

Noninvasive multitarget stool RNA test found to have high sensitivity for colorectal neoplasia

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A noninvasive, multitarget stool RNA (mt-sRNA) test has high sensitivity for detecting colorectal neoplasia, according to a study published online Oct. 23 in the *Journal of the American Medical Association* to coincide with the [annual meeting](#) of the American College

of Gastroenterology, held from Oct. 20 to 25 in Vancouver, British Columbia, Canada.

Erica K. Barnell, M.D., Ph.D., from the Washington University School of Medicine in St. Louis, and colleagues conducted a phase 3 clinical trial to assess the sensitivity and specificity of a noninvasive mt-sRNA test (ColoSense) compared with results from colonoscopy. A total of 8,920 participants were identified; all completed the mt-sRNA test, which included a [fecal immunochemical test](#) (FIT), concentration of eight RNA transcripts, and participant-reported smoking status.

Stool samples were collected before completion of colonoscopy. The results from mt-sRNA were compared to the index lesions seen on colonoscopy. Patients aged 45 years and older were enrolled from 49 U.S. states; colonoscopies were obtained at more than 3,800 different endoscopy centers.

The researchers found that 0.40 percent of the eligible patients had [colorectal cancer](#) and 6.8 percent had advanced adenomas. The sensitivity of the mt-sRNA test for detecting colorectal cancer and advanced adenomas was 94 and 46 percent, respectively; specificity for no lesions on colonoscopy was 88 percent. Compared with results of the FIT, significant improvement in [sensitivity](#) was seen for the mt-sRNA test for colorectal cancer (94 versus 78 percent) and advanced adenomas (46 versus 29 percent).

"The mt-sRNA test can be an effective noninvasive test that is sensitive for colorectal cancer and advanced adenomas, with a comparable level of false-positive results compared with existing molecular screening tests," the authors write.

Several authors disclosed ties to medical device companies, including Geneoscopy, which developed ColoSense and funded the clinical trial.

More information: Erica K. Barnell et al, Multitarget Stool RNA Test for Colorectal Cancer Screening, *JAMA* (2023). [DOI: 10.1001/jama.2023.22231](https://doi.org/10.1001/jama.2023.22231)

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