Colorectal cancer screening reduces incidence, mortality and morbidity

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Colorectal cancer (CRC) is the second most commonly diagnosed cancer in Australia in both men and women; there were about 17,000 new cases and more than 4000 deaths during 2017.1 It imposes a tremendous burden of disease, dominated by mortality rather than disability; in the 2011 Australian Burden of Disease Study, almost 86,000 years of life were lost because of CRC.2 The disorder is also a substantial economic burden; it costs more than $100,000 to treat one case of advanced CRC.3

CRC is one of the few cancers for which screening has reduced the incidence. The long adenoma-to-carcinoma sequence allows endoscopic polypectomy of pre-cancerous polyps, substantially reducing the risk for individuals in whom they are detected.4,5 In Australia, the National Bowel Cancer Screening Program (NBCSP) targets those at population or average risk of CRC, and employs the immunochemical faecal occult blood test for screening. The program has proved effective, reducing predicted CRC mortality by 15%, and earlier diagnostic staging has reduced morbidity.6 Although participation in the program is rising, the rate remains disappointingly low, with only 39% of eligible Australians participating in 2016.1 Participation is even lower in rural and remote areas (as low as 27% in very remote areas) and among people from low socio-economic backgrounds (37%).1

In this issue of the MJA, Symonds and colleagues15 report their assessment of adherence to NHMRC colonoscopy surveillance guidelines in South Australian hospitals participating in the Southern Cooperative Program for the Prevention of Colorectal Cancer (SCOOP), established in 1999 to improve compliance with evidence-based surveillance recommendations. In their 3-month audit, compliance of recommendations with NHMRC surveillance guidelines in public academic hospitals, where nurse coordinators facilitate surveillance follow-up in conjunction with a specialist physician, was 97% (398 of 410 people) and 83% (257 of 310 patients) in private non-academic hospitals, where follow-up is managed by physicians alone (P < 0.001). The significantly greater adherence to guidelines in the public academic hospitals was attributed to nurse-led guidance in the recall recommendations; prior to the inception of SCOOP, compliance with NHMRC recommendations in these hospitals was only 46%.

Symonds and her colleagues also attempted to ascertain the reasons for earlier than recommended colonoscopies, which in their audit accounted for 27% of 884 colonoscopies in public, academic hospitals and 20% of 1279 colonoscopies in private, non-academic hospitals during 2015 (P < 0.001). The reasons for early colonoscopy were similar in both hospital types, usually the development of new symptoms or positive results from a faecal occult blood test. The authors make the pertinent comment that deviation from population-based guidelines may be caused at the individual level by additional patient-related factors. However, many surveillance colonoscopies are performed too early or are delayed, causing harm; the former exposes the patient to unnecessary procedural risks and depletes limited health care resources, while the latter is associated with an increased risk of advanced adenoma and CRC.11 In Australia, the 2011 National Health and Medical Research Council (NHMRC)-approved Clinical Practice Guidelines on Surveillance Colonoscopy13 are currently under review; it is anticipated that the revision will be published in 2018.14

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recommendations of proceduralists are often driven by fear of missing an advanced polyp or cancer. It is conceivable that strict adherence to guidelines would motivate the colonoscopist to perform a more thorough and satisfactory examination, thereby avoiding a repeat colonoscopy sooner than recommended by guidelines.

In conclusion, CRC screening is unequivocally effective in reducing CRC incidence, mortality and morbidity, but there is much room for improving clinical practice patterns and outcomes. Participation rates in the NBCSP need to be increased, barriers to screening must be minimised, and, of great importance, practitioners must adhere to evidence-based surveillance guidelines in order to optimise health care resource use and cost-effectiveness.

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