Mayo Clinic Arizona Guidelines for Prevention and Surveillance of Colorectal Cancer

Division of Gastroenterology
Colorectal Neoplasia Clinic

Screening/Prevention (Table 1)

Patient Category	First Step	Next Step
Average risk patient, no risk factors for colorectal cancer except age ≥ fifty years Consider beginning screening in African Americans at age 45 but not endorsed by 2008 National Guidelines [6,15,16,16]	Begin screening colonoscopy, CT colonography, or alternative strategy at age fifty [1,2,3,B]	If normal colonoscopy repeat exam every ten years , if normal CT colonography repeat every 5 years or alternative strategy [1,2,3,16]
Single 1st-degree relative* with colorectal cancer diagnosed ≥ age sixty or two 2nd degree* relatives diagnosed with colorectal cancer	Begin screening colonoscopy at age forty or ten years before affected relative, whichever is earlier [1,3,9]	If normal, repeat every ten years as average risk individuals [16]
Single 1st-degree relative with colorectal cancer or tubular adenoma ≤ sixty years or two 1st-degree relatives of any age	Colonoscopy at age forty, or ten years before affected relative, whichever is earlier[1,3,4]	If normal, repeat every five years [9,16]
Inflammatory bowel disease, chronic UC or Crohn's disease	Screening colonoscopy eight years after the onset of pancolitis or twelve to fifteen years after the onset of left sided colitis with extensive biopsies to exclude dysplasia [B]	Every one to two years [12]
Inflammatory bowel disease, chronic UC or Crohn's disease with sclerosing cholangitis	Annual colonoscopy at time of diagnosis with extensive biopsies to exclude dysplasia. Consider chemo prevention with ursodeoxycholic acid and GI colorectal neoplasia consult [12]	Every year [12]
For patients with colorectal cancer before age fifty, multiple polyps before age forty or with a family history of colorectal or other cancers, consider a hereditary colorectal cancer syndrome	Call Genetic Counseling @ (480) 301-4585 or any member of the Colorectal Interest Group: Drs. Gurudu, Heigh, Leighton, Pasha, Efron, Heppell, and Young Fadok [14]	
Discontinuation of surveillance colonoscopy should be considered in patients with serious co-morbidities with less than 10 years of life expectancy, according to the clinician's judgment [7]	USPSTF 2008 recommendation: • Age > 85: do not screen • Age 76-85: reconsider or do not screen routinely [C]	MCA 2008 recommendation: • Screen high risk fit or concerned fit individuals < age 85
Proven or suspected HNPCC	Colonoscopy age 20-25 or ten years before affected relative, which ever is earlier, genetic counseling or GI Colorectal Neoplasia Clinic consultation [16]	Colonoscopy every one to two years [16]

Surveillance (Table 2)

Patient Category	First Step	Next Step
1 to 2 adenomas, ≤ 1cm	Five to ten years; precise timing within this interval should be based on other clinical factors such as prior colonoscopy findings, family history etc. [7,16]	If normal, repeat every ten years [7]
• ≥ 3 < 10 adenomas • 1 adenoma ≥ one cm • Adenoma with villous or serrated histology	Repeat in three years if confident all adenomas have been found and resected [1,4,7,10,15,16]	Once normal, repeat in five years [1,4,7,10,15]
≥ 10 adenomas Hyperplastic polyp ≥ one cm treated as adenoma	Exam < three years after polypectomy. For patients with multiple right-sided hyperplastic polyps or multiple hyperplastic polyps over 1 cm or > 10 adenomas, consider GI Colorectal Neoplasia Clinic consultation [10,15,16]	Individualize care based on findings
Large sessile (no stalk) adenoma ≥ two cm	If surgery not required, follow up in two-six months [5,15,16]	If additional residual polyp removed, repeat in six months.[4] Once all residual polyp is removed, repeat in one year. If normal after one year, repeat every three years.[5] If polyp not removed after two-three exams, then consider surgery [4,5]
Adenoma with high grade dysplasia or malignant polyp completely resected with clear margins of excision and no invasion of stalk. Adjust for individual patient characteristics including fitness for and interest in considering additional treatment.	If polyp is pedunculated, strongly consider GI Colorectal Neoplasia Clinic consult. Repeat colonoscopy within three years [4]	If normal, repeat in five years if it is the only polyp [4]
	If polyp is sessile, strongly consider GI Colorectal Neoplasia Clinic consult or colorectal surgery consult. If lesion not previously marked, consider repeat exam as soon as possible for tattoo. If surgery not needed, consider repeat endoscopic assessment in three months [4]	Follow up based on consultation. Consider repeat endoscopic assessment at three-six months [4]
Personal history of curative intent resection of colorectal cancer and surveillance after curative intent treatment for colorectal cancer	• Repeat colonoscopy one year after cancer resection for all fit patients [8,16] • For lesions with high likely hood of recurrence: Stage ≥ 2: Tumor completely through muscularis propria (T3) or into adjacent organs (T4) ; and select high risk into muscularis mucosa (T2) lesions –H&P every three-six months x three years [8] –Annual CT chest, abdomen and pelvis x three years [8] –CEA every three months for three years [8] –Flex-sig every three-six months for two-three years for rectal cancers not treated with XRT [8,9,16]	• Colonoscopy at three years and then five years if results are normal [9,16] • H&P every six months in years four and five [8]

PREFERRED PROCEDURES: FOR AVERAGE RISK INDIVIDUALS
COLONOSCOPY [1, 2, 6]

CT COLONOGRAPHY: Detects 90% adenomas greater or equal to ≥10 mm
insurance coverage:

- covered by CMS when
  - · patient has abnormal coagulation profile (including anticoagulation) or
  - · suspected obstruction on any imaging or endoscopy test
- covered by Mayo Health Insurance for employee screening
- coverage by other insurers variable
- every five year exams
- colonoscopy for all polyps detected ≥ 6 mm
- clinically significant extra colonic findings in 4.5 - 11%
- radiation exposure effect equivalent to barium enema
- any currently used colonoscopy bowel prep suitable
- same day standby colonoscopy program available

ALTERNATIVE STRATEGIES:

· Fecal Occult Blood Testing (FOBT) 3 day or Fecal Immunochemical Testing (FIT) one day [16]
  - yearly [9], or

· Flexible sigmoidoscopy to at least 40 cm every 5 years [9,16], or

· Stool DNA test. Promising expensive technology with optimal test still in development and follow up interval uncertain. Clinically available first generation SDNA no better than FOBT/FIT

SEDATION POLICY:

It is mandatory for a responsible adult to accompany the patient at time of patient discharge.

PREP CONSIDERATIONS:

The ordering MD is responsible for providing the prescription for all bowel cleansing products.

MAYO CLINIC ARIZONA STANDARD PREPS:

· Four Liter Lavage with balanced electrolyte solutions & PEG: TriLyte, NuLytely, Colyte, Go-Lytely. Studies show absence of Na sulfate in Trilyte and NuLytely have better taste.

· 2 Liter Lavage: Half-Lytely (balanced electrolytes & PEG plus 2 bisocodyl tablets, Na sulfate free).

· Split Dose Lavage: MoviPrep - 1 liter lavage plus required 1 liter water evening before plus 1 liter lavage and required 1 liter water AM of exam

All sodium phosphate bowel preparations are not recommended and have been withdrawn from the Mayo Clinic Formulary and Rx pad. Additionally, FDA black box warnings applied and allover the counter sodium phosphate products withdrawn due to concerns about nephrotoxicity.

Contraindications for all Preps: obstruction, ileus, gastric retention, possible perforation, toxic colitis, megacolon.

Prep Timing- Important: For AM exam: 4 PM afternoon prior. For PM exam all 4 liters of lavage prep starting no later than 4 AM or Split Dose prep with AM 2 liters starting no later than 6 AM.

Directions for all Preps: Day prior to exam – Clear liquids all day until 3 hours prior to exam and then NPO until exam. **Special Note For Sedation By Anesthesiology:** NPO at least 8 hours prior to exam

<u>4 LITER LAVAGE Directions:</u> 4 PM day prior drink 8 oz prep every 10 minutes until prep is consumed. <u>SPLIT DOSE LAVAGE Directions</u>: 4 PM consume 8 oz prep every 10 minutes until all 1 liter bottle consumed. Then fill the 1 liter bottle with water and drink it all. Repeat process no later than 6 AM day of procedure.

<u>2 LITER LAVAGE Directions:</u> 12 PM day prior take 2 bisocodyl tablets. After bowel movement, but no later than 6 PM, drink 8oz prep every 10 minutes until prep is consumed.

* All references posted on intranet Web site http://mcsweb.mayo.edu/Dept/Gastrenterology

COLON EXAMINATION DECISION GUIDE

	Colonoscopy (Colsy)	CT Colonography (CTC)	One Day Program (CTC +/- Colsy same day)	Flexible Sigmoidoscopy	Colon X-ray (Barium Enema)
Removes Precancerous Polyp	Yes	No	Yes	No	No
Biopsy Questionable area	Yes	No	Yes	Only if area in examined colon	No
Detects Lesions Outside Colon	No	Yes	Yes	No	No
Total Bowel Preparation Required	Yes	Yes	Yes	No	Yes
Intravenous Sedation	Yes	No	Only if colonoscopy required	No	No
Driver Required	Yes	No	Yes	No	No
Instrument Advanced In Colon	Yes	No	Only if colonoscopy required	Yes	No
Radiation Exposure	No	Yes	Yes	No	Yes
Insurance Coverage	Yes	Variable	Variable	Yes	Yes
Intravenous Contrast	No	No	No	No	No

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MAYO CLINIC ARIZONA STANDARDIZED COLON PREP GRADING FOR ALL COLONOSCOPIES [A]

Excellent: no or minimal solid stool and only small amounts of clear fluid requiring suctioning.

Good: no or minimal solid stool with large amounts of clear fluid requiring suctioning.

Fair Adequate: moderate amount of liquid debris, or minimal amount of solid debris that is cleared with difficulty to prevent a completely reliable exam. After adequate intraprocedure cleansing, endoscopist confident that lesions over 1 cm have been detected.

Fair Inadequate: large amounts of liquid, or moderate to large amounts of solid debris that is cleared with difficulty resulting in with inadequate visualization of colon. After adequate intraprocedure cleansing, endoscopist not confident that lesions over 1 cm have been detected.

Poor: solid or semisolid debris that cannot be effectively cleared and limits nearly entire exam.

MAYO CLINIC ARIZONA CLINICAL RECOMMENDATIONS FOR PREVENTION/SCREENING AND MOST SURVEILLANCE EXAMINATIONS BASED ON PREP GRADING: *

Excellent: Standard published guidelines

Good: Standard published guidelines

Fair Adequate: standard published guidelines

Fair Inadequate: For appropriate patients who have never had a prior colorectal cancer prevention examination, the examination should be repeated without delay. Otherwise, for appropriate patients without signs or symptoms, follow up colonoscopy may be deferred for 1 to 2 years.

Poor: Colon insufficiently evaluated; reexamination by some method should be considered based on clinical circumstances and patient/referring physician
preferences

*SPECIAL NOTES:

1. Only excellent or good prep ratings are acceptable for patients with signs or symptoms who are scheduled for diagnostic examinations. Other prep grades warrant individual decision making based on clinical circumstances.

2. Patients who have significant problems with constipation, motility issues, or a prior history of inadequate colonoscopy preparation, will require a minimum two days of clear liquids in preparation for the exam. Please call or consult GI for patients with difficult problems.