

costs of urgent health care use and the known risks of systemic glucocorticoids.²⁰ Unlike high ICS doses, even short courses of systemic glucocorticoids carry a risk of avascular necrosis, viral infections, ocular hypertension and open-angle glaucoma in susceptible patients, severe mood changes and psychotic reactions, gastrointestinal upset, insomnia, weight gain, increased blood pressure, and perturbations in blood sugar in patients with diabetes.²¹⁻²³ It is also of note that the higher-than-expected exacerbation rate in the McKeever et al trial might have been a function of late activation of the asthma action plan—an issue that might also have affected the magnitude of the benefit and reinforces the importance of providing education alongside the asthma action plan.²⁴

This is not the first, nor will it be the last, scientific forum in which the observed magnitude of benefit of quadrupling ICS in the yellow zone of the asthma action plan will be debated. Accordingly, we strongly agree with Dr McCormack that the best approach is to present patients with the benefits and harms and to reach a conclusion based on shared decision making. However, we also strongly disagree with his conclusion that a reasonable alternative to an asthma action plan with quadrupling would be to just have “a discussion of what to look out for with regard to exacerbations and when to seek medical help” (suggesting that a written action plan is not needed).¹ With this statement, Dr McCormack appears to conflate the debate around dosing in the asthma action plan yellow zone with the benefits of asthma action plans themselves. It is critical to note that patients in the control arms of all the mentioned studies of yellow-zone ICS dosing received an asthma action plan.^{12,18} Accordingly, their results do not offer any insight into the benefits of asthma action plans themselves, and should not be misappropriated to challenge the well established literature supporting the use of asthma action plans. Aside from the dose intensification recommendation in the yellow zone, action plans likely affect outcomes through multiple other mechanisms, including by reinforcing adherence to green-zone (daily preventive) medications; by providing warning signs meriting urgent attention (averting deterioration into life-threatening asthma); and through general educational information (eg, trigger avoidance).²⁵

In conclusion, although we agree with Dr McCormack that more research is required, to date we believe that the balance of the evidence favours a recommendation to quadruple the ICS dose as part of the asthma action plan. Most important, asthma action plans remain a cornerstone of asthma management, and our focus must be to redouble efforts to help primary care physicians to deliver this complex intervention.

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Breast cancer screening

In the Prevention in Practice article in the May issue of *Canadian Family Physician*, Dickinson and colleagues describe the quality of common screening tests to help family physicians “understand the issues they need to

consider to ensure that patients get the benefits while reducing the harms of screening.¹¹ I want to revisit several of the same sections highlighted in that article and discuss those topics as they relate to breast cancer screening.

Selecting the right patients. Mammography should be offered starting at age 40. The incidence of breast cancer rises sharply around the age of 40.² Randomized trials have proved that screening starting at age 40 reduces mortality,³ and there is little or no radiation risk once women reach the age of 40.^{4,5} Half of fatal cancers are diagnosed by age 49.⁶ Breast cancer incidence increases with age. Although breast cancer is less common in the 40-to-49 age decade than in subsequent decades, the growth rate is faster in this age group given the presence of endogenous estrogens in younger women. Recent observational studies show a 40% to 60% mortality reduction in screened women starting at age 40, far higher than shown in the randomized trials done from the 1960s to early 1990s.^{7,8} The risk of overdiagnosis in these younger women is vanishingly small, as they are less likely than older women to have comorbidities.⁹ Screening should continue as long as a woman is in good health, with a life expectancy of at least 5 to 10 years.

Rescreening at the right interval. The most lives are saved by annual screening starting at age 40.^{10,11} Sadly, this is not the case in Canada. Each provincial program chooses the age at which to start and the screening interval. The choices are made based on financial resources and the understanding, or misunderstanding, of the harms and benefits of screening.

Ensuring high-quality tests. Happily, this is not an issue in Canada. All the provincial screening mammography programs have excellent quality control and monitor performance metrics of the radiologists who read the examinations and track outcomes. The radiologist requirement of reading 480 mammograms per year quoted by Dickinson and colleagues is an American standard.¹ As of 2019, the Canadian Association of Radiologists Mammography Accreditation Program requires radiologists to read a minimum of 1000 cases per year.¹² Each province sets its own standard. In British Columbia, screeners must pass a standardized test, maintain annual continuing medical education, and read a minimum of 2500 cases per year.¹³

Issues in cancer screening. The recall rates in Canada are higher than in Europe, but lower than in the United States. Given that most of the recalls are solved with additional imaging including mammography or ultrasound, the harm is minimal. Cases that require additional testing can usually be resolved by needle biopsy done with local anesthesia with minimal discomfort.^{14,15} The greatest harm is anxiety waiting for the additional testing. This is transient with no long-term sequelae.¹⁶ When women learn that policy makers would rather withhold

screening to spare them this “harm,” they are angry, and find it patronizing and condescending.¹⁷ Each woman should be informed of the true benefits and risks and be allowed to decide for herself whether to be screened.

The authors’ statement “We should avoid referring to centres that recommend routine annual mammograms or encourage the use of new screening approaches, such as tomosynthesis or magnetic resonance imaging and additional breast ultrasound” shows their unfamiliarity with current data. Tomosynthesis increases detection of invasive cancers while also reducing recall rates.¹⁸ It is not yet available in any of the provincial screening programs. Mammograms miss 50% of cancers in women with dense breasts.¹⁹ Ultrasound performed in average-risk women with dense breasts doubles the cancer detection rate, and most of the cancers are small, invasive, and node negative.²⁰ These cancers, if undetected, continue to grow and are clinically detected “interval cancers,” which are larger, more often high grade and node positive, and have a poorer prognosis than screen-detected cancers.²¹

Screening with magnetic resonance imaging is appropriate for women at high risk: typically women with BRCA mutations and other hereditary syndromes, as well as those who have had radiation for Hodgkin lymphoma. Newer guidelines include other categories of women at higher-than-average risk.²²

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