

# Predicting Lymph Node Metastasis in the Era of Z0011- Necessity and Methods Remain in Question

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The article, previously published in the European Journal of Breast Health with a title of “Factors Influencing Non-sentinel Node Metastasis in Patients with Macrometastatic Sentinel Lymph Node Involvement and Validation of the Three Commonly Used Nomograms” addresses a now commonly debated topic of how to address the axilla in the setting of macrometastatic disease (1). The findings of ACOSOG Z0011 have been practice changing throughout the world (2-4). With that landmark study stating that patients with 2 or fewer clinically occult, metastatic sentinel lymph nodes (SLN) experience the same overall and disease free survival with adjuvant radiation and systemic therapy alone after breast conserving surgery as do patients who proceed with axillary lymph node dissection after sentinel node biopsy (5). However, the question remains, “How do we manage those with 3 or greater positive sentinel nodes?” The authors note that, on multivariable analysis, pathologic tumor size >2cm, higher ratio of metastatic SLN to total dissected SLN, metastatic tumor size >1cm and extracapsular extension were associated with a statistically significant likelihood of metastatic disease in the non-sentinel nodes. Only one of the studied nomograms correctly predicted results in this dataset. These are interesting findings and do help clinicians to risk stratify, although most would still proceed with dissection in the absence of large prospective data. Of course, the authors of Z0011 never stated that those with 2 or fewer positive SLN were unlikely to have residual disease in the axilla. They instead stated that whatever disease remained was adequately treated by adjuvant therapy in lieu of additional surgery. Studies like this article are the next step towards trials that can answer that question for patients with greater than 2 positive SLN. It suggests that perhaps criteria other than simply number of lymph nodes involved can be predictive of residual disease. The much more meaningful question that this study helps us begin to ask is “are there factors other than positive SLN count that can predict outcome if axillary dissection is omitted?” Should this question be answered by way of clinical trial or other high level evidence, we will truly find ourselves personalizing therapy for patients with breast cancer with macrometastatic disease to the axillary lymph nodes.

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