

Letters to the Editor

**Incidence and Mortality of Proximal and Distal Colorectal Cancer in Germany**

Trends in the Era of Screening Colonoscopy

by Rafael Cardoso, Anna Zhu, and Feng Guo, et al. in issue 16/2021

**Falling Mortality Thanks to Improved Treatment for Colorectal Cancer**

Even though it seems obvious to explain the trend towards fewer diagnoses of colorectal cancer with the introduction of screening colonoscopy as a GVK [German National Association of Statutory Health Insurance Funds] service in 2002, the scientific confirmation on the basis of representative epidemiological data constitutes an important step in the sense of evidence based medicine (1). The question that is more difficult to answer is: which role does (screening) colonoscopy have in the reduction of tumor-related mortality? Early detection of preliminary tumor stages and the associated fall in tumor incidence inevitably lead to an absolute reduction in tumor-associated deaths. The authors reporting the study, however, regard the redistribution to lower tumor stages also as a cause for the relative reduction in mortality they observed, and in their discussion section they express the vague suspicion that “advances in CRC treatment” may also have contributed to the decline in CRC mortality. In the past two decades, chemotherapy (2) and radiochemotherapy (3) have undergone significant improvements, but minimally invasive tumor resection has also improved—for example, as a result of laparoscopic surgical techniques (4). On the basis of an at best marginal stage shift between 2002 and 2018 (UICC I: from 17% to 19%, II: from 26% to 26%, III: from 27% to 28%, IV: from 30% to 27%) one can assume that the observed fall in mortality of –35.8% in men and as much as –40.5% in women is mostly the result of these therapeutic advances and to a lesser degree of the introduction of screening colonoscopy. Because of the lack of documented factors, epidemiological cancer registry data, such as the reported study is based on, are only to a limited degree suitable for uncovering the totality of associations between the pure data. This underlines once again that clinical cancer registry data should be used. DOI: 10.3238/arztebl.m2021.0259

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**In Reply:**

We thank Dr Völkel and colleagues for their interest in our study. We share their view that epidemiological as well as clinical cancer registry data are essential tools for monitoring and evaluating advances in the prevention, early detection, and therapy of cancer disorders. In their chain of argumentation of the contribution of prevention and therapy to the observed fall in colorectal cancer mortality the authors overlooked, however, that the fall in mortality of up to 40% that we described in our study does not represent a reduction in death rates in patients with colorectal cancer but a reduction in death rates in Germany relative to the total population (1). This fall is largely explained by the only minimally less pronounced drop in colorectal cancer incidence rates, which is the result of advances in prevention, not advances in treatment. Obviously, therapeutic advances may have contributed to the fact that mortality fell somewhat more than the incidence, although even these differences are partly due to screening and the associated earlier detection of tumors. With regard to the evidence for the very high potential and the urgency of better utilization of screening to reduce colorectal cancer mortality, we refer to meta-analyses of epidemiological observational studies and randomized trials (2) as well as studies at the national and international levels (3, 4) that were recently published in collaboration with epidemiological cancer registries. Among others, these studies show a much more pronounced drop in mortality due to colorectal cancer in Germany than in countries with comparable advances in therapy but without comparable colorectal cancer screening programs, such as Norway and Sweden (4). DOI: 10.3238/arztebl.m2021.0260

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**Conflict of interest statement**

The authors of both contributions declare that no conflict of interest exists.