

Grand Rounds

Des Moines University

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Case Summary

- Mrs. J is a 56 y o w female complaining of “always tired; no energy” for the past 6-7 mos.
- ER visit ~ 1 y ago complaining of intermittent blood in stool. No rectal pain. Digital rectal exam in ER recorded as “No masses. H/O neg”; Hgb 11.5/ Hct 33. ER discharge dx – Hemorrhoids. Rx’d OTC Annusol prn.
- G3 P3 (@ages 17, 28, 33); menopause @ age 48
- No chronic medical problems
- No medications



Case Summary

- Limited medical care > 20 yrs; uninsured since Medicaid expired after birth of last child.
- Health maintenance/preventive care
 - Pelvic exam and pap smear ~ age 43
 - Mammogram ~ age 45
- Seeking care now b/c recently gained health insurance.



Case Summary

- Family History

- Mother alive, age 77; Htn, arthritis
- Father died at age 55 (“cancer in liver and all through his belly”)
- 1 Sister, age 47; had colonoscopy 3 years ago and again last month

- ROS

- Fatigue
- Occ blood in stool



Case Summary

- Physical Exam

- Moderately obese (BMI 31)
- Abdominal exam unremarkable
- Rectal – no tenderness, no mass; small amt brown, guaiac positive stool

- Lab Results

- Hgb 9.0/ Hct 28; microcytic
- Electrolytes, glucose, liver enzymes – all WNL
- CXR - WNL



Case Summary

- Problem List
- Diagnostic plan
 - Lab
 - Imaging
 - Consults



Case Summary

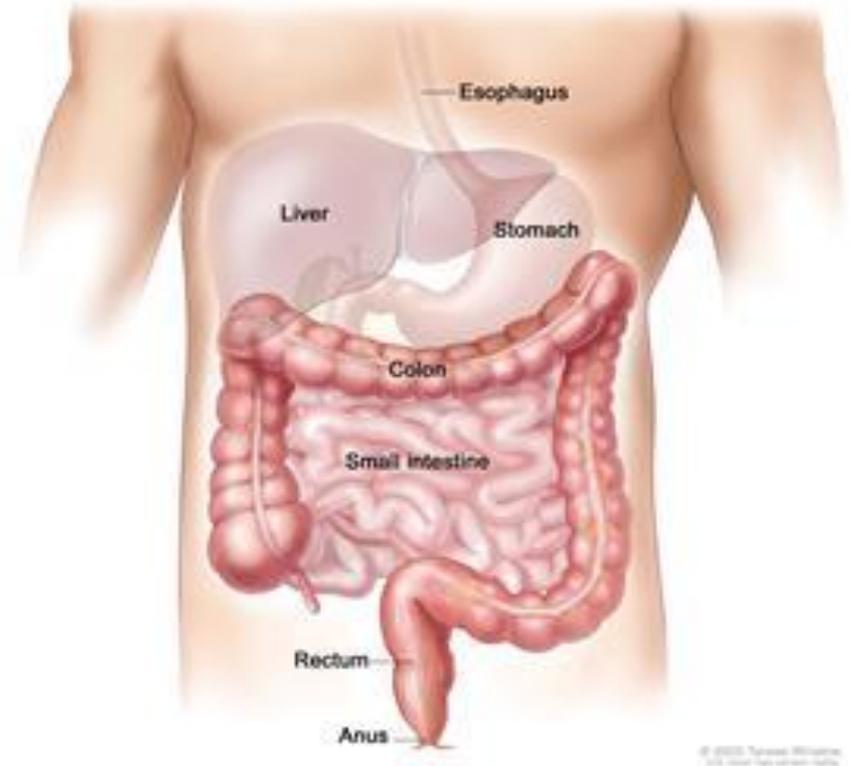
- Colonoscopy findings
 - 2 cm polyp proximal colon
 - 4.5 cm mass mid-transverse colon
- Pathology report on mass
 - Adenocarcinoma, penetrating muscular layer of colon wall



Colorectal Cancer: Risks, Prevention and Early Detection

What Is Colorectal Cancer?

- Cancer in the colon or the rectum
- Addressed as “colorectal” because risks, prevention and screening similar
- Treatment and outcomes differ



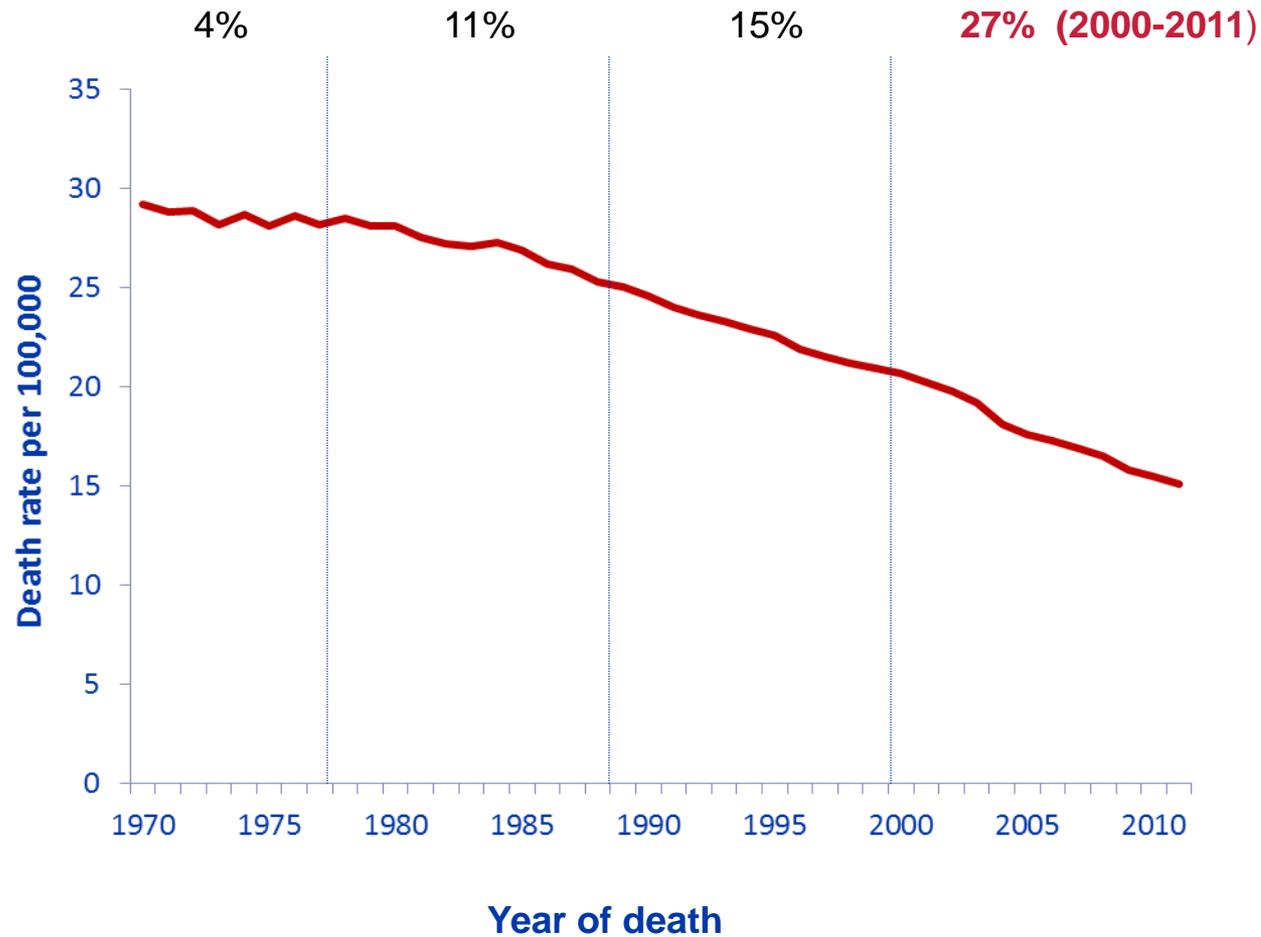


How Common is Colorectal Cancer?

- 2nd most common cause of cancer death in US
 - ~134,000 new cases expected in US in 2016
 - >49,000 deaths
- 1.2 million Americans living with CRC
- Incidence and death rates have fallen steadily past 20 years

Overall CRC death rate decline in the US

CRC mortality decline per decade:





Colorectal Cancer Risk Factors

Modifiable Risk Factors

- Diet
- Tobacco
- Alcohol
- Physical Activity
- Obesity



Non-Modifiable Risk Factors

- Age
 - 90% of cases occur in people 50 and older
- Gender
 - slight male predominance, but common in both men and women
- Race/Ethnicity – higher rates among
 - African Americans
 - Native Americans (esp. Northern Plains Tribes)
 - Alaska Natives
 - Ashkenazi Jews



High Risk

- Increased risk with:
 - Personal history of inflammatory bowel disease, adenomatous polyps or colon cancer
 - Family history of adenomatous polyps, colon cancer, genetic syndromes (FAP, Lynch Syndrome)
- Individuals with these risk factors may require earlier and more intensive screening

Family History and CRC Risk

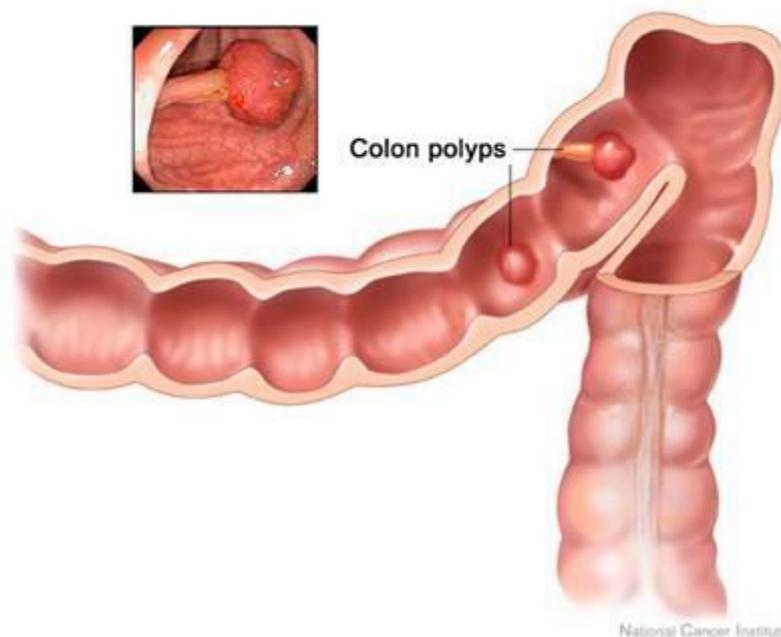
Individual Risk Based on Family History of CRC ^{***}	
Familial Setting	Approximate Lifetime Risk of Colon Cancer
No history of colorectal cancer or adenoma (General population in the United States)	6%
One second- or third-degree relative with CRC	About a 1.5-fold increase
One first-degree relative with an adenomatous polyp	About a 2-fold increase
One first-degree relative with colon cancer*	2-to-3-fold increase
Two second-degree relatives with colon cancer	About a 2-to-3-fold increase
Two first-degree relatives with colon cancer*	3-to-4-fold increase
First-degree relative with CRC diagnosed at < 50 years	3-to-4-fold increase

* First-degree relatives include parents, siblings, and children.
Second-degree relatives include grandparents, aunts, and uncles.
Third-degree relatives include great-grandparents and cousins.

Risk Factor - Polyps

Types of polyps:

- Hyperplastic
 - minimal cancer potential
- Adenomatous
 - approximately 90% of colon and rectal cancers arise from adenomas



Progression to cancer usually 10-14 yrs, providing a lengthy window for polyp detection and removal.



What is “Cancer Screening”?

- A test that can be safely performed on large numbers of asymptomatic individuals in order to classify them as *likely or unlikely* to have cancer.
- Allows for early diagnosis, treatment and less risk of injury or death
- Positive results on screening tests usually leads to more testing to assess presence or absence of cancer



Common Cancer Screening Tests

Tests Recommended by the ACS and Other Organizations

- Mammograms for breast cancer
- Pap smears for cervix cancer
- Colonoscopy and other tests for colon cancer

While there is near-universal agreement on the use of screening tests for the above cancers, agreement is lacking re: the use of prostate cancer screening.

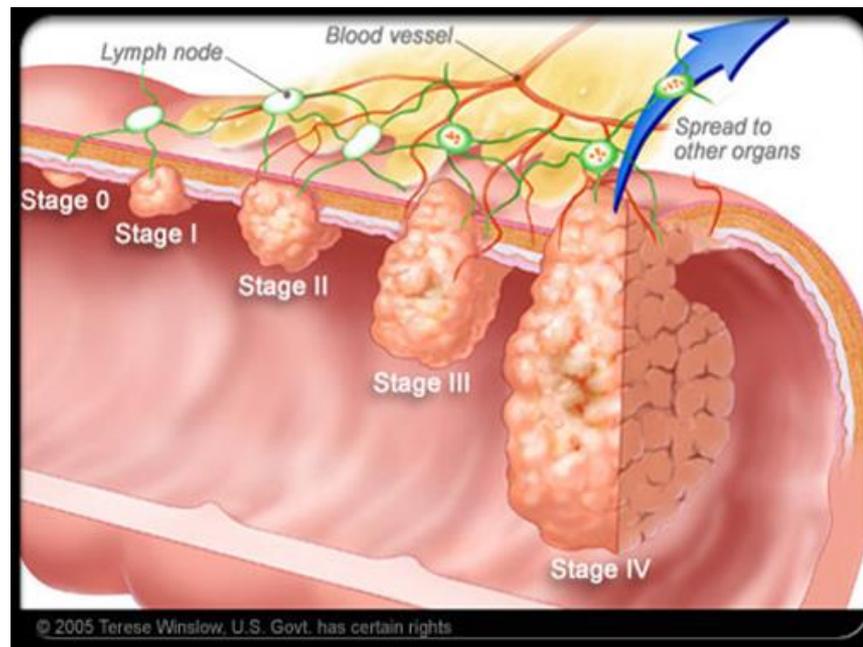


Benefits of CRC Screening

- **Screening** → polyp removal → prevention
 - Relatively unique aspect of colon cancer screening
- Recent study estimates that screening has prevented approximately **550,000** cases of colorectal cancer in the US over the past three decades

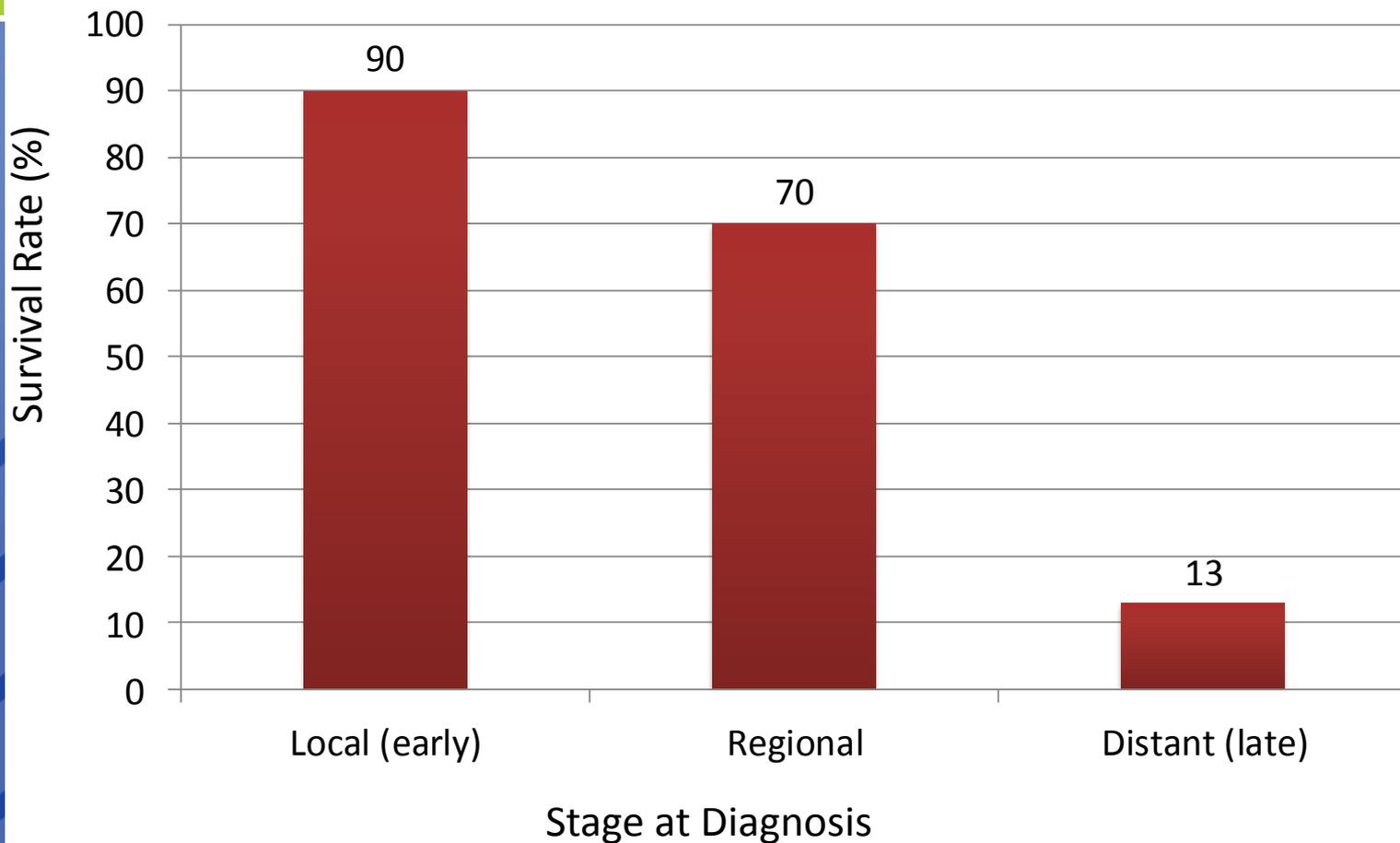
Benefits of CRC Screening

- Screening → early detection



- Detection and treatment of early stage disease markedly improves chances of long term survival

Five-year CRC-specific Survival by Stage at Diagnosis, All Races, 2003-2009



ACS Screening Guidelines

Options for Average risk adults age 50 and older:

Tests That Detect Adenomatous Polyps and Cancer

Colonoscopy every 10 years, or

Flexible sigmoidoscopy (FSIG) every 5 years, or

Double contrast barium enema (DCBE) every 5 years, or

CT colonography (CTC) every 5 years

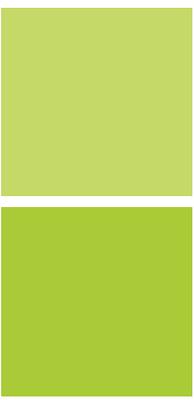
Tests That Primarily Detect Cancer

Guaiac-based fecal occult blood test (gFOBT) with high test sensitivity for cancer, or

Fecal immunochemical test (FIT) with high test sensitivity for cancer, or

Stool DNA test (sDNA), with high sensitivity for cancer





ACS Screening Guidelines – Family History

Either colorectal cancer or adenomatous polyps in a first-degree relative before age 60 years or in 2 or more first-degree relatives at any age²⁴

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

Colonoscopy

Either colorectal cancer or adenomatous polyps in a first-degree relative \geq age 60 years or in 2 second-degree relatives with colorectal cancer²⁴

Age 40 years

Screening options at intervals recommended for average-risk individuals





Case Analysis: What went wrong?