



- Title** **A Population-Based Cohort Study of Surveillance Mammography After Treatment of Primary Breast Cancer**
- Agency** **CCOHTA, Canadian Coordinating Office for Health Technology Assessment**
955 Green Valley Crescent, Suite 110, Ottawa, Ontario K2C 3V4 Canada;
tel: +1 613 226 2553, fax: +1 613 226 5392, <http://www.ccohta.ca>
- Reference** CCOHTA Technology Report, Issue 15, July 2001. ISBN 1-894620-03-8 (print); ISBN 1-894620-04-6 (online): http://www.ccohta.ca/ccohta_production/entry_e.html

Aim

- To describe the rates of use of annual surveillance mammography (SM) following treatment of primary breast cancer in women in Ontario, Canada
- To describe the rates of subsequent breast surgery following annual SM.

Conclusions and results

Although practice guidelines in the United States and Canada have recommended annual surveillance, this study found the median interval between consecutive surveillance mammograms to be 14.7 months. Women diagnosed at age 70 or older, and women treated by lumpectomy without radiation therapy, were less likely to use SM compared to other women treated for breast cancer. Ironically, these two groups are also at highest risk for recurrence. The data show, but do not explain, long intervals between the date of SM and the dates of breast biopsies (median 2.97 months), lumpectomies (median 2.55 months), and mastectomies (median 2.50 months). The consequences of this delay are unknown. The data also show that two-thirds of subsequent breast surgery performed for women previously treated for breast cancer occurs more than 4 months following SM. This finding suggests a hypothesis that SM does not detect all recurrences or all new primary contralateral breast cancers.

Recommendations

- Monitor the rate of SM use among the women at highest risk for recurrence.
- Monitor the interval between SM and subsequent breast surgery.
- Monitor the number of women who use SM and undergo subsequent lumpectomy or mastectomy, and compare that number with the number of women who undergo surgery without previous SM.

Methods

The first part of this two-part project, published in June, 2000, was a systematic literature review by L. McGahan and H. Noorani titled "Surveillance mammography after treatment for primary breast cancer" which evaluated the practice and its impact on disease outcomes. The second part of the project, described in this brief, identified 12 279 women with new cases of invasive breast cancer diagnosed in Ontario between July 1, 1991, and December 31, 1993. Of these women, those who underwent lumpectomy and mastectomy procedures within 4 months after diagnosis were followed for surveillance mammography, subsequent diagnostic procedures on the breast, subsequent breast surgery, and death from any cause, up to December 31, 1998.