

## Is Referral for Colonoscopy Overutilized by Primary Care Physicians?

Boolchand V, Olds G, Singh J, et al. Colorectal screening after polypectomy: a national survey study of primary care physicians. *Ann Intern Med* 2006;145:654-9.

### Study Overview

**Objective.** To assess primary care physician recommendations for follow-up colonoscopy and compare them with current national guidelines.

**Design.** Cross-sectional national survey.

**Setting and participants.** 500 general internists from the American College of Physicians and 500 family medicine physicians from the American Academy of Family Physicians were randomly sampled and surveyed. Physicians were asked to report their follow-up recommendations for a hypothetical 55-year-old man in good health, with no family history of colon cancer, who underwent a routine screening colonoscopy. The findings on initial colonoscopy varied with each questions and included: (1) a 6-mm hyperplastic polyp, (2) a 6-mm tubular adenoma, (3) two 6-mm tubular adenomas, (4) a 12-mm tubulovillous adenoma, or (5) a 12-mm pedunculated tubular adenoma with a focus of high-grade dysplasia. Answer choices included: colonoscopy at 6 months, colonoscopy at 1 year, colonoscopy at 3 years, colonoscopy at 5 years, colonoscopy at 10 years, or no repeated colonoscopy.

**Main outcome measures.** Frequency of responses to each question were calculated and compared according to sex, specialty, years in practice, average number of patients seen in a week, and routine use of an open-access system in their practice.

**Main results.** 568 physicians, including 298 family medicine physicians and 270 general internists, responded (response rate, 57%). 61% of physicians recommended colonoscopy within 5 years for a 6-mm hyperplastic polyp, 46% recommended colonoscopy within 3 years for a 6-mm tubular adenoma, 43% recommended colonoscopy within 1 year for two 6-mm tubulovillous adenomas, 59% recommended colonoscopy within 1 year for a 12-mm tubulovillous adenoma, and 85% recommended colonoscopy within 1 year for a 12-mm tubular adenoma with high-grade dysplasia. Family medicine physicians were more likely than general internists to recommend surveillance colonoscopy at 1 year (19% versus

10%) and 3 years (21% versus 13%) for hyperplastic polyps.

**Conclusion.** Primary care physicians recommended follow-up colonoscopy more frequently than necessary according to national colorectal cancer screening guidelines.

### Commentary

Colorectal cancer is currently the second leading cause of cancer death, with approximately 1 million Americans affected by the disease [1]. Colorectal cancer screening programs, including fecal occult blood testing and direct colonoscopy, are able to detect earlier-stage cancers as well as prevent colorectal cancer through polypectomy. Based on data from observational studies, recent national guidelines risk-stratify patients based on characteristics of polyps removed during colonoscopy and recommend appropriate surveillance intervals according to risk status. Current national guidelines recommend repeat colonoscopy at 10 years for a 6-mm hyperplastic polyp, at 5 years for a 6-mm tubular adenoma, at 5 years for two 6-mm tubular adenomas, at 3 years for a 12-mm tubulovillous adenoma, and at 3 years for a 12-mm pedunculated tubular adenoma with high-grade dysplasia [2,3].

Although widespread underuse of colorectal cancer screening modalities has been the focus of many recent studies, increased attention is also being paid to potential overuse of these screening modalities. In prior studies, inappropriate postpolypectomy surveillance accounted for a substantial proportion of overutilization [4]. Gastroenterologists may substantially contribute to this problem by recommending surveillance colonoscopy at inappropriate intervals [5].

The study by Boolchand et al provides additional information regarding an important avenue through which access to colonoscopy is often gained—primary care physicians. In this survey, primary care physicians appeared to promote surveillance colonoscopy at significantly shorter intervals than are recommended by national guidelines. This problem of overuse is of particular significance during a time when many health systems do not have the capacity to meet current demands for colonoscopy. Inappropriate use of colonoscopy could affect timely performance of initial screening

colonoscopy, surveillance colonoscopy, and colonoscopy for the evaluation of symptomatic patients.

The reasons for inappropriate recommendations for colonoscopy have not been well described. Physicians may require more education regarding the intricacies of colorectal cancer screening guidelines. Given the variety of screening choices, guidelines are complex, particularly for follow-up of colorectal polyps. Failure to diagnose colorectal cancer is an increasing source of malpractice litigation, which may also serve as an underlying motivation for physicians to recommend more frequent surveillance examinations. Finally, patient concerns may contribute to increased testing.

Before interventions can be designed to improve adherence to postpolypectomy surveillance guidelines, more information is needed regarding reasons for nonadherence. In addition, this and other studies have highlighted the problem of overuse without regard to potential underuse. With standard follow-up ranging from 3 to 10 years for patients with a history of colorectal polyps, it is likely that many patients are not returning for recommended surveillance colonoscopy. Failure to address the potential problem of underuse would significantly diminish the protective effect of a colonoscopy-based screening program.

### Applications for Clinical Practice

While improving rates of colorectal cancer screening should remain a focus of quality improvement programs, health

systems and clinicians should be aware of the appropriate treatment and evaluation following an initial screening examination. This study highlights a potential source of overuse of colonoscopy and suggests that efforts to rectify this problem focus not only on gastroenterologists but also primary care physicians.

—Review by Thomas D. Sequist, MD, MPH

### References

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