



Screening for G.I. Malignancies

An Office Approach

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Pre-Questions

1. Colon Cancer is the most common G.I. malignancy by four fold.

- A. True
- B. False

Pre-Questions

2. Pancreatic Cancer is the *second* most common G.I. cancer death behind colon cancer.

- A. True
- B. False

Pre-Questions

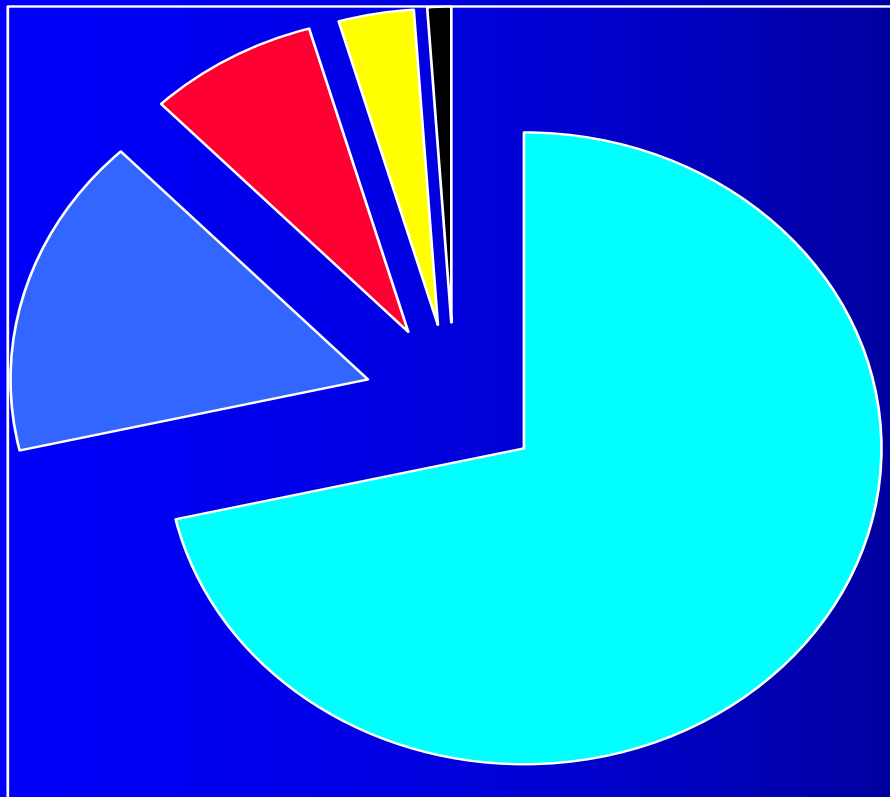
3. In general, colon cancer screening (prevention) should begin at age 50 in both males and females.

- A. True
- B. False

Cancer Spectrum 2009

- Lung Cancer
 - Total Cases 219,440
 - Deaths 159,390
 - Females 70,490
- Breast Cancer
 - Total Cases 192,370
 - Deaths 40,170
- Esophageal Cancer
 - Total Cases 16,470
 - Deaths 14,530
 - Males 12,940
- Colon-Rectum Cancer
 - Total Cases 147,000
 - Deaths 49,720
 - Females 24,680
- Pancreatic Cancer
 - Total Cases 42,570
 - Deaths 35,240
 - Females 17,210

Causes of Hereditary Susceptibility to CRC



■ Sporadic (65-85%)

■ Familial (10%-20%)

■ HNPCC (5%)

■ FAP and MAP (1%)

■ Rare CRC syndromes (<0.1%)

Case Presentation

- 52 year old Caucasian male presents for annual physical exam. Asymptomatic. Father had colon cancer age 65. Hemoccult negative. Your recommendation is:
 - A. Colonoscopy
 - B. Flexible sigmoidoscopy followed by D.C.B.E.
 - C. CT Colonography

Updates to ACG Cancer Screening Guidelines

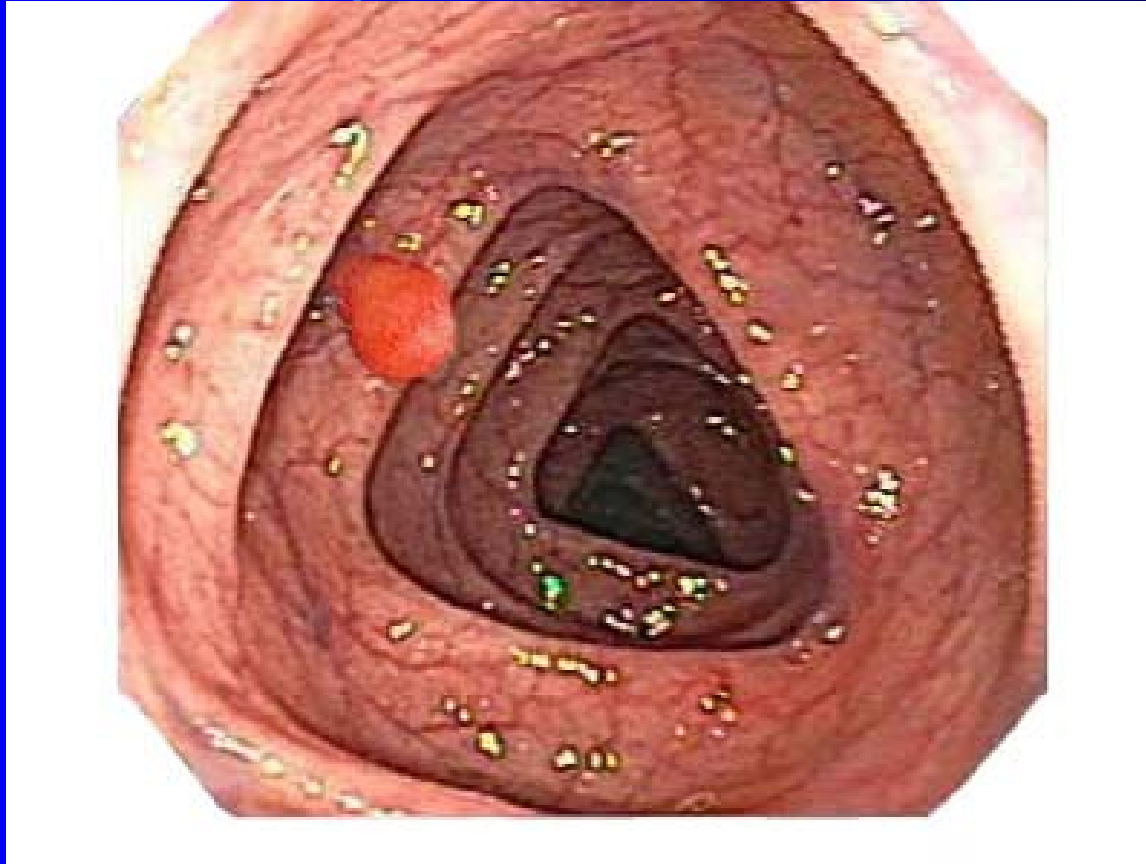
- Preferred CRC Screening Recommendations
 - Cancer prevention tests should be offered first
 - Preferred CRC prevention test is colonoscopy every 10 years, beginning at age 50 (Grade 1B)
 - Screening should begin at age 45 years in African Americans (Grade 2C)
 - Cancer detection test
 - Should be offered to patients who decline colonoscopy or other prevention test
 - Preferred cancer detection test is annual FIT for blood (Grade 1 B)

Updates to ACG Cancer Screening Guidelines, cont.

- Alternative CRC Prevention Tests
 - Flexible sigmoidoscopy every 5-10 years (Grade 2B)
 - CT colonography every 5 years (Grade 1C)
- Alternative Cancer Detection Tests
 - Annual Hemoccult Sensa (Grade 1B)
 - Fecal DNA testing every 3 years (Grade 2 B)

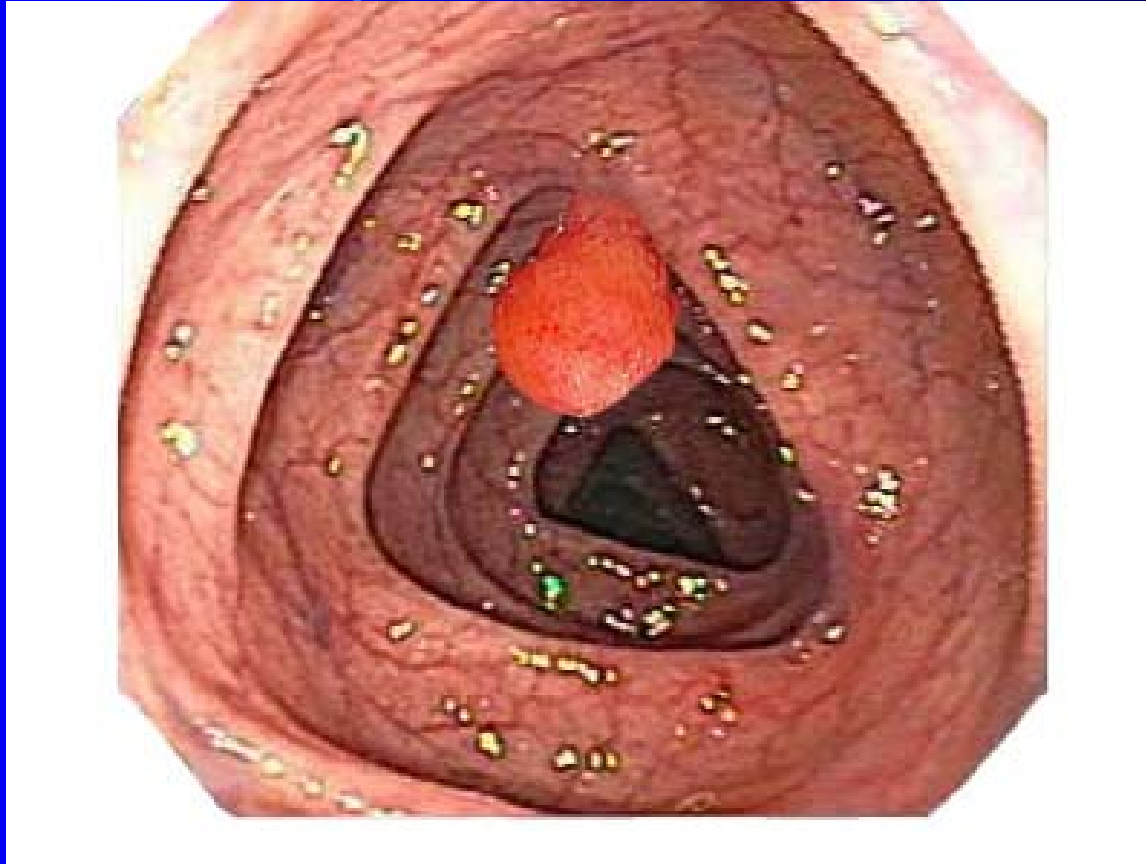
Case Presentation

- Your patient agrees to have a colonoscopy. A single 1 cm adenomatous polyp is removed. Your recommendation for follow up is:
 - A. Colonoscopy 10 years
 - B. Colonoscopy 5 years
 - C. CT Colonography 5 years



1.0 cm Polyp

A polyp of this size has about a 10% chance of becoming cancerous.



2.25 cm Polyp

A polyp this size has about a 30% to 50% of becoming cancerous.

Risk Assessment Essential to Determine Colonoscopy Screening Intervals

Risk/Characteristics	Recommendation/Suggestion
<p>Average Risk</p> <ul style="list-style-type: none"> - No family hx of CRC, non-African American - Fam hx CRC or AA in 1st degree relative dx at age \leq 60 - Family hx for CRC in 2nd degree relatives 	<p>Colonoscopy at age 50: every 10 years thereafter</p>
<p>High Risk</p> <ul style="list-style-type: none"> - Fam hx CRC or AA in 1st degree relative dx at age $>$ 60 - Family hx CRC or AA in 2 1st degree relatives at any age 	<p>Colonoscopy at age 40 (or 10 years younger than age at diagnosis of the youngest affected relative); every 5 years thereafter</p>
<p>African-Americans</p>	<p>Colonoscopy at age 45; every 10 years thereafter</p>
<p>Other High-Risk Characteristics</p> <ul style="list-style-type: none"> - Obesity - Current or former smokers ($>$20 pack years) 	<p>Colonoscopy at age 45; patients may benefit from 5- rather than 10-year screening intervals</p>

Post-Polypectomy Surveillance

(good prep, exam to cecum)

Category

- One or two TA < 1cm
- 3-10 adenomas, any villous component, HGD, ≥ 1 cm
- > 10 adenomas
- Large sessile adenoma
- Normal follow up or only small distal hyperplastic polyps
 - Prior advanced adenomas

Interval

5-10y

3 y

<3y

2-6 mo

5-10 y

5y

CRC Screening Guidelines

MSTF-ACS-ACR

- Annual FIT or HOS
- Flex sig q 5-10 y
- Fecal DNA (interval not stated)
- DCBE q 5 y
- Colonoscopy q 10 y
- CTC

ACG and ASGE

- Colonoscopy q 10y preferred



- **87% Sensitivity for colorectal cancer**
 - **47.4% Sensitivity for large adenomas**
 - **96.6% Specificity for significant neoplasia**
 - **66% More patient compliance**
- In a clinical trial, the sensitivity of the InSure® FIT™ was shown to be 87% sensitivity for colorectal cancer in individuals with a personal or family history with colorectal cancer
 - Sensitivity for large adenomas (>10 mm) was 47.4%.
 - With a demonstrated specificity of 96.6%, the InSure® FIT™ provides accurate screening with less worry about false positives.
 - Up to 66% more patient compliance with the InSure® FIT™ vs. other FOBTs.¹ Increased compliance with the InSure® FIT™ means more patients are screened for colorectal cancer

gFOBT vs FIT

- FIT: better performance
- FIT: 10-12% gains in adherence
- FIT: Doubling of number of patients detected with advanced neoplasia
- FIT: may maintain positive predictive value after a negative colonoscopy
- Commercially available FITs may have variable performance

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CTC Screening: ACRIN Trial

	>5mm	>6mm	>7mm	>8mm	>9mm	>1cm
SENS	65%	78%	84%	87%	90%	90%
SPEC	89%	88%	87%	87%	86%	86%
PPV	45%	40%	35%	31%	25%	23%
NPV	95%	98%	99%	99%	99%	99%

CT Colonography



CT Colonography Issues

- Adherence?
- Extracolonic findings
- Radiation risk
- Reporting and management of small polyps
- Positioning CTC in practice
 - Primary Screening for all?
 - Use only for patients who refuse colonoscopy?
 - Triaged screening based on risk, informed consent?
- Who will do it
 - GI directed colorectal cancer screening

Quality Measures for Improving Outcomes in Colonoscopy as a Screening Test for Colorectal Cancer

- Document adequacy of prep (split dosing recommended)
- Document cecal intubation (photographs)
- Document adenoma detection rates for all endoscopists
- Document withdrawal times of 6 minutes in intact colons where no intervention is performed
- Document recommended screening and surveillance intervals in complete examinations with adequate preparation

Summary, Conclusions

- FIT is the preferred non-imaging test
- Colonoscopy q 10 y still dominates: quality of performance will determine its future
- CTC will emerge as a screening test; its impact and role will depend on how persistent questions are answered and the extent to which colonoscopy performance improves