Letters Correspondance

Fecal occult blood testing for colorectal cancer screening

I was pleased to see the topic of colorectal cancer (CRC) screening addressed in the September 2005 issue of *Canadian Family Physician*.[1] The burden of CRC in Ontario is indeed substantial; CRC is the fourth most common cancer and the second (first among non-smokers) leading cause of death from cancer in Ontario. Screening for CRC in Ontario is a priority and long overdue as a subject of inquiry and focus of effort.

The article by Cotterill, Gasparelli, and Kirby[1] reporting on the feasibility of endoscopy performed by non-specialists (eg, general practitioners, family physicians) is timely and interesting. The authors report results from their 2-year practice-based program of screening colonoscopy performed in a local hospital by trained family practitioners. The authors found the procedure to be safe and administratively feasible.

While the initiative that the authors have undertaken and their commitment to the health of their community are tremendous, current evidence supports population-based screening programs that use fecal occult blood testing (FOBT) as the primary screening modality, with colonoscopy largely reserved for investigation of abnormal FOBT results. The authors cite several studies that demonstrate a reduction in CRC mortality attributable to screening; interestingly, several of these key studies have used FOBT as the primary screening modality.[2,3] From a population-health standpoint, CRC screening using FOBT is preferable to resource-intensive and invasive procedures such as colonoscopy. Many other countries (eg, England, Australia, Finland, Italy, Israel) have instituted successful programs using this inexpensive, accessible, and effective screening maneuver.

Regarding screening colonoscopy, the small but important risks of iatrogenic bowel perforation, hemorrhage, and death, although the most serious outcomes, are not the only concerns patients have. Other factors determine its acceptability and overall success, such as the discomfort of the prerequisite complete bowel preparation and the inconvenience of the procedure, which often requires 2 days of preparation and recovery. Fecal occult blood testing circumvents these objections.

The Canadian National Committee on Colorectal Cancer Screening recommends multiphasic screening, beginning with annual or biennial FOBT for 50- to 74-year-olds, and follow up as necessary by colonoscopy, barium enema, or flexible sigmoidoscopy (based on patient preference and availability).[4] The Canadian Task Force on Preventive Health Care gives FOBT a grade A recommendation.[5]

The authors perhaps misinterpret the recommendations of the Ontario Expert Panel on Colorectal Cancer[6] to incorrectly state that the program should "expand to use colonoscopy as the primary screening method when resources are available."[1] In fact, the panel recommended that the "program should be expanded to include the *option* of direct visualization of the colon (ie, colonoscopy or double-contrast barium enema … only [to] be *contemplated* when the program is assured that there is sufficient colonoscopy and

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double-contrast barium enema capacity [italics added])."[6] The panel based their recommendations on their assessment of each screening test's evidence of efficacy and effectiveness, acceptability, and system capacity. The panel recommended that screening programs focus attention on "evaluative studies" that aid in making decisions about ideal "screening frequency, compliance, provider acceptance, and cost" associated with these modalities.[6] These goals have not yet been completely accomplished.

Moreover, the panel advised that Cancer Care Ontario "establish a representative multi-stakeholder advisory structure to provide ongoing direction regarding the design and operation of the CRC screening program."[6] Cancer Care Ontario has done this and continues to work with the Ontario Ministry of Health and Long-Term Care and stakeholders to create a provincial population-based screening program that is feasible and of high quality.

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Response

We thank Dr Kiefer for her interest in our article,[1] and commend her dedication to screening for colorectal cancer (CRC).

Many studies supporting the efficacy of screening for CRC use fecal occult blood testing (FOBT) as the screening modality. Most of these, however, follow up positive test results with colonoscopy. In one major study[2] supporting FOBT, 38% of participants had undergone colonoscopy by the end of the study, raising the question of whether it was FOBT or colonoscopy that resulted in the decrease in mortality. The American Gastroenterological Association's guidelines make a persuasive case for including colonoscopy as an option for screening people at average risk.[3]

A single FOBT has low sensitivity in detection of CRC, necessitating annual or at least biennial testing in order to reduce mortality, rather than the 10-year interval that has been recommended between screening colonoscopies in people at average risk.[3,4] We, as a group, felt more comfortable reassuring patients that they did not have CRC after negative results from colonoscopy than after negative results from FOBT. Colonoscopy also has the potential advantage of reducing CRC incidence through polyp removal.

It is also true that there are risks associated with colonoscopy, and there is discomfort and inconvenience associated with bowel preparation and the procedure itself. Patients need to be aware of this before being offered screening colonoscopy. We have found it easier to recruit patients for screening colonoscopy than for annual FOBT, and the continued adherence of patients and physicians who originally agreed to participate in FOBT is low.

We thank Dr Kiefer for correcting our understanding of one of the recommendations of the Ontario Expert Panel on Colorectal Cancer. As she stated, the panel did recommend including the option of colonoscopy or double-contrast barium enema as the primary screening modality once certain conditions were met. We believe it is debatable whether, from a population or a cost-effectiveness standpoint, FOBT is preferable to colonoscopy.

Clearly the Canadian health care system does not currently have the capacity for widespread implementation of colonoscopy as a screening maneuver. We hope that our research into screening colonoscopy by non-specialists will add a

possible option and stimulate discussion in the area of detection and prevention of CRC.

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Correction

In the October issue of *Canadian Family Physician*, an error was introduced in the book review of *Computerization and Going Paperless in Canadian Primary Care* (*Can Fam Physician* 2005;51:1385-6). The author of the book should have been listed as Nicola T. Shaw. *Canadian Family Physician* apologizes for this error and any confusion or embarrassment it might have caused.