

## Book report

# IARC Handbooks of Cancer Prevention, Volume 7: Breast Cancer Screening

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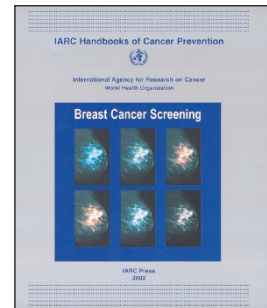
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The latest publication in the International Agency for Research on Cancer's (IARC) series of Handbooks of Cancer Prevention is focused on breast cancer screening. The monograph is the outcome of a weeklong meeting of the Working Group on the Evaluation of Cancer-Preventive Strategies that took place in Lyon, France, March 5–12, 2002. The decision to produce a handbook on breast cancer screening was timely for several reasons. First, only a few monographs exist that focus exclusively on breast cancer screening, none of which represent a comprehensive treatment of the subject, and all were published before 1990 [1–4]. Second, the value of breast cancer screening recently had been challenged by a Cochrane Review [5] on screening for breast cancer with mammography, and a number of independent expert groups had been assembled to evaluate that analysis and the authors' provocative conclusions. Thus, in the presence of another expert group's conclusion that there was no scientific evidence to support the value of mammography, the IARC Working Group's evaluation of the world's literature on the efficacy of breast cancer screening had an extra dimension of drama. Contrary to the Cochrane Review, the IARC Working Group affirmed the value of mammography for women aged 50–69.

Anyone interested in breast cancer control, or screening in general, will find this volume a valuable addition to their library. The book is well organized, and proceeds through the evaluation of the scientific evidence in the context of the classic criteria for principles and practices of screening for disease established by Wilson and Junger in 1968 [6]. Chapters one through three describe the global burden and the natural history of breast cancer, concep-

tual considerations related to screening performance, various methods of early detection, including conventional and experimental imaging techniques as well as physical exams, and use of screening and behavioral issues related to screening uptake. Chapters four through six review conceptual issues and the existing evidence on efficacy, effectiveness, and cost-effectiveness of screening. The monograph concludes with a summary chapter, an additional chapter with a brief description of the conclusions, and another on recommendations for future research. Thus, the monograph provides the most extensive treatment available of the issues pertaining to breast cancer screening. It concludes that mammography is effective in reducing breast cancer mortality, but like other screening tests, has a number of limitations.

Undoubtedly, those who are familiar with the literature will see some topics that are treated with a degree of certainty that belies the limitations of the existing data, or the presence of alternative interpretations. If one accepts the results from the trials uncritically it is reasonable to conclude that there is limited evidence to support the efficacy of screening women aged 40–49. However, the poor performance of screening in the trials in this age group must be seen as the result of screening intervals that were too wide to achieve a measurably reduced incidence rate of advanced disease. Considerable inferential evidence from the trials [7], meta-analyses [8,9], and evaluations of service screening [10–12] support the conclusion that, when women in their forties are screened at a 12–18 month interval, mortality reductions are equivalent to those that can be expected in women aged 50+ screened every 24 months. Another example of a conclusion that has

limited supporting evidence is the assertion that 5–25% of cancers detected by mammography represent over-diagnosis. While it has been estimated that some over-diagnosis exists, the overall proportion likely is less than 5%, of which most occurs during a prevalent screen. In subsequent incident screens the rate is very small to nonexistent [13,14].

Like many areas of research, experts can and will differ in the conclusions they draw from existing evidence. Still, the IARC Handbook on Breast Cancer Screening has much to offer, and will be required reading for anyone with an interest in screening, and especially an interest in breast cancer screening.

### Competing interests

None declared.

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