

## Recommendations Raise Workload Issues for Colon Cancer Screening

In the United States, people age 50 or older have the “luxury” of deciding among colonoscopy, flexible sigmoidoscopy, fecal occult blood test (FOBT), and other tests for colon cancer screening. But for many others around the world, such screening—not to mention a choice in tests—is not part of their



**Dr. Linda Rabeneck**

health care routine even though colorectal cancer is one of the top cancer killers.

Years after the discovery that colorectal screening can decrease cancer

incidence and deaths, few countries have adopted widespread colon cancer screening programs, although some are inching their way to that goal.

The reason, say many experts, is the burden that extensive colon cancer screening places on colonoscopy services. Behind every colorectal screening test, no matter what kind, is the potential need for a colonoscopy. If results from an FOBT, a barium enema, or even a flexible sigmoidoscopy to examine the lower colon are positive, patients must be referred for a colonoscopy that can view the entire colon and remove precancerous polyps, if need be. But many countries cannot yet fulfill that need, and such recommendations have huge implications for countries with national health care systems such as Canada and the United Kingdom.

### One Test For All

In 2002, the British health minister announced that the government would introduce a mass colorectal screening

program in the United Kingdom, in which those eligible would be sent a postcard reminding them that it is time for their screening test. But planning for the program publicly stumbled this January with release of a report that called attention to the country's inadequate colonoscopy services.

A survey of 9,223 colonoscopy procedures carried out during 4 months in three of the countries' National Health Service (NHS) regions found a wide variation in practice, a serious complication rate, and generally inadequate training for the procedure.

In the United Kingdom, colonoscopies can be performed by gastroenterologists, clinical assistants, trainees, and nurses. In the study, published in the journal *Gut*, researchers found that one in five procedures failed to view the top of the colon and that, during the procedure, the bowel was perforated in one in 769 patients. Also, colonoscopy was considered a possible factor in six deaths that occurred within a month of the procedure. They further discovered that only 40% of the 234 colonoscopists doing the 9,000-plus procedures had received formal training, and only 17% of these clinicians had received supervised training for their first 100 colonoscopies, as is recommended.

"Unless there is a dramatic increase in manpower and resources available [to do colonoscopies], the introduction of a national screening program would rapidly overburden already inadequate facilities," the authors said.

"For those of us planning for a colorectal screening program I don't think it particularly tells us anything we didn't know, but the facts that are contained in the article confirm our suspicion," said Julietta Patnick, director of NHS Cancer Screening Programs.

Both Patnick and the *Gut* study's principal investigator, Owen Epstein, M.D., say steps have already been taken to improve colonoscopy training in time to meet the demands of a national screening program. "The audit has been a powerful tool for change," said Epstein, a gastroenterologist at the Royal Free Hospital in London. In place

already are strict rules on training and supervision and regulations regarding colonoscopy procedures, he said.

For its population screening program, the United Kingdom will choose either FOBT or flexible sigmoidoscopy, and



Dr. Douglas Rex

pilot studies are under way testing both. For obvious reasons, Patnick said, first-line colonoscopy for screening is off the table. Epstein said that apart from possibly the

United States, it is "unlikely that colonoscopy will be [a] screening tool anywhere in the world." The procedure is too costly, has serious complications, and has not been tested adequately for primary screening, he said.

"We have a major endoscopy training initiative beginning over here because we know we have [a] problem both with the quality and the quantity of endoscopists," said Patnick. She anticipates that a screening program will be in place within 5 years. "We are going as fast as we can but we just don't have capacity to screen our population yet," she said. "We are concerned, obviously, that we need to get on with this."

### Choosing Whom to Screen

In Canada, there is no current national approach to colorectal screening for any segment of the population, and there may soon be a battle as to whether a future program should be targeted at the mass, average-risk population, or just to those at higher risk.

"While doing a fecal occult blood test is very simple, when you are talking about providing timely access to colonoscopy for those with a positive test, you really are talking about changing how we finance, organize, and deliver this service in the Canadian setting," said Linda Rabeneck, M.D., head of the Division of Gastroenterol-

ogy at Sunnybrook and Women's College Health Sciences Centre in Toronto.

Two expert panel reports issued in 2002 by the National Committee on Colorectal Cancer Screening and Health Canada recommended population screening using FOBT every 2 years for Canadians ages 50 to 74. They did not address additional measures to screen high-risk patients, such as those with a first-degree relative who has colon cancer.

But the physicians who perform colonoscopies—and who would surely be in demand with the advent of population screening—say that the country should first endorse high-risk colorectal screening. The Canadian Association of Gastroenterology (CAG) is expected to issue its own report in mid-February that calls for delaying population screening in favor of attending to high-risk patients.

"The position we take is that we need to reserve colonoscopy for high-risk patients; we have no funding for the average-risk population," said Desmond Leddin, M.D., who is the incoming president of CAG. "If we need to move money into colon cancer screening, real tough decisions have to be made as to where that money is coming [from]."

"[Putting] FOBTs out in the mail to people is not the problem. It is not even a difficult process in the lab to come up with the results. The problem is going to be, what you are going to do when the test comes back positive, as 2% of them do, even though the vast majority of the time there is nothing there?" said Leddin, head of the Division of Gastroenterology at Dalhousie University in Halifax, Nova Scotia.

Whereas the United States has one gastroenterologist per 30,000 people, Canada has one per 100,000, said Leddin. "How are we going to provide all those services, which involves not just gastroenterologists, but pathologists, radiologists, genetics counselors, surgeons, beds, and so on? I can't get the government to fund even high-risk patients."

But others think that enacting population screening throughout the country is reasonable. In Canada, health

is a provincial, not a federal, responsibility, and the province that has made the most strides in planning for a screening program is its largest, Ontario. Pilot studies are under way to test FOBT and flexible sigmoidoscopy to determine whether patients will use these tests and what their impact on health care resources will be.

“We have all the elements here, we have the doctors, a good database system, a single-payer system with publicly funded universal access,” said Rabeneck, who is conducting the flexible sigmoidoscopy study. “All the major elements are in place. It is just a matter of pushing it.”

### Few Takers

Whereas the United Kingdom and Canada will likely offer just one colorectal screening test to its population, Americans can generally choose from what’s dubbed a “menu” of tests—an FOBT every year, a flexible sigmoidoscopy or barium enema every 5 years (with or without a yearly FOBT), or a colonoscopy every 10 years.

But that doesn’t mean everyone who is eligible for screening has found a test they like, experts say. In fact, most estimates say that fewer than half of

Americans who should be tested are being tested, although one report by the Centers for Disease Control and Prevention puts the figure at about 20%.

The reason for the choice is that surveys have shown that many Americans, perhaps up to 40%, will not accept invasive colon cancer screening, which rules out a colonoscopy or flexible sigmoidoscopy. For them, an FOBT or barium enema must suffice, although both are less sensitive and specific.

But compliance with FOBT testing has also been proving to be difficult, said Durado Brooks, M.D., the American Cancer Society’s top colorectal cancer expert. “In the United States, it’s been difficult to achieve anything better than 50% adherence to FOBT, and even that level requires pretty intensive efforts,” he said.

People willing to undergo invasive testing prefer colonoscopy over flexible sigmoidoscopy and, according to some gastroenterologists, the procedure is becoming the screening method of choice in the United States.

“The general trend in the U.S. has been a progressive move away from other forms of screening toward direct colonoscopy,” said Douglas Rex, M.D., president of the American College of

Gastroenterology, which endorses colonoscopy for primary screening. “The number of colonoscopy procedures performed across the U.S. has increased dramatically, while the number of barium enemas is on the decline, as is the number of sigmoidoscopies.”

Insurers are also falling in line, said Rex, professor of medicine at Indiana University. Medicare now pays for colonoscopy for first-line screening and some states, such as Virginia and Connecticut, have already passed laws mandating private insurers to offer similar coverage, he said.

But some gastroenterologists question the movement toward screening colonoscopies, saying that costs and risks, as well as growing lines of people waiting for the procedure, are impediments. “Most screening colonoscopy won’t show anything significant,” said Bernard Levin, M.D., vice president of the Cancer Prevention Program at the University of Texas M. D. Anderson Cancer Center. “So is it cost effective to deploy all of your resources on the colonoscopy side, or can you reduce the number of unnecessary colonoscopies by doing another test first?”

—Renee Twombly