

# Axillary Lymph Node Dissection in Breast Cancer Patients

## Article I - Introduction

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This American Society of Breast Surgeons (ASBrS) Performance and Practice Guideline summarizes the indications for and technique of axillary lymph node dissection (ALND). The Guideline reflects the consensus of a panel comprising members of the Education Committee, the Board of Directors and the Executive Committee, and is based on multiple sources from the peer-reviewed literature. This Guideline reflects what ASBrS considers to be optimal practice but may require modification based on the clinical circumstance, the physician's judgment, the patient's preference, and as scientific evidence continues to evolve.

## Article II - Indications

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ALND has largely been replaced by sentinel lymph node (SLN) biopsy for patients with cN0 breast cancer but is still required for a significant proportion of all breast cancer patients. Current indications for ALND are as follows:

- a. The clinically node-positive axilla, confirmed by fine needle aspiration or core biopsy, in a patient for whom neoadjuvant chemotherapy is not planned.
- b. Occult breast cancer presenting as axillary node metastasis.
- c. SLN positive patients who fall outside the Z0011 selection criteria (i.e. >2 SLN positive, matted nodes, mastectomy, or breast conservation without whole-breast RT)
- d. Inflammatory, clinical stage T4, or high-risk T3 breast cancer.
- e. Failed SLN mapping.
- f. Inadequate prior ALND with residual clinically suspicious nodes
- g. Sentinel or axillary nodes which remain positive after neoadjuvant chemotherapy.
- h. Axillary recurrence following previous breast cancer treatment.

## Article III – Surgeon Qualifications

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Surgeons must have successfully completed an American Board of Medical Specialties-approved surgical residency program and must have attained, or be admissible for, board certification by the American Board of Surgery or its equivalent.

## **Article IV – Procedure Details and Prerequisites**

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### **A. Prerequisites**

ALND is done under general or regional anesthesia in the supine position, with the patient's arm abducted at 90 degrees and (at the surgeon's preference) sterilely draped into the operative field. Prophylactic antibiotics are given prior to induction. To facilitate nerve dissection, the surgeon and anesthesiologist may elect to avoid paralytic agents.

### **B. Anatomic boundaries**

The axilla is bounded by the axillary vein superiorly, the serratus medially, the latissimus laterally, the clavipectoral fascia anteriorly and the subscapularis posteriorly. The inferior boundary of the axilla is less well-defined but should reach the axillary tail of the breast.

### **C. Technique**

The extent of ALND within the above boundaries is defined as level I (lateral to the pectoralis minor), level I-II (extending behind the minor), or level I-III (extending to the apex of the axilla, "Halsted's ligament"), and should be based on tumor characteristics, patient anatomy, and intraoperative findings. ALND should be sufficient to remove all gross evidence of disease and should in general contain at least 10 nodes. Palpably suspicious Rotter's (interpectoral) nodes should be removed if present. The pectoralis minor may be divided or excised to facilitate exposure and removal of gross disease at levels II and III. The long thoracic, thoracodorsal and medial pectoral nerves should be identified and, unless grossly involved by tumor, preserved. If anatomically suitable, the T2 (intercostobrachial) and T3 sensory nerves may be preserved at the discretion of the surgeon. Unresectable residual disease should be clipped to facilitate RT treatment planning.

## **Article V – Documentation**

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Documentation prior to surgery should include an informed consent, encompassing all treatment options and a full discussion of risks and benefits. The operative report should include all appropriate patient identifiers, the name of the operation, the type of anesthesia, and a succinct description of the clinical setting, indication for surgery, and operative findings. The steps of the operative procedure should be described in detail, noting in particular any complications and how they were managed. The presence of residual disease as well as the number/location/type of surgical drains should be noted. A copy of the operative report should go to all treating physicians and should be part of the permanent medical record. A plan for follow-up, including discussion of pathology results, wound care, drain management, and arm exercises should be part of the overall survivorship program.

## **Article VI – Equipment Specification and Quality Control**

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Standard general surgical instruments and operating room equipment are required.

## **Article VII – Quality Assessment and Improvement**

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- a. Adequate level I-II ALND should, on average, contain at least 10 nodes in the specimen.
- b. A policy for ongoing review of emerging evidence regarding the indications and outcomes of ALND should be in place.
- c. A policy to monitor and manage the acute and long-term complications of ALND should be in place.
- d. The medical record should document a plan for referral to the appropriate specialists for post-surgical care, and for long-term follow-up.

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**Board of Directors**  
**The American Society of Breast Surgeons**

### **Acknowledgements**

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