Colorectal Cancer Screening

This practice algorithm has been specifically developed for MD Anderson using a multidisciplinary approach and taking into consideration circumstances particular to MD Anderson, including the following: MD Anderson’s specific patient population; MD Anderson’s services and structure; and MD Anderson’s clinical information. Moreover, this algorithm is not intended to replace the independent medical or professional judgment of physicians or other health care providers. This algorithm should not be used to treat pregnant women. This algorithm is not intended for individual with a personal history of colorectal cancer.¹

Note: Screening for adults age 76 to 85 should be evaluated on an individual basis by their health care provider to assess the risks and benefits of screening. Colorectal cancer screening is not recommended over age 85.

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¹ See the Colorectal Cancer Treatment or Survivorship algorithms for the management of individuals with a personal history of colorectal cancer.
PRESENTATION

Patients with average risk:
- Age 50 years or older
- No history of adenoma
- No history of inflammatory bowel disease
- Negative family history

Screening and prevention of colorectal cancer (preferred)\(^1\),\(^4\)

Screening of colorectal cancer only

Colonoscopy or computed tomographic colonography\(^5\)

Colonoscopy

Normal findings?

Yes
- Repeat colonoscopy recommended every 10 years

No
- If adenomatous polyps found, see Page 3 for management.

Compared tomographic colonography\(^5\)

Normal findings?

Yes
- Repeat computed tomographic colonography \(^5\) recommended every 5 years

No
- Polyp(s) greater than or equal to 6 mm?
  - Yes
    - Refer for colonoscopy
  - No
    - Discuss findings with patient and individualize recommendations

Multifocal stool DNA test

Normal findings?

Yes
- Screening interval not defined

No
- Refer for colonoscopy

Fecal occult blood test\(^6\)
- Fecal immunochemical test

Normal findings?

Yes
- Repeat recommended annually

No
- Refer for colonoscopy

Note: Screening for adults age 76 to 85 should be evaluated on an individual basis by their health care provider to assess the risks and benefits of screening. Colorectal cancer screening is not recommended over age 85.

\(^1\) See the Colorectal Cancer Treatment or Survivorship algorithms for the management of individuals with a personal history of colorectal cancer.

\(^2\) African Americans have a higher risk of large polyps and tumors from ages 50-65 years; thus it is important to start screening this population at age 50. Follow-up frequency would be based on colonoscopy findings.

\(^3\) While there is good evidence to support fecal occult blood test, tests that both screen for and prevent colon cancer are the preferred screening modality. Annual fecal occult blood tests should not be performed if colonoscopy or CT colonography is used as the screening measure in an average-risk patient.

\(^4\) Flexible sigmoidoscopy is an alternate option, but is not the preferred endoscopic modality as the entire colon is not visualized.

\(^5\) Preauthorization with one’s insurance carrier is always advised.

\(^6\) High sensitivity fecal occult blood test (guaiac-based or immunochemical).
PRESENTATION

Patients with 1 or 2 tubular adenomas less than 1 cm with low-grade dysplasia

5 years after most recent polypectomy or normal exam

Patients with 3 to 10 adenomas or 1 adenoma greater than 1 cm or any adenoma with villous features or high grade dysplasia

3 years after most recent polypectomy

Patients with greater than 10 adenomas on a single examination

Less than 3 years after most recent polypectomy

Patients with sessile adenomas that are removed piecemeal

2 to 6 months to verify complete removal

RECOMMENDED SCREENING

Colonoscopy

Colonoscopy

Increased Risk—patients with history of adenomas at prior colonoscopy

NOTE: Screening for adults age 76 to 85 should be evaluated on an individual basis by their health care provider to assess the risks and benefits of screening. Colorectal cancer screening is not recommended over age 85.

1 See the Colorectal Cancer Treatment or Survivorship algorithms for the management of individuals with a personal history of colorectal cancer.
2 Precise timing based on clinical factors, patient and physician preference.
3 Subsequent follow-up is based on the number and size of polyps at the time of colonoscopy as well as the degree of dysplasia. If the follow-up colonoscopy is negative for adenomatous polyps, follow-up in 5 years is recommended.
4 Genetic evaluation for familial cancer syndromes is recommended.
5 Surveillance individualized based on Endoscopist’s judgment.

Department of Clinical Effectiveness V5
Approved by The Executive Committee of Medical Staff 04/25/2017
Increased Risk—patients with family history

1. Either colorectal cancer or adenomatous polyps in a first-degree relative 60 years or older or in 2 second-degree relatives with colorectal cancer

Begin screening at age 40

2. Colorectal or adenomatous polyps in a first-degree relative before age 60 years or in 2 or more first-degree relatives at any age

Begin screening at age 40

3. Screening should begin at an earlier age, but individuals may be screened with any recommended form of testing.

Screening options at intervals recommended for average-risk individuals

Age 40 or 10 years before the youngest case in the immediate family

Colonoscopy every 5 years

Note: Screening for adults age 76 to 85 should be evaluated on an individual basis by their health care provider to assess the risks and benefits of screening. Colorectal cancer screening is not recommended over age 85.

1 See the Colorectal Cancer Treatment or Survivorship algorithms for the management of individuals with a personal history of colorectal cancer.
2 Consider Familial Syndrome
3 Screening should begin at an earlier age, but individuals may be screened with any recommended form of testing.
Note: Screening for adults age 76 to 85 should be evaluated on an individual basis by their health care provider to assess the risks and benefits of screening. Colorectal cancer screening is not recommended over age 85.

PRESENTATION

Genetic diagnosis of FAP or suspected FAP without genetic testing evidence
- Age 10 to 12 years
  - Annual FSIG to determine if the individual is expressing the genetic abnormality and counseling to consider genetic testing

Genetic or clinical diagnosis of HNPCC or individuals at increased risk of HNPCC
- Age 20 to 25 years or 10 years before the youngest case in the immediate family
  - Colonoscopy every 1 to 2 years and counseling to consider genetic testing

Inflammatory bowel disease (chronic ulcerative colitis or Crohn’s disease)
- Cancer risk begins to be significant 8 years after the onset of pancolitis or 12 to 15 years after the onset of left-sided colitis
  - Colonoscopy with biopsies for dysplasia every 1-2 years

RECOMMENDED SCREENING

- Colonoscopy with biopsies for dysplasia every 1-2 years
- Annual FSIG to determine if the individual is expressing the genetic abnormality and counseling to consider genetic testing

1See the Colorectal Cancer Treatment or Survivorship algorithms for the management of individuals with a personal history of colorectal cancer.
2If the genetic test is positive, colectomy should be considered.
3Genetic testing for HNPCC should be offered to first-degree relatives of persons with a known inherited MMR gene mutation. It should also be offered when the family mutation is not known but 1 of the first 3 of the modified Bethesda Criteria is present.
4These patients are best referred to a center with experience in the surveillance and management of inflammatory bowel disease.

HNPCC = hereditary nonpolyposis colorectal cancer
FAP = familial adenomatous polyposis
FSIG = flexible sigmoidoscopy
SUGGESTED READINGS


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DEVELOPMENT CREDITS

This practice consensus algorithm is based on majority expert opinion of the Colorectal Screening group at the University of Texas MD Anderson Cancer Center. It was developed using a multidisciplinary approach that included input from the following clinical staff.

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