

Non-consensual Double Reading in the Singapore Breast Screening Project: Benefits and Limitations

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Abstract

Introduction: The aims of this study were to assess the efficacy of non-consensual double reading (against single reading) in the Singapore Breast Screening Project (SBSP) and to compare the benefits (increase in cancer detection) and limitations (increase in recall and biopsy) with published data. **Materials and Methods:** The data from the SBSP was retrospectively analysed and the recommendations of the first and second readers were evaluated separately with regards to rate of recall, biopsy and cancer detection. The mean second screener contribution (MSSC) was also calculated for double reading. **Results:** In the SBSP, double reading detected 7 additional cancers (5.2% of cancers detected) compared with single reading and the MSSC was 5.5%. Double reading also resulted in 632 additional recalls, with a decrease in the positive predictive value (PPV) of cancer in the recalled women from 8.2% for single reading to 6.1% for double reading. An additional 30 biopsies were performed with double reading which represented a small decrease in PPV (41% compared to 42.9% for single reading). **Conclusion:** In the SBSP, non-consensual double reading (compared to single reading) resulted in a modest increase in cancer detection (MSSC, 5.5%) with a modest decrease in PPV of recall (2.1%) and biopsy (1.9%). These findings were consistent with that of published data and non-consensual double reading is thus recommended.

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