of those surgeons. Disease-free survival improved and the local recurrence rate decreased following specialization of services. The results were attributed to an increase in axillary dissection and more frequent use of tamoxifen and chemotherapy. Gillis and Hole reported similar post-specialization results in the west of Scotland.[3] Although the teaching status of the treating hospitals was not reported in this study, it is likely that specialization occurred in both teaching and nonteaching hospitals, given the demographics of this region.

The teaching status of the initial treating hospital is unlikely to serve as a useful proxy for surgical specialization and use of adjuvant therapies. Breast cancer management is a multidisciplinary process; whether the initial surgery is done in Ottawa or Owen Sound is probably not relevant.

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1. Chaudhry R, Goel V, Sawka C. Breast cancer survival by teaching status of the initial treating hospital. *CMAJ* 2001;164(2):183-8.
2. Golledge J, Wiggins JE, Callam MJ. Effect of surgical subspecialization on breast cancer outcome. *Br J Surg* 2000;87:1420-5.
3. Gillis CR, Hole DJ. Survival outcome of care by specialist surgeons in breast cancer: a study of 3786 patients in the West of Scotland. *BMJ* 1996;312:145-8.

The Jan. 23, 2001, issue of *CMAJ* made a real attempt to bring together several articles on breast cancer, a topic of considerable importance. However, I found the paper by Ruhee Chaudhry and colleagues to be seriously flawed.[1]

In this retrospective study, the women seen in community hospitals were markedly different from those seen in teaching hospitals. This could result in lead-time bias in favour of teaching hospital patients. There is indeed some evidence of this in the paper, as the tumours of women presenting to teaching hospitals tended to be smaller and less malignant tumours (ductal carcinoma in situ) than those of women presenting to community hospitals. Thus, they would have had better outcomes irrespective of location.

In addition, the authors failed to describe the manner in which breast cancer was detected. There is a better outcome for breast cancer detected through screening mammography than for breast cancer detected clinically.

Lastly, we don't know the proportions of women who had auxillary node dissections in each group. This procedure is used less often in community hospitals than in teaching hospitals, and thus there may be a greater potential for misclassification of the stage of disease in the community setting. Do the authors have any information on this important variable?

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1. Chaudhry R, Goel V, Sawka C. Breast cancer survival by teaching status of the initial treating hospital. *CMAJ* 2001;164(2):183-8.

I am concerned by the conclusion reached by Ruhee Chaudhry and colleagues that patients who underwent surgery for breast cancer tumours smaller than 20 mm in diameter experienced better survival if they were initially seen in teaching hospitals rather than community hospitals.[1] I could not help but detect a degree of bias in this study against physicians in nonteaching hospitals. Statements such as "teaching status may affect patient outcomes directly because of better knowledge and skills" imply that surgeons in teaching hospitals are superior to those in community hospitals; this has no foundation in fact.

I agree with the authors that differences in patient outcomes between the 2 types of hospital need to be analyzed. If there is a factor that differentiates patient survival in the nonteaching versus teaching centres, it needs to be detected and addressed. If differences in outcome are "artifact[s] of misclassification," this study needs to be expanded to confirm or refute this point. In the meantime, however, let us not fall into the trap of publishing articles such as this that are biased and will have a limited role in improving health care for Canadians.

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Reference
1. Chaudhry R, Goel V, Sawka C. Breast cancer survival by teaching status of the initial treating hospital. *CMAJ* 2001;164(2):183-8.

Oncology is a difficult enough specialty to practise at the best of times; it has now become even more challenging as a result of the article by Ruhee Chaudhry and colleagues.[1] I can't believe this type of research was published, let alone placed as the lead article in *CMAJ*.

The teaching centre cases tended to have more favourable characteristics (smaller tumours, more favourable tumour grades and greater proportions of estrogen-receptor-positive tumours) than the community hospital cases. It should be noted that in fact more women were treated with adjuvant systemic therapy in the community hospitals than in the teaching hospitals (38% v. 30%). It is distressing that the authors draw conclusions with such far-reaching clinical implications from this study.

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1. Chaudhry R, Goel V, Sawka C. Breast cancer survival by teaching status of the initial treating hospital. *CMAJ* 2001;164(2):183-8.

[The authors respond:]

The purpose of our study was to describe the relationship between settings for initial treatment and outcomes from breast cancer on the basis of available data.[1] In our paper we acknowledged the limitations of these data. Nevertheless, we believe that it is important to publish such results to promote discussion. Improvement and accountability in our health care system are contin-