Making the Case for Under-Utilized Stool Tests for Colorectal Cancer Screening

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In 2018, the American Cancer Society updated the guidelines for colorectal cancer (CRC) screening to start screening at age 45 rather than age 50 for people of average risk. This was done after updating an analysis of the incidence of CRC in the American population. Through anecdotal reports and observations of population statistics, it had become apparent that the incidence of CRC in the younger age group was increasing. This revisiting of the data and new analysis confirmed this to indeed be the case. In May 2021, the US Preventive Services Task Force (USPSTF) also endorsed this recommendation ranking it as a grade B recommendation. CRC screening for people 45 years of age and older will now be covered under ACA compliant plans as well as by Medicaid.

One concern in some corners has been that this recommendation will put a large burden on the need for colonoscopy. If we relied entirely on colonoscopy, we could not reach the goal of 80% compliance with screening in North Dakota given our current capacity for colonoscopy. It is important to note that these guidelines apply to average risk people. In this group of people, screening through the use of stool studies has been shown to be as effective at preventing CRC death as colonoscopy as long as positive screening stool studies are followed up with a colonoscopy. A comparison by the USPSTF done in 2015 showed that for every thousand people screened using colonoscopy every 10 years, 24 deaths (range 22-24) could be averted. If stool FIT cards were done yearly on the same thousand people, 22 deaths (range 20-23) could be prevented.[1] There was no statistical difference between the benefits of the two testing strategies.

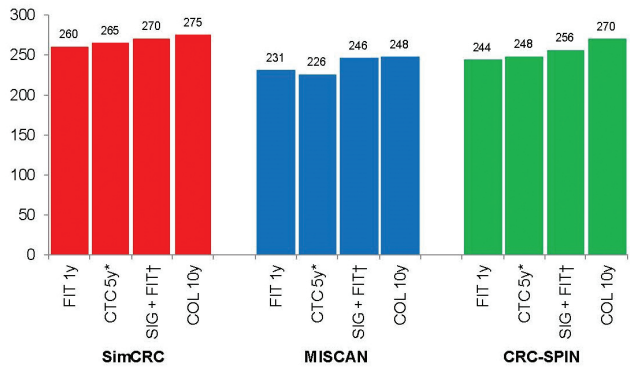
Yet the uptake of using stool studies for CRC screening in North Dakota has been disappointing. In 2016, ND BRFSS data showed 5.8% of people were screened using stool studies while 62.2% of people were screened using colonoscopy. By 2018 those numbers had not changed significantly with only 6.9% of people getting stool studies, and 63.5% of people getting colonoscopies. Additionally, while CRC screening rates in people over 55 is between 65% and nearly 80%, the rate in those under 55 is only about 50%. Given the limited capacity for colonoscopy in North Dakota, it is clear that in order for us to reach our goal of 80% of people screened, we are going to have to rely more on stool studies—either FIT tests or stool DNA tests.

The good news about the state of CRC screening in 2021 is that we have great data to show that stool studies, which are convenient and have much better patient uptake than colonoscopy, are effective at saving lives. If we can use this strategy to increase our rates of CRC screening to 80%, we can save a significant number of lives. A study from the American Cancer Society in 2015 calculated that an increase in CRC screening from 50% to 80% would save over 200,000 lives nationally over 20 years.[2] The challenge we will face is that lowering the age of screening for average risk people has added a large number of people to those eligible for CRC screening. We will have to employ new strategies to educate our patients and our clinic staff in order to reach this extremely important goal.

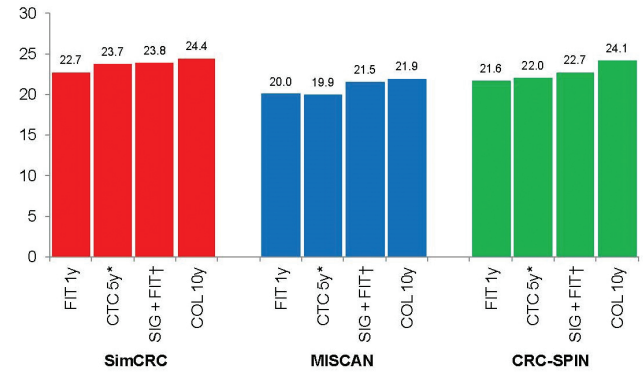
The medical community in North Dakota has made great strides over the last five years in our battle to stop CRC death. By implementing strategies to employ the under-utilized tools of stool studies for screening, we have the potential to make even greater advances towards reaching our goal of "80% in Every Community."

Summary outcomes for the set of model-recommended strategies with age to begin screening of 50 and age to end screening of 75, assuming colonoscopy strategy with a 10-year interval is selected

Panel A: Life-years gained per 1,000 compared with no screening.



Panel B: Colorectal cancer deaths averted per 1,000 compared with no screening.



References

[1]Zauber A, Knudsen A, Rutter C, Lansdorp-Vogelaar I, Kuntz K (Committee of the Cancer Intervention and Surveillance Modeling Network (CISNET) Colorectal Cancer Working Group). Evaluating the Benefits and Harms of Colorectal Cancer Screening Strategies: A Collaborative Modeling Approach. Technical report Oct 2018. Rockville, MD: Agency for Healthcare Research and Quality, U.S. Department of Health and Human Services. AHRQ Publication No. 14-05203-EF-2.
[2]Meester RG, Doubeni CA, Zauber AG, Goede SL, Levin TR, Corley DA, Jemal A, Lansdorp-Vogelaar I. Public health impact of achieving 80% colorectal cancer screening rates in the United States by 2018. Cancer. 2015 Jul 1;121(13):2281-5. doi: 10.1002/cncr.29336. Epub 2015 Mar 12. PMID: 25763558; PMCID: PMC4567966.