

Title	Sentinel Lymph Node Biopsy in Breast Cancer Treatment: Indications and Contraindications
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Aim

The Comité de l'évolution des pratiques en oncologie (CEPO) asked INESSS to examine the validity of the available evidence on the indications and contraindications for sentinel lymph node biopsy (SLNB) in breast cancer. This is the second in a series of three reports. The first, published in 2009, dealt with the technical aspects of SLNB; the third will address the efficacy (survival, recurrence and morbidity) and safety of SLNB.

Conclusions and results

This exhaustive literature review covers 4 systematic reviews and 32 primary studies. It also addresses the recommendations issued in 11 documents (guidelines, clinical practice guidelines, expert consensus statements and service quality assurance standards) published from 2005 to 2010 inclusively. A literature watch for recommendations was conducted until the end of September 2011.

This report addresses the feasibility and diagnostic accuracy of SLNB in certain specific medical situations, especially with respect to some of its controversial contraindications. In light of this assessment, INESSS submits conclusions in the following categories:

- **After neoadjuvant chemotherapy**
- **Presence of large tumours**
- **After breast augmentation or reduction mammoplasty**
- **Reoperative sentinel lymph node biopsy in the case of recurrence**
- **Other specific medical situations**

Methods

This is an exhaustive review of the feasibility (SLN identification rate) and diagnostic accuracy (risk of false negatives) of SLNB in the following medical situations: (1) after neoadjuvant chemotherapy; (2) presence of large tumours (> 5 cm); (3) after non-oncological breast surgery, such as breast augmentation or reduction mammoplasty; and (4) after prior SLNB, in the case of tumour recurrence.

The identification rate is the likelihood of surgically detecting a sentinel lymph node in an attempted SLNB. The risk of false negatives (RFN) is reported in two ways. The first is the probability that a patient has regional lymph node metastasis when the definitive anatomical pathology examination of the sentinel lymph nodes yields a negative result (1- negative predictive value, that is, the number of false negatives over the total number of false and true negatives $[FN / (FN + TN)]$ or 1- NPV). The second is the likelihood that the definitive anatomical pathology examination of the sentinel lymph nodes will be negative when the patient has regional lymph node metastasis (1-sensitivity, that is, the number of false negatives over the total number of true positives and false negatives $[FN / (TP + FN)]$).

Written by

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