

Colorectal Cancer Screening: VA Providers' Attitudes and Practices

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Primary care providers are in a key position to influence how and when patients undergo cancer screenings. These investigators set out to discover how closely providers' perceptions of colorectal cancer screening tests match up with the evidence-based literature.

Colorectal cancer (CRC) is the third most deadly cancer for both men and women in the United States, with a total of 49,960 CRC-related deaths projected for the year 2008.¹ According to the CDC, as many as 60% of these deaths could be prevented by regular screening of all adults aged 50 and older.²

Several different methods can be used to screen for CRC, including the fecal occult blood test (FOBT), flexible sigmoidoscopy, colonoscopy, and double-contrast barium enema test.³ Of these, FOBT is the least expensive and invasive, while colonoscopy is the most invasive and expensive. Most clinical practice guidelines that address CRC screening acknowledge that each of these tests has advantages and disadvantages and none clearly emerges as the "gold standard" for detecting CRC.⁴ Regardless of the particular screening method used, the general consensus is that adults who are at "average" risk for CRC—that is, those who are older than age 50 and do not have a first-degree relative with CRC—should be screened.⁵

Recommendations for CRC screening begin with the primary

care provider. As seen in other settings, primary care providers' recommendations for cancer screening play a key role in patients' participation in screening tests.^{3,6,7} Given the importance of CRC screening and the influence primary care providers have over its appropriate use, we conducted a survey of primary care providers at the Louisville VA Medical Center (VAMC) in Louisville, KY in 2007 to learn more about these providers' attitudes toward CRC screening, their recommendations regarding screening methods, and their reasons for recommending particular methods. In addition, we aimed to determine whether these providers' beliefs and practices reflect the most current information available in clinical practice guidelines.

CRC SCREENING IN THE VA

In 2005, the VA Under Secretary for Health Jonathan B. Perlin issued an information letter on CRC screening that concluded, based on available evidence and recommendations from various organizations, that "all eligible veterans at average or high risk for CRC need to be offered CRC screening."⁵ The letter advised that "the choice of specific screening strategy (absent medical contraindications to a particular method) needs to be based on patient preferences," and that "the veteran has the option of rejecting the recommended method and instead choosing one of

the five alternatives, or none of the alternatives."⁵

VA primary care providers have a distinct advantage over most of their private sector counterparts in that they have access to an electronic reminder system that identifies veterans eligible for screening. In addition, the VHA has a CRC screening performance measure that allows for feedback to providers about the screening of their patients. Both of these mechanisms aim to help VA primary care providers promote preventive screening for CRC.

Thus far, these mechanisms seem to be working fairly well. Over the past five years, national CRC screening rates in the VHA have been increasing⁸ and generally have been higher than those seen outside the VA system.⁹ At the Louisville VAMC in 2006, 84% of veterans who were enrolled in primary care and were eligible for CRC screening had documentation of such screening (either at or outside the VAMC) in their medical records. This rate of screening exceeded the VA's 2006 performance measure target of 72% for "fully satisfactory" and fell within the "exceptional" range.

During the survey period, FOBT, flexible sigmoidoscopy, colonoscopy, and double-contrast barium enema were all available at the Louisville VAMC. Practically, however, the capacity for obtaining a colonoscopy was limited, and the test was often

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Table 1. Perceived test effectiveness and screening strategy most often recommended by survey respondents

Test	Very effective	Somewhat effective	Not effective	Don't know	Recommend as a screening strategy
FOBT ^a	10%	76%	14%	0%	38%
Flexible sigmoidoscopy	8%	78%	12%	2%	0%
Colonoscopy	94%	6%	0%	0%	62%
Double-contrast barium enema	2%	71%	24%	2%	0%

^aFOBT = fecal occult blood test.

reserved for patients who had already had a positive result on FOBT.

THE SURVEY

The survey we used for this study was adapted, with permission, from a survey instrument used by the National Cancer Institute (NCI).¹⁰ It was modified slightly to reflect more closely the primary care practice at the Louisville VAMC. Designed to be completed in approximately 20 minutes, the survey was organized into four sections: (1) cancer screening beliefs and practices; (2) attitudes toward CRC screening; (3) CRC screening modalities; and (4) characteristics of the survey respondents.

In the first section, providers were asked to rate the effectiveness of the four types of CRC screening in terms of reducing cancer mortality in average-risk patients aged 50 years and older. The rating method used was a three-point Likert scale, in which a score of 3 corresponded to “very effective,” a score of 2 corresponded to “somewhat effective,” and a score of 1 corresponded to “not effective.” Providers also were asked which CRC screening test they most often recommended to their average-risk patients.

Using a similar scale (4 = “very influential, 3 = somewhat influential,

and 2 = “not influential,” and 1 = “not applicable/not familiar with”), providers were then asked to rate the degree of influence various published guidelines—the American Cancer Society (ACS) 2001 updated guidelines,¹¹ the U.S. Preventive Services Task Force (USPSTF) 2002 revised guidelines,¹² the Guidelines or Recommendations of the Multi-Society Task Force on Colorectal Cancer, the Independent Expert Panel on Colorectal Cancer Screening: Guidelines and Rationale—Gastrointestinal Consortium, and “other” (specified by respondent)—have on their screening recommendations. In addition, providers were asked to indicate to what degree the medical literature, the availability of the screening modality at the VAMC, and continuing medical education (CME) activities or meetings influence their recommendations.

In the second section, providers were asked to rate the degree to which various patient- and system-related items represented barriers to CRC screening. The four patient-related barriers listed in the survey were: (a) patients’ fear of finding cancer, (b) patients’ belief that screening is not effective, (c) patients’ embarrassment or anxiety about screening tests, and (d) patients’ lack of awareness of screening or lack of percep-

tion that CRC is a serious health threat. The two system-related barriers listed were: (a) primary care providers failure to actively recommend screening and (b) lack of capacity at the VAMC to conduct screening other than FOBT. Again, a three-point Likert scale was used to rate each item, with 3 signifying “major barrier,” 2 signifying “minor barrier,” and 1 signifying “not a barrier.”

The third section asked specific questions concerning each of the CRC screening modalities. Providers who recommend FOBT were asked to indicate by what means they conduct FOBT, to what extent they recommend that the patient adhere to dietary and drug restrictions, and whether they have a mechanism to ensure that patients complete and return home FOBT kits. Providers who do not recommend FOBT were asked their reasons for not recommending this CRC screening modality. Providers who recommend colonoscopy were asked by what means their patients receive screening colonoscopy, and those who do not recommend colonoscopy were asked to indicate their reasons. Similar questions addressing screening with flexible sigmoidoscopy and double-contrast barium enema also were included in this section.

The fourth section contained questions about demographic characteristics. These included providers' practice arrangement (full-time, part-time, etc.), year of graduation from medical school, type of residency training, affiliation with a medical school (such as a faculty appointment), ethnic background, and personal experience with CRC screening.

SURVEY PARTICIPANTS

Louisville VAMC providers were identified as eligible to receive a survey if they were responsible for the care of a panel of primary care patients. The identified survey candidates included 62 medical house officers (resident physicians), 17 full-time physicians, eight part-time physicians, and six full-time nurse practitioners.

Surveys were distributed by interoffice mail to these 93 providers during the months of February and March 2007. Forty-nine surveys were returned, for an overall response rate of 53%. Of the respondents, 22 were house officers, 14 were full-time physicians, seven were part-time physicians, and six were full-time nurse practitioners. Among the physician respondents, 86% had completed their residency training in internal medicine and 14% had completed their residency training in family practice or another specialty.

OUR FINDINGS

Screening beliefs and practices

Only 10% of the respondents reported that they believed FOBT to be very effective (Table 1). The majority (76%) rated FOBT as somewhat effective, while 14% rated it as not effective. Even lower proportions of respondents reported that flexible sigmoidoscopy and double-contrast barium enema were very effective (8%

Table 2. Influence of various factors on CRC^a screening practices of survey respondents

Factor	Very influential	Somewhat influential	Not influential	Not familiar with
Guidelines				
American Cancer Society–2001	50%	31%	2%	17%
U.S. Preventive Services Task Force–2002	54%	23%	6%	17%
Multi-Society Task Force	9%	30%	9%	52%
GI ^b Consortium	20%	26%	7%	49%
Other factors				
Medical literature	66%	30%	4%	–
Availability of screening modality	69%	29%	2%	–
CME ^c	33%	56%	10%	–

^aCRC = colorectal cancer. ^bGI = gastrointestinal. ^cCME = continuing medical education.

and 2%, respectively). By contrast, 94% of the respondents reported that they believed colonoscopy to be very effective. The remaining 6% reported that colonoscopy was somewhat effective.

When asked which method they recommend most often for CRC screening, 38% of the respondents indicated FOBT and 62% indicated colonoscopy. None of the respondents reported recommending flexible sigmoidoscopy or double-contrast barium enema, regardless of their beliefs concerning these tests' effectiveness.

When asked to rate the influence of published guidelines on their screening recommendations, 50% of the respondents rated the ACS 2001 guidelines as very influential, and another 31% rated these guidelines as somewhat influential (Table 2). Similarly, 54% of the respondents rated the USPSTF 2002 guidelines as very influential, and another 23% rated these guidelines as somewhat influen-

tial. Other guidelines (including the Recommendations of the Multi-Society Task Force and the Independent Expert Panel on Colorectal Cancer Screening–Gastrointestinal Consortium) were much less frequently rated as influential. When asked to rate other influential factors, 66%, 69%, and 33% of respondents indicated that clinical evidence published in the medical literature, availability of the screening modality, and CME activities or meetings, respectively, were very influential in guiding their CRC screening recommendations.

Among the 81% of respondents who said their recommendations were influenced by the ACS guidelines, only 64% stated correctly that these guidelines found FOBT to be an acceptable choice for CRC screening in average-risk adults, while 28% thought that these guidelines found FOBT to be unacceptable. By contrast, 100% of the respondents stated correctly that the ACS guidelines

found colonoscopy to be an acceptable choice.

Findings were similar among the 77% of respondents who reported being influenced by the USPSTF guidelines. Of these, 70% correctly stated that these guidelines found FOBT to be an effective CRC screening measure for average-risk patients, while 24% stated incorrectly that the guidelines did not find FOBT to be effective. And 100% of these respondents stated correctly that the USPSTF guidelines found colonoscopy to be effective.

Attitudes toward CRC screening

When asked to categorize major patient-related barriers to CRC screening, 59% of respondents identified patients' lack of perception of CRC as a serious health threat, 49% identified patients' embarrassment or anxiety about the screening test, 29% identified patients' fear of finding cancer, and 4% identified patients' beliefs that screening is not effective (Table 3). Of the system-related barriers addressed in the survey, 82% of respondents classified the VAMC's lack of capacity to conduct screening other than FOBT as a major barrier, and 29% classified the failure of primary care providers to actively recommend screening to their patients as a major barrier.

CRC screening modalities

Of the respondents who did not routinely recommend FOBT for CRC screening of average-risk patients, 73% reported that there were problems with the test—that is, too many false-negative or false-positive results to make the test valuable. Fifty-seven percent of the respondents cited patient adherence issues as reasons for not recommending FOBT.

Of those who did routinely recommend FOBT for CRC screening, 71% stated that they give patients a

Table 3. Major barriers to CRC^a screening as identified by survey respondents

Barrier	% of respondents who classified barrier as major
Patient-related	
Patient does not perceive CRC as a serious health threat	59%
Patient embarrassment	49%
Patient fear of finding cancer	29%
Patient belief that screening is not effective	4%
System-related	
Lack of capacity at the VAMC ^b to conduct screening other than FOBT ^c	82%
Primary care physicians do not actively recommend screening to their patients	29%

^aCRC = colorectal cancer. ^bVAMC = VA Medical Center. ^cFOBT = fecal occult blood test.

set of three FOBT cards to complete at home, while the remaining 29% stated that they complete a single FOBT card in the office during a digital rectal exam and then give patients a set of three FOBT cards to complete at home. Fifty-one percent of the respondents advise their patients to adhere to dietary and drug restrictions to the best of their ability, while 24% do not discuss dietary or drug restrictions at all. Interestingly, 47% of the respondents believed incorrectly that they did not have a mechanism to ensure that patients complete and return the FOBT kits, while 53% said that they did have such a mechanism. When asked to name the mechanism, 69% of the latter respondents accurately identified electronic chart reminders.

Of the respondents who did not routinely recommend colonoscopy for CRC screening, 67% stated that the lack of capacity at the VAMC was the main determinant. Of those who did routinely recommend colonoscopy, 41% stated that they encourage their patients to use non-VA resources to obtain a screening colonoscopy.

RECONCILING PROVIDERS' BELIEFS AND PUBLISHED GUIDELINES

The VHA has recommended that all eligible veterans be offered some form of CRC screening and that the choice of screening method be patient-driven. Within the VHA, performance measures and clinical reminders have improved CRC screening. At the Louisville VAMC, in particular, recent CRC screening rates that are well above the national average indicate that providers at this facility are very aware of their important role in recommending CRC screening to their veteran patients.

Despite these comparatively high levels of CRC screening and provider awareness, however, the findings of the present survey indicate gaps between the beliefs of primary care providers at the Louisville VAMC and the conclusions and recommendations of recently published guidelines. Specifically, only about two thirds of the primary care providers surveyed seemed to be aware that the clinical practice guidelines they consider to be influential in their practice regard

FOBT as an acceptable and effective choice for CRC screening of average-risk patients.

Furthermore, only 10% of respondents regarded FOBT as “very effective” for CRC screening, whereas 94% described colonoscopy this way. It seems, therefore, that primary care providers at the Louisville VAMC strongly believe in the superiority of colonoscopy over FOBT for CRC screening of patients at average risk. In terms of their practice, more than half of the providers surveyed routinely recommend colonoscopy to

tween these beliefs and the recommendations of published guidelines is problematic.

Moreover, there appears to be a disconnect between the attitudes and beliefs of Louisville VAMC primary care providers and national CRC screening trends in the VA. A recent study determined that FOBT accounts for the majority of the VA’s recent increase in CRC screening.⁸ While the total use of screening colonoscopy procedures within the VA more than doubled (from 24,955 to 55,199) over the time period stud-

completion of home FOBT kits. Only 55% of respondents were aware of the electronic chart reminders that can be used, in conjunction with letters and telephone calls from nursing staff, to ensure a complete and thorough follow-up of FOBT kits.

FURTHER STUDY NEEDED

Although our study suggests some important gaps between VA providers’ CRC screening beliefs and practices and the recommendations of published guidelines, there are several important factors that limit the ability to generalize these findings, such as the small sample size and the single VA site surveyed. Another limitation was the low response rate to the survey (53%). Because of the small sample size and limited response rate, more elaborate statistical analysis and correlations could not be performed. It would be interesting to see if the providers’ attitudes and beliefs correlated with their year of graduation, type of residency, or primary care panel size.

Clearly, further investigation of patient-, provider-, and system-related barriers to CRC screening is called for, along with innovative approaches to overcoming these barriers. If the apparent lack of confidence in FOBT expressed by primary care providers at the Louisville VAMC turns out to be applicable to other VA providers, it seems particularly important for the VA to provide data-driven outcomes that support the use of FOBT to screen veterans for CRC. ●

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their average-risk patients for CRC screening, and 41% of these encourage their patients to use outside resources to obtain a colonoscopy. Only 38% of the respondents routinely recommend FOBT.

These findings suggest that primary care providers at the Louisville VAMC are not convinced by the recommendations of clinical practice guidelines with regard to the appropriateness of FOBT and, more generally, the lack of clear superiority of one CRC screening method over another. Since primary care providers’ attitudes and beliefs have a substantial impact on patient adherence to recommendations, the disparity be-

ween these beliefs and the recommendations of published guidelines is problematic. (1998 to 2003), there was only a slight increase in the proportion of these procedures performed for the purpose of CRC screening, and the proportion of all CRC screening performed through colonoscopy declined from 5.7% to 4.7%. This trend differs from that seen in other health care systems. The authors of this study maintain that “the reliance on FOBT may not necessarily be detrimental to VA patients,” but they propose close examination of the process and outcomes.⁸

Our survey’s findings also highlight the need to educate providers at our institution regarding the mechanisms currently in place to ensure patients’

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Author disclosures

The authors report no potential or actual conflicts of interest with regard to this article.

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