

Colorectal Cancer Screening During the COVID-19 Pandemic



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Shared decision-making (SDM) can help patients make good decisions about preventive health interventions such as cancer screening. We illustrate the use of SDM in the case of a 53-year-old man who had a new patient visit with a primary care physician and had never been screened for colorectal cancer (CRC). The patient had recently recovered from a serious COVID-19 infection requiring weeks of mechanical ventilation. When the primary care physician initially offered a screening colonoscopy, the man expressed great reluctance to return to the hospital for the exam. The PCP then offered a stool test, which could be completed at home, but emphasized that if it were positive, a colonoscopy would be required. He agreed to complete the stool test, and unfortunately, it was positive. He then agreed to undergo colonoscopy, which uncovered a large rectal cancer. The carcinoma had invaded the mesorectal fat but there were no metastases. After undergoing neoadjuvant chemotherapy followed by a low anterior resection of the tumor, he has no evidence of recurrence so far. Many clinicians favor colonoscopy for CRC screening, but evidence suggests that patients who are offered more than one reasonable option are more likely to undergo screening. If screening had been delayed in this patient until he was willing to accept a screening colonoscopy, there was the potential the cancer may have been more advanced when diagnosed, with a worse outcome. Shared decision-making was a key approach to understanding the patient's feelings related to this screening decision and making a decision consistent with his preferences.

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THE DECISION FACING THE PATIENT AND CLINICIAN

Colorectal cancer screening is a recommended preventive service for adults 45–75 by the US Preventive Services Task Force (USPSTF).¹ A number of screening tests are reasonable, including stool-based tests and direct imaging tests. We describe the case of a patient, his

wife, and their physician making decisions together about colorectal cancer screening during the COVID-19 pandemic. The pandemic altered many of the usual structures through which patients and clinicians conduct primary care; for example, preventive care visits were postponed, more visits were conducted using phone and videoconference technology rather than in-office visits, and the ability to obtain some procedures such as colonoscopy in a timely manner may have been hampered in many parts of the country.^{2,3} Clinicians' usual discussions about testing and treatment options for common medical decisions have been altered in significant ways; the pros and cons of each option have been influenced by the new environment in which medicine is practiced during the COVID-19 pandemic.

ABOUT THE PATIENT AND THE CLINICIAN

A 53-year-old man presented to his primary care physician for a telemedicine office visit accompanied by his wife. He is a new patient to this physician, and he has not had a doctor's visit in a few years following his previous doctor's retirement.

He has been generally healthy but has obesity with a BMI of 35. He has not yet had any form of colorectal cancer screening and has no family history of colon cancer or polyps.

In early 2020, he was hospitalized with severe COVID-19 pneumonia and required an intensive care unit stay with mechanical ventilation for 3 weeks. Following a month in the hospital and subsequent rehabilitation, he has made a good recovery and is now feeling quite well. He and his family are spending the summer with relatives a few hours away from their home, and he was pleased that he could have his primary care visit by videoconference.

The clinician is a general internist who practices in the same group as the physician who retired. She met the patient when he first called the office with COVID-19 disease symptoms and was in communication with him during his rehabilitation. She has reviewed his medical chart and identified a few gaps in preventive care to discuss during the visit. Among these was colorectal cancer screening.

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PROS AND CONS OF THE MEDICALLY REASONABLE OPTIONS

Many primary care clinicians tend to recommend colonoscopy as a preferred screening method,⁴ and at this clinician's hospital, Massachusetts General Hospital (MGH) in Boston, primary colonoscopy was a common recommendation for colorectal cancer screening, with lower use of stool testing as a primary screening method. However, changes to usual clinical operations during the COVID-19 pandemic may bring opportunities to align patient care more closely with preventive care guidelines and with patient preferences. In the case of colorectal cancer screening, the presentation of a panel of screening options may prove to be more practical and palatable than simply recommending a colonoscopy, a test that presents greater logistical barriers and complication risks than starting with a stool-based test.

In this case, at MGH, we faced a backlog of postponed colonoscopies from the early months of the pandemic. This situation prompted our clinicians to consider other options for patients, including offering stool-based tests (fecal immunochemical test (FIT) and FIT-stool DNA); stopping screening altogether, especially for older patients; and postponement of colorectal cancer screening during the pandemic. Upfront encouragement of stool testing had the benefit of not delaying cancer screenings, though many primary care offices were not in the regular practice of sending kits to patients following telemedicine visits. Also, some patients had already made the plan to do a colonoscopy; thus, offering a substitute cancer screening test required an additional conversation with their primary care office. Further, in the early days of the pandemic, it was not known if patients could have timely colonoscopy to follow up on abnormal stool tests as nearly all non-emergent endoscopies had been canceled.

PREFERENCES OF THE PATIENT

When his doctor raised the topic of colorectal cancer screening and mentioned a colonoscopy, the patient immediately said, "I don't want to go anywhere near the hospital for as long as I can avoid it!" He revealed traumatic memories from his time in the hospital, and he was worried about contracting COVID-19 a second time. At the time of this conversation, vaccination against COVID-19 was still many months away.

SHARING INFORMATION, CONFIRMING UNDERSTANDING, AND GETTING TO A DECISION

Shared decision-making (SDM) is a strategy for clinicians and patients to work together to reach a health care decision when there is more than one medically reasonable option. The clinician (or the clinical team) describes the options and the benefits and harms associated with each option. In turn, the patient (or as in this case, the patient's "team") shares back

information about the patient's values and preferences related to the decision. They then collaborate on reaching and implementing a decision.⁵ SDM has been called the "pinnacle of patient-centered care."⁶ Patient decision aids (pDAs) can be used to make the exchange of information more efficient, and many randomized trials have shown that use of pDAs improves many aspects of the quality of medical decisions.⁷ However, pDAs are not required for SDM and are not available for all decisions. SDM can effectively be done without a pDA, especially when the possible benefits and harms are fairly straightforward, as with colorectal cancer screening (Table 1).

After hearing about his concerns regarding colonoscopy, the doctor considered whether to continue the discussion at this visit or to postpone discussion to a later date. Her patient was at slightly above average risk for colon cancer (lifetime risk of colorectal cancer of 5.5%, compared to an average lifetime risk of 4%, using the NCI Colorectal Cancer Risk Assessment Tool (<https://ccrisktool.cancer.gov/calculator.html>), was recuperating from a life-threatening illness, and had an intense emotional reaction to the suggestion of returning to the hospital at that time. However, since the patient's wife then inquired about whether she could also be screened (she was 50 and had not yet had colorectal cancer screening), the doctor continued the discussion. The doctor asked if the patient was interested in hearing about other options—particularly ones that did not require coming into the hospital. This patient was interested in hearing more. The doctor described stool-based tests, reviewed the main pros and cons, including the need to undergo a colonoscopy if the stool test was abnormal.

The patient and his wife discussed the options, and both liked the idea of doing a stool-based test that would be repeated in 1 to 3 years (depending on the type of test used) if the first sample was normal.

Before finishing the conversation, the doctor reconfirmed that the patient was willing to come to the hospital to undergo a colonoscopy if the stool test was positive. The patient agreed he would complete a colonoscopy if needed. However, the patient was hopeful that the next step would not be

Table 1 Estimated Lifetime Benefits and Harms of CRC Screening per 1000 People at Age 50 Using a USPSTF-Recommended Screening Test Strategy, Assuming Perfect Adherence¹

Estimated benefits	Estimated harms
<ul style="list-style-type: none"> • About 50 cases of CRC avoided (through polyp removal) • About 25 CRC deaths avoided • About 300 life-years gained 	<ul style="list-style-type: none"> • About 1500–3500 colonoscopies required (fewer for stool-based testing, higher for primary colonoscopy) • 10–14 major complications: GI bleeds and perforations (lower for stool-based testing, higher for primary colonoscopy), cardiovascular events

USPSTF-recommended test strategies include high-sensitivity fecal occult blood test or fecal immunochemical test (FIT) every year, combined stool DNA and FIT test every 1–3 years, colonoscopy every 10 years, CT colonography or flexible sigmoidoscopy every 5 years, or flexible sigmoidoscopy every 10 years combined with FIT every year

necessary, as the likelihood of a suspicious finding was less than 10-15%.¹

OUTCOMES OF THE DECISION

Two months later, the patient submitted the stool specimen, and the result was reported as positive. A colonoscopy was scheduled for 2 weeks later. He had apprehension upon arrival to the endoscopy suite when he realized that it was next to the clinic where he was seen for his COVID-19 pneumonia, but courageously agreed to proceed with the colonoscopy. He had a fungating tumor seen in the upper rectum. His evaluation for metastatic disease including abdominal CT scan and MRI showed no evidence of metastatic disease, but the tumor had invaded the mesorectal fat, so he began neoadjuvant chemotherapy followed by surgery. Low anterior resection of his rectal tumor was uneventful and he is now feeling well.

He and his wife, whose stool test was negative, both expressed relief that they had completed their screening for colorectal cancer and were glad that they did not wait any longer to address the testing.

REFLECTIONS ON THE CASE, AND THE PATIENT'S PERSPECTIVE

The patient contributed his thoughts about his process of colorectal cancer screening: "Irrational fear of the colonoscopy procedure had already delayed the proper timing of me getting one at age 50, when I should have. That fear, in the summer of 2020, became exponential because I did not want to face what the results of the colonoscopy might yield and my post-traumatic stress disorder from my COVID-19 battle, along with fear of going back into the hospital and facing possible COVID-19 reinfection all produced my request to Dr. Simmons for any alternative test to the colonoscopy. She suggested the home kit. I still waited a couple of weeks before conducting the test. The test itself was awkward, but painless and easy enough. My wife helped talk me through all my issues and encouraged me to do the stool test, and in fact, she did one herself. When the test came back, Dr. Simmons called us, telling my wife her test was fine, but mine had an abnormality. When I learned this, I knew I had to follow my doctor's prudent instructions to get the colonoscopy. Without the stool test though, I may have further delayed following my doctor's advice out of fear because of my COVID-19 experience and the ongoing pandemic. I think the stool test is great and I hope it becomes more and more accurate and it is a way to cajole fearful and reluctant patients to get a colonoscopy if needed or in general. I have now had two colonoscopies and the professionals who conducted the procedures made it feel very simple."

While this patient's CRC screening decision was particularly affected by his serious illness with COVID-19 in 2020, it is important to note that he was already delayed on his

recommended CRC screening which should have been addressed at age 50 (based on guidelines at that time), and many barriers to CRC screening existed well before the COVID-19 pandemic. However, lessons learned from the pandemic will be useful in improving screening strategies going forward. For many patients, stool-based testing for colorectal cancer screening would be their preferred option, if offered in primary care, and the increased use of stool-based testing engendered by the pandemic may produce a lasting trend.

Some common themes we have found for patients who are reluctant to get colonoscopies during the pandemic: COVID-19 exposure concerns, caregiving concerns, reluctance to have the pre-procedural COVID-19 testing often required, and costs of colon cancer testing. The concerns are different for everyone, so it is important to find out what is worrying the patient. While these concerns may have eased up in some parts of the country where COVID-19 rates are currently lower, many areas of the USA will see an impact on their preventive care delivery for months to years.

Practices looking to implement broader use of stool testing in a menu of CRC screening options will want to consider clinician perspectives as well. While the burden of completing an individual stool test may be less than that of completing a colonoscopy, some clinicians worry that the likelihood of perfect adherence to periodic colonoscopies (every 10 years) over someone's lifetime is more achievable than 30–35 years of more frequent stool testing. Similarly, ensuring that all clinical teams are on board with expanded use of stool testing will improve chances of success of the screening program. At MGH, we had the opportunity to expand the options used for colorectal cancer screening when our colonoscopies were suspended during the early months of the COVID-19 pandemic. Our gastroenterologists agreed to offer stool testing to patients who had their routine colonoscopies canceled. This was a pilot project as part of COVID-19 recovery efforts, but the processes for ordering stool tests through the gastroenterology practice remain in place. This expands the range of options for patients to complete their colorectal cancer screening using the method that meets their needs and preferences at the time.

Though the COVID-19 pandemic interrupted the normal operations of primary care, it has provided opportunities to enhance and improve shared decision-making with patients for testing and treatment decisions. The need to navigate new challenges to usual care operations has forced more nuanced conversations about testing and treatment options. Importantly, at a time when patients may have more concerns than ever about accessing medical care, shared decision-making will be a key strategy to employ in cancer screening decisions.

In retrospect, in this case, stool-based testing was discussed only after this patient expressed reservations about having a colonoscopy. Presenting multiple colorectal cancer screening options "up front" can increase screening rates. For example, a shared decision-making approach that offered stool-based testing in addition to colonoscopy resulted in almost twice

the rate of completed screening (69% uptake) compared to recommendations for colonoscopy alone (37% uptake).⁸ The pandemic has also highlighted the importance of strategies to manage preventive care in ways that do not rely on in-office visits; our patient attributed his delayed colon cancer screening to his doctor's retirement, and his own busy schedule that had kept him from coming into the office for a visit with his new doctor. Had he not connected with his new doctor during his COVID-19 illness, it is possible that he might have delayed his preventive care even longer because of the pandemic, and his cancer would have progressed further. Practices that make it straightforward for patients to receive indicated USPSTF grade A and B services without requiring in-office visits, and manage the delivery of these services using population health strategies, may be the future of preventive care delivery post-pandemic.⁹ And the move toward more virtual care opens new avenues for shared decision-making supported by patient decision aids. The circumstances of the COVID-19 pandemic have emphasized the importance of conducting shared decision-making as the pros and cons of options have changed. Patients now must weigh the risk of COVID-19 exposure, financial constraints, and caregiver responsibilities as they decide whether and how to access medical tests and treatments during this time.

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Disclaimer: Dr. Barry is a member of the United States Preventive Services Task Force (USPSTF). This article does not necessarily represent the views and policies of the USPSTF.

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