

# LETTERS TO THE EDITOR

December 16, 2014

Letter to the Editor:

Re: Myth: Mammography for Breast Cancer Screening – Are We Doing More Harm Than Good?

This letter is in response to the short article published in the DMJ and to express concern about what physicians may take away from the article about the value of breast screening, and the roles of the published literature and clinical practice guidelines in informing day-to-day care of patients.<sup>1</sup>

Firstly, it is unfortunate that the article points the reader to US guidelines and does not expand further on the Canadian Guidelines. The Canadian Task Force on Preventive Health Care released guidelines on Breast Cancer Screening in November 2011, including recommendations regarding regular mammographic screening in three different age groups.<sup>2</sup> The recommendations were based on a systematic review carried out by McMaster University.<sup>3</sup> It should also be noted that these recommendations were arrived at through a balance of harms and benefits, carried out for each of three different age groups. The Canadian guidelines were in fact a topic included in the program of the 87th Annual Dalhousie Refresher (November 2013).<sup>4</sup> So, in fact, harms of mammography were included in the decision making process for these recommendations.

Secondly, it is important for clinicians to avoid what has become commonplace in the breast screening literature – relying on a subset of publications to advance a specific point/opinion. Although guidelines are not immune from criticism, they attempt to create a synthesis of knowledge from across various study populations, study designs, and over time, resulting in conclusions that are far more robust than any conclusion that can be drawn from an individual study. The list of references has publications by every major opponent of breast cancer screening, but none by the proponents of screening who have made clear and cogent objections to the methodology and conclusions of these papers.

Thirdly, to provide some context, it is also important for clinicians to understand that mammography is the most ‘managed’ part of diagnostic imaging in Nova Scotia—all mammography sites must be accredited through the Canadian Association of Radiology Mammography Accreditation Program, and the program breast imaging radiologists must exceed the CAR-MAP

minimum of reading 480 mammograms/year, participate in multidisciplinary breast rounds, and earn continuing education credits.<sup>5</sup> In addition, the breast imaging technologists are required to earn a certain number of continuing education credits/year. Finally, sites are required to conduct multidisciplinary team rounds at each diagnostic site, consisting of surgeons, radiologists and pathologists who together ensure quality and standardization of care. In comparison to opportunistic screening, the programmatic approach enables ongoing improvements and supports the maintenance of high quality standardized breast cancer care.<sup>6</sup>

In actual practice, screening programs combine clinical guidelines and best practice together with local context to create local policy. Here in Nova Scotia, the Nova Scotia Breast Screening Program, which is an ‘organized’ breast screening program, began in Halifax in 1991 and has spread to encompass all mammographic screening and diagnostic breast imaging in Nova Scotia – it is the only province to have eliminated opportunistic screening. This means that the program is able to monitor and truly evaluate the impact of screening on the breast cancer burden of the Nova Scotia population. Performance indicators are published annually and publicly, in keeping with national standards.<sup>7,8</sup> The NSBSP is producing ‘evidence’ by way of peer-review publication of projects focused on local data, including the quantification of harms of screening, as well as contributing data to pan-Canadian projects.<sup>9-12</sup> Canadian breast screening programs are supported by the Canadian Partnership Against Cancer in implementing best practices in organized screening.

The author purports to educate physicians on the overestimation of benefit and underestimation of harms of mammography screening so that women can make informed choices. However, his selective choice of articles and uncritical evaluation of their conclusions has led to misinformation that shows a bias against screening.

Decreased mortality from breast screening is not a myth to be dispelled. The opponents of breast screening have been given a wide audience for a variety of reasons, and it is unfortunate that this article continues that trend. A more critical evaluation of the harms and benefits would have dispelled the myths that the anti screening agenda seeks to publicize. One hopes that clinicians see that day-to-day clinical care is best informed not

by individual studies and publications, but by the combination of evidence, guidelines and policy.

I will close by stating that the choice of cartoon to accompany this article, which shows a technologist choosing between causing cancer and detecting cancer on the control panel of a mammography machine is offensive, inflammatory and misleading. It has no place in a professional journal.

Sincerely,  
Dr. Sian Iles MD FRCPC  
Section Head, Breast Imaging, IWK

## References

1. Corkum, M. Myth: Mammography for breast cancer screening – are we doing more harm than good? *Dal Med J* 2014; 41(1): 43-45.
2. The Canadian Task Force on Preventive Health Care. Recommendations on screening for breast cancer in average-risk women aged 40-74. *Can Med Assoc J* 2011; 183(17): 1991-2001.
3. McMaster Evidence Review and Synthesis Centre. Breast cancer – systematic review, October 2011. Retrieved from <http://canadiantaskforce.ca/ctfphc-guidelines/2011-breast-cancer/systematic-review/>.
4. Payne JL. Mammography, Breast Self-exam and Clinical Breast Exam: What should you do? What should you tell your patients? 87th Annual Dalhousie Refresher – Dalhousie Continuing Medical Education, Halifax, November 28, 2013.
5. The Canadian Association of Radiologists (CAR) Mammography Accreditation Program. <http://www.car.ca/en/accreditation/map.aspx>.
6. Patnick J. Breast cancer screening: The UK Independent Review and update on breast screening in England. *Cancer Forum*. 2014; 38(3): 199-202.
7. Nova Scotia Breast Screening Program Annual Reports. <http://breastscreening.nshealth.ca/annual-reports>
8. Canadian Partnership Against Cancer. Report from the Evaluation Indicators Working Group: Guidelines for Monitoring Breast Cancer Screening Program Performance (3rd Edition), February 2013. Retrieved from [http://www.cancerview.ca/idc/groups/public/documents/webcontent/guideline\\_monitoring\\_breast.pdf](http://www.cancerview.ca/idc/groups/public/documents/webcontent/guideline_monitoring_breast.pdf)
9. Payne JL, Caines JS, Gallant J, Foley T. A Review of Interval Breast Cancers Diagnosed Among Participants of a Canadian Breast Screening Program. *Radiol* 2013; 266(1): 96-103.
10. Payne JL, Martin T, Caines JS, Duggan R. The Burden of False Positive Results in Analog and Digital Screening Mammography: Experience of the Nova Scotia Breast Screening Program. *Can Assoc Radiol J* 2014 Nov; 65(4):315-20.
11. Rayson D, Payne JL, Abdolell M, Barnes P, McIntosh R, Foley T, Younis T, Burns A, Caines JS. Clinical-Pathologic Characteristics and Outcomes of True Interval and Screen-Detected Invasive Breast Cancer Among Participants of a Canadian Breast Screening Program: A Nested Case-Control Study. *Clinical Breast Cancer* 2011; 11(1): 27-32.
12. Coldman A, Phillips N, Wilson C, Decker K, Chiarelli AM, Brisson J, Zhang B, Payne J, Doyle G, Ahmad R. Pan-Canadian Study of Mammography Screening and Mortality from Breast Cancer. *J Natl Cancer Inst*. 2014 Oct 1; 106 (11) (Epub).

Chelcie Soroka,

Re: Myth: Mammography for Breast Cancer Screening – are we doing more harm than good?

This letter is in response to the cartoon that was included with Myth: Mammography for Breast Cancer Screening – are we doing more harm than good? Although I have serious concerns regarding the content, I am aware that a response from the Nova Scotia Breast Cancer Screening Program was forwarded addressing those issues; therefore, I will focus my objections on the cartoon. While I acknowledge the author of the article did not create the cartoon, the fact it was chosen to be used, carries some accountability. Furthermore, the combination of the cartoon and the content has the potential to do more harm than good to patients, physicians and medical radiation technologists.

Medical Radiation Technologists (MRTs) are educated professionals who contribute significantly to patient management and the health care teams on a daily basis. MRTs who practice in mammography have completed rigorous educational programs, national certification and are required to demonstrate continued competence in order to provide this service to patients. This cartoon is both disrespectful and derogatory and at best implies these highly skilled technologists are incompetent and are nothing beyond ‘button pushers’.

Additionally, on the console of the equipment the ‘detect cancer’ and ‘cause cancer’ buttons are not only offensive to the profession but may negatively influence a patient’s decision to have a mammogram that would otherwise be in their best interests. When considering a patient’s care plan, the risks of radiation are always balanced with the overall benefit to the patient. To ensure consistency and appropriateness of testing, the Canadian Task Force on Preventive Health Care released guidelines in 2011 on breast cancer screening.

Furthermore, the cartoon depicts two individuals discussing the procedure and being flippant regarding the purpose of the study, while the woman stands naked from the waist up looking confused and anxious. This illustration is not reflective of the care patients receive during any diagnostic imaging procedure, and demonstrates a lack of respect towards MRTs in general and mammography technologists in particular.

It is alarming that a future member of the health care team would select a cartoon and compose an article of this nature, and disconcerting that those responsible for publishing a medical journal would consider it

acceptable. At a time when patient centered care is the cornerstone of best practice, this article undermines the concept and does not uphold the values of collaborative practice and respect for all members of the health care team.

I look forward to your response and thank you for your attention to this matter.

*Patricia Munro BHSc RTNM  
President NSAMRT (Nova Scotia Association of Medical Radiation Technologists)*

---

Thank you to Dr. Iles and Ms. Munro for sending your comments and concerns.

I agree with Dr. Iles that the decrease in mortality due to mammographic screening is not a myth to be dispelled. As a proponent of evidence based medicine, I am not against mammographic screening for breast cancer, nor would I make a blanket statement against mammographic screening to my future patients. The primary purpose of the mythbuster "Mammography for Breast Cancer Screening – Are We Doing More Harm Than Good?" was to conduct an evidence based review of the harms of mammography as a cancer screening test, which are important to discuss with all patients undergoing screening mammography. Due to the allotted space for the mythbuster, I was unable to give a comprehensive overview of the literature supporting mammography in decreasing breast cancer mortality. However, the benefits of breast cancer screening are discussed in my mythbuster, citing much of the evidence mentioned by Dr. Iles.

Dr. Iles states that the literature chosen for my mythbuster is uncritical and biased towards work published by opponents to breast cancer screening. This was not intentional, nor do I believe that the literature cited is methodologically flawed. As the purpose of this mythbuster was to review the harms associated with screening mammography, I cited literature I deemed to be of high quality surrounding this topic. As the target audience of a mythbuster is not necessarily the medical field or those trained in epidemiology, it was beyond the scope of the mythbuster to include a critical appraisal of the literature cited.

While harms of mammographic screening are discussed within clinical practice guidelines, these harms are infrequently discussed with patients.<sup>1</sup> In one survey,

despite 87% of respondents undergoing at least one cancer screening test, less than 10% reported having a discussion with their physician regarding potential harms of screening.<sup>2</sup> Patients often overestimate the efficacy of mammography screening.<sup>3,4</sup> It is as important for patients to feel comfortable asking questions regarding the benefits and harms of mammographic screening as it is for healthcare professionals be open and informed about these topics. However, in a survey of primary care physicians in the US, only 33.9% of physicians correctly estimated the extent of overdiagnosis in mammographic screening.<sup>5</sup>

Finally, I apologize for the poor choice of the included cartoon. It was not my intention to negatively portray medical radiation technologists, and I agree that it does not encompass collaborative patient care. The topic of the cartoon is loosely related, at best, to the content of the mythbuster. I understand the DMJ has had a lengthy discussion regarding retracting the cartoon, and they have chosen not to retract the cartoon – nonetheless, I sincerely apologize for its inclusion.

Thank you for giving me the opportunity to respond,

*Mark Corkum MSc  
MD Candidate, Class of 2015*

## References

1. Canadian Task Force on Preventive Health Care. Recommendations on screening for breast cancer in average-risk women aged 40–74 years. CMAJ 2011;183(17):1991-2001.
2. Wegwarth O and Gigerenzer G. Overdiagnosis and overtreatment: evaluation of what physicians tell their patients about screening harms. JAMA Intern Med 2013;173(22):2086-7.
3. Domenighetti G, D'Avanzo B, Egger M, Berrino F, Perneger T, Mosconi P, Zwahlen M. Women's perception of the benefits of mammography screening: population-based survey in four countries. Int J Epidemiol 2003;32(5):816-21.
4. Chamot E, Perneger TV. Misconceptions about efficacy of mammography screening: a public health dilemma. J Epidemiol Community Health 2001;55(11):799-803.
5. Wegwarth O, Schwartz LM, Woloshin S, Gaissmaier W, Gigerenzer G. Do physicians understand cancer screening statistics? a national survey of primary care physicians in the United States. Ann Intern Med 2012;156(5):340-9.