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China suggests use of non-invasive biomarkers for colorectal cancer screening

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Non-invasive biomarkers can detect colorectal cancer with high sensitivity



The Chinese University of Hong Kong's (CUHK) Faculty of Medicine (CU Medicine) led a team of a dozen international experts from the Asian Pacific Association of Gastroenterology and the Asian Pacific Society of Digestive Endoscopy in 2022 to develop new recommendations for the use of non-invasive biomarkers for colorectal cancer (CRC) screening. The findings have now been published in high-impact international medical journal British Medical Journal – Gut.

CRC is the second most common cancer in Hong Kong, constituting 15% of all new cancer cases in 2020. The incidence and mortality of CRC are expected to increase in the next few decades, leading to a significant public health burden. The incidence of and death rates from CRC can be reduced with CRC screening.

The Hong Kong government's Department of Health has run a CRC screening pilot programme since 2016 but less than 15% of the eligible population have been tested to date. Reluctance to undergo colonoscopy and the suboptimal sensitivity of faecal immunochemical tests are key barriers to screening. Non-invasive biomarkers represent a novel method of CRC screening.

Non-invasive biomarkers have the potential to detect CRC and its precursor lesions, and can allow risk stratification of suitable patients for colonoscopy. Current biomarkers for CRC screening include blood-based tumour biomarkers, stool-based tumour biomarkers and stool-based microbial biomarkers. Clinical application of stool-based biomarkers is promising and requires large-scale clinical studies in different populations for widespread implementation.