Patient Response to Sigmoidoscopy Recommendations via Mailed Reminders

Jacqueline Petravage, MD, and Jay Swedberg, MD
Casper, Wyoming

The survey reported here was undertaken to determine how many people would schedule a sigmoidoscopy after being informed by letter about the American Cancer Society's (ACS's) recommendations for colorectal screening. Letters (1,024) were sent to all patients aged over 50 years who were registered in a community-based family practice residency program. Four hundred twenty-nine responded. Of those who responded, 16.8 percent indicated interest in a rectal examination, 21 percent were interested in testing their stool for occult blood, 13.1 percent desired a sigmoidoscopy, and 11.7 percent indicated that they had previously had a sigmoidoscopy.

The following reasons were given by responders who were not interested in sigmoidoscopy: 42 percent felt good and did not perceive a need, 31 percent were concerned about cost, 12.1 percent were concerned about discomfort, and 8.6 percent stated fear as a reason for their response. Of the 56 patients who indicated interest in a sigmoidoscopy, 10 patients had the procedure done (flexible 60-cm sigmoidoscope).

Although the ACS recommends that everyone aged over 50 years have a sigmoidoscopy, few patients in this population who responded have had the procedure done. Encouragement and education for patients in colorectal screening, however, is worthwhile. Two colorectal carcinomas were detected as a result of this survey.

In 1980, the American Cancer Society (ACS) recommended sigmoidoscopy for all patients aged over 50 years so that early detection of colorectal cancer in asymptomatic persons would be increased.[1] There has been considerable discussion in the literature regarding the practicality of the recommendations in terms of patient compliance[2–4]; many health care professionals feel that the procedure is too uncomfortable and costly to use as a screening test, but this hypothesis has not been evaluated.

In a recent review of colorectal cancer screening recommendations, Frame[5] recommended that "patients should have a six-slide stool occult blood test biannually between the ages of 40 and 50 years and annually thereafter." He further stated that "sigmoidoscopy is not feasible as a screening test in asymptomatic patients; it is expensive and despite significant promotion, patient and physician compliance is poor."[5] Furthermore, in a letter published in response to comments by Dervin,[6] Frame[6] agreed that flexible sigmoidoscopy would detect many occult and early cancers, but questioned whether flexible sigmoidoscopy is acceptable to the patient and available at a reasonable cost. He goes on to say, "No study has been done showing that flexible sigmoidoscopy is acceptable to a large proportion of an unselected asymptomatic population." He suggested that to prove the feasibility of flexible sigmoidoscopy, a study should be done in which a primary care physician offers the test to every patient aged over 50 years who enters the office during a two- to three-month period to determine the acceptability to patients and to demonstrate their compliance with the recommendations.

This survey was designed in response to Frame's suggestion to study the acceptability of flexible sigmoidoscopy by asymptomatic patients aged 50 years and older in a community-based family practice outpatient clinic. Because of the large number of health care providers in the outpatient clinic (approximately 30), the design of the study was modified so that each patient would receive the same information in a similar manner, ie, by means of

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From the Wyoming Family Practice Residency Program, Casper, Wyoming. Presented at the 21st Annual Spring Conference of The Society of Teachers of Family Medicine, Baltimore, Maryland, April 23–27, 1988. *Requests for reprints should be addressed to Dr. Jacqueline Petravage, Wyoming Family Practice Residency Program, 1522 East A St, Casper, WY 82601.*

mailed reminders. The mailed reminder stated the ACS recommendations for colorectal cancer screening; patients were asked to check which screening test they were interested in and to follow up with their own physician at the clinic if they were interested in having the procedure done.

METHODS

Letters were sent to all persons aged 50 years and older who had been seen at a community-based family practice residency outpatient clinic from May 1986 through March 1987. The patient population is predominantly white and of lower and middle socioeconomic status. Patients were informed about the colorectal screening recommendations and were asked to make an appointment with their own physician if they were interested in having the tests done. They were also asked to fill out a short questionnaire indicating which screening tests (digital rectal examination, stool blood test, or sigmoidoscopy) they were interested in obtaining. If they were not interested in sigmoidoscopy, they were asked to check the appropriate reasons, ie, costs, "I feel good and don't see the need," fear, discomfort, or other.

One thousand twenty-four letters were mailed at the end of March 1987 with enclosed self-addressed, stamped envelopes. A second mailing was sent two weeks later to those patients who had not returned the questionnaire. Eighty-five persons were omitted from the study because they had either died, moved out of state, or were a resident of a nursing home. One hundred seventy-eight letters were returned by the post office because they were undeliverable. These patients were excluded from the study, leaving 761 in the survey sample. Two hundred seventy persons (35.5 percent) answered the survey after the first two mailings. A nursing assistant was hired to call all nonrespondents to ask them to fill out and send in the form (another form was sent to those people indicating that they needed one). Forty-seven patients had had their telephones disconnected, and the assistant was unable to reach two people by telephone. Ninety-two patients sent in their responses after her call, and 67 patients responded to the survey questions over the telephone. Fifty-nine patients said they were not interested in the survey, and 224 did not send in a response after the telephone reminder.

RESULTS

Of the 429 patients who responded after the initial two mailings and telephone calls, 72 (16.8 percent) indicated that they were interested in having a digital rectal examination, and 90 (20.9 percent) indicated that they were interested in having the stool blood test (Table 1). Fifty-six (13.1 percent) checked that they were interested in having a sigmoidoscopy done and 50 (11.7 percent) wrote that they had already had a sigmoidoscopy at some time in the past. One hundred eighty (41.9 percent) indicated that they were not interested because they felt good and did not perceive the need. One hundred thirty-three (31.0 percent) indicated cost as a factor, 52 (12.1 percent) indicated discomfort, and 37 (8.6 percent) indicated fear (Table 2).

TABLE 1. PATIENTS INTERESTED IN SCREENING TESTS (Total number of responders = 429)

	Number	Percent
Digital rectal examination	72	16.8
Stool blood test	90	21.0
Sigmoidoscopy	56	13.1

TABLE 2. REASONS FOR NOT BEING INTERESTED IN SIGMOIDOSCOPY FOR COLORECTAL CANCER SCREENING

Reason	Number	Percent
No perceived need—"feel good"	180	41.9
Cost	133	31.0
Discomfort	52	12.1
Have had sigmoidoscopy	50	11.7
Fear	37	8.6

Ten patients had sigmoidoscopy as a result of the letter in a follow-up period of four months after sending the first letter. These patients stated at time of sigmoidoscopy that the letter prompted them to have it done. Nine patients were asymptomatic and one was symptomatic with gross rectal bleeding. In the asymptomatic group, one woman had positive stool tests; subsequent sigmoidoscopy was normal, although a barium enema revealed a cecal carcinoma (Dukes' Class B). Two of the asymptomatic patients had diverticulosis, but no other cancers or polyps were discovered in the asymptomatic group. The symptomatic patient, with gross blood in his stool, was found to have cancer of the descending colon (Dukes' Class C), discovered by sigmoidoscopy.

Approximately $785 was spent for postage and $320 was utilized to pay the nursing assistant who made follow-up telephone calls to nonresponding patients (32 hours). Secretarial time to address and stamp letters was not calculated.

DISCUSSION

This study indicates that few patients (1.3 percent of those surveyed) actually scheduled sigmoidoscopy after being

informed by letter about the American Cancer Society's recommendations regarding sigmoidoscopy screening for colorectal cancer. Thus, Frame's contention that flexible sigmoidoscopy is not acceptable to asymptomatic patients is supported by these findings. Of the six generally accepted criteria for useful screening tests,[5] the criterion that the test is acceptable to patients and must be available at a reasonable cost to detect the condition in asymptomatic patients is not currently met by flexible sigmoidoscopy in this patient population.

It is possible that sigmoidoscopy is an acceptable screening test and that a mailing is an ineffective way to educate or to motivate patients to comply with cancer screening recommendations. Additional studies where an established family physician personally communicates with each of his or her patients and asks them whether they would schedule a screening sigmoidoscopy would provide additional data to address this question. It is also possible that current perceptions of screening for colorectal cancer with sigmoidoscopy are similar to those of cervical cancer screening by Papanicolou smear 20 years ago; it was originally felt that cost and discomfort or embarrassment would preclude the Papanincolou smear from being an acceptable screening test. Perhaps, with more public recognition of the risks and value of early detection in colorectal cancer screening, sigmoidoscopy will become an acceptable screening tool. Perhaps, as more physicians learn to use flexible sigmoidoscopy, the procedure will be more readily available, and prices will decrease to a point where the cost is more acceptable. (The charge for flexible sigmoidoscopy was $100.) Furthermore, if insurance companies become convinced that cancer screening is cost effective and include screening procedures in their benefits, sigmoidoscopies will be done for screening purposes.

This survey did find that at least 50 people already had had a sigmoidoscopy some time in the past. This figure may underestimate the real number of patients who have had a sigmoidoscopy, however, since these responses were written in by the patients rather than checked from a list. It is possible that some patients who had had a bad experience with sigmoidoscopy might have checked "discomfort" or "fear" and may not have written in that they have had a sigmoidoscopy before. It is not known whether they were asymptomatic or symptomatic at the time, but the response does indicate that sigmoidoscopies are being done, although in a small percentage of patients over 50 years of age.

Limitations of the study include restricting the survey to patients of a residency clinic at a single site, as well as incomplete ascertainment of those who had had a previous sigmoidoscopy. The results are based only on the 56 percent who responded, which probably leads to overestimates of interest in colorectal screening, since nonrespondents are almost certainly less interested. Another limitation of the study is that the survey instrument was not tested in a formal pilot study; however, several people in the office did review the survey prior to mailing it.

The study's focus was on sigmoidoscopy and not colorectal screening tests in general for two reasons. First, the purpose was to determine whether screening flexible sigmoidoscopy is acceptable to the patient population. It was easy to determine accurately how many patients had sigmoidoscopy at the clinic, since a log book contains records of all of these procedures. Second, there was no way to obtain an accurate account of numbers of rectal examinations and stool blood tests, since the results were scattered throughout many charts both outpatient and hospital records. Approximately 30 physicians see patients in the clinic and could be involved in the rectal and stool blood tests, whereas two faculty perform and supervise residents for all sigmoidoscopy examinations.

It is interesting that although there was greater interest in the rectal examination and stool blood test, the percentage of positive responses was fairly low for all three (Table 1). Perhaps there is a general lack of interest in colorectal screening, and that cost and discomfort may play a relatively minor role.

As a result of this survey (mailed educational reminders), ten people did have a sigmoidoscopy. Based on this study, knowledge of the recommendations by means of mailed reminders did not inspire many sigmoidoscopies; however, two cancers were discovered as a result of proper evaluation and screening.

References

1. American Cancer Society: Guidelines from the cancer-related checkup: Recommendations and rationale. CA 1980; 30(4):208–215
2. Rodney WM, Quan MA, Johnson RA, Beaber RJ: Impact of flexible sigmoidoscopy on physician compliance with colorectal cancer screening protocol. J Fam Pract 1982; 15:885–889
3. Green LA: Periodic health screening in adults. Cont Educ Fam Pract 1980; 12:37
4. Diehl AK: Screening for colorectal cancer. J Fam Pract 1981; 12: 625–632
5. Frame PS: A critical review of adult health maintenance. Part 3: Prevention of cancer. J Fam Pract 1986; 22:511–520
6. Dervin JV: Screening for colorectal cancer, letter, Frame PS, reply. J Fam Pract 1987; 24:208