

Risk Stratification for Advanced Colorectal Neoplasia—Letter

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We kindly refer to the paper by Schroy and colleagues on the "Your Disease Risk" (YDR) tool (1), which we have read with great interest.

We appreciate the great work the authors have done to validate the YDR tool. Valid tools to stratify the general population with regard to their risk of advanced colorectal neoplasia are highly appreciated. Such tools can help tailoring better strategies for screening and prevention of colorectal cancer.

Interestingly, the study shows a poor ability of the YDR index to predict risk for advanced colorectal neoplasia. The authors name a number of limitations in the discussion of the article, of which several relate to the risk factors included

in the index. In our opinion, it may be equally important that the index lacks factors causally related to colorectal cancer (CRC) risk such as cigarette smoking, which in many studies has been identified as a strong environmental risk factor for colorectal neoplasms (2, 3). In addition, the YDR index includes factors where the association with CRC risk may be questioned (multivitamin supplement; ref. 4).

Although with some limitations, the Schroy and colleagues study shows that the YDR index cannot discriminate between low and high risk for colorectal neoplasm. In other words, the index does not contribute to reliable risk prediction.

However, to our surprise, the index is still online and promoted on the YDR website (5) as valid and sound, regardless of the results of the Schroy and colleagues' study which clearly shows that it is not valid in its present form.

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Disclosure of Potential Conflicts of Interest

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References

- Schroy PCI, Coe AM, Mylvaganam SR, Ahn LB, Lydotes MA, Robinson PA, et al. The Your Disease Risk Index for colorectal cancer is an inaccurate risk stratification tool for advanced colorectal neoplasia at screening colonoscopy. *Cancer Prev Res* 2012;5:1044–52.
- Hannan LM, Jacobs EJ, Thun MJ. The association between cigarette smoking and risk of colorectal cancer in a large prospective cohort from the United States. *Cancer Epidemiol Biomarkers Prev* 2009; 18:3362–7.
- Huxley RR, Ansary-Moghaddam A, Clifton P, Czernichow S, Parr CL, Woodward M. The impact of dietary and lifestyle risk factors on risk of colorectal cancer: a quantitative overview of the epidemiological evidence. *Int J Cancer* 2009;125:171–80.
- Zhang SM, Moore SC, Lin J, Cook NR, Manson JE, Lee IM, et al. Folate, vitamin B-6, multivitamin supplements, and colorectal cancer risk in women. *Am J Epidemiol* 2006;163:108–15.
- <http://www.yourdiseaserisk.wustl.edu/> (accessed 7th September 2012).