Specialist Referral versus Direct Testing: Optimizing Care of Patients with Colorectal Symptoms

MacKenzie S, Norrie J, Vella M, et al. Randomized clinical trial comparing consultant-led or open access investigation for large bowel symptoms. Br J Surg 2003;90:941–7.

Study Overview

Objective. To compare consultant-led care and open-access care for patients with colorectal symptoms.

Design. Randomized trial.

Setting and participants. All patients were referred by general practitioners for evaluation of colorectal symptoms in Glasgow, UK. Patients with iron deficiency anemia, obvious mass lesions on rectal examination, history of adenoma or colorectal cancer, or family history of colorectal cancer were excluded. Patients were randomized to consultant-led or open-access evaluation. Consultant-led evaluation was defined as outpatient evaluation by surgeons specializing in colorectal diseases, with testing as deemed appropriate. Open-access patients were scheduled directly for flexible sigmoidoscopy (if age < 55 years or elderly with comorbid illness) or colonoscopy (if age ≥ 55 years). All endoscopies were performed by consultants (or nurse or trainee equivalents) who were blinded to group assignments. Patients completed satisfaction surveys. A computer database of hospital admissions was used to help verify pathology.

Main outcome measures. The primary outcome was an abnormal finding on testing. Analyses of time to diagnosis, number of procedures performed, and economic measures were performed.

Main results. 1117 patients were randomized and evaluated. Baseline characteristics were well-matched. Leading symptoms included rectal bleeding (69%), change in bowel habit (49%), and/or abdominal pain (32%). 24% of patients were considered urgent referrals. Clinical findings included hemorrhoids (15%) and abdominal masses or tenderness (9%). Consultants were more likely to diagnose an abdominal mass than general practitioners (3.4% versus 0.7%; $P = 0.001$). Use of an open-access system did not lead to an increase in testing/procedures performed. Patients in the consultant-led group had more investigations and were more likely to have multiple investigations. 35.9% of patients underwent proctoscopy and/or rigid sigmoidoscopy in the outpatient clinic in the consultant-led group compared with none in the general practitioners' offices. The percentage of patients with colonic or other pathology (including cancer) diagnosed was the same in both groups (63.6% in the consultant-led group versus 61.8% in the open-access group; $P = 0.558$). The mean time to diagnosis of any pathology was 55 days in the consultant-led group compared with 57 days in the open-access group ($P = 0.514$). The cost per patient was almost $182 (U.S. dollar converted) more for patients in the consultant-led group. There were no differences in patient satisfaction.

Conclusion. Patients referred by general practitioners with colorectal symptoms should go directly to an open-access large bowel investigation center.

Commentary

Abdominal complaints are commonly encountered in the primary care setting. For many patients these complaints are self-limited and may remain undiagnosed [1]. The evaluation of abdominal symptoms, particularly complaints suggesting colorectal disease, often prompt referral for evaluation by a subspecialist physician (usually for consideration of endoscopy).

MacKenzie and colleagues conducted a study to compare outcomes among patients with colorectal symptoms referred directly for endoscopic evaluation or for evaluation by a gastrointestinal specialist (surgeon). The authors found that patients evaluated by specialists were more likely to undergo further testing than patients in the open-access system but did not have more pathologic abnormalities found or shorter times to diagnosis. Of note, only 2.4% of consultant-led patients were not deemed to be candidates for further testing.

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The study's merits include its prospective randomized design and large sample size. Weaknesses of the study include the fact that both groups were ultimately evaluated by consultants. Endoscopies were performed by consultants blinded to randomization; however, open-access patients may have undergone preprocedural evaluations that may have potentially influenced subsequent evaluation/testing. As well, the referring general practitioner may have communicated with the consultant in both settings, potentially influencing the type and extent of further testing.

It is unclear how well these open-access or consultant-led models in the United Kingdom reflect practice settings in the United States, where most patients referred directly for endoscopies are initially evaluated by a specialist. The role and added benefit of specialist care is not easy to sort out in this study, but this study suggests a step could be saved by omitting the office appointment and proceeding directly with testing. However, ultimately patients may prefer consultant-led care despite potential cost savings and streamlined testing [2].

Applications for Clinical Practice

Direct referral of patients with colorectal symptoms for endoscopy, avoiding separate outpatient clinic visits with specialists, may be both cost-effective and appropriate.

–Review by David R. Spigel, MD

References

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2. Lin CT, Albertson G, Price D, et al. Patient desire and reasons for specialist referral in a gatekeeper-model managed care plan. Am J Manage Care 2000;6:669–78.

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