Systematic Reviews

LETTER

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Re: screening for breast cancer: a systematic review update to inform the canadian task force on preventive health care guideline, by A Bennett and colleagues, published on December 19, 2024

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To the Editor,

While the same scientific material is available to all researchers, reasons why different research groups reach different conclusions on screening mammography is at the heart of debates [1]. An example of this observation is the systematic review on screening for breast cancer conducted by a team from the University of Ottawa published on December 19, 2024 is an update of an evidence review completed in 2017 [2]. The update included new results of randomised trials on screening mammography (without date limits) and of observational studies published from 2014. The review followed guidance from the Cochrane Handbook, GRADE working group, and Chapter 4 from the Task Force Methods manual. But critiques of the Canadian National Breast Screening Studies (CNBSS) were provided from the outset in the Introduction section of the review. This is not standard procedure foreseen by guidelines for the conduct and reporting of systematic reviews. All randomised trials on screening mammography have limitations [3]. The limitations of the Greater New York HIP and Swedish trials have been documented too [4–6]. A question is why the systematic review did not mention these limitations in the same way as limitations of the CNBSS?

The systematic review relies heavily on observational studies that evaluated the effectiveness of screening mammography programmes. However, a recent study found that compared to women attending screening mammography, women who do not attend screening have a twofold higher risk of death from breast cancer and also from causes other than breast cancer [7]. Because attending screening mammography has no influence on the far more numerous causes of death other than breast cancer, the similarity in risk reductions implies that mortality risk reductions are due to biases, mainly the healthy user bias [8]. Hence, results of observational studies that compare risk of breast cancer death between screening attendees and non-attendees are due to shortcomings in their design and should therefore not be used to evaluate the benefit of screening mammography programmes.

The information to be delivered to the Canadian Task Force on Preventive Health Care should provide a more balanced overview of strengths and limitations of randomized trials and take into account recent results raising doubts on the validity of observational studies for the evaluation of cancer screening programmes.

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References

1. Norris SL, et al. Author's specialty and conflicts of interest contribute to conflicting guidelines for screening mammography. J Clin Epidemiol. 2012;65(7):725–33.
2. Bennett A, et al. Screening for breast cancer: a systematic review update to inform the Canadian Task Force on Preventive Health Care guideline. Syst Rev. 2024;13(1):304.
3. International Agency for Research on Cancer, Breast Cancer Screening. IARC Handbooks of Cancer Prevention. Vol. 7. IARC Press; 2002. http://www.iarc.fr.
4. Autier P, Boniol M. Mammography screening: a major issue in medicine. Eur J Cancer. 2018;90:34–62.
5. Jorgensen KJ, et al. The Two-County breast screening trial cannot provide a reliable estimate of the effect of breast cancer screening. Radiology. 2012;262(2):729–30 author reply 730-1.
6. Gotzsche PC, Jorgensen KJ. Screening for breast cancer with mammography. Cochrane Database Syst Rev. 2013;6:Cd001877.
7. Autier P, et al. Effect of screening mammography on the risk of breast cancer death and of all-cause death: a systematic review with meta-analysis of cohort studies. J Clin Epidemiol. 2024;172:111426.
8. Shrank WH, Patrick AR, Brookhart MA. Healthy user and related biases in observational studies of preventive interventions: a primer for physicians. J Gen Intern Med. 2011;26(5):546–50.

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