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Diagnosis and Treatment of Lymphedema in Patients With Breast Cancer:

An Overview of an Interdisciplinary and Patient-Centered Approach

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Lymphedema is a distressing consequence of breast cancer treatment affecting the patient in all domains of quality of life. Early identification and diagnosis are key to preventing long-term consequences. The goal of lymphedema management is to slow the progression and provide symptomatic relief to maintain quality of life. Preoperative education, intensive postoperative follow-up, and long-term survivorship care are important to minimize risk factors for developing lymphedema and to provide a mechanism for early detection, treatment, and patient self-care. An interdisciplinary approach, including nutritionists, physical therapists, psychologists, and advanced practice registered nurses (APRNs), is essential to provide a patient-centered approach to the management of lymphedema. APRNs are critical in providing comprehensive assessments, ongoing follow-up care, and patient education in self-care strategies.

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Lymphedema is a progressive, chronic, debilitating condition that is considered to be one of the most distressing consequences of cancer treatment for patients with breast cancer (International Consensus, 2006; National Lymphedema Network [NLN], 2011; Ryan, Cleland, & Fu, 2012; Stout et al., 2012; Stout Gergich et al., 2008; Taylor, Jayasinghe, Koelmeyer, Ung, & Boyages, 2006). Chronic, untreated lymphedema has negative effects on quality of life, including range-of-motion impairments, decreased strength, functional limitations, and body-image distortions (Stout Gergich et al., 2008; Stout et al., 2012; Taylor et al., 2006). The incidence of cancer-related lymphedema ranges from 1%–48% (Stout Gergich et al., 2008). Secondary lymphedema ranges from 5%–50% (NLN, 2011; Stout Gergich et al., 2008; Tretbar, Morgan, Lee, Simonian, & Blondeau, 2007) and occurs as a result of swelling following an injury or infection (Tretbar et al., 2007). The overall incidence of breast cancer–related lymphedema ranges from 15%–54%, with a range of 33%–47% after axillary lymph node dissection (ALND) with radiation and 4%–17% after sentinel lymph node biopsy (SLNB) with radiation (Fu, Ridner, & Armer, 2009; Stout Gergich et al., 2008). ALND involves the removal of axillary lymph nodes, and SLNB involves the removal of the first lymph node or nodes where cancer cells are most likely to spread. The variability in incidence ranges is a result of a lack of consistent assessment and diagnostic criteria, causing an unclear definition and prevalence of clinically significant lymphedema (McLaughlin et al., 2008; Ryan et al., 2012; Torres Lacomba et al., 2010). A need exists for standard criteria for the diagnosis, evaluation, and treatment of lymphedema in patients with breast cancer.

The identification of patient risk factors is critical to minimizing the chance of early lymphedema progressing to advanced-stage lymphedema (Stout et al., 2012) (see Figure 1). Secondary prevention, early diagnosis, referral, prompt initiation of treatment to control the disease process, and a surveillance model of care, compared to the current impairment-based rehabilitation model, enables early identification of impairments and prompt intervention (Stout et al., 2012).

Prevention of Lymphedema

Oncology nurses need to be aware of potential risk factors for developing lymphedema, identify patients at risk, provide