

more expense for the medical system, but what price do you put on a human life? Would you tell men not to feel for testicular lumps? If they found one, wouldn't that require a biopsy? Wouldn't it cause worry? And, heaven forbid, it might cost the medical system money for treatment. Perhaps it would be better if all cancers were not found until they were untreatable. That would save the medical system lots of money.

Lauri Winters
Crystal, Minn.

Reference

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.

I find the release of the study on breast self-examination very distressing.¹ In 1996 during breast self-examination I found a lump that was invasive

ductal carcinoma. Breast self-examination saved my life. Wouldn't women have been better served if the money used for this study had been used for research instead of to study breast self-examination outside of North America? Why is there not a more concerted effort between Canada and the United States for joint research and treatment? Stop wasting money and find a cure. This disease is no fun and I don't want to die from it.

Shelley Snell
Langley, BC

Reference

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.

I am 28 years old and a 20-month survivor of stage I invasive ductal carcinoma. I found my lump through breast self-examination at the age of 27, 13

years before the recommended age for baseline mammography. Mammography and ultrasound of the lump revealed no abnormality. It was not until excisional biopsy was performed that the correct diagnosis was made. Clearly, breast self-examination saved my life.

Women under the age of 40 years are not receiving adequate attention from the medical community. There are few studies focused on women in this age group. The recent article in *CMAJ* on breast self-examination avoided making recommendations for young women owing to "the lack of sufficient evidence to evaluate the effectiveness of the manoeuvre" in women younger than 40 years.¹

Young women's breast tissue is often too dense for mammography to be an effective diagnostic tool. While the clinical breast examination is key to early detection, there is an inherent flaw in that the physician is not familiar with an individual woman's breasts. That leaves

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breast self-examination as our most powerful tool for early detection.

Tracy Highton
Lawrenceville, Ga.

Reference

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.

[The author responds:]

The debate around the publication of our recommendations¹ regarding the routine teaching of breast self-examination to Canadian women has certainly been lively. Our objectives were to systematically review the published evidence relating to the effectiveness of *routine teaching* of breast self-examination to reduce breast cancer mortality and to provide recommendations for clinicians regarding teaching breast self-examination to women in various age groups. We clearly stated that in cases where women wanted to learn the technique it was important for clinicians to explain the potential benefits and harms but also to provide thorough training to ensure that breast self-examination was properly and consistently performed. Also lost in the hue and cry about the review was the important difference between breast self-examination (a systematic, rigorous and regular examination of the breasts as a screening method) and ad hoc finding of breast lumps by women during the course of normal activities. Although the majority of women do not perform breast self-examination,² women do find their own breast cancers and do not wait for routine or chance visits to present their concerns to a physician or nurse. Although self-detection was the most frequent method of detection (58.1%) in a group of women aged 40–49 years who were diagnosed with breast cancer, less than half of the women (20.6%) found the cancer during breast self-examination.³

Leo Mahoney raises an interesting point: it may be possible to teach breast self-examination in a fashion that re-

duces the number of false positives, and research in this area may have some utility. Although decreasing the number of false positives would not increase the benefit of breast self-examination, at least the risks would be reduced. The bottom line is that breast self-examination education does not improve detection rates enough to affect survival, on the basis of currently available evidence.

In their letter, Anthony Miller and colleagues fail to mention the main finding of the nested case-control study by Harvey and colleagues: *no benefit of regular performance of breast self-examination*.⁴ The fact that secondary analyses suggested a potential benefit for thorough versus less thorough breast self-examination is a distraction from the main finding and is at best useful for generating hypotheses.

Our systematic review methods required that the data included in the analysis be published in the peer-reviewed literature. Unpublished data that may or may not ever be available for all to scrutinize were excluded. Although information obtained via personal communications may supplement published data, it cannot form the basis of a process meant to be explicit, transparent and replicable. Should the data to which Miller and colleagues refer ever be published, an updated review might be warranted.

Unfortunately, Tammy Clifford and colleagues seem to have misinterpreted several aspects of the review. First, the analysis is of breast self-examination as a screening manoeuvre, not as a diagnostic technique. Breast self-examination cannot be evaluated in the same way as a diagnostic test. The goal of screening is not simply earlier detection, but improvement of relevant outcomes. It is quite possible to detect cancer at an earlier stage and thereby increase the time people must live with the diagnosis without improving outcome: this is clearly not a desirable result. In contrast to Ellen Warner's lack of faith in randomized trials, I believe that the evaluation of screening through the gold standard of randomized controlled trials is well established.⁵ Although there may well be methodologic

problems in designing trials of breast self-examination education, they can be overcome, as demonstrated by the researchers in the Shanghai trial.⁶

The recent Canadian study cited by Clifford and colleagues was designed to compare mammography plus clinical breast examination to mammography without clinical breast examination; it does not provide evidence regarding the impact of breast self-examination because breast self-examination was taught to all participants.⁷

Although we acknowledge the point made by Clifford and colleagues that double review of evidence is the latest evolution in the science of systematic reviews (and indeed has recently been adopted by the Canadian Task Force on Preventive Health Care), we are unaware of any data that conclusively link singly reviewed evidence to definitive bias, in particular when the evidence has gone through the Canadian Task Force's process, which involves thorough internal and external review and debate, followed by *CMAJ*'s peer review.

Certainly the development of core biopsy techniques for the evaluation of breast lesions reduces the morbidity of diagnosis. However, as a general surgeon I will state that there are many circumstances (i.e., size of breast, location of lesion, inability to image lesion, lack of access to advanced technology, patient preference) in which excisional biopsies for investigation are still necessary. In any case, unnecessary procedures are best avoided, particularly if they are not associated with any benefit.

The strong reaction of the public to our findings should indeed give pause for reflection. Women believe that breast self-examination saves lives because, despite a lack of evidence, they have been *told* that it saves lives: a triumph of hope over knowledge. To paraphrase Barron Lerner, a veteran of the heated and seemingly unending debate over screening mammography, "in the war against breast cancer, the benefits of early detection have been oversold."⁸ Indeed, some, including the editors of *CMAJ*, have put forward the notion that "the rhetoric of cancer puts an intolerable burden of responsibility