

Researchers create online colorectal cancer risk calculator

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January 3, 2014, Cleveland: Researchers at Cleveland Clinic have developed a new tool called CRC-PRO that allows physicians to quickly and accurately predict an individual's risk of colorectal cancer, as published in the current edition of the *Journal of the American Board of Family Medicine*.

CRC-PRO, or Colorectal Cancer Predicted Risk Online, is designed to help both patients and physicians determine when screening for colorectal cancer is appropriate. Current guidelines recommend patients are screened at the age of 50. However, with this new tool, physicians will be better able to identify who is truly at risk and when screenings for patients are necessary.

To develop the calculator, the researchers – led by Brian Wells, M.D., Ph.D., of the Department of Quantitative Health Sciences in Cleveland Clinic's Lerner Research Institute – analyzed data on over 180,000 patients from a longitudinal study conducted at the University of Hawaii. Patients were followed for up to 11.5 years to determine which factors were highly associated with the development of colorectal cancer.

"Creating a risk calculator that includes multiple risk factors offers clinicians a means to more accurately predict risk than the simple age-based cutoffs currently used in clinical practice," said Dr. Wells.

"Clinicians could decide to screen high-risk patients earlier than age 50, while delaying or foregoing screening in low-risk individuals. "

Wells and his colleagues hope that their new, user-friendly calculator will help improve the efficiency of [colorectal cancer](#) screenings. They also believe prediction tools like this can help lower healthcare costs by cutting down on unnecessary testing.

The Multiethnic Cohort Study comprised a diverse ethnic population. Previously, most research in this area has been performed predominately in Caucasians. Because cancer risk differs drastically in different racial groups, the researchers felt that an ethnically diverse population would more accurately reflect true [cancer](#) risk.

"The development of risk prediction calculators like the CRC-PRO is vital for improving medical decision-making," said Michael Kattan, Ph.D., Chair of the Department of Quantitative Health Sciences in Cleveland Clinic's Lerner Research Institute. "Tools like this represent another step toward personalized medicine that will ultimately improve efficiency, outcomes and patient care."

Kattan and his research team are involved in the creation of numerous risk prediction tools, including heart disease and cancers of the breast, prostate and thyroid, that are available at <http://rcalc.ccf.org>. He is currently working on software that will integrate these tools for automatic calculation in the Electronic Health Record to make this process easier for physicians.

Provided by Cleveland Clinic

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