

Colorectal cancer screening: ensuring benefits outweigh the risks

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The psychological downsides, equity of access for women, and patients' understanding of the limitations of screening need consideration

Australian states are currently rolling out colorectal cancer screening as part of the National Bowel Cancer Screening Program. Its success depends on the “physical or psychological harm to those concerned be[ing] less than the chance of benefit”.¹ The benefits are clear. Randomised controlled trials show a 16% reduction in colorectal cancer mortality with faecal occult blood testing and colonoscopy of people with a positive faecal occult blood test (FOBT) result.² In contrast, less attention has been paid to the psychological impact of colorectal cancer screening. Its effective management may also improve screening outcomes.

Breast cancer screening studies show that a screening invitation may cause severe anxiety and, in some cases, non-attendance; people who do not attend for one form of screening are more likely not to attend for other screening.³ Screening studies also show that participants can experience severe anxiety irrespective of results.^{4,5} An audit of suicides found two occurred between notification of recall after mammography and reattending; one suicide note was written on the recall letter, the other mentioned fear of hospitalisation.⁴ Neither woman had cancer. These findings emphasise the importance of education, rapid outpatient review and, if required, prompt access to colonoscopy to avoid delay in managing a positive FOBT result.⁵

FOBT-based screening studies report distress among both those with negative and positive results, and breast and colorectal cancer screening studies show that anxieties may continue even after a subsequent negative result.^{4,6} Among those who screen negative, distress may be sustained, indicating that this is a risk of screening healthy adults. A general-practice-based coronary heart disease screening study found that participants with no detected abnormality had significantly more psychological distress at 3 months than their unscreened counterparts.

If not done carefully, screening may distress individuals who have clinically inconsequential disease.⁷ Women screened for hepatitis C and found to be positive after inadvertently receiving infected anti-D immunoglobulin reported high levels of psychological distress and poorer quality of life compared with their counterparts 22 years later, despite no progression of their disease.⁸ These studies emphasise the importance of assessing the appropriateness and benefits of screening. For colorectal cancer screening, with direct-to-patient kit provision, the group most vulnerable are patients unlikely to benefit because of other life-threatening comorbidities. Clinicians, particularly general practitioners, have a pivotal role in counselling these patients. The implications for patients of direct-to-patient kits should become clearer as screening progresses and its analysis should improve management further.

A relatively unexplored potential contributor to morbidity is lack of choice of colonoscopist.^{3,9,10} A United States survey of women's attitudes to colorectal cancer screening found that almost half reported a preference for a female endoscopist. Eighty per cent of these patients were willing to wait more than 30 days for one,

and 14% would pay more for one. Seventy-five per cent of women gave embarrassment as the reason for their preference.¹⁰ If this is applicable to Australia, strategies are needed to ensure that women (particularly those who are uninsured, who have fewer options) have equity of access. Currently, fewer than 10% of Australian gastroenterologists are female, and the proportion of female gastrointestinal surgeons is even lower. It will be important for the success of colorectal cancer screening to know whether this workforce shortage has a substantial impact on female participation in the program.

Informed participation is the ideal. Challenges include ensuring that patients understand the limits of screening for detecting colorectal cancer; in particular, that an FOBT sensitivity of 92% misses eight per cent of cancers.² Information supplied in the National Bowel Cancer Screening Program kits emphasises the need for patients to seek medical advice irrespective of a screening result to have any symptoms they may have assessed in their own right.

It is clearly important that participants are encouraged to develop realistic expectations about screening's capacity to prevent cancer. An important unintended outcome of screening can be the “certificate of health effect”, a sense of immunity developing as a result of a negative test. Interpreting screening as a panacea against disease can strengthen unhealthy routines and the idea that regular screening rather than healthy lifestyle maintains health. Screened individuals still need to be encouraged to continue to limit red meat and fat intake, stop smoking and increase their physical activity, not only to reduce their subsequent colorectal cancer risk, but also to improve their general health status.

As people value benefits and harms differently, more information is needed, not only on the physical and economic impact of colorectal cancer screening, but also on its psychological impact and on strategies to reduce this impact. Triggers to screening such as the perceived ease of use of the FOBT kit, and social acceptability and mechanisms for encouragement, need to be further assessed, as highlighted in the National Bowel Cancer Screening Pilot Program evaluation. As fewer than 10% of Australian gastroenterologists are female, strategies to ensure equity of access for all Australians, both men and women, may need to be emphasised. Now is an appropriate time to undertake further prospective studies into the impact of colorectal cancer screening on the population groups involved to ensure that its benefits continue to outweigh its risks, and that we maximise its benefits and minimise its risks.

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