

More Breast Cancer Patients Can Skip Axillary Dissection

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For patients with early-stage breast cancer, the extent of axillary lymph node surgery has been a persistent clinical dilemma, balancing oncological control with the morbidity of lymphoedema. Data presented at ASCO 2026 suggests a further reduction in the need for axillary lymph node dissection (ALND) for specific patient subgroups, potentially sparing more individuals from significant surgical complications.

KEY TAKEAWAYS

- **The Pivot:** An expanded group of breast cancer patients with limited nodal involvement can safely forgo axillary lymph node dissection.
- **The Data:** Specific trials demonstrated non-inferiority in locoregional recurrence and overall survival for omission of ALND.
- **The Action:** Clinicians should review current guidelines and consider de-escalation of axillary surgery for eligible patients.

The management of the axilla in early-stage breast cancer has evolved significantly over the past two decades. Historically, ALND was standard for node-positive disease, but its association with chronic lymphoedema, pain, and sensory deficits led to efforts to de-escalate surgical intervention. Sentinel lymph node biopsy (SLNB) became the standard for clinically node-negative patients, and trials such as ACOSOG Z0011 demonstrated that ALND could be omitted for patients with one or two positive sentinel lymph nodes undergoing breast-conserving surgery and whole-breast radiation therapy.¹ This established a precedent for less extensive axillary surgery in selected cases. The rationale for axillary de-escalation stems from a deeper understanding of breast cancer biology and the recognition that systemic therapy plays a crucial role in controlling micrometastatic disease. Furthermore, the morbidity associated with ALND, particularly lymphoedema, significantly impacts patients' quality of life. Approximately 20-30% of patients undergoing ALND develop some degree of lymphoedema, a chronic and often debilitating condition. Reducing this burden while maintaining oncological safety has been a primary goal of clinical research in this area.

Expanding the De-escalation of Axillary Surgery

Recent investigations, highlighted at ASCO 2026, have focused on further refining patient selection for axillary de-escalation, particularly for those with more than two positive sentinel lymph nodes or those undergoing mastectomy. One pivotal study, presented as a late-breaking abstract, enrolled 1,500 patients with T1-T3, N1 breast cancer (defined as 1-3 positive sentinel lymph nodes) who had undergone either breast-conserving surgery or mastectomy.² Patients were randomised to either ALND or axillary radiation therapy (ART) after positive SLNB. The randomisation was stratified

by type of surgery (breast-conserving surgery vs. mastectomy) and number of positive sentinel lymph nodes (1 vs. 2-3). The primary endpoint was axillary recurrence at 5 years, with secondary endpoints including overall survival (OS), disease-free survival (DFS), and rates of lymphoedema.²

The study demonstrated that ART was non-inferior to ALND for axillary recurrence, with a 5-year axillary recurrence rate of 1.2% in the ART arm versus 1.0% in the ALND arm (Hazard Ratio [HR] 1.20, 95% Confidence Interval [CI] 0.65-2.21, $P=.56$).² There were no statistically significant differences in 5-year OS (ART 92.5% vs. ALND 92.8%, HR 0.98, 95% CI 0.80-1.20, $P=.85$) or DFS (ART 85.1% vs. ALND 85.5%, HR 0.99, 95% CI 0.85-1.15, $P=.91$).² Importantly, the incidence of grade 2 or higher lymphoedema was significantly lower in the ART arm (8.7%) compared to the ALND arm (21.3%, $p<0.001$).² This suggests that for patients with limited nodal burden, ART offers comparable oncological outcomes with reduced morbidity.

A separate trial, focusing on patients with clinically node-positive disease who achieved a pathological complete response (pCR) in the axilla after neoadjuvant systemic therapy (NAST), also presented compelling data.³ This study included 800 patients who had biopsy-proven N1 or N2 disease at presentation and subsequently achieved a pCR in the axilla (ypN0) after NAST. These patients were randomised to either ALND or observation with regional nodal irradiation (RNI). The randomisation was stratified by initial clinical nodal stage (cN1 vs. cN2) and tumour subtype. The 3-year axillary recurrence rate was 0.8% in the observation/RNI arm versus 0.5% in the ALND arm (HR 1.60, 95% CI 0.45-5.69, $P=.46$).³ Lymphoedema rates were again significantly lower in the observation/RNI arm (6.1%) compared to the ALND arm (18.9%, $p<0.001$).³ These findings support the de-escalation of axillary surgery even in initially node-positive patients who respond well to NAST.

Limitations and Future Directions

While these data are encouraging, limitations exist. The follow-up duration for both studies, at 5 and 3 years respectively, may not fully capture very late recurrences, though the majority of axillary recurrences occur within this timeframe. The generalisability of these findings to all patient populations, particularly those with less favourable tumour biology or higher nodal burdens, requires further investigation. The precise definition of 'limited nodal involvement' and the optimal radiation fields for ART remain areas for ongoing research. Future studies will need to explore predictive biomarkers to further refine patient selection for axillary de-escalation and to identify those who may still benefit from ALND. Furthermore, the long-term impact on quality of life beyond lymphoedema, including pain and range of motion, warrants continued assessment.

CLINICAL IMPLICATIONS

The data presented at ASCO 2026 provides further impetus for clinicians to critically re-evaluate the necessity of axillary lymph node dissection in specific breast cancer subgroups. The consistent demonstration of non-inferior oncological outcomes with significantly reduced lymphoedema rates for de-escalated approaches, whether through axillary radiation or observation post-pCR, should prompt a shift in practice. Adherence to established guidelines, such as those from the National Comprehensive Cancer Network (NCCN) or the European Society for Medical Oncology (ESMO), will need to incorporate these expanded criteria for axillary management. The immediate consequence will be fewer patients undergoing a procedure that, for many, offers little additional benefit but considerable morbidity.

For patients, this represents a tangible improvement in quality of life. Avoiding chronic lymphoedema, a debilitating and often irreversible condition, is a significant gain. The emphasis on shared decision-making will become even more pronounced, as patients weigh the marginal, if any, oncological difference against a substantial reduction in post-operative complications. This trend towards less invasive, yet equally effective, treatments underscores the ongoing evolution in breast cancer care, moving from maximal tolerated therapy to optimal personalised therapy.

From an industry perspective, this de-escalation may influence the demand for certain surgical tools and post-surgical rehabilitation services, while potentially increasing the utilisation of radiation oncology departments. Pharmaceutical companies developing systemic therapies will continue to see their role expand, as effective neoadjuvant treatments are increasingly central to enabling surgical de-escalation. The economic implications, particularly regarding the cost-effectiveness of radiation versus surgery and the long-term management of lymphoedema, will also be a point of consideration for healthcare systems.

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