



<b>Title</b>	<b>Sentinel Node Biopsy (SNB) in Breast Cancer – Progress Report</b>
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<b>Reference</b>	ANAES Report, Oct 2002

## Aim

To update the assessments of sentinel node biopsy (SNB), focusing on feasibility and reliability, technical steps in the procedure, impact on surgery, and economic analysis.

## Conclusions and results

- *Feasibility and reliability:* SNB was feasible and able to diagnose lymph node involvement under certain conditions. The examination has been incorporated into TNM staging since 2003. A meta-analysis and 5 systematic reviews have reported 66% to 100% identification of the SN, with 0% to 17% false negatives depending on the study (10 preliminary studies of 100+ patients, with SNB followed by axillary clearance (AC)).
- *Technical steps of the procedure:* One of the 12 studies on tracer choice was randomized, but case series of isotope methods, injection site, and learning curve had design deficiencies. Histopathology methods varied and were not standardized.
- *Impact on surgery:* One of the 2 prospective un-randomized studies and 2 case series did not show recurrence in patients without SN involvement who had not undergone AC. No comparative trials (with AC) have assessed short- and medium-term local and regional complications, nor long-term followup (disease control and survival). These trials, and a trial of the impact of SNB on management strategies for breast cancer and quality of life, are in progress.
- *Economic assessment:* No studies compared SNB and AC.

## Methods

ANAES systematically searched MEDLINE, EMBASE, Pascal, CancerLit and Cochrane Library databases, relevant websites, and grey literature between 1996 and June 2002 for consensus conferences, guidelines, systematic reviews, and economic studies, and between 2000 and June 2002 for clinical trials. Contents pages

of specialist journals and references from articles were also searched. References were selected on level of evidence and design quality (review checklist) for studies, eliminating redundant studies (comparative trials and series of more than 100 cases for feasibility, 50 cases for technical steps, accuracy of data sources and analyses). The report was submitted to a working group of 13 experts and a multidisciplinary peer review group of 21 experts (surgeons, histopathologists, nuclear medicine specialists, oncologists), recruited from the relevant professional societies.

## Further research/reviews required

While awaiting the results of multicenter trials in progress that compare SNB and AC in relation to lymph node involvement:

- Professional societies should draw up protocols to define the conditions under which SNB should be performed (standardization of the various steps, training stage for multidisciplinary teams, indications for lymph node sampling, and decision trees)
- Clinical researchers should study unresolved technical aspects and new indications (in relation to previous treatment, tumor characteristics, non-axillary lymph nodes)
- Patients undergoing SNB without AC should take part in a followup protocol
- Economic studies should analyze direct and indirect costs within the framework of clinical protocols.