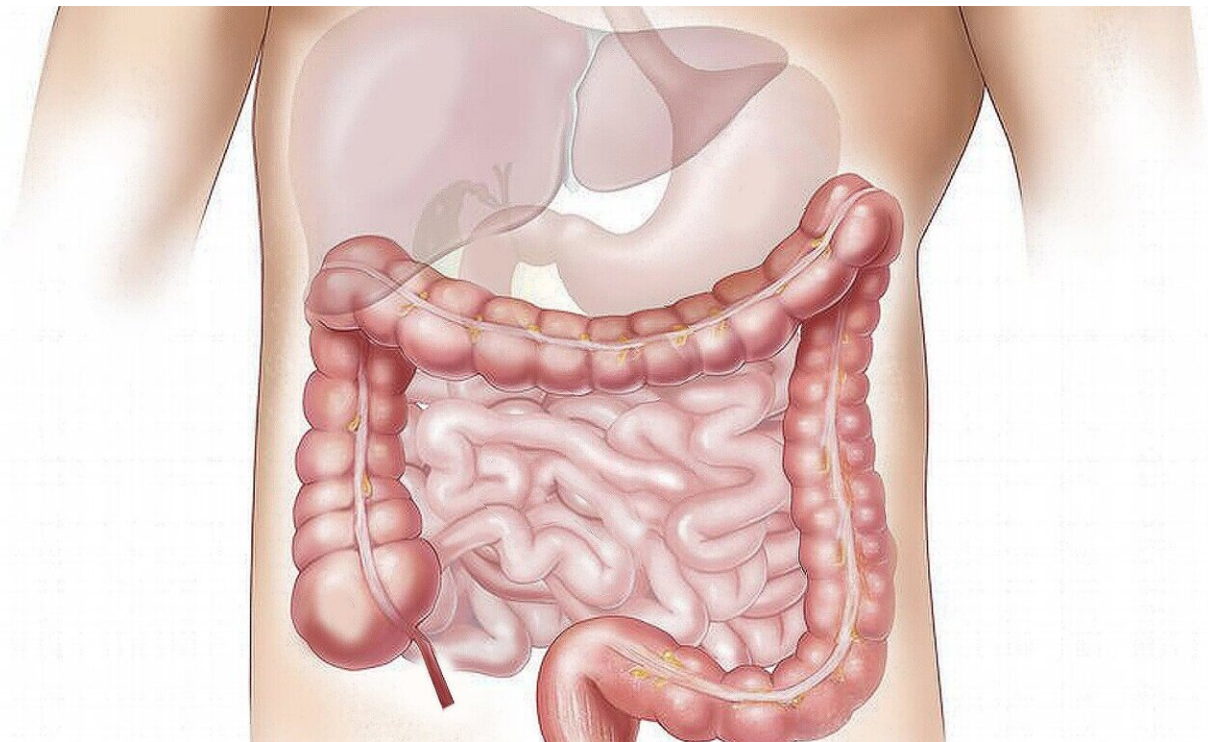# New prediction models for colon cancer and advanced precancerous polyps are easy to use

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Credit: CC0 Public Domain

Researchers have created novel scoring tools for predicting actual risk of colon cancer and advanced precancerous polyps for patients at average for the disease.

The work was led by Thomas F. Imperiale, M.D., Regenstrief Institute

and U.S. Department of Veterans Affairs research scientist and Indiana University School of Medicine professor of medicine.

The tools may be most useful in countries where colonoscopy is not routinely used for screening average risk individuals, and include Canada, the United Kingdom, Italy, Netherlands, Australia and others which typically screen average risk individuals with less invasive sigmoidoscopy and the many countries which use no imaging tests for colon cancer screening.

The new weighted models are based on scoring various factors such as age, gender, smoking history, co-habitation history, nonsteroidal anti-inflammatory drug (for example ibuprofen) and aspirin use, and moderate physical activity over the past year in average risk individuals. These tools weigh the importance of each factor to determine an individual's personalized risk.

"We need to more precisely measure risk of individuals and populations, so good, scientifically-based decisions about when and how to be screened for colorectal cancer can be made by patients, clinicians and public health officials," said Dr. Imperiale, a practicing gastroenterologist who has researched colon cancer risks and screening for two decades. "Our composite, weighted scoring methods enable simple risk stratification to determine an individual's risk, for example, of a precancerous polyp with certain ominous features or of colon cancer, both indicating a need for colonoscopy."

He and colleagues developed two tools. One is applicable to patients who have had limited endoscopy screening of a portion of the colon with sigmoidoscopy and the other can be used for patients without any test involving visualization of the colon.

For various reasons, especially expense, and the need for patient

preparation and anesthesia, many countries other than the United States, Germany and Poland do not embrace routine screening colonoscopy, preferring to use sigmoidoscopy, stool-based tests for hidden bleeding, or both. Sigmoidoscopy is a simpler procedure which only examines the lower portion of the colon (referred to medically as the distal colon) and is performed every five-to-ten years. Stool samples are inexpensive, easy to use and should be repeated annually or biennially. Predictive, data-based, tools for identifying average-risk patients at highest risk are invaluable for determining who to recommend for colonoscopy and who may be well-screened without colonoscopy according to Dr. Imperiale.

World Health Organization (WHO) statistics indicate that colorectal cancer is the third most common (after breast and lung) cancer in the world and the second (after lung) most common cause of cancer death in 2020 (935,000 deaths).

"New scoring systems for predicting advanced proximal neoplasia in asymptomatic adults with or without knowing distal colorectal findings: a prospective, cross-sectional study" is published in the *European Journal of Cancer Prevention*.

  More information: Thomas F. Imperiale et al, New scoring systems for predicting advanced proximal neoplasia in asymptomatic adults with or without knowing distal colorectal findings, *European Journal of Cancer Prevention* (2021). DOI: 10.1097/CEJ.0000000000000715

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