Colon Cancer Screening in 2016
Offering Patients a Choice

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Objectives

1. Understand the incidence and mortality rates for CRC in the US.
2. Understand risk factors for CRC.
3. Discuss the adenoma to carcinoma sequence in CRC.
4. Discuss how screening can detect CRC at an earlier curable stage and how removing precancerous adenomas can prevent CRC.
5. Discuss different screening options.
6. Discuss how you can encourage your patients to consider getting a screening test.
Why Take Chances with Colorectal Cancer?

- Colorectal cancer’s rank among killer cancers in the United States
- The likelihood of developing colon cancer during your lifetime
- Number of new cases of colorectal cancer each year in the United States
- American adults who aren’t screened for colorectal cancer as recommended — almost 23 million total
- Number of years recommended between colonoscopies for average-risk individuals, starting at age 50, age 45 for African Americans
- Reduction in cancer risk following colonoscopy and polypectomy

This year, more than 50,000 PEOPLE are expected to DIE of colorectal cancer. Screening could SAVE more than HALF of those lives.
Risk Factors for CRC

- Increasing age: 90% of cases in patients > 50 years old.
- Lifetime risk is about 1/20 for average risk patient.
- Modifiable factors: obesity, physical inactivity, diet high in red meat, alcohol use, smoking, diet low in fruits and vegetables.
- Hereditary factors: personal history or family history of CRC or adenomatous polyps, IBD-ulcerative colitis or Crohn’s, and genetic conditions like Lynch Syndrome or familial polyposis.
CRC Survival

5 Year Survival Rates - In Detail

- With Distant Metastases: 12%
- With Lymph Node Involvement: 70%
- Early Localized Stage (39%): 90%
Pathogenesis: the adenoma-carcinoma sequence

- The majority of colon cancers are felt to arise from precancerous adenomas.
- Colon polyps are either adenomas or hyperplastic polyps.
- 25% of men and 15% of women will harbor adenomas but most of these polyps will never progress to cancer.
- The progression from adenoma to carcinoma is felt to take at least 10 years.
Hyperplastic polyps

- Account for about 30% of colon polyps.
- Most are small (3-5mm) and are located in the sigmoid colon or rectum.
- Hyperplastic polyps are not dysplastic unlike adenomas.
- Typical hyperplastic polyps do not increase one’s CRC risk.
- The finding of several small distal hyperplastic polyps on colonoscopy does not warrant surveillance colonoscopy. This patient would continue routine screening.
Flat polyps: the new kid on the block

- A flat polyp is a non-polypoid flat or depressed polyp
- Flat polyps account for 22-36% of identified polyps
- Flat polyps may account for 25-30% of CRCs and may progress from polyp to cancer in less than 10 years.
- Flat polyps that are missed may account for a large proportion of “interval” cancers.
Colon polyps are a risk factor for CRC

- CRC risk in a patient increases with adenoma size, number and histology.
- The size and number of adenomas found will determine the appropriate surveillance interval.
- 1-2 adenomas < 10mm = 5 year surveillance exam.
- 3 or more adenomas or any adenoma > 10mm = 3 year surveillance exam.
- Very large sessile or flat adenomas may require a 3-6 month exam to assure complete removal.
Hemoccult tests have been shown to reduce mortality by 30%.

Data for newer FIT test not yet available but FIT should have better sensitivity and specificity.

Colonoscopy reduces mortality by ~ 70-90%. Refined preps and awareness of flat polyps may improve performance.

CRC screening is unique in that finding and removing the precancerous polyp prevents the cancer.
We need to do better

Eligible Adults Up to Date with CRC Screening

- 2012 Nevada Rates: 58%
- 2012 National Average: 65%
- 2018 National Goal: 80%
Screening options

RECOMMENDED

- *Colonoscopy
- *FOBT-FIT test is replacing the hemoccult

THE REST...

- Flexible sigmoidoscopy
- Barium enema
- Virtual (CT) colonoscopy
- Cologuard stool DNA test—recently FDA approved
Colonoscopy every 10 years = $28,143 per year of life saved vs $58,000 for screening mammography annually from age 40-80.

Effectiveness of Colonoscopy in Screening for Colorectal Cancer. Amnon Sonnenberg MD, MSc; Fabiola Delco MD, MPH; and John Inadomi MD. Ann Intern Med. 2000; 133: 573-584

Costs of Screening

- FIT test approximately $20
- 2015 Medicare reimbursement:
  - Professional fee $213
  - Facility fee $364
  - Total of $577
- Cologuard stool DNA test $599
FIT test

- Will detect 70-80% of cancers and 20-30% large polyps.
- Inexpensive. Easy and convenient to do at home.
- Only a single stool needs to be sampled.
- Needs to be done yearly to be effective.
- A positive test requires a colonoscopy.
- Considered a detection test rather than a prevention test.
Office DRE is not a good test

- Office DRE with hemoccult test has low sensitivity and specificity.
- It is not considered an adequate screening test and should not be considered a screening modality. It is not recommended in any of the guidelines on colon cancer screening.
- Rectal exam should be done for symptoms.
Colonoscopy

- Considered a prevention exam because removing the adenoma polyp can prevent cancer.
- Only has to be done every 10 years if negative.
- Considered the gold standard although polyps and even small cancers can be missed.
Colonoscopy Disadvantages

- Invasive—requires a laxative bowel prep, sedation, and a day off from work.
- Relatively expensive.
- Carries a 1/200 risk of post polypectomy bleeding and a 1/2500 risk of perforation.
Quality in colonoscopy  
Doing it better

- Low volume split preps are easier for patients and result in an better prepped colon. Poor prep may result in missed polyp or even missed cancer.

- 1 L the night before and 1 L early the next morning is much easier than 4 L of Golytely.

- Adenoma detection rate is best parameter of physician quality and should be minimum 25% for men and 15% for women.

- Scope withdrawal time from the cecum is also an important quality parameter and should be greater than 6 minutes on a normal exam.
Cologuard stool DNA test

- 92% sensitive for detecting CRC in a trial of 10,000 patients
- 42% sensitive for advanced adenomas
- 13% false positive rate
- 8% false negative rate
- Abnormal result needs to be followed by colonoscopy.
- Currently recommended every 3 years.
Barriers to Screening

- Access to health care e.g. insurance coverage.
- Ethnicity: African Americans and Hispanic Americans have lower screening rates.
- Real or perceived inconvenience or discomfort.
- Test availability
PCPs are busy

- Pneumovax
- Flu shot
- Cholesterol
- Breast cancer screening
- Prostate cancer screening
- Blood pressure
- Weight
- Smoking
- !!!!Please try to remember CRC screening!!!!
Screening Guidelines

- Screening should start in average risk patient at age 50 and at age 45 in African Americans. “Let’s discuss 2 possible options”.
- Any screening test is better than no test at all.
- Offering patients the option of a colonoscopy or a home FIT test can improve screening compliance.
- Having a way to track completion of screening tests will help with compliance. We know that 40-50% of patients referred for colonoscopy don’t follow through with the exam.
- Screening should be done up to age 75 in average risk patients or up to 85 in special circumstances e.g. very fit and active patient.
Family History

- Patients with a first degree relative with CRC before the age of 60 have double the risk of an average risk patient (1 in 10).
- They should start screening with colonoscopy at age 40, or 10 years early than the age of the affected relative at the time they were diagnosed.
Rectal Bleeding

- Most is from a benign source.
- All persistent rectal bleeding needs to be evaluated to determine the source, even in young patients.
A 55 yo man is in your office for a checkup. He had a normal colonoscopy 5 years ago at age 50. There is no family history of colon cancer and he denies any symptoms. He wants to know when he should be checked again.

You review the colonoscopy report and the exam was complete to the cecum and the bowel prep was excellent. The report recommended the next colonoscopy in 10 years.

What should you do?

A. Order a FIT test now.

B. Reassure him that he had a good quality colonoscopy 5 years ago and that his next colonoscopy will be scheduled in 10 years.
Learning case #2

A 55 yo man is in for a checkup. He had a colonoscopy 3 years ago and he had 2 benign adenomatous polyps (adenomas) both less that 10mm. He wants to know when he should be checked again.

What should you do?

A. Order a FIT test.

B. Review his records and determine when his next colonoscopy is due.
A 44 yo man is in your office for a checkup. His mother died of colon cancer at age 50. He denies any symptoms.

What should you recommend?

A. Yearly FIT test.

B. Colonoscopy now and every 5 years.
In closing

- Thank you for your attention.
- Please help me to continue to improve our screening rates in Nevada.