

## Breast self-examination

We are dismayed by the report on breast self-examination by Nancy Baxter and colleagues.<sup>1</sup> Our detailed response is available as an eLetter at [www.cma.ca/cmaj/eLetterAdmin/view.asp?id=42](http://www.cma.ca/cmaj/eLetterAdmin/view.asp?id=42). Here we summarize our main points.

The report only refers to the St. Petersburg component of the Russia – World Health Organization trial of breast self-examination. The Moscow component comprises 74 378 women recruited in 272 clusters, whereas the St. Petersburg component has 28 clusters.<sup>2</sup> None of the reports that have appeared to date on the St. Petersburg component have taken note of the cluster randomization, which is necessary for statistical validity. Further, there was concurrent screening in St. Petersburg, where breast self-examination is being evaluated in terms of what it adds to routine annual physical examinations. The investigators in both centres are arranging for the transfer of data to a centre approved by the World Health Organization for a definitive analysis. Until that analysis has been performed, any inferences based on the trial are premature.

In our nested case-control study of breast self-examination we had planned exploratory analyses at the time the study was initiated.<sup>3</sup> Further, we were able to adjust for differences in risk factors between cases and controls. Thus, we disagree with the comments on this study in Table 2 of the report by Baxter and colleagues.<sup>1</sup> Although there may be residual selection bias, this is precisely the reason why case-control studies are categorized as level II-2 evidence rather than level I evidence. A similar comment relates to the cohort study of people who complied with breast self-examination in Finland.<sup>4</sup> Thus, these 2 studies, both of which showed a significant effect of good compliance with breast self-examination in reducing breast cancer mortality, justify an upgrading from a grade C to a grade B recommendation.

We conclude that in the context of Canadian screening programmes with screening every 2 years, women should be taught breast self-examination. If breast self-examination is practised well and physicians are aware of the signs of early breast cancer, breast self-examination helps to reduce breast cancer mortality.

### Anthony B. Miller

Division of Clinical Epidemiology  
Deutsches Krebsforschungszentrum  
Heidelberg, Germany

### Cornelia Baines

Department of Public Health Sciences  
University of Toronto  
Toronto, Ont.

### Bart Harvey

Department of Public Health Sciences  
University of Toronto  
Toronto, Ont.

### References

1. Baxter N, with the Canadian Task Force on Preventive Health Care. Preventive health care, 2001 update: Should women be routinely taught breast self-examination to screen for breast cancer? *CMAJ* 2001;164(13):1837-46.
2. Semiglazov VF, Sagaidack VN, Moiseyenko VM, Mikhailov EA, for the Russian Federation World Health Organization Study. Study of the role of breast self-examination in the reduction of mortality from breast cancer. *Eur J Cancer* 1993;29A:2039-46.
3. Harvey BJ, Miller AB, Baines CJ, Corey PN. Effect of breast self-examination techniques on the risk of death from breast cancer. *CMAJ* 1997; 157(9):1205-12.
4. Gastrin G, Miller AB, To T, Aronson KJ, Wall C, Hakama M, et al. Incidence and mortality from breast cancer in the Mama program for breast screening in Finland, 1973-1986. *Cancer* 1994;73:2168-74.

It is unfortunate that *CMAJ* readers are more likely to have read the conclusions of the report by the Canadian Task Force on Preventive Health Care on breast self-examination<sup>1</sup> than the much more balanced commentary<sup>2</sup> and will now erroneously believe that the risks of breast self-examination have been proven to outweigh its benefits.

Breast self-examination can never be evaluated using standard clinical trials methodology. Short of following study subjects for several years with round-the-clock video camera surveillance, it would be impossible to document ei-

ther the compliance of the intervention group or the lack of contamination of an informed control group (who would be instructed to not perform breast self-examination so that the investigators could determine with proper scientific rigour whether or not the procedure saves lives).

The more fundamental issue is whether early detection of an already palpable breast cancer improves outcome. If it does, then it is ludicrous to believe that it is better for a woman 50 years or older to wait for a physician or nurse to perhaps find the cancer during an annual clinical breast examination than to find the cancer herself months earlier. Women under 50 years of age, for whom there is no Canadian recommendation for breast screening, can only hope that some illness will befall them that might bring them to a physician who just might examine their breasts. The argument that most women find their cancers between formal self-examinations is also flawed by the fact that women who are familiar with their breasts from practising breast self-examination are much more likely to notice early changes that could be signs of cancer.

I would also take issue with the purported harms of breast self-examination. Almost invariably a core biopsy that leaves no scar can be performed instead of an excisional biopsy. Although breast self-examination produces anxiety for some women, it can be extremely reassuring to other women, particularly those who are not yet candidates for mammography or those who know its limitations.

### Ellen Warner

Associate Professor of Medicine  
University of Toronto  
Toronto, Ont.

### References

1. Baxter N, with the Canadian Task Force on Preventive Health Care. Preventive health care, 2001 update: Should women be routinely taught breast self-examination to screen for breast cancer? *CMAJ* 2001;164(13):1837-46.
2. Nekhlyudov L, Fletcher SW. Is it time to stop teaching breast self-examination? [editorial]. *CMAJ* 2001;164(13):1851-2.