

## Screening for Colorectal Cancer (reviewed 12/27/2005)

### **I Screening in Average Risk Patients**

**There are four widely accepted methods to screen for colon cancer in average risk patients: annual fecal occult blood tests (FOBT), sigmoidoscopy every five years, sigmoidoscopy every five years plus annual FOBT, and colonoscopy every ten years.** While some organizations (eg the American Cancer Society) regard double-contrast barium enema (DCBE) every five years as adequate, others (eg the US Preventive Services Task Force) believe the data are insufficient to justify screening with DCBE. CT colography is a new method that could potentially be used to screen for colorectal cancer but currently can not be recommended.

Men and women at average risk for colon cancer (eg no family history or predisposing factors for colon cancer) should be screened beginning at 50 years old. Randomized control trials show yearly FOBT reduces mortality 33% over 13 years from colorectal cancer. Case control data support sigmoidoscopy as an effective means to reduce colon cancer death. One case control study reported that sigmoidoscopy was associated with a 66% decrease in distal colon cancer mortality while proximal cancer rates remained unchanged. Even for distal lesions, sigmoidoscopy is less sensitive than colonoscopy and thus screening sigmoidoscopy should be performed every five years while screening colonoscopy should be performed every 10 years.

There is not definitive evidence that the combined approach of annual FOBT with sigmoidoscopy every five years is superior to either approach used alone. However, one case-control studies suggest that each screening approach is independently associated with reduced colon cancer mortality. Also there is some evidence that FOBT is less sensitive for distal colonic lesions than proximal lesions.

There is no direct evidence that screening with colonoscopy decreases colon cancer mortality. However, it is relatively easy to extrapolate that if sigmoidoscopy decreases colon cancer mortality then the more sensitive test (eg colonoscopy) also should reduce mortality. The interval of 10 years for rescreening after a negative colonoscopy is based on the fact that the average time from progression from an adenomatous polyp to cancer is at least 10 years.

### **II Screening in High Risk Patients**

Patients with a first degree relative (parent, sibling, or child) with colon cancer or an adenomatous polyp diagnosed at age<60 or two first degree relatives diagnosed with colorectal cancer at any age should have colonoscopy initiated at age 40 or 10 years younger than the earliest diagnosis in their family (whichever comes first), and repeated every five years. Patients with one first-degree relative age>60 or two second degree relatives (grandparent, aunt or uncle) diagnosed with colon cancer should be screened like an average risk patient but beginning at the age of 40.

For recommendations regarding screening in cases of familial adenomatous polyposis (FAP) or hereditary nonpolyposis colorectal cancer (HNPCC) refer to the American Gastroenterology Association Guidelines listed below.

### **III Screening in Inflammatory Bowel Disease**

For patients with inflammatory bowel disease (IBD) periodic surveillance colonoscopy with biopsy should be performed, although there is no randomized control evidence to support this recommendation. Case-control studies report better survival in patients with IBD in surveillance programs. According the American Gastroenterology Association states, "it is common practice to perform surveillance [colonoscopy with random biopsies] every 1-2 years after 8 years in patients with pancolitis and after 15 years in patients with left-sided colitis although direct supporting evidence is lacking."

### **IV References**

Sidney Winawer, et al, Colorectal cancer screening and surveillance: Clinical guidelines and rationale—Update based on new evidence, *Gastroenterology* 2003;124:544-560

US Preventive Services Task Force recommendations for colorectal cancer screening:  
<http://www.ahcpr.gov/clinic/uspstf/uspstfcol.htm>