

Breast Cancer Treatment Overview


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Objectives

- Outline approved and emerging breast cancer treatment options.
- Review evidence-based symptom management guidelines relevant to the care of individuals with breast cancer.
- Through round table discussion, utilize and apply knowledge to effectively manage symptoms experienced by individuals with breast cancer.

Case Study

- J.S. 47 y.o. presented w/palpable lump b/w sx mammo
- Bx + IDC ER/PR+/HER2+
- Married w/2 daughters; 1 son; 3 sisters; 3 nieces
- Works full-time outside of the home
- Genetic counseling performed; testing negative
- Stage III IDC; s/p MRM w/implant reconstruction
- DD AC followed by 12 wks Taxane
- XRT
- Endocrine therapy for 5 years

Treatment Considerations

- Staging
- Molecular profiling
- Unique populations
- Clinical Trials
- NCCN Treatment Guidelines
 - Surgery, Chemotherapy, Radiation Therapy, Endocrine Therapy
- Prehabilitation
- Supportive & Palliative Care

AJCC (2018). Breast Cancer Staging System.

NCCN (2019). National Comprehensive Cancer Network. Breast Cancer Treatment Guidelines.

COVID-19 Pandemic Breast Cancer Consortium

- In person visits
 - Newly diagnosed patients
 - Suspected oncologic emergencies
 - Disease progression/recurrence
 - Unstable or symptomatic MBC
- Telehealth
 - Alternate in-person & virtual visits during treatment and survivorship
- Tiered guidelines based upon stage and subtype
 - DCIS
 - Early-Stage IBC (I-III)
 - TNBC
 - HER2+
 - MBC

Sheng et al (2020). Management of breast cancer during the COVID-19 pandemic: A stage and subtype specific approach. JCO, 16(10), 665-674.

Breast Cancer Treatment Overview

- Approved Chemotherapy Regimens for Adjuvant, Recurrent, & Stage IV Breast Cancer
 - Multiple regimens exist
 - Dependent upon stage, molecular status of tumor, and
 - Individual patient variability, prior treatments, existing co-morbidities
- Emerging Chemotherapy Options
 - PARP Inhibitors
 - CDK 4/6 Inhibitors
 - Immunotherapy
 - Targeted Therapy
 - Selected Androgen Receptor Modulators (SARMs)

Potential Physical Effects of Breast Cancer

- ↓ ROM/Cording
- Body image
- Lymphedema
- Pain/Numbness
- Changes in sensation

- Same as surgery, *plus*
- Fatigue
- Skin changes
- Heart/vascular

Surgery

Radiation

Chemo

Anti-
Estrogens

- Acute effects
- Alopecia
- Cardiotoxicity
- Early Menopause
- “chemo-brain”
- Fatigue
- CIPN/Nail changes
- Weight changes

- Hot flashes
- Arthralgia
- Vaginal Dryness
- Osteoporosis
- Sexuality/Sexual Function
- Weight changes

Potential Psychosocial Effects of Breast Cancer

- Fear of recurrence
- Body image concerns
- Changes in relationships
- Changes in responsibilities
- Financial/employment/health & life insurance concerns
- Survivor's guilt

Potential Physical & Psychosocial Effects of Breast Cancer

- Intimacy, sexuality, fertility
 - Body image
 - Change in sensation
 - Loss of desire
 - Fatigue
 - Premature menopause
 - Can I have children? Is it safe for me to have children?

Potential Long-term and Late Effects of Treatment

- It's all relative
- Risk depends upon
 - Overall health before treatment
 - Treatment received
- Long-term effect
 - Develop during treatment and may become chronic, linger on, or improve over time
 - Fatigue/Anxiety/Alopecia
- Late effect
 - Delayed; can surface months or years after treatment is completed
 - Cardiac issues/Depression/Lymphedema

Symptom Management: Chemotherapy

- Acute effects
 - GI toxicities
 - Nausea/Vomiting
 - Diarrhea
 - Mucositis
 - Bone Marrow Suppression
 - Fever/Neutropenia
 - Increased risk of infection
 - Alopecia

Hickey, M. & Newton, S. (Eds). (2019). *Telephone triage for Oncology Nurses*. Pittsburgh: ONS.

Symptom Management: Chemotherapy

- Chemotherapy Induced Peripheral Neuropathy (CIPN)
 - Common side effect of taxanes, platinums & vinca alkaloids
 - Mostly affects sensory nerves; therefore symptoms affect sensation
 - Tips of longest nerves affected first
 - Incidence rates vary greatly and can cause dose reductions, delays, or discontinuation

Symptom Management: Chemotherapy

- Chemotherapy Induced Peripheral Neuropathy (CIPN)
 - Management strategies
 - Ensuring a safe environment to prevent injuries from falls
 - Medications
 - PT/OT
 - ?Cryotherapy

<https://www.ons.org/practice-resources/pep/peripheral-neuropathy>

<https://www.cancer.org/treatment/treatments-and-side-effects/physical-side-effects/peripheral-neuropathy.html>

Symptom Management: Chemotherapy

Skin Changes (PPE)

- Bathe using tepid water (use mild soap & pat dry)
- Take a break from exercising to avoid impact on feet
- Use cool compresses
- Elevate extremities
- Keep hands and feet moist using urea based emollient creams (Aveeno[®], Lubriderm[®], Bag Balm[®])
- Report blisters, moist/dry desquamation & temperature 38°C (100.4°F)

Nail Changes (Onycholysis)

- Keep nails short, clean & trimmed
- Avoid professional manicures & artificial nails
- Paint nails to increase nail strength; use non-acetone remover
- Don't cut cuticles, use cuticle cream or gel
- Wear gloves
- Report signs of infection
- ?Cryotherapy

https://www.breastcancer.org/treatment/side_effects/nail_changes

Robison, J. (2019).

Symptom Management: Chemotherapy and Anti-Estrogen Therapy

- Fatigue

“Cancer-related fatigue is a distressing, persistent, subjective sense of physical, emotional, and/or cognitive tiredness or exhaustion related to cancer or cancer treatment that is not proportional to recent activity and interferes with usual functioning.”

- Evidence-based recommendations

- Assess and treat underlying conditions
- Exercise
- Nap no more than 30 minutes per day
- Pace activities
- Balanced, healthy diet & drink plenty of water

http://www.nccn.org/professionals/physician_fatiguev1.2019

<https://www.ons.org/pep/fatigue>

Symptom Management: Chemotherapy and Anti-Estrogen Therapy

- Cognitive Changes

“Decline in function in one or multiple cognitive domains, including attention and concentration, executive function, information processing speed, language, visuospatial skill, psychomotor ability, and/or learning and memory.”

- Evidence-based management strategies

- Validate that it is real
- Keep a routine
- Exercise your brain
- Write things down
- Take someone with you to appointments

http://www.nccn.org/professionals/physician_survivorshipv1.2019

<https://www.ons.org/pep/cognitivechanges>

Symptom Management: Chemotherapy and Anti-Estrogen Therapy

- Menopausal changes
 - Vasomotor symptoms
 - Urogenital symptoms
 - Mood disturbances
 - Fatigue
 - Cognitive changes
 - Arthralgias/Myalgias
 - Weight changes
- Menopause related health risks
 - Osteoporosis/bone fracture
 - Cardiovascular disease

http://www.nccn.org/professionals/physician_hormonerelatedsymptoms_female_survivorship/v1.2019

<https://www.ons.org/pep/hotflashes>

Management of the Surgical Effects of Breast Cancer Treatment

Breast Cancer Surgical Options

- Breast Conserving Surgery
 - Segmental Mastectomy
 - Partial Mastectomy
 - Lumpectomy
- Mastectomy
 - Nipple Sparing Mastectomy
 - Modified Radical Mastectomy
 - Radical Mastectomy
- Reconstruction
 - Implant
 - Muscle Flap
- Lymph Node Sampling
 - Sentinel Lymph Node Biopsy
 - Axillary Lymph Node Dissection

Symptom Management: Surgery

- Post-Breast Therapy Pain Syndrome
 - Numbness/Changes in Sensation
 - Decreased ROM
 - Cording/Axillary webbing
 - Frozen shoulder syndrome

Symptom Management: Surgery

- Infection
- Hematoma
- Seroma

<https://www.cancer.org/cancer/breast-cancer/reconstruction-surgery/what-to-expect-after-breast-reconstruction-surgery.html>

Symptom Management: Reconstruction

Implant Reconstruction

- Infection
- Capsular Contraction
- Implant rupture

Autologous or Muscle Flap

- Infection
- Flap failure
- Necrosis

<https://www.cancer.org/cancer/breast-cancer/reconstruction-surgery/what-to-expect-after-breast-reconstruction-surgery.html>

Symptom Management: Radiation Therapy

- External beam
 - Traditional
 - Fatigue, dermatitis, edema, ↓ ROM, cardiotoxicity
- Brachytherapy
 - Option for some patients
 - Delivered using multicatheter or balloon-catheter delivered directly into the cavity left after BCS
 - Fatigue, pain, infection at insertion site

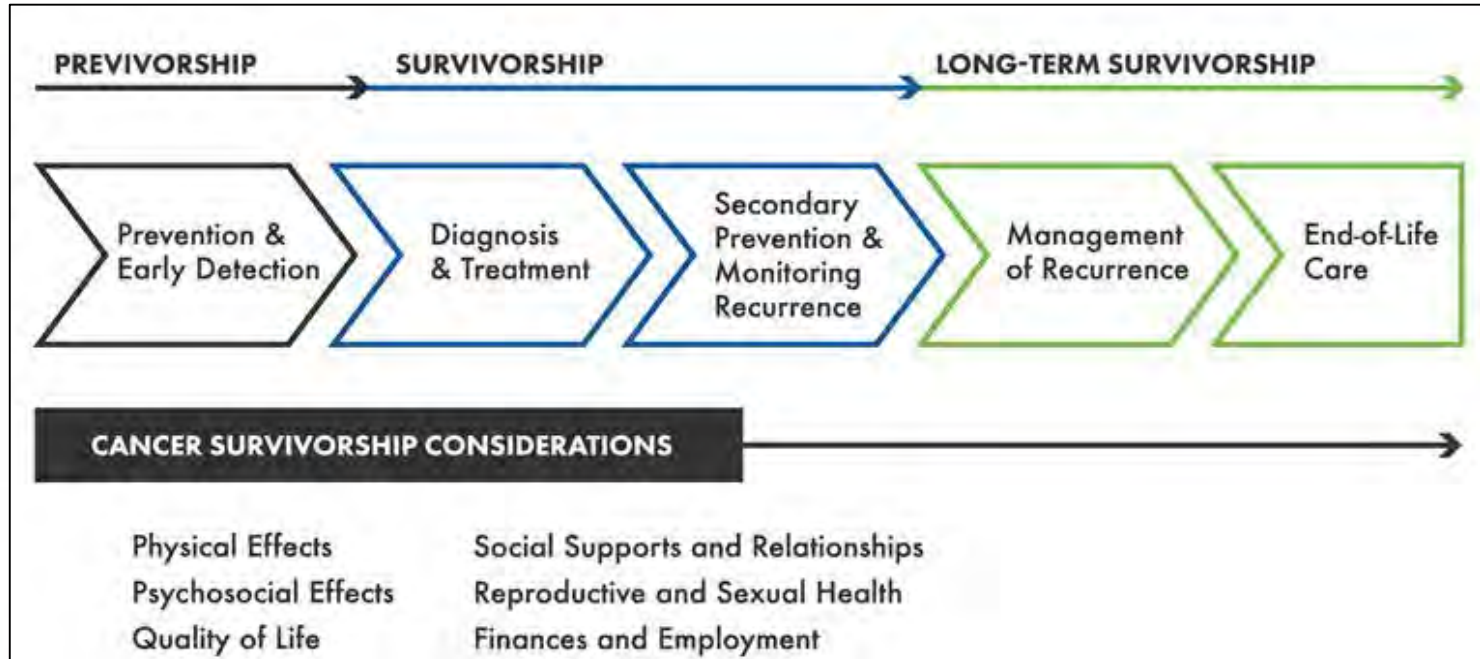
Symptom Management: Surgery & Radiation Therapy

- Lymphedema

“The accumulation of lymph fluid that obstructs the flow of the lymphatic system, causing persistent swelling of the arm, hand, or breast most commonly caused by radiation therapy and lymph node dissection.”

- Evidence-based management strategies
 - Complete decongestive therapy
 - Compression garments
 - Exercise
 - Prevention
 - Weight management
 - Prevent infection

Rehabilitation/Prehabilitation



Supportive and Palliative Care

Value of Prehabilitation in Breast Cancer Care

- Encourages newly diagnosed individuals with breast cancer to participate in preparing themselves for demands of treatment.
- Improved functional ability is linked to improved psychological health and quality of life.
- Improving health status may reduce complications and increase the likelihood that patients will recover without hospital readmission.
- Active participation in strategies aimed at improving health outcomes is empowering and may have lasting positive effects throughout life.

Multimodality Prehabilitation Interventions in Breast Cancer Care

- Neck & Shoulder ROM
- Upper body strengthening exercises
- Total body strengthening to help manage fatigue
- Nutrition
- Smoking cessation
- Psychosocial support & stress reduction

Supportive & Palliative Care

“Involves providing relief of complex and distressing symptoms- physical & psychological- from diagnosis throughout the cancer continuum.”

- Symptom management experts
- Provides an additional layer of support to help manage treatment-related side effects

The Spectrum of Metastatic Breast Cancer

Virulent

- Rapid development of metastases
- Shorter disease-free interval
- Extensive visceral involvement
- Resistance to endocrine therapy

Indolent

- Long disease-free interval
- Later recurrence of metastases
- Bone and soft tissue disease
- Sensitive to endocrine therapy

Surveillance and Health Promotion

- Annual mammogram
- Medical history and physical exam every 3 to 6 months for 3 years, then every 6 months for 2 years, then annually
- Annual gynecologic exam for women with uterus on tamoxifen
- Baseline bone mineral density determination for women on aromatase inhibitor and periodically thereafter
- Continue with regular medical and dental screenings
- Genetic counseling/testing
- Report any new or persistent symptom, including anxiety/distress
- Implement healthy lifestyle choices

http://www.nccn.org/professionals/physician_gls/pdf/breast.pdf

<http://www.cancer.net/patient/publications+and+resources/what+to+know>.

Rock, C., et al. (2012).

Survivorship Treatment Summary and Follow-Up Care Plan

- Multiple free templates available
- Documents stage of cancer, treatments received, ongoing treatment & side effects
- Evidenced-based surveillance guidelines
- Symptoms to report
- Treatment team contact information

Runowicz, C., et al. (2016).

Rowland, J., Hewitt, M., & Ganz, P. (2006).

Summary

- Breast cancer treatments are increasingly complex and multimodal.
- The role of the oncology nurse in education, assessment, and managing physical and psychosocial effects of breast cancer treatment is an essential component of quality care.
- Many opportunities exist for oncology nurses to collaborate with our multidisciplinary & non-oncology colleagues to implement QI/Research projects to improve the care of patients with breast cancer.



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Additional Resources

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