Improved Colorectal Cancer Screening Rates with Provider Training


Study Overview

Objective. To test whether a provider-directed intervention increases colorectal cancer screening rates.

Design. Randomized controlled trial.

Setting and participants. The study was conducted at the general medicine clinics of 2 Veterans Affairs Medical Centers in Chicago. Patients were eligible if they were men aged ≥ 50 years with no prior or family history of colorectal cancer or polyps, no history of inflammatory bowel disease, no prior colorectal cancer screening (fecal occult blood testing [FOBT] in the previous year or flexible sigmoidoscopy or colonoscopy in the previous 5 years), and at least 1 visit to the clinic during the study period. 5711 patient records were reviewed, and 1978 patients were eligible. One clinic was randomly assigned to the intervention arm. Health care providers (attending and resident physicians and nurse practitioners) in the intervention arm were trained in colorectal cancer screening and attended workshops where they received information on clinic screening recommendation rates, confidential individualized feedback, and patient communication training. Records were reviewed for screening recommendations and completion. The intervention consisted of a brochure and video, which included cognitive information on colorectal cancer and screening and also social and emotional messages designed to motivate patients to increase self-efficacy. The intervention arm was compared with a “routine” clinic (control arm).

Main outcome measures. Percentage of eligible patients who received provider recommendations for colorectal cancer screening, and percentage of eligible patients who completed colorectal cancer screening testing (home FOBT, flexible sigmoidoscopy, or colonoscopy) within 6 to 18 months of the first visit. A secondary measure was to assess screening rates according to health literacy skills using the Rapid Estimate of Adult Literacy in Medicine instrument.

Main results. Baseline characteristics were similar between groups. 84% of physicians and nurse practitioners in the intervention arm attended at least 1 session. The number of patients varied from 1 to 40 for 60 providers in the intervention arm and from 1 to 46 for 53 providers in the control arm. Approximately 20% of patients in each arm participated in the literacy assessment and survey. In both arms, one third of these patients had literacy levels lower than 9th grade, and 79% had completed high school. Colorectal cancer screening was recommended for 76% of intervention patients and for 69% of controls ($P = 0.02$). Screening tests were completed by 41% of patients in the intervention group versus 32% of controls ($P = 0.003$). Among patients with health literacy skills less than 9th grade, screening was completed by 56% of patients in the intervention group versus 30% of controls ($P = 0.002$). FOBT was recommended to 25% of control patients and 57% of intervention patients, whereas flexible sigmoidoscopy or colonoscopy was recommended for 67% of patients in the control arm and 80% of patients in the intervention arm. In the control group, 17% returned their FOBT card, and 18% underwent flexible sigmoidoscopy or colonoscopy. In the intervention group, 29% of patients returned their FOBT cards, and 19% underwent flexible sigmoidoscopy or colonoscopy.

Conclusion. A provider-directed intervention with feedback on individual and clinic-specific screening rates significantly increased recommendations and colorectal cancer screening completion rates among veterans.

Commentary

Each year, over 50,000 deaths are due to colorectal cancer [1]. It is estimated that the majority of colorectal cancer–related deaths are preventable through appropriate screening designed to identify the earliest stages of disease. Primary care clinic visits are perhaps the most important venues for patients to learn about and pursue colorectal cancer screening. Yet, screening rates in the United States remain low despite public campaigns and advancements in screening technology [2]. Challenges to screening include inconveniences of testing, associated expense, limited time available during clinic encounters for discussion, physician and patient motivation, and conflicting practice guidelines.
Ferreira and colleagues performed an important trial looking at the impact of a provider-directed intervention to improve colorectal cancer screening recommendations and rates. Exposing clinic physicians and nurse practitioners to workshops on colorectal cancer screening that included feedback on clinic and individual performance, while making available patient-friendly materials on screening, resulted in statistically significant increases in both screening recommendations and screening rates.

The simple study design and uniform physician and patient population of veteran’s clinics are among this study’s main strengths. A controlled setting make any differences between study arms more likely the result of the intervention rather than chance or a confounding factor. One may argue that the control clinic screening rates may be underestimated because screening may have occurred for patients in this clinic at a later time. As well, data abstraction from chart reviews may suffer from poor provider documentation, although this would be expected to be true for the intervention clinic as well. It is also worth considering that the hospital’s endoscopy center may have limited referrals from the control clinic because of an increased “short-term” case-volume from the intervention clinic.

Still, the study’s findings are important and have implications for health care in general. A rather simple intervention applied to what is a routinely hectic health care setting, at least in the short term, can substantially impact both physician and patient behavior. Although this trial was not designed to find improvements in cancer-related mortality, these kinds of interventions have the potential to impact such an important outcome.

Applications for Clinical Practice
Colorectal cancer screening is underutilized and efforts to improve screening include continued physician and patient education.

—Review by David R. Spigel, MD

References