## **SUPPLEMENTARY MATERIAL 2**

## Clinical and lifestyle variables

Concerning clinical and lifestyle variables related to colorectal cancer (CRC), age, sex, income level, body mass index (BMI), smoking status, alcohol consumption, physical activity, family history of cancer, Charlson Comorbidity Index (CCI) score, and the prescriptions of metformin, aspirin, or non-steroidal anti-inflammatory drugs were considered.<sup>1-5</sup> BMI was calculated by dividing weight by height squared and was classified into three groups:  $<20 \text{ kg/m}^2$ ,  $20-24.9 \text{ kg/m}^2$ , and  $\geq 25 \text{ kg/m}^2$ . Information on smoking status, alcohol consumption, physical activity, and family history of cancer were collected via questionnaires. Alcohol consumption was classified into five categories depending on the frequency of intake: none, 2-3 times/month, 1-2 times/week, 3-4 times/week, and almost daily. The latter two were reclassified into one group considering the proportions in these categories. Physical activity was also reclassified into three groups due to the category proportions: none, 1-2 times/week, and  $\geq 3$  times/ week. The CCI score indicates the individual comorbidity status. It covered 17 categories of diseases that are defined based on the International Classification of Diseases codes. Zero indicates that a person is not susceptible to a comorbidity, and a higher value indicates the opposite. Detailed descriptions can be found in other studies.<sup>6</sup> Those on the CCI spectrum were defined using the claimed records for healthcare utilization (at least two visits or one admission) during the baseline period. Regarding medications, patients with any prescription history during the baseline period were grouped into the "yes" category.

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