

Getting patients to the scope

How hospitals and health systems can reduce no-show rates and improve patient compliance with colorectal cancer screening and evaluation



Colorectal cancer (CRC) is the third most frequently diagnosed cancer¹ in the United States. Screenings for CRC can identify potential cancers before they grow into life-threatening malignancies.

Raising the rate of screenings is one of the American Cancer Society's headline goals for 2018. But getting patients to schedule and come in for a colonoscopy or other screening can be challenging. For a variety of reasons, patients may fear the procedure or balk at taking the steps necessary to ensure the procedure is successful.

Hospitals and physicians' groups that have provided Emmi programs to patients report higher participation in colonoscopy screenings and better outcomes, measured by successfully completed procedures, time under sedation, and consumption of anesthesia drugs.

Studies show that Emmi® programs can support clinical decision makers in driving patients to participate in proactive measures to assure their own continued good health. They can reduce variations in preventive outreach to large populations. And they offer clear, consistent messages for patients in language they can understand.



80% *by* 2018

The National Colorectal Cancer Roundtable² has launched a national initiative to raise the rate of screening for colorectal cancer to 80% among the target population group in 2018. For a number of years, the rate of screening has leveled off around 65%. "If we can achieve 80% by 2018, 277,000 cases and 203,000 colorectal cancer deaths would be prevented by 2030," the Roundtable says.

COLORECTAL CANCER BY THE NUMBERS

Colorectal cancer is the third leading cause of cancer death in both men and women. Lifetime diagnosis risk in the US is 1 in 22 for men and 1 in 24 for women.

The American Cancer Society estimates³ the United States will see 97,220 new cases of colon cancer and 43,030 new cases of rectal cancer in 2018. Colorectal cancers are expected to be the cause of death of 50,630 Americans this year.

The risk of dying of colon or rectal cancer⁴ is 1 in 52 for men, 1 in 57 for women, according to the ACS. Only lung cancer and prostate cancer are more lethal for men; only lung cancer and breast cancer are more lethal for women. CRC is most frequently diagnosed among adults aged 65 to 74⁵, although in recent years there has been an increase in cases among younger persons in their 30s and 40s⁶, for reasons that are not yet understood.

Deaths per 100,000 have declined from 30 in 1970 to 15 in 2010. The rate has declined because screenings for CRC have become routine for people over 50. According to the American Cancer Society, more than a million people in the U.S. are counted as survivors⁷ of colon or rectum cancer, thanks to improvements in prevention, early detection, and treatment. Colorectal cancer is slow-growing, which makes it treatable and even curable if it is caught early enough. Hence the emphasis on early detection across the targeted population.

In 2011 researchers estimated that the costs for treating colorectal cancers would total \$17.41 billion a year by 2020⁸.

Colorectal cancers can be detected at an early stage, or even as a precancer, with appropriate screening. The lesions can be removed, thus preventing them from growing into larger malignancies. The evidence is strong that widespread population screenings, using such techniques as colonoscopy, are reducing the rates of these cancers.

SCREENINGS FOR COLORECTAL CANCERS

The decrease in the incidence and mortality due to cancers of the colon and rectum (together known as colorectal cancer, or CRC) is one of the recent success stories in the so-called war on cancer in the United States. Rates of diagnosis and death from these cancers have been going down steadily since the mid-1980s.

The American Cancer Society reports that the decline in incidence before 2000 is attributed equally “to changing patterns in risk factors⁹ (e.g., reductions in smoking) and the uptake of CRC screening.” The acceleration in the decline, however, from about 2% per year prior to the mid-2000s to 3% per year from 2004 to 2013, “is thought to predominantly reflect the detection and removal of precancerous polyps as a result of increased CRC screening.”

The US Preventive Services Task Force recommends screening for colorectal cancer starting at age 50¹⁰ and continuing until 75 (or up to 85 if appropriate).

There are seven different kinds of screenings for CRC. Three of them are stool-based tests



“Patients have a lot of anxiety about colonoscopy, mostly due to uncertainty about the prep, the procedure and what might be found during the procedure. If they come in more knowledgeable about

the procedure, they know what to expect and are more comfortable and relaxed once they arrive at the hospital and during the procedure itself.”

— Corey A. Siegel, MD, Director, Inflammatory Bowel Disease Center, Assistant Professor of Medicine, Geisel School of Medicine, Dartmouth

(fecal immunochemical test, multi-targeted stool DNA test, guaiac-based fecal occult blood test) and four are direct visualization tests (colonoscopy, CT colonography, flexible sigmoidoscopy, and flexible sigmoidoscopy with fecal immunochemical test). There are arguments for and against each of the available screening methods; the Preventive Services Task Force doesn't take a position¹¹ favoring any specific screening method.

“Colonoscopy is considered the gold standard of colon screening and surveillance.”

— UpToDate [overview of colonoscopy in adults](#)

Colonoscopy, however, “is singularly the most effective screening that exists,” says Peter Bonis, MD¹², gastroenterologist and chief medical officer of Wolters Kluwer’s Clinical Effectiveness business, “because you have the ability to intervene and remove the lesions” that can grow into malignant tumors.



“It’s clear that better informed patients are more likely to be compliant. You’re more likely to have better bowel preparation, better patient experience, and they’re more likely to show up. It’s

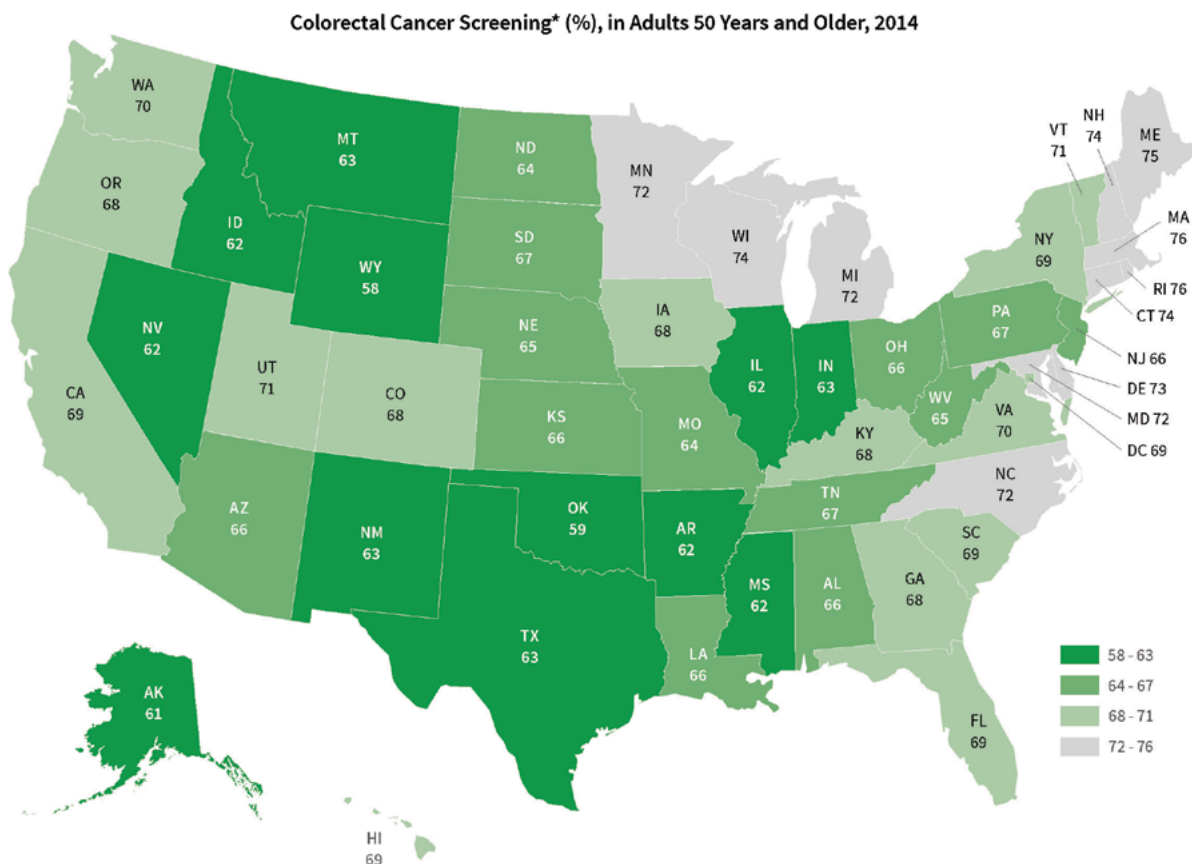
better that the patient is engaged and has the procedure that could potentially be lifesaving. And good for doctors if that is scalable, repeatable and patient-friendly.”

— Peter Bonis, MD, Chief Medical Officer, Clinical Effectiveness, Wolters Kluwer

VARIABILITY IN SCREENING RATES

Despite the availability of these screening methods, some of which can be done in the privacy of one’s own home, “a sizable portion of the eligible US population is not taking advantage of this effective preventive health strategy,” the [Task Force reports](#)¹³. Almost one-third of eligible adults have never been screened. In particular, males and black adults have the highest CRC incidence and mortality rates, due in part to inequalities in screening, according to the Task Force.

This [variation in rates of screening](#)¹⁴ is duplicated at the regional level. Rates of screening among adults 50 and over in 2014 ranged from 58% in Wyoming to 76% in Rhode Island and Massachusetts. Generally, the New England states have better rates, and states in the south central region, such as Texas, Oklahoma, and Mississippi, have lower rates.



*A fecal occult blood test within the past year, or sigmoidoscopy within the past five years or colonoscopy within the past 10 years. Note: The colorectal cancer screening prevalence estimates do not distinguish between examinations for screening and diagnosis. Source: Centers for Disease Control and Prevention. Behavioral Risk Factor Surveillance System, 2014. Public use data file.

UpToDate: The evidence for clinicians

Learn more on the [epidemiology of colorectal cancer, the clinical presentation, diagnosis, and current evidence, as well as screening strategies](#) from our expert contributors:

- **Johanna Bendell, MD, Director, GI Oncology Research, Sarah Cannon Research Institute**
- **Chyke A Doubeni, MD, FRCS, MPH, Associate Professor of Family Medicine and Community Health at the Perelman School of Medicine, University of Pennsylvania**
- **Finlay A Macrae, MD, FRACP, Fellow and Professor at the Department of Medicine, University of Melbourne, and Head of Colorectal Medicine and Genetics and Lead Clinician in the Familial Cancer Clinic at The Royal Melbourne Hospital**

Incidence and mortality from colorectal cancer varies by race and sex¹⁵ also. African-Americans have markedly higher rates of incidence than average, at 49.2 cases per 100,000 population. Latinos and Hispanics tend to have fewer cases, at 35.5 per 100,000, while whites (at 40.2 cases) are close to the population average of 40.7. As previously noted, rates of diagnosis and death from colorectal cancer are higher in men than women.

Currently the screening rate among the target population (adults aged 50 to 75; screening is appropriate in some patients up to age 85) is about 65%. The American Cancer Society and the affiliated National Colorectal Cancer Roundtable have launched an initiative to raise the screening rate to “80% by 2018”¹⁶. They have asked hospitals to educate their physicians, staff and patients about the importance of screening tests and how to overcome barriers to screening.

THE SUCCESSES OF COLONOSCOPY

Colonoscopy was developed as a tool to diagnose and prevent colon and rectal cancers in the 1970s. Some large studies in the 1980s demonstrated the effect of colonoscopy and polyp removal on cancer outcomes. By the 1990s it was established as a preferred screening for people in the target age and risk group.

Many practitioners consider colonoscopy the preferred screening method because it allows the physician to view the entire length of the colon and identify any suspicious areas. Most important, if precancerous polyps are found, they can be excised during the procedure and sent for biopsy. The [American Cancer Society advises patients](#):¹⁷ “The tests that can find both early cancer and polyps should be your first choice if these tests are available and you’re willing to have one of them.” Because colon and rectal cancers grow so slowly, the procedure, if performed properly, needs to be done just once every 10 years. Certain of the other testing options, while less invasive, must be done every year.

“Colonoscopy remains the reference standard. It has high sensitivity, high specificity and affords you the opportunity to remove the lesion while you are there. In the end, if you want the definitive procedure, you get the colonoscopy. Only about 60% of the population gets the colorectal screening, so there’s a big opportunity.”

— Peter Bonis, MD, Chief Medical Officer, Clinical Effectiveness, Wolters Kluwer

“The slow transition from polyps to CRC in most patients allows opportunities to prevent cancer by removing polyps and to prevent cancer death by finding and removing early cancers. ...Colonoscopy is the preferred screening modality for patients at increased risk for CRC.”

— UpToDate, Tests for screening for colorectal cancer



“Colonoscopy is the only tool we have that allows visualization of the entire lining of the colon, and it allows manipulation — that is, minor surgery. If some abnormality is found, the

doctor can take a biopsy, or if there is a polyp, the vast majority of polyps can be removed during that colonoscopy, so the patient doesn’t have to come back for another procedure.”

— Durado Brooks, MD, MPH. Vice president, cancer control interventions for the American Cancer Society, and a member of the National Colorectal Cancer Roundtable

The fall in incidence of colorectal cancer is very largely associated with screening and polyp removal. “The fall in death rates also are largely attributable to screening, and in this instance finding the disease earlier, when our treatments can be most effective,” says Durado Brooks, MD, MPH, vice president for cancer control interventions at the American Cancer Society¹⁸.

PATIENT MISPERCEPTIONS ABOUT COLONOSCOPY

Patients perceive barriers to screening that might not register as strongly with health professionals. “People have fears and concerns, in many instances not entirely

warranted by the reality of the testing,” Brooks says. “Fears about pain or discomfort, embarrassment. People don’t normally talk about their bowel movements or rectum.” They are embarrassed even to have these conversations with their doctor or nurse.

Patients’ anxiety around the idea of colonoscopy leads to appointments that are not kept and a failure to complete the required preparations. Those who have already had a colonoscopy know that the procedure is safe and not painful, though it may involve some mild discomfort for a short time. A [review of 56 studies](#)¹⁹ assessing factors that act as barriers to patients’ uptake of colonoscopy reported that “the actual difficulties were not as severe as had been anticipated.”

“People say the worst part is the bowel prep. That is probably true,” says Dr. Bonis, who has performed thousands of colonoscopies in his career as a gastroenterologist. “You can’t eat anything for a day, then you have to take a purgative to help evacuate and clean the bowels.”

If the bowel prep is not great, “then you can’t see very well. Then the screening procedure is less effective,” Dr. Bonis says. “If it’s very bad, you might have to invite the patient back another day.”

Bad preps occur as much as 25% of the time, according to UpToDate. “It’s not an insignificant problem,” Dr. Bonis adds. Reducing the chances of a poor prep would be advantageous to physicians performing the procedure, he says.

GETTING PATIENTS TO THEIR APPOINTMENTS

“No-shows” — those who don’t keep their appointments — are another problem for physicians and hospitals. Some institutions, such as the University of Alabama at Birmingham Hospital, which has worked extensively to improve colonoscopy screening rates in its region, define no-show more expansively:

- The patient arrived the day of procedure with poor prep or no prep
- The patient arrived day of procedure with no transportation home
- The patient did not arrive day of procedure

However they may be defined, no-shows are costly to physicians’ practices, hospitals, and ambulatory clinics. For each appointment not kept, the providers are deprived of anticipated revenue, yet the expenses (for doctors, nurses, anesthetists, operating room

time) keep rolling on. Reducing the no-show rate and improving the good-prep rate are therefore a net advantage to providers.

LOWERING PATIENT ANXIETY

An article published in the Journal of Clinical Gastroenterology²⁰ in December 2017 found that patients who viewed a web-based video program provided by Emmi ahead of their scheduled colonoscopy had better understanding of the procedure.

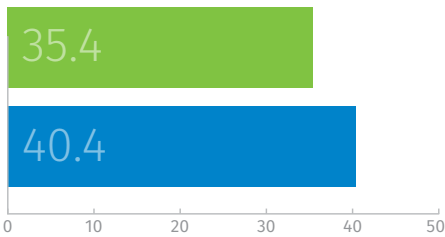
The randomized trial was conducted by researchers at the Section of Gastroenterology and Hepatology²¹ at Dartmouth-Hitchcock Medical Center (DHMC) in Lebanon, N.H. They sought to determine whether patients who viewed the program had lower anxiety ahead of the procedure and better knowledge of what it was about. The trial also looked at other outcomes key to successful colonoscopy: colonic preparation, amount of sedation required, and procedure time.

Dartmouth-Hitchcock Medical Center Study Results

■ Control vs. ■ Intervention

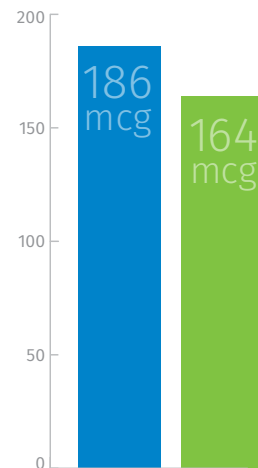
State Trait Anxiety Inventory Score Prior to Colonoscopy

A lower anxiety score is better.



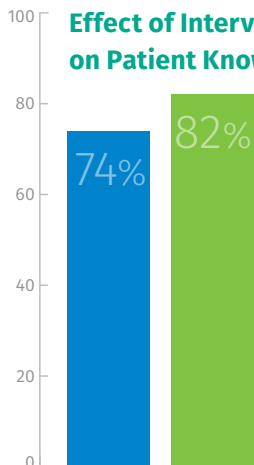
Average Total Fentanyl Given

Less sedative is better.



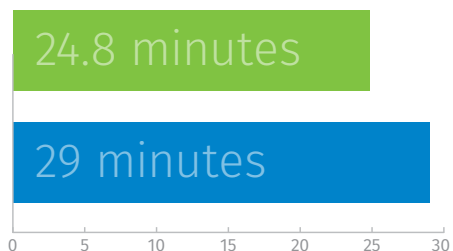
Effect of Intervention on Patient Knowledge About Colonoscopy

Percentage of patients correctly answering pre-colonoscopy knowledge questions.

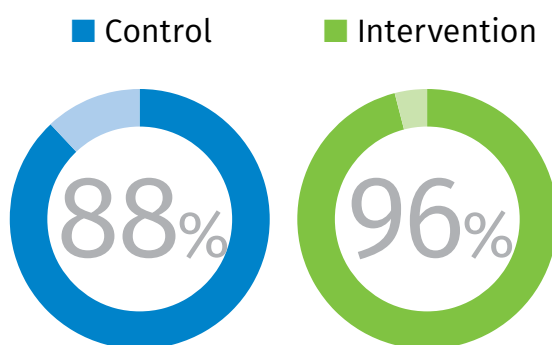


Average Procedure Time

Less time is better.



Good or Excellent Colon Preparation



Fifty-one patients were given DHMC's standard printed pre-procedure colonoscopy packet, while 52 patients watched the web-based Emmi programs, in addition to receiving the same packet. The Emmi program used interactive animation, empathic narration and easy to understand language to explain the importance of getting a colonoscopy. It described what to expect before, during and after the procedure and discussed preparation details to ensure the procedure went smoothly and was conducted successfully the first time.

Some 58% of patients in the experimental group reported that seeing the program reduced their anxiety. They also answered the knowledge questions correctly more often than the control group (82% vs. 74% correct). Patients who viewed the Emmi program required less sedation medication than the control group and less procedure time. The Emmi viewer patients also scored higher in terms of good or excellent colon preparations (96% vs. 88% for the control group).

The researchers, led by Siddhartha Parker, MD, and Corey A. Siegel, MD, wrote: "This easy intervention could not only help patients understand and feel more comfortable about colonoscopy, but increase efficiency and decrease recovery time by using lower doses of sedative medications. It is biologically plausible that a patient who is less anxious about a procedure will require less overall sedation for a procedure and this would similarly contribute to shorter procedure times."

CONTACT US to learn more about how Wolters Kluwer and Emmi® programs can help you expand the reach of care teams and motivate your patients into doing more and better for their health.

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