Putting Prevention into Practice

An Evidence-Based Approach

Screening for Colorectal Cancer

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Case Study

A 47-year-old patient presents for a routine physical examination. The patient does not have a history of colorectal cancer, inflammatory bowel disease, or adenomatous polyps or a family history of colorectal cancer. The patient's body mass index is 29 kg per m^2, and the A1C level at their last visit was 5.9%. The patient has not been screened for colorectal cancer in prior visits.

Case Study Questions

1. According to the U.S. Preventive Services Task Force (USPSTF) recommendation statement, how should this patient be counseled regarding the need for colorectal screening?

- ☐ A. Only adults at increased risk of colorectal cancer should begin screening at 45 years of age.
- ☐ B. Regardless of risk factors, all patients should be screened for colorectal cancer starting at 45 years of age.
- ☐ C. The patient is at increased risk of colorectal cancer because of an abnormal body mass index and A1C level and should be offered screening at today's visit.
- ☐ D. The patient has no personal or family history of colorectal cancer, so routine screening should begin at 50 years of age.
- ☐ E. The net benefit of screening for colorectal cancer is small, so the patient should be referred to screening only if a strong preference is expressed after engaging in shared decision-making.

2. According to the USPSTF recommendation statement, how does the patient's age affect the counseling approach to screening for colorectal cancer?

- ☐ A. Screening from 76 to 85 years of age should be based on the patient's individual factors because the net benefit of screening for colorectal cancer is small in this age group.
- ☐ B. Although balancing the risk of disease with increasing potential harms of screening, continuing to screen for colorectal cancer from 50 to 75 years of age remains important.
- ☐ C. The incidence of colorectal cancer is similar in all adults from 45 to 75 years of age; therefore, the patient's age is not an important risk factor.
- ☐ D. In patients 86 years and older, screening likely does not confer a survival benefit that surpasses the harms of screening and should not routinely be offered.

3. According to the USPSTF recommendation statement, which one of the following is an appropriate test and interval for colorectal cancer screening?

- ☐ A. Stool DNA test with fecal immunochemical testing (sDNA-FIT) every five years.
- ☐ B. High-sensitivity guaiac fecal occult blood test (gFOBT) or FIT every five years.
- ☐ C. Flexible sigmoidoscopy every seven years.
- ☐ D. Colonoscopy every 10 years.
- ☐ E. Computed tomography colonography every 10 years.

Answers appear on the following page.

This PPIP quiz is based on the recommendations of the USPSTF. More information is available in the USPSTF Recommendation Statement and supporting documents on the USPSTF website (https://www.uspreventiveservicestaskforce.org). The practice recommendations in this activity are available at https://www.uspreventiveservicestaskforce.org/uspstf/recommendation/colorectal-cancer-screening.

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CME **This clinical content** conforms to AAFP criteria for CME. See CME Quiz on page 228.

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Answers

1. The correct answer is B. The USPSTF recommends screening for colorectal cancer beginning at 45 years of age in adults at average risk. Black adults have the highest incidence of and mortality from colorectal cancer compared with other races and ethnicities. The causes of these health disparities are complex. Recent evidence points to inequities in access to and quality of colorectal cancer screening and treatment as the primary driver of these disparities rather than genetic differences. The USPSTF strongly encourages physicians to ensure that their Black patients receive recommended colorectal cancer screening, follow-up, and treatment. American Indian and Alaska Native adults, people with a family history of colorectal cancer, men, and people with other risk factors such as obesity, diabetes mellitus, long-term smoking, and unhealthy alcohol use also have a higher incidence of colorectal cancer. However, all adults 45 to 75 years of age should be offered screening regardless of the presence or absence of these risk factors.[1]

2. The correct answers are A, B, and D. The incidence of colorectal cancer increases with age. The absolute risk of colorectal cancer in adults 40 to 49 years of age is 20.0 new cases per 100,000 people; in adults 50 to 59 years of age, it is 47.8 new cases per 100,000 people; and in adults 60 years or older, it is 105.2 new cases per 100,000 people. The USPSTF continues to recommend screening in adults 50 to 75 years of age (grade A) and now recommends offering screening starting at 45 years of age (grade B). In adults 76 to 85 years of age, the balance of the harms and benefits of screening is generally small and varies according to the patient's prior screening results, life expectancy, comorbidities, and preferences (grade C). Screening in patients older than 85 years is not included in this recommendation because of limited survival benefit at this age.[1]

3. The correct answer is D. Each colorectal cancer screening test has risks and harms. The USPSTF recommends that stool-based tests such as high-sensitivity gFOBT and FIT be performed annually and that sDNA-FIT (Cologuard) may be used every one to three years. Direct visualization tests such as computed tomography colonography and flexible sigmoidoscopy are recommended every five years. Flexible sigmoidoscopy may be performed every 10 years when combined with annual FIT screening. Screening with colonoscopy is recommended every 10 years and should be performed if any of the other screening tests are positive. Because of limited available evidence, urine tests, serum tests, and capsule endoscopy are not included in the USPSTF recommendation. Table 1 from the USPSTF recommendation statement summarizes the characteristics of recommended screening tests[1,2] (https://www.uspreventiveservicestaskforce.org/uspstf/recommendation/colorectal-cancer-screening#tab1).

The views expressed in this work are those of the authors and do not reflect the official policy or position of the Johns Hopkins Bloomberg School of Public Health or the U.S. government.

References

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2. Lin JS, Perdue LA, Henrikson NB, et al. Screening for colorectal cancer: updated evidence report and systematic review for the US Preventive Services Task Force [published correction appears in *JAMA*. 2021;326(3):279]. *JAMA*. 2021;325(19):1978-1998. ■