


Patients and Providers Are Amenable to Fecal Immunochemical Testing by Digital Rectal Exam

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Abstract

Fecal immunochemical testing (FIT) for colorectal cancer (CRC) requires patients to return samples for processing, after having a spontaneously passed stool at home. This results in low completion rates (only 50% in our institution). Using stool obtained during an office-based digital rectal exam (DRE-FIT) could improve compliance, but it is not known whether patients and providers would find this option acceptable. Surveys were given to 100 physicians and 118 patients at our institution. We found that 68% of patients and 88% of providers approved of DRE-FIT making this a potentially effective way to improve CRC screening compliance.

Keywords

quality improvement, population health, patient feedback, medical decision-making, access to care

Introduction

The 2016 US Preventive Services Task Force guidelines on colorectal cancer (CRC) screening emphasize fecal immunochemical testing (FIT) as an important option, especially for patients disinterested in colonoscopy (1). The US Multi-Society Task Force (USMSTF) on CRC suggests that FIT-based screening rely only on spontaneously passed stool specimens (SPS-FIT) and not digital rectal exam samples (DRE-FIT), but this is categorized as a weak recommendation based on very low quality evidence (2). Furthermore, some FIT assays currently available have been approved by the food and drug administration for both SPS-FIT and DRE-FIT (including with use of lubrication on the examiner's finger). We found that only 50% of patients at our institution return their SPS-FITs. While this rate is higher than FIT compliance rates quoted in the literature (3), it is still well below the national CRC screening goal of 80% by 2018 set by National Colorectal Cancer Roundtable (NCCRT). In 2015, the American Cancer Society published a study demonstrating that increasing CRC screening rates from 53% in 2013 to 80% by 2018 would result in the prevention of 277 000 new cancers and 203 000 CRC deaths through 2030 (4). The NCCRT CRC screening initiative was a result of those findings. Digital rectal exam FIT during a clinic encounter could represent an effective way to improve CRC screening rates. We sought to determine whether DRE-FIT would be an acceptable option among physicians and patients.

Methods

Anonymous surveys were given to a convenience sample of physicians at Boston Medical Center and patients aged 50 to 75 in primary care and gastroenterology clinic waiting rooms. For patients taking the survey, description of the DRE-FIT and SPS-FIT were included in the survey template. In addition, study staff distributed the surveys and clarified any remaining patient concerns regarding FIT or the survey. Respondents were asked if they would perform (physicians) or undergo (patients) DRE-FIT, what stool yield by DRE would be required to make DRE-FIT acceptable (ie, how often a DRE would yield sufficient stool for the test) and what test completion rate would make DRE-FIT superior to SPS-FIT. We administered surveys until receiving 100 responses from both physicians and patients. Our study was exempted from review by our institutional review board.

Results

Survey participation rates for providers and patients were 100% and 85%, respectively. We received surveys from 22 family

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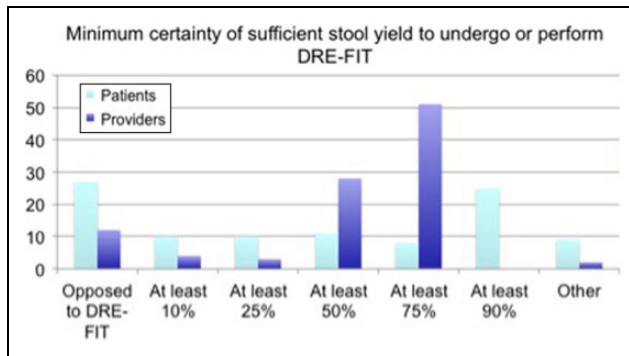


Figure 1. Effect of digital rectal exam stool yield on willingness to undergo (patients) or perform (clinicians) DRE-FIT. DRE-FIT indicates digital rectal exam–fecal immunochemical testing.

practitioners (FPs), 66 general internists (GIM), and 12 gastroenterologists. While initially only 54% of providers said they would routinely offer DRE-FIT, this increased to 88% if DRE-FIT results were comparable to SPS-FIT results and sufficient stool could be collected by DRE at least 75% of the time (see Figure 1). Gastroenterologist providers were more likely to offer DRE-FIT than GIM/FP: 77% versus 45% ($P = .008$ by Fisher exact test). When asked to consider our institution's 50% return rate of SPS-FITs, 75% of providers said they would offer DRE-FIT if it had a test completion rate of 80%, and 91% of providers said they would offer DRE-FIT if there was a test completion rate of 90%. Among patients, 36% had undergone some form of stool-based CRC screening previously, 68% were willing to undergo DRE-FIT, and 62% said they would perform SPS-FIT in a clinic restroom if offered this option.

Discussion

A majority of physicians and patients were amenable to DRE-FIT, and this rate exceeded 90% among physicians if test completion rates of 90% can be achieved. In a previous study, 92% of DREs yielded sufficient stool for fecal occult blood testing (FOBT), suggesting that high levels of test completion rates are possible and stool yield would not be a barrier to adoption of DRE-FIT (5). The recommendation against the use of DRE-FIT by the USMSTF on CRC derives from outdated guaiac-based FOBT studies and a 2001 study comparing SPS-FIT to DRE-FIT in routine screening (6). Several limitations were notable in that study, such as enrollment of numerous individuals below the recommended CRC screening age and lack of generalizability when comparing that study's early generation FIT (reliant on patient and clinician prepared fecal smear slides) to current assays. Nonetheless, the authors found 97% concordance between SPS-FIT and DRE-FIT. False-positive results from exam-related trauma has also been a concern regarding DRE-FIT; however, multiple studies have demonstrated no difference in the positive predictive value of FOBT samples by DRE versus SPS (7,8). Given the good correlation demonstrated between SPS-FIT and DRE-FIT, DRE-FIT

may represent an important cost-effective method for increasing CRC screening rates.


Declaration of Conflicting Interests

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