen, there is also recent evidence to support:

- switching to an AI after two years to three years of tamoxifen use and
- extending hormonal therapy beyond the current norm of five years by offering an AI after completion of five years of tamoxifen.^{8,9}

Both of these scenarios have resulted in better disease-free survival in randomized, controlled trials. In light of these findings, appropriate patients should be referred back to their oncologists to discuss the role and suitability of switching and/or extending hormonal therapy. Side-effects of AIs include:

- hot flashes,
- arthralgias,
- osteoporosis and
- hyperlipidemia.

Unlike tamoxifen, AIs do not pose an increased risk of endometrial cancer or thromboembolic disease. It is important to note that AIs have only been studied in post-menopausal women and use of these agents alone in premenopausal breast cancer patients is contraindicated.

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Table 2

Follow up in breast cancer patients

- History and physical
 - Every 3 months to 6 months during first 3 years
 - Every 6 months for next 2 years
 - Every year thereafter
- Annual mammogram
- Monthly breast self-examination
- Education on symptoms of recurrence
- Regular pelvic examination
- Annual bone mineral density scans for patients on aromatase inhibitors
- No role for other routine bloodwork or imaging

Trastuzumab

Trastuzumab is a monoclonal antibody that binds to and inhibits Her-2/*neu*, a cell-surface receptor that is over-expressed in 25% of breast cancers. Patients in whom there is amplification or overexpression of Her-2/*neu* derive significant survival benefit from the use of trastuzumab in the adjuvant setting.¹⁰ As a result, selected Her-2/*neu* positive patients are now being offered a one-year course of trastuzumab following surgery and chemotherapy. The main side-effect of this molecular agent is the potential for congestive heart failure (CHF).

The importance of follow-up

The GP's role

GPs remain the primary caregivers for breast cancer patients once surgery and/or adjuvant therapies have been completed. The main objectives of follow-up include:

- surveillance for local and distant disease relapses and secondary malignancies,
- monitoring for side-effects from previous or current therapies and
- psychosocial support and health promotion.

Table 3

Common health issues affecting breast cancer patients

- Cardiac toxicities (e.g., congestive heart failure from anthracycline)
- Osteoporosis
- Early menopause and infertility
- Secondary malignancies (e.g., new or recurrent)
- Psychosocial stress on patient and family

Both the Canadian Steering Committee on Clinical Practice Guidelines and American Society of Clinical Oncology have developed recommendations to assist physicians in appropriate follow-up (Table 2).^{11,12} In brief, patients should undergo a history and physical at least semi-annually for the first five years after diagnosis and then annually thereafter. Importantly, patients should also be educated on monthly breast self-examinations and early symptoms of recurrence. While annual mammograms continue to be essential, additional imaging studies and bloodwork, including tumour markers, are not routinely recommended unless clinically indicated on their history or physical.

The importance of regular follow-ups

Patients with a previous history of breast cancer are at increased risks for a number of medical conditions (Table 3). Anthracyclines, which is a component of most chemotherapy regimens in breast cancer, predisposes patients to cardiac toxicities. CHF may occur as early as three months, or as late as 10 years after the last treatment. The addition of trastuzumab may also increase the risk for CHF.

Due to the possibility of osteoporosis, patients who are on AIs also warrant annual bone mineral density (BMD) scans and

supplementation with calcium (1500 mg q.d.) and vitamin D (800 IU q.d.). Any evidence of progressive bone loss on subsequent scans or a BMD t-score of < 1.5 should prompt the initiation of bisphosphonate therapy.


Other health issues, such as early menopause and infertility, secondary malignancies (either a new primary or a recurrence) and the psychosocial stresses of breast cancer diagnosis and treatment should also be addressed during follow-up.

Referring patients back to the oncologist

It is important to contact the patient's oncologist if any suspicious breast lesions (e.g., new mass, skin change, nipple discharge, axillary or neck lymph node), or other concerning symptoms or signs indicating metastatic spread is detected. Patients who are currently on hormonal therapy should also be referred back to the oncologist in cases where:

- switching and/or extending treatment may be applicable, or
- toxicities of treatment are substantial to warrant specialized care or investigation.

The bottom line

In summary, there have been significant advances in breast cancer management over the past several years. GPs contribute an important part to the comprehensive care of breast cancer patients by providing close follow-up after surgery and adjuvant therapy. Appropriate surveillance for recurrent or new disease and careful monitoring of treatment toxicities will help to optimize clinical outcomes. 

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