



## AB050. 9. Sentinel lymph node biopsy after neoadjuvant chemotherapy in patients with initial biopsy-proven node-positive breast cancer: a systematic review and meta-analysis

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**Background:** Neoadjuvant chemotherapy (NAC) for breast cancer has the potential to achieve pathological complete response (pCR) in up to 40% of patients, rendering patients who were initially node-positive to node-negative. This raised the question of whether sentinel lymph node biopsy (SLNB) could be an alternative to axillary lymph node dissection (ALND) in these patients. However, the use of SLNB after NAC remains controversial. The aim of this study was to evaluate the accuracy and reliability of SLNB after NAC in patients with initial biopsy-proven node-positive breast cancer.

**Methods:** Literature search was conducted using PubMed,

Ovid MEDLINE, Embase and Web of Science databases up to 30th April 2017. Included studies must have pathological confirmation of initial node-positive disease and SLNB must be performed after NAC followed by ALND.

**Results:** Thirteen studies met the inclusion criteria resulting in a total of 1,932 patients. Pooled estimate of identification rate (IR) is 90% (95% CI, 0.87–93%) and false negative rate (FNR) is 14% (95% CI, 11–17%). Subgroup analysis of FNR using dual mapping is 11% (95% CI, 6–15%) compared to 19% (95% CI, 11–27%) with single mapping. FNR is 20% (95% CI, 13–27%) with one node removed, 12% (95% CI, 5–19%) with two nodes removed and 4% (95% CI, 0–9%) with three or more nodes removed.

**Conclusions:** SLNB after NAC in biopsy-proven node-positive breast cancer patients is accurate and reliable with careful patient selection and optimal surgical techniques with dual mapping agents and removal of 3 or more sentinel lymph nodes.

**Keywords:** Sentinel lymph node biopsy (SLNB); neoadjuvant chemotherapy (NAC); induction chemotherapy; identification rate (IR); false negative rate (FNR)

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