

Colon cancer screening provides long-term protection

Screening colonoscopy would have prevented an estimated 40% of colorectal cancers over a 22-year period in 88 902 individuals, according to a recent report. In a separate study, annual faecal occult-blood testing reduced mortality from colon cancer by 32% in a 30-year follow-up of 46 551 participants.

The observational study of screening endoscopy was based on data from the Nurses' Health Study and the Health Professionals Follow-Up Study. Results showed that colon cancer mortality was reduced in individuals who underwent screening colonoscopy (multivariate hazard ratio 0.32; 95% CI 0.24–0.45) or screening sigmoidoscopy (0.59; 0.45–0.76), compared with individuals who did not.

Senior author Andrew Chan (Massachusetts General Hospital, Boston, MA, USA) noted "Our study showed that colonoscopy did appear to

be more effective than sigmoidoscopy in reducing both the incidence of and mortality from colorectal cancer. Specifically, in contrast with sigmoidoscopy, colonoscopy did appear to lower [the] risk of proximal colon cancer."

In the Minnesota Colon Cancer Control Study of screening with faecal occult-blood testing, investigators randomly assigned participants to a control group, or to groups screened annually or every 2 years. Investigators offered 11 annual screenings, or six screenings every 2 years, and a positive test result was followed-up with diagnostic investigation, including colonoscopy. Compliance was high: around 90% of individuals completed one or more tests, and about 83% followed up on a positive result. Colorectal cancer mortality was reduced in patients screened with faecal occult-blood testing every year

(relative risk 0.68; 95% CI 0.56–0.82) and every 2 years (0.78; 0.65–0.93); all-cause mortality was not reduced.

First author Aasma Shaukat (Minneapolis Veterans Affairs Health Care System, Minneapolis, MN, USA) summarised, "Screening consistently reduced the risk of death from colon cancer by a third for 30 years after screening; this reduction was larger for men than for women. Patients don't live longer after screening, but have a reduced risk of dying from colon cancer." As for which method of colon cancer screening was best, Shaukat said, "The best test is not known at this point. There are ongoing studies that will help answer this question. In the meantime, providers and patients need to discuss the options to decide which strategy is best for each patient."

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For the **study of long-term mortality** see *N Engl J Med* 2013; **369**: 1106–14