A Nurse’s Guide to Breast Cancer
The latest breast cancer information

Breast cancer is the second leading cause of cancer death in women (second only to lung cancer). In the US, 1 in 8 women will develop breast cancer during their lifetime, while 1 in 36 women may die from the disease. Currently, there are 2.8 million breast cancer survivors living in the US (American Cancer Society, 2016).

Types of Breast Cancer
Most breast cancers are classified as carcinomas, which is cancer of the epithelial cells that line the tissues in the breast. Ductal carcinoma in situ (DCIS) is non-invasive and is considered pre-cancerous. Invasive ductal carcinoma is the most common type, which starts at the milk duct and spreads to the fatty tissue of the breast. Invasive lobular carcinoma starts in the milk-producing lobules of the breast. Inflammatory breast cancer affects only 1-3% of all breast cancers. It presents itself as red, warm skin that resembles an orange peel instead of a typical lump, which can be mistaken as mastitis. This is caused by cancer cells blocking the lymph nodes in the skin. Triple negative breast cancer occurs in 15% of breast cancers and refers to the absence of estrogen, progesterone, and human epidermal growth factor receptors, which limit treatment options (Turkman, Opong, Harris, and Knobl, 2015).

Risk Factors for Breast Cancer
Uncontrollable risk factors for developing breast cancer include age, race, and gender. The risk increases with age. Caucasian women are at slightly higher risk for breast cancer than African American, Asian, Hispanic, and Native American women. However, African American women are more likely to die from the disease and have higher rates of breast cancer in women younger than 45 years of age. Women are at higher risk than men, although men can also develop the disease. Other factors include a family history (although 8 out of 10 women with breast cancer have no family history). The presence of the BRCA1 or BRCA2 genes and other genetic mutations also increase the risk for breast cancer. Interestingly, the age of menarche less than 12 years of age and the age of menopause greater than 55 years of age also increase the risk for breast cancer.

Controllable risk factors for breast cancer include smoking, consuming alcohol, and obesity. Hormone replacement therapy and hormone contraceptives also increase the risk. Participating in 150 minutes of moderate activity per week and breastfeeding for 1.5-2 years can reduce the risk (American Cancer Society, 2016).

Screening/Diagnosis
The American Cancer Society (2016) guidelines for breast cancer screening include:
- Women ages 40–44: mammograms, if desired
- Women ages 45–54: mammograms every year
- Women ages 55 & older: mammograms every 2 years

Self-breast exams are no longer recommended due to lack of research evidence of a benefit. Regardless, women should report any changes to their breasts look or feel to a healthcare provider. Women who are at high risk for breast cancer due to genetic factors, radiation, or certain syndromes should get yearly mammograms and MRIs.

Treatment
Treatment for breast cancer may include a combination of surgery, radiation therapy, chemotherapy, hormone therapy, targeted therapy, and/or clinical trials.

Psychosocial Concerns
After mastectomy, women may experience altered body image, sexual dissatisfaction, lack of sensation in the reconstructed breasts, and emotional distress. Many of the anxieties can be reduced from pre-operative education, counseling, and support (Suplee, Jerome-D’Emilia, and Boiler, 2016).

Health Disparities
Newly diagnosed African American women with breast cancer have lower five-year survival rates (78%) than Caucasian women (90%), which is not explained by biologic differences (Jiang, Sereika, Bender, Brufsky, & Rosenzweig, 2016). Factors that may influence the health disparity include social, economic, and cultural barriers to screening and treatment. African Americans may be disproportionately affected by social injustice, poverty, and general mistrust of the healthcare system (Jiang et al, 2016). Latina Americans are more likely the Caucasian, African American, and Asian Americans to report diagnostic delays for breast cancer. Increasing the timeliness of diagnosis and treatment following abnormal mammogram results improves survival and may reduce the mortality differences between racial and ethnic groups (Oakley-Girvan, Londoño, Canchola, and Davis, 2016).

Nursing Implications
It is imperative that nurses in the acute care, long-term care, and community settings are prepared with the latest information on breast cancer risk factors, etiology, and treatment to provide patients with the education they need to make informed decisions. Nurses have a unique perspective as they treat the whole person and consider the physiologic, social, economic, psychological, and spiritual impact breast cancer has on patients and their families. Nurses can utilize this knowledge to promote health by encouraging breast cancer screenings, teaching women about lifestyle modifications to reduce risk factors, and collaborate with inter-professionals to mitigate health disparities.

References