

CORRESPONDENCE

Epidemiology and Quality Control of 245 000 Outpatient Colonoscopies

by Prof. Dr. rer. nat. Ulrich Mansmann, Dr. med. Alexander Crispin, Dr. rer. nat. Volkmar Henschel, Dipl.-Stat. Christine Adrion, Dipl.-Wirtschaftsmath. Volker Augustin, Dr. med. Berndt Birkner, Dr. med. Axel Munte in volume 24/2008

End Points insufficiently Evaluated

Mansmann et al have detailed impressively of how the process quality of an early detection (screening) program can be described comprehensively and transparently by using carefully collected data. In their article, however, the authors remind us of the importance of "comprehensive evaluation of colonoscopy as a tool for preventing colorectal carcinoma"—that means an evaluation of outcome quality of the results. This request has to be linked to the use of epidemiological cancer registries, which include all the necessary, high quality data that are required for the evaluation of end points (e.g. mortality).

In contrast to mammography screening, quality assurance and evaluation in colorectal cancer screening are not linked to the cancer registries. The authors are therefore forced to exclude a crucial quality indicator of screening programs—namely, the interval cancer rate. Even statements about the population related effects of colonoscopy—such as changes in the incidence of and mortality due to colorectal cancer in participants and non-participants, or the evaluation of the distribution of tumor stages in the target population—cannot be made without including the cancer registries into the screening program (which is common practice in the international setting).

With regard to these issues, colorectal cancer screening should in future use as its orientation point the evaluation of mammography screening.

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In Reply:

Using epidemiological cancer registries, as commented by Katalinic, is the cornerstone in evaluating the quality of results of screening programs for tumor prevention. Establishing the inclusion of cancer registries in the evaluation of screening programs as the gold standard would be of prime importance. For the special case of screening for colorectal adenomas, Munich's tumor registry is running a cooperative study of Bavarian

colonoscopists, which investigates prospectively the incidence of tumors in the population of screening participants.

Katalinic has pointed out the importance of the interval cancer rate. We could not calculate this for our study because no follow-up was done. It is possible, however, to compare the tumor detection rate with the tumor prevalence expected in the screening population.

2002 incidence data from the Munich tumor registry (total area covered, <http://www.tumorregister-muenchen.de/facts/incidence.php>) show sex specific, age specific, and location adjusted incidence rates for colorectal cancer in the study population: 156.4 (men) and 79.4 (women) per 100 000 persons. Assuming a latency period of 10 years during which an asymptomatic colorectal cancer might be found, the expected prevalence of cancers is 1564 (men) and 794 (women) per 100 000 persons. In the 54 491 persons who were screened and with a proportion of 55.8% women (tables 3 and 1 in the article), 668 cancers are therefore expected. In the screening population, 709 cancers are discovered (table 3: 1.3 % of 54 491). This number requires closer interpretation, which was methodologically not possible in the context of the collected data: assumptions about the latency period, selection processes, reporting bias, tumor progression, symptoms, etc. For this reason, this number is not reported in the article.

Further to the early detection effect, screening and removal of adenomas reduce the number of new cases from almost 75 000 per year to perhaps 25 000 per year. This is the incidence trend over time that the cancer registries have been able to show.

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Conflict of interest statement

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