Review: weak power in most CRC neoplasia risk prediction models

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Image courtesy of Blausen Medical

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(HealthDay)—Most colorectal neoplasia risk prediction models have weak discriminatory power, according to a review published in the October issue of *Clinical Gastroenterology and Hepatology*.

Gene K. Ma, and Uri Ladabaum, M.D., from the Stanford University School of Medicine in California, conducted a systematic review of studies reporting risk prediction models for colorectal neoplasia. They included nine studies that developed a new prediction model and two that tested existing models.

The researchers observed variation among the models with respect to population, predictors, risk tiers, outcomes (colorectal cancer [CRC] or

advanced neoplasia) and range of predicted risk. Age, sex, smoking, a measure of obesity, and/or CRC family history were included as predictors in several models. Six models were of good quality, two were fair, and one was poor. The risk difference between the highest and lowest tier was found to vary from two- to four-fold for most models that defined risk tiers. The 0.70 threshold for the C-statistic, indicating good discrimination, was reached in two models.

"Most current colorectal neoplasia risk prediction models have relatively weak discriminatory power and have not demonstrated generalizability," the authors write. "It remains to be determined how risk prediction models could inform CRC screening."

Several authors disclosed financial ties to the pharmaceutical industry.

More information: Abstract
Full Text

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