Complete Summary

GUIDELINE TITLE

ASGE guideline: colorectal cancer screening and surveillance.

BIBLIOGRAPHIC SOURCE(S)

Davila RE, Rajan E, Baron TH, Adler DG, Egan JV, Faigel DO, Gan SI, Hirota WK, Leighton JA, Lichtenstein D, Qureshi WA, Shen B, Zuckerman MJ, VanGuilder T, Fanelli RD, Standards of Practice Committee, American Society for Gastrointestinal. ASGE guideline: colorectal cancer screening and surveillance. Gastrointest Endosc 2006 Apr;63(4):546-57. [129 references] PubMed

GUIDELINE STATUS

This is the current release of the guideline.

COMPLETE SUMMARY CONTENT

SCOPE

DISEASE/CONDITION(S)

Colorectal cancer (CRC)

GUIDELINE CATEGORY

Prevention
Risk Assessment
Screening

CLINICAL SPECIALTY

Family Practice
Gastroenterology
Internal Medicine
Oncology
Preventive Medicine

INTENDED USERS

Physicians

GUIDELINE OBJECTIVE(S)

To provide guidelines for colorectal cancer screening and surveillance in average- and high-risk individuals

TARGET POPULATION

- Individuals at average risk for colorectal cancer (CRC)
- Individuals at high risk for CRC (history of familial adenomatous polyposis or hereditary nonpolyposis colon cancer, family history of CRC or adenomatous polyps, personal history of inflammatory bowel disease, CRC, or adenomatous polyp)

INTERVENTIONS AND PRACTICES CONSIDERED

Average-Risk Population

1. Colonoscopy every 10 years (preferred modality)
2. Fecal occult blood test (FOBT) yearly
3. Flexible sigmoidoscopy every 5 years
4. Combination of FOBT and sigmoidoscopy every 5 years

Note: The following tests were considered but not recommended: a single digital rectal examination for FOBT, double-contrast barium enema, and virtual colonoscopy.

High-Risk Population

1. Genetic testing and counseling
2. Annual flexible sigmoidoscopy
3. Colonoscopy (screening and surveillance) (see Major Recommendations field for time intervals between screenings)
4. Colonoscopic excision of polyps
5. Biopsy
6. Colectomy if required
7. Follow-up surveillance

MAJOR OUTCOMES CONSIDERED

- Sensitivity and specificity of screening tests

- Effectiveness of screening tests in reducing incidence of colorectal cancer (CRC) and mortality rate
- Risk factors for developing CRC
- Rate of recurrence of locally advanced CRC

METHODOLOGY

METHODS USED TO COLLECT/SELECT EVIDENCE

Hand-searches of Published Literature (Primary Sources)
Hand-searches of Published Literature (Secondary Sources)
Searches of Electronic Databases

DESCRIPTION OF METHODS USED TO COLLECT/SELECT THE EVIDENCE

In preparing this guideline, a MEDLINE literature search was performed, and additional references were obtained from the bibliographies of the identified articles and from recommendations of expert consultants.

NUMBER OF SOURCE DOCUMENTS

Not stated

METHODS USED TO ASSESS THE QUALITY AND STRENGTH OF THE EVIDENCE

Expert Consensus

RATING SCHEME FOR THE STRENGTH OF THE EVIDENCE

Not applicable

METHODS USED TO ANALYZE THE EVIDENCE

Review
Review of Published Meta-Analyses

DESCRIPTION OF THE METHODS USED TO ANALYZE THE EVIDENCE

Not stated

METHODS USED TO FORMULATE THE RECOMMENDATIONS

Expert Consensus

DESCRIPTION OF METHODS USED TO FORMULATE THE RECOMMENDATIONS

Guidelines for appropriate use of endoscopy are based on a critical review of the available data and expert consensus.

RATING SCHEME FOR THE STRENGTH OF THE RECOMMENDATIONS

Not applicable

COST ANALYSIS

Colonoscopy represents a cost-effective means of screening for colorectal cancer (CRC) compared with fecal occult blood testing (FOBT), flexible sigmoidoscopy, and virtual colonoscopy (VC).

METHOD OF GUIDELINE VALIDATION

Not stated

DESCRIPTION OF METHOD OF GUIDELINE VALIDATION

Not applicable

RECOMMENDATIONS

MAJOR RECOMMENDATIONS

Levels of evidence **(A–C)** are defined at the end of the "Major Recommendations" field.

Summary

- Colonoscopy is the preferred modality for colorectal cancer (CRC) screening in average risk patients **(B)**.
- Alternative methods for CRC screening in average-risk patients include yearly fecal occult blood testing **(A)**, flexible sigmoidoscopy every 5 years, combined yearly fecal occult blood testing (FOBT) and flexible sigmoidoscopy every 5 years **(B)**.
- Single digital rectal examination FOBT has a poor sensitivity for CRC and should not be performed as a primary screening method **(A)**.
- Studies evaluating virtual colonoscopy and fecal DNA testing for CRC screening have yielded conflicting results and therefore cannot be recommended **(A)**.
- Genetic testing along with counseling is recommended for individuals with hereditary forms of CRC, including familial adenomatous polyposis (FAP) and hereditary nonpolyposis colon cancer (HNPCC) **(C)**.
- Individuals at risk for FAP should undergo screening flexible sigmoidoscopy yearly starting at age 10 to 12 years. The development of multiple, diffuse adenomas in the colon is an indication for total colectomy **(B)**.
- Individuals at risk for HNPCC should undergo colonoscopy every 1 to 2 years starting at age 20 to 25 years or 10 years younger than the age of the earliest diagnosis of cancer in the family, whichever is earlier **(B)**.

- Individuals with a family history of 1 or more first-degree relatives with sporadic CRC regardless of age should have a colonoscopy beginning at age 40 years or 10 years younger than the affected relative, whichever is earlier. If the index colonoscopy has normal results, repeat colonoscopy should be performed on the basis of the age of the affected relative **(B)**.
- Individuals with a first-degree relative age <60 years with adenomatous polyps should undergo colonoscopy beginning at age 40 years or 10 years younger than the affected relative, whichever is earlier. If the index examination is normal, recommend repeat colonoscopy every 5 years **(B)**.
- In patients with a first-degree relative more than 60 years old at diagnosis of adenomatous polyps, the timing of screening colonoscopy should be individualized. The interval timing between follow-up examinations should be the same as for average-risk patients **(C)**.
- The risk for development of CRC is increased in individuals with extensive ulcerative colitis (UC) and Crohn's colitis. Surveillance colonoscopy with multiple biopsy specimens should be performed every 1 to 2 years beginning after 8 to 10 years of disease **(B)**.
- A complete colonoscopy should be performed in all patients diagnosed with CRC to rule out synchronous cancers or adenomatous lesions. If a complete examination cannot be performed at the time of CRC diagnosis, a colonoscopy should be performed within 6 months after surgical resection **(B)**.
- Surveillance colonoscopy after surgical resection of CRC should be performed 1 year after surgery and, if results are normal, every 3 to 5 years thereafter **(B)**.
- The risk of rectal cancer recurrence is dependent on stage, surgical management, and the administration of radiation therapy. Patients who did not receive pelvic radiation for locally advanced disease or those who underwent nonmesorectal resection should undergo sigmoidoscopy every 6 months for the first 2 years postoperatively **(B)**.
- Patients with a personal history of adenomatous polyps should undergo surveillance colonoscopy, the timing of which should be individualized depending on the number, size, and pathologic diagnosis of the adenomatous polyps removed, as well as the quality and completeness of the examination **(B)**. When feasible, all polyps $\geq$0.5cm should be removed **(B)**.

Definitions:

Levels of Evidence

A. Prospective controlled trials
B. Observational studies
C. Expert opinion

CLINICAL ALGORITHM(S)

None provided

EVIDENCE SUPPORTING THE RECOMMENDATIONS

TYPE OF EVIDENCE SUPPORTING THE RECOMMENDATIONS

The type of supporting evidence is identified and classified for the recommendations using the following scheme:

A. Prospective controlled trials
B. Observational studies
C. Expert opinion

When little or no data exist from well-designed prospective trials, emphasis is given to results from large series and reports from recognized experts. Guidelines for appropriate utilization of endoscopy are based on a critical review of the available data and expert consensus.

BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS

POTENTIAL BENEFITS

Appropriate colorectal cancer (CRC) screening and surveillance for average risk and high risk individuals

Subgroups Most Likely to Benefit

- Colonoscopy has advantages over flexible sigmoidoscopy for screening of colorectal cancer in women.
- Because the prevalence of proximal neoplasia increases with age, colonoscopy may be better suited for screening older patients (aged $\geq$60 years).

POTENTIAL HARMS

Potential disadvantages of colonoscopy as a screening method include the inconvenience of bowel preparation, the risks of sedation, the risk of perforation, the risk of not identifying neoplasms, and the cost. The risk of perforation associated with colonoscopy appears to be no more than 0.1% to 0.2%. The miss rate of colonoscopy for polyps, on the basis of studies of back-to-back colonoscopies, is 27% for adenomas $\leq$5 mm and 6% for lesions $\geq$10 mm.

CONTRAINDICATIONS

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Application of cautery should be avoided in an unprepped colon because of the potential for explosion.

QUALIFYING STATEMENTS

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Further controlled clinical studies are needed to clarify aspects of this statement, and revision may be necessary as new data appear. Clinical consideration may justify a course of action at variance to these recommendations.

IMPLEMENTATION OF THE GUIDELINE

DESCRIPTION OF IMPLEMENTATION STRATEGY

An implementation strategy was not provided.

INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT CATEGORIES

IOM CARE NEED

Staying Healthy

IOM DOMAIN

Effectiveness
Timeliness

IDENTIFYING INFORMATION AND AVAILABILITY

BIBLIOGRAPHIC SOURCE(S)

Davila RE, Rajan E, Baron TH, Adler DG, Egan JV, Faigel DO, Gan SI, Hirota WK, Leighton JA, Lichtenstein D, Qureshi WA, Shen B, Zuckerman MJ, VanGuilder T, Fanelli RD, Standards of Practice Committee, American Society for Gastrointestinal. ASGE guideline: colorectal cancer screening and surveillance. Gastrointest Endosc 2006 Apr;63(4):546-57. [129 references] PubMed

ADAPTATION

Not applicable: The guideline was not adapted from another source.

DATE RELEASED

2006 Apr

GUIDELINE DEVELOPER(S)

American College of Gastroenterology - Medical Specialty Society
American College of Physicians - Medical Specialty Society
American Society for Gastrointestinal Endoscopy - Medical Specialty Society

SOURCE(S) OF FUNDING

American Society for Gastrointestinal Endoscopy

GUIDELINE COMMITTEE

Standards of Practice Committee

COMPOSITION OF GROUP THAT AUTHORED THE GUIDELINE

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FINANCIAL DISCLOSURES/CONFLICTS OF INTEREST

Not stated

GUIDELINE STATUS

This is the current release of the guideline.

GUIDELINE AVAILABILITY

Electronic copies: Available from the American Society for Gastrointestinal Endoscopy Web site.

Print copies: Available from the American Society for Gastrointestinal Endoscopy, 1520 Kensington Road, Suite 202, Oak Brook, IL 60523

AVAILABILITY OF COMPANION DOCUMENTS

None available

PATIENT RESOURCES

None available

NGC STATUS

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