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**5- Components Breast Cancer Survivorship Care model**

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**Introduction:**

Nearly 1 in 8 women will develop breast cancer during the course of their lives with an improvement in the 5-year survival rate to 90 %.1 Consequently, there has been a progressive shift in the care of stable breast cancer survivors (BCS) to the domain of primary care. This Framework may help family physicians to support the provision of this important work (Figure1).

Figure (1): 5 -Components Breast Cancer Survivorship Care Model

**Recommendations:**

1. **Surveillance for breast Cancer Recurrence:** Follow-up visits with primary care providers every 6 -12 months for the first 5 years after treatment completion and then annually thereafter. These visits should include:

* **Clinical History:** Ask about symptoms of local and distant recurrence, symptoms of long-term side effects, compliance to Adjuvant therapy. Preform risk assessment, review of medication and drug interaction. Social history – exercise, smoking, alcohol, social Support
* **Physical exam:** Breast, chest wall, supraclavicular, neck and axillary lymph nodes, systemic: chest, CVS, Abdomen.
* **Screening mammogram.**
  + For Intact breast(s) should be performed annually.
  + Reconstructed breasts or non-reconstructed chest wall post-mastectomy do not require any form of imaging surveillance.
  + Other Investigations and imaging - symptoms driven
  + No other routine surveillance investigations (e.g. lab work, other diagnostic imaging- MRI) are recommended for asymptomatic patients.

Below is the recommend action if the patient is asymptomatic

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| **Symptom** | **Recommended Action** |
| **New mass in breast** | Ultrasound +/- mammography +/- biopsy |
| **New suspicious rash or nodule jon chest wall** | Refer to surgeon or interventional radiology – biopsy |
| **New palpable lymphadenopathy** | Order an ultrasound/refer to surgeon or interventional radiology |
| **New persistent bone pain** | Pain x-ray of affected site(s) and bone scan |
| **New persistent cough** | Chest x-ray and/or CT chest |
| **New onset seizures or chronic headaches** | CT/MRI brain |
| **Persistent GI symptoms (Abdominal pain or Jaundice)** | US/CT abdomen |

1. **Assessing for Long Term Side Effects:** All breast cancer should be screened for physical and psychological side effects (table 1) using validated tools. Early intervention should be considered (see appendix 1)

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| Chronic pain | Anxiety |
| Lymphedema | Depression |
| Dry vagina | Hot flashes |
| Dyspareunia | Low sexual derive |
| Neuropathy | Fear of recurrence |
| Skin changes | Fatigue |
| Fertility   issues | Body Image |
| Chemotherapy related Brain Fog | Joints pain |
| Physical functioning | Work/social issues/ children |

**Table 1- Long term side effects from cancer treatment**

**3. Adherence to Adjuvant Endocrine Therapy:** Patients with ER+ breast cancer who have been initiated on adjuvant endocrine therapy should be encouraged to take endocrine and assessed for side effects and complications. Potential side effects or complications of endocrine therapy:

**Tamoxifen – premenopausal women**

* Side effects: Hot flashes, venous thrombotic events, endometrial cancer, cataracts, and possibly stroke
* If abnormal vaginal bleeding: refer for endometrial biopsy

**Aromatase inhibitors (e.g. anastrozole, letrozole, exemestane) – postmenopausal women**

* Side effects: Hot flashes, arthralgias, and vaginal dryness, low bone mass, hair loss
* Low bone mass (bone mass density should be performed q 1-2 years)

**4. Promoting Healthy Lifestyle:** A number of lifestyle behaviors can affect ongoing health, including the risk for the cancer coming back or developing another cancer. The Following issues were discussed today.

* + - **Physical activity:** a goal of 30 minutes of moderate intensity   exercise 4-3x/week (biking, swimming, cardio, brisk walking ...etc.) and resistance exercise twice a week
    - **Maintaining a healthy Weight**- BMI less than 25
    - **Diet:** focus on vegetables and fruits (5-6 servings/day) and less processed food, red meat and fat.
    - **Tobacco** cessation
    - **Limiting alcohol use**<3 alcoholic beverages /week
    - **Bone health maintenance** with calcium (1200 mg mainly from diet and vitamin D 1000-2000 IU)

**5- Coordination of Care:** Family physicians (FPs) should lead the follow up care. Some of the challenges that some BCS face are best addressed with a multidisciplinary approach. FPs should actively consider which other health care professionals might be helpful their patients. This includes patient’s primary oncologist/GP oncologist, local cancer centre, other allied Health care professionals, support groups/organizations.

**Other Practice Guidelines/tools**

* ASCO Guidelines (American Society of Clinical Oncology)
* NCCN Clinical Practice Guidelines (US National Comprehensive Cancer Network)
* Pan-Canadian Guidance on Organization and Structure of Survivorship Services and Psychosocial-Supportive Care Best Practices for Adult Cancer Survivors
* Canadian Association of Psychosocial Oncology

**For more information:** <https://www.breastcancersurvivorship.net> (Dr. Alkhaifi ‘s website)

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**Appendix 1: Assessment and Management of the Long-Term Side Effects of Breast and its Treatments.**

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| **Side effect** | **Management** |
| **Lymphedema** | * Weight loss * Compression sleeves and bandages * Lymphatic massage therapy * Physiotherapy * Infection prevention * Referral to lymphedema specialists where available |
| **Fatigue** | * Use severity rating scale * Treatment for causative factors (mood, sleep, pain) * Regular physical activity * Psychoeducational interventions and/or multi-component cognitive behavioral therapy * Mindfulness‐based approaches, yoga, and acupuncture can reduce fatigue in cancer survivors. * Methylphenidate –very limited evidence of their effectiveness (insufficient evidence) * Preliminary evidence suggests that yoga is likely to improve fatigue |
| **Pain and CIPN** | * Assess for pain and contributing factors with pain scale and history * Offer interventions such as acetaminophen and NSAIDs * Suggest physical activity for neuropathic pain * Can offer duloxetine (evidence quality: Intermediate) * Gabapentin/pregabalin * Consider acupuncture as an adjunct option to treat patients with medication-resistant CIPN |
| **Cognitive Dysfunction** | * Ask about cognitive difficulties * Assess reversible contributing factors of cognitive impairment and optimally treat when possible * Refer for neurocognitive assessment and rehabilitation if there are signs of cognitive impairment * Suggest self-management and coping strategies for cognitive dysfunction (relaxation, stress management, routine exercise) |
| **Vasomotor symptoms** | * Weight loss - Losing 10% or more of baseline body weight were 56% more likely to have this outcome. * Yoga: 90-minuteweekly class for 10 weeks and at home daily practice. * Exercise – AM * Acupuncture * Cognitive Behavioral Therapy of Menopause * Selective serotonin reuptake inhibitors (SSRIs), Serotonin-norepinephrine uptake inhibitors (SNRIs), Gabapentin, Oxybutynin. |
| **Sexual Health** | * Vaginal dryness and atrophy: vaginal lubricants and moisturizers, Local estrogen * Dyspareunia: treatment of vaginal dryness and atrophy as above, trial of vaginal dilators and pelvic physiotherapy * Sex therapy and/or Cognitive Behavioural Therapy |
| **Fertility** | * Refer to fertility specialists or reproductive endocrinology |
| **Cardiovascular Health** | * Monitor lipids and optimise other CVS risk * Educate about healthy lifestyle modification |
| **Psychological issues** | * Screen actively using validated tools * Assess contributing to distress (e.g. life stressors, insomnia, pain, co-morbid illness, fatigue) * Psychotherapy and education * Physical activity * Support groups * Antidepressant- avoid Paroxetine, Fluoxetine and Wellbutrin with Tamoxifen |
| **Body image changes** | * Ask about issues related to body image * Refer to psychotherapy * Refer to delayed reconstruction/plastic surgery * Prothesis, bras, camisoles |
| **Osteoporosis** | * Dexa scan at baseline then every 1-2 years if taking Aromatase inhibiters or GnRH agonist |