

**American College of Radiology
ACR Appropriateness Criteria®**

Colorectal Cancer Screening

Variant 1: Colorectal cancer screening. Average-risk individual. Age greater than or equal to 50 years. Initial screening, then follow-up every 5 years after initial negative screen.

Procedure	Appropriateness Category	SOE	Adults RRL	Peds RRL	Rating	Median	Final Tabulations								
							1	2	3	4	5	6	7	8	9
CT colonography	Usually appropriate		☼☼☼ 1-10 mSv		9	9	0	0	0	0	0	0	1	2	12
Fluoroscopy barium enema double-contrast	May be appropriate		☼☼☼ 1-10 mSv		5	5	0	1	1	4	2	6	1	0	0
MR colonography	May be appropriate		○ 0 mSv	○ 0 mSv [ped]	4	4	0	1	4	6	1	3	0	0	0
Fluoroscopy barium enema single-contrast	Usually not appropriate		☼☼☼ 1-10 mSv		3	3	5	1	4	4	1	0	0	0	0

Variant 2: Colorectal cancer screening. Moderate-risk individual. First-degree family history of cancer or adenoma. Initial screening, then follow-up every 5 years after initial negative screen.

Procedure	Appropriateness Category	SOE	Adults RRL	Peds RRL	Rating	Median	Final Tabulations								
							1	2	3	4	5	6	7	8	9
CT colonography	Usually appropriate		☼☼☼ 1-10 mSv		9	9	0	0	0	0	1	1	0	3	10
Fluoroscopy barium enema double-contrast	May be appropriate		☼☼☼ 1-10 mSv		5	5	0	2	2	3	1	6	1	0	0

MR colonography	May be appropriate		O 0 mSv	O 0 mSv [ped]	4	4	0	1	4	7	1	2	0	0	0
Fluoroscopy barium enema single-contrast	Usually not appropriate		⊕⊕⊕ 1-10 mSv		3	3	5	2	3	5	0	0	0	0	0

Variant 3: Colorectal cancer detection. Moderate-risk individual. Average-risk individual after positive fecal occult blood test (FOBT) or positive fecal immunochemical test indicating a relative elevation in risk.

Procedure	Appropriateness Category	SOE	Adults RRL	Peds RRL	Rating	Median	Final Tabulations								
							1	2	3	4	5	6	7	8	9
CT colonography	Usually appropriate		⊕⊕⊕ 1-10 mSv		9	9	0	0	1	0	0	0	1	4	9
Fluoroscopy barium enema double-contrast	May be appropriate		⊕⊕⊕ 1-10 mSv		5	5	0	2	1	5	6	2	0	0	0
MR colonography	May be appropriate		O 0 mSv	O 0 mSv [ped]	4	4	0	3	4	6	0	2	0	0	0
Fluoroscopy barium enema single-contrast	Usually not appropriate		⊕⊕⊕ 1-10 mSv		2	2	5	3	4	3	0	0	0	0	0

Variant 4: Colorectal cancer screening. High-risk individual. Hereditary nonpolyposis colorectal cancer; ulcerative colitis or Crohn colitis.

Procedure	Appropriateness Category	SOE	Adults RRL	Peds RRL	Rating	Median	Final Tabulations								
							1	2	3	4	5	6	7	8	9
CT colonography	Usually not appropriate		⊕⊕⊕ 1-10 mSv		3	3	0	6	6	3	0	1	0	0	0
Fluoroscopy barium enema double-contrast	Usually not appropriate		⊕⊕⊕ 1-10 mSv		2	2	3	7	0	3	1	1	0	0	0
MR colonography	Usually not appropriate		O 0 mSv	O 0 mSv [ped]	2	2	3	5	2	4	0	1	0	0	0

Appendix Key

A more complete discussion of the items presented below can be found by accessing the supporting documents at the designated hyperlinks.

Appropriateness Category: The panel's recommendation for a procedure based on the assessment of the risks and benefits of performing the procedure for the specified clinical scenario.

SOE: Strength of Evidence. The assessment of the amount and quality of evidence found in the peer reviewed medical literature for an appropriateness recommendation.

- **References:** The citation number and PMID for the reference(s) associated with the recommendation.
- **Study Quality:** The assessment of the quality of an individual reference based on the number of study quality elements described in the reference.

RRL: Relative Radiation Level. A population based assessment of the amount of radiation a typical patient may be exposed to during the specified procedure.

Rating: The final rating (1-9 scale) for the procedure as determined by the panel during rating rounds.

Median: The median rating (1-9 scale) for the procedure as determined by the panel during rating rounds.

Final tabulations: A histogram showing the number of panel members who rated the procedure as noted in the column heading (ie, 1, 2, 3, etc.).

Additional supporting documents about the AC methodology and processes can be found at www.acr.org/ac.