⚖ Practice Guidelines

ACP Releases Best Practice Advice on Colorectal Cancer Screening

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A collection of Practice Guidelines published in *AFP* is available at http://www.aafp.org/afp/practguide.

Although the incidence of colorectal cancer in the United States has been declining by 2 to 3 percent per year over the past 15 years, it is the second leading cause of cancer-related death in the country. The disease is rare before 40 years of age, with 90 percent of cases occurring in those older than 50 years. Appropriate screening is important because detection and removal of premalignant adenomas or localized cancer can prevent the development of cancer.

The American College of Physicians (ACP) recently reviewed available guidelines from the American Cancer Society/U.S. Multi-Society Task Force on Colorectal Cancer/American College of Radiology, Institute for Clinical Systems Improvement, U.S. Preventive Services Task Force, and the American College of Radiology. Based on the evidence from these guidelines, the ACP has published best practice advice, which is summarized in *Table 1.*

Guidance Statements

Clinicians should perform individualized assessment of risk for colorectal cancer in adults.

This assessment can help determine when screening should begin. Risks include age, race, and family history (e.g., history of colorectal cancer, especially in a first-degree relative diagnosed before 50 years of

Table 1. American College of Physicians Best Practice Advice on Colorectal Cancer Screening

Indications for screening

Average-risk adults starting at 50 years of age

High-risk adults starting at 40 years of age, or at 10 years younger than the age at which colorectal cancer was diagnosed in the youngest affected relative

Black adults starting at 40 years of age

See Table 2 for screening intervals of the different testing options

Harms of unnecessary screening

Endoscopic and radiologic tests

  Optical colonoscopy: costly and limited availability (facilities and clinicians), postpolypectomy bleeding, perforation/bleeding, cardiopulmonary complications, diverticulitis, severe abdominal pain, death, false-negative results

  Flexible sigmoidoscopy: perforation/bleeding, false-negative results

  Double-contrast barium enema: perforation/bleeding (low risk), false-positive results, false-negative results

  Computed tomography colonography: low-dose radiation exposure, additional diagnostic testing and procedures for lesions that might not be clinically significant, false-negative results

Stool-based tests: few known harms other than false-positive results, false-negative results

High-value, cost-conscious care

Clinicians should not screen adults who are older than 75 years or who have a life expectancy of less than 10 years (e.g., those with significant comorbid conditions such as diabetes mellitus, cardiopulmonary diseases, or stroke); harms of screening seem to outweigh the benefits in most of these patients

10 years is usually regarded as a safe interval for optical colonoscopy screening

Table 2. Screening Tests for Colorectal Cancer

Test	Sensitivity	Specificity	Cost	Interval	Requirements
Computed tomography colonography	Medium	Medium	High	5 years	Complete bowel preparation
Double-contrast barium enema	Low	Low	Low	5 years	Complete bowel preparation
Flexible sigmoidoscopy*	Medium	Medium	High	5 years	Complete bowel preparation
Guaiac-based fecal occult blood test*	Variable	Variable	Low	Annual	Two samples from three consecutive stools at home
Immunochemical-based fecal occult blood test*	Variable	Variable	Medium	Annual	Stool sample
Optical colonoscopy	High	High	High	10 years	Complete bowel preparation
Stool DNA panel*	Variable	High	High	Uncertain	Adequate stool sample (30-g minimum)

NOTE: *Positive results from noncolonoscopic tests require follow-up with colonoscopy. Specific risks of the tests are listed in Table 1.*

—Low-risk test.

Adapted with permission from Qaseem A, Denberg TD, Hopkins RH Jr., et al.; Clinical Guidelines Committee of the American College of Physicians. Screening for colorectal cancer: a guidance statement from the American College of Physicians [published correction appears in Ann Intern Med. *2012;157(2):152].* Ann Intern Med. *2012;156(5):383.*

age; hereditary nonpolyposis; or familial adenomatous polyposis). Blacks have the highest incidence of cancer compared with other races.

Clinicians should screen for colorectal cancer in average-risk adults starting at 50 years of age, and in high-risk adults at 40 years of age or at 10 years younger than the age at which colorectal cancer was diagnosed in the youngest affected relative.

Evidence shows that screening identifies premalignant lesions, allowing for early treatment and reduced mortality. The benefits of screening outweigh the risks in these adults.

Stool-based tests, flexible sigmoidoscopy, or optical colonoscopy should be used for screening average-risk adults. Test selection should be based on benefits versus harms, availability, and patient preference.

Because colorectal cancer screening tests have similar effectiveness, the patient should be counseled about the benefits, harms, effectiveness data, and costs of the different options *(Table 2)*. Optical colonoscopy is generally considered the preferred screening test; however, it has a false-negative rate of 10 to 20 percent, and evidence on the optimal frequency of the screening is unclear. Although colonoscopy screening every 10 years is regarded as safe in average-risk persons, high-risk persons should be screened every five years. If a noncolonoscopic test is used, patients with a positive result should receive follow-up colonoscopy screening. Although computed tomography colonography is an option for average-risk patients older than 50 years, the U.S. Preventive Services Task Force found insufficient evidence to determine the benefits and harms of the test.

Screening should end after 75 years of age or if the patient's life expectancy is less than 10 years.

The harms of screening seem to outweigh the benefits in these patients. ■

Answers to This Issue's CME Quiz

Q1. A	**Q5.** A	**Q9.** A, C, D
Q2. C	**Q6.** A, B, D	**Q10.** A, C
Q3. A, B, D	**Q7.** C	**Q11.** A
Q4. A	**Q8.** B	