



Topic Brief: Lymphedema after Breast Cancer Surgery

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Nomination Number: 0915

Purpose: This document summarizes the information addressing a nomination submitted on July 13, 2020 through the Effective Health Care Website. This information was used to inform the Evidence-based Practice Center (EPC) Program decisions about whether to produce an evidence report on the topic, and if so, what type of evidence report would be most suitable.

Issue: Upper arm lymphedema can occur as a result of surgical removal of lymph nodes from the axilla as a part of breast cancer treatment. The nomination is a request to prevent this from happening to other patients with breast cancer.

Program Decision: The EPC Program will not develop a new evidence synthesis product because the nomination is a request for clinical guidance, which is outside of the scope of the program. While clinical guidance is available, a practice gap remains and other clinical knowledge pathways may address this better than an evidence review.

Background

Lymphedema is a condition in which swelling, usually in the arms or legs, occurs due to the accumulation of lymph fluids (fluids that transport cells and fluids to sites of infection). Lymphedema can be caused by damage to the lymph system that can occur when parts of the lymph system (e.g., lymph nodes or vessels that carry the lymph fluid) are removed or damaged such as in the course of surgery for breast cancer or during radiation treatment.¹

One in 1000 Americans experience lymphedema.² Breast cancer is the most common cancer associated with lymphedema² and one in five women who survive breast cancer develop lymphedema.³ Breast cancer survivors who develop lymphedema experience lower physical and mental quality of life than breast cancer survivors who do not develop lymphedema.⁴ Axillary lymph node dissection (ALND) is the surgical removal of most of the lymph nodes under the arm on the same side as the breast tumor to examine the nodes for signs of cancer spread. The incidence of lymphedema has been observed to be higher following ALND than after axillary radiotherapy.⁵ Because of the complications, including lymphedema, that arise from this procedure, other alternatives are recommended in treatment guidelines. They provide guidance to clinicians around the role of sentinel lymph node biopsy, which is less invasive, and axillary lymph node biopsy in the management of women with different stages of breast cancer.⁶⁻⁸

ALND is the standard of care for cases in which breast cancer is advanced, inflammatory, metastatic, or when the number of cancer positive lymph nodes and tumor size are greater. Sentinel node biopsy is recommended for earlier stage breast cancers. Decisions to proceed to ALND or sentinel node biopsy depend on clinical axillary node assessment, ultrasound and core needle biopsy findings, and response to neoadjuvant chemotherapy.⁹

Studies have shown that, for women with early stage breast cancer, ALND does not improve survival.¹⁰ The use of ALND has declined for women with early stage breast cancer.¹¹ However, a practice gap remains with women who are candidates for sentinel lymph node biopsy receiving ALND instead.¹²

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