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Low-Value Colorectal Cancer Screening
Too Much of a Good Thing?

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Screening has been shown to reduce colorectal cancer mortality; however, despite strong recommendations from multiple national organizations, screening uptake in the United States remains less than the goal of 80%. Thus, there has been much effort to increase screening uptake. However, the competing risk of mortality from other causes reduces the benefit of screening with advancing age. In addition, the potential harms of screening, mainly due to colonoscopy, also increase with age. For this reason, the age at which to recommend screening cessation has become an increasingly important topic.

To explore patient attitudes and comfort toward stopping colorectal cancer screening, Piper et al conducted a study of veterans older than 50 years who were at average risk for developing colorectal cancer and had completed a screening colonoscopy at the Veterans Affairs Ann Arbor Healthcare System. Participants completed a survey to determine their level of comfort with stopping screening if deemed to be of low benefit based on hypothetical colorectal cancer and life expectancy risk calculators. In response to the main outcome measure, 300 of 1047 veterans (28.7%) reported that they would be not at all comfortable with stopping screening colonoscopies even if they had serious health problems and their doctor did not believe screening would be of benefit based on the risk calculator.

This study is timely given the recent qualified recommendation of the American Cancer Society that patients begin colorectal cancer screening at age 45 instead of 50 years and a growing body of literature promoting the use of risk prediction models to personalize colorectal cancer screening start and stop ages. The 2016 US Preventive Services Task Force colorectal cancer screening guidelines recommend individualized screening decisions for adults aged 76 to 85 years and recommend against screening adults older than 85 years. However, the risk of colorectal cancer increases with age; the median age at diagnosis for colon cancer is 67 years in men and 71 years in women. For rectal cancer, the median age at diagnosis is 62 years in men and 63 years in women. This issue is further compounded by the fact that major adverse events during colonoscopies, such as perforation, bleeding, and cardiopulmonary complications, also increase with age. Indeed, screening-related adverse events may be greater than the benefit in patients older than 80 years.

The study by Piper et al extends the literature on low-value screening cessation by assessing attitudes about the use of age as a determinant to stop screening in conjunction with quantitative colorectal cancer and life expectancy risk calculators. However, several aspects warrant additional discussion. First, the survey assessed health literacy but not health numeracy, which may influence a patient’s ability to comprehend the impact of quantitative risk calculators. Health numeracy is defined as the degree to which individuals have the capacity to access, process, interpret, communicate, and act on numerical, quantitative, graphical, biostatistical, and probabilistic health information needed to make effective health decisions. Published studies have noted discordance between health literacy and health numeracy, as well as inadequate numeracy skills among older adults, which lead to a diminished ability to accurately assess personalized health risks. Second, despite extensive data on the harms of colorectal cancer screening in adults older than 65 years, questions about low-value screening cessation in the context of procedural adverse events, treatment adverse events, overtreatment, and the potential cost associated with these factors were not reflected in the survey. Thus, participant responses might represent an inflated perceived value.
of the benefit of screening without an adequate understanding of associated harms. For this reason, they may not have realized that a physician’s recommendation to stop screening incorporates potential harms associated with screening. Third, in certain instances, the authors present the data with a “glass half-empty” perspective. For example, while 40.6% of participants expressed at least some degree of comfort with screening cessation based on their doctor’s recommendation, results on participant attitudes toward stopping colorectal cancer screening focused on the 28.7% of respondents who stated that they would be not at all likely to follow this recommendation.

When it comes to low-value colorectal cancer screening, particularly in older adults, there is a role for deimplementation of routine screening when related harms exceed the potential benefit. This study by Piper et al illustrates the importance of increased education including health numeracy and the use and application of colorectal cancer and life expectancy risk calculators to overcome resistance to deimplementation of routine low-value screening. Additionally, organized efforts to improve underuse of colorectal cancer screening will need to concurrently address the potential harms from overuse of screening. By involving patients and other relevant stakeholders in the development and dissemination of these tools, acceptable and sustainable precision colorectal cancer screening that incorporates risk prediction models may be within reach.

ARTICLE INFORMATION
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