

# Colorectal Cancer Screening Practices in an Outpatient Clinic

*Blanche Fung*

## A. Study Purpose and Rationale

Colorectal cancer is an important problem in the United States. It is the third most commonly diagnosed cancer, with approximately 135,000 new cases expected each year, and the second most common cause of death from cancer, about 55,000 deaths per year.<sup>1</sup> Detection of colorectal cancer in its early stages by screening can improve survival. The estimated 5-year survival from colorectal cancer is about 90% in those with localized disease, 60% in those with regional disease, and about 5% in those with distant metastasis.<sup>2</sup> In addition to early detection, evidence suggests that screening is effective in primary prevention of cancer by removal of benign adenomatous polyps thought to be the precursors of most colorectal cancers. The National Polyp Study showed that the removal of adenomatous polyps of the colon and rectum by colonoscopic polypectomy resulted in a lower-than-expected incidence of colorectal cancer.<sup>3</sup>

Colorectal cancer screening is cost-effective for average risk patients, i.e. those with no personal or family history of colorectal cancer, inflammatory bowel disease, or any inherited genetic mutation whose syndrome includes an increased risk of colon cancer. The most recent colorectal cancer screening guidelines for average-risk patients above the age of 50 are the following<sup>4</sup>:

1. fecal occult blood testing (FOBT) annually, OR
2. sigmoidoscopy every five years, OR
3. FOBT annually AND sigmoidoscopy every five years (preferred by the American Cancer Society over FOBT alone), OR
4. double-contrast barium enema every 5-10 years, OR
5. colonoscopy every 10 years

Public utilization of screening is generally poor. A survey conducted by the Centers for Disease Control in 1992 and 1993 found that 34% of men and 29% of women older than 50 years had undergone FOBT within the previous year, and 33% of men and 24% of women had undergone sigmoidoscopy within the last 5 years. Analyses showed that men more often than women, whites more often than blacks, those with higher income, greater education, and older age tended to be more compliant with colorectal cancer screening. The most common reason for lack of adherence was failure of the physician to offer screening.

At Columbia Presbyterian Medical Center (CPMC), the medical house staff is taught to include colorectal cancer screening as part of outpatient management at the Associates of Internal Medicine (AIM) clinic. The options for acceptable screening modalities have led to differences in screening practices among residents. Residents are the primary care physicians for their patients at most three years, at which point patients are reassigned to other members of the house staff. Lack of continuity of care often leads to irregularity of colorectal cancer screening. The most frequently used screening method in the AIM clinic is annual FOBT. Patients are sent home with three Hemoccult cards and instructions on how to smear three consecutive stool samples on the cards. The patients are expected to return the cards

---

<sup>1</sup> Helm JF. Colorectal cancer screening. *Med Clin N Amer* 1999; 83:1403-19

<sup>2</sup> *ibid*

<sup>3</sup> Winawer SJ. Prevention of colorectal cancer by colonoscopic polypectomy. *NEJM* 1993; 329: 1977-81

<sup>4</sup> Burt RW. Colon cancer screening. *Gastroent* 2000; 119:837-53

to the clinic. Any positive result should be followed up with further testing, preferably a diagnostic colonoscopy. There are a great number of obstacles faced in this system. The primary care physician has the responsibility to offer FOBT screening annually, to explain the procedure, and to discuss the findings with the patient. Furthermore, if there is a positive test result, the physician is responsible to schedule further work-up. Patient compliance is a big problem. Often, patients fail to bring the cards back. Among the issues are lack of awareness about colorectal cancer, misunderstanding of instructions, unwillingness to prepare the stool samples, or fear of further testing upon finding a positive result. Since many of the patients seen in the clinic are of Dominican descent, there may be cultural factors that come into play.

Women above the age of 50 tend to fear breast cancer and demand annual mammography. Similarly, men above the age of 50 recognize the risk of prostate cancer and expect an annual prostate examination. Colorectal cancer has equal prevalence among men and women, and is often asymptomatic in its early stages. I propose to evaluate the colorectal screening practices among average-risk patients above the age of 50 in the AIM clinic at CPMC. The purpose of this evaluation is:

1. To point out the irregularity of screening, the non-compliance of patients, and the failure of proper follow-up for positive FOBT results
2. To identify the obstacles which contribute to the problems above, and
3. To propose a solution in order to improve colorectal cancer screening among the house staff at CPMC.

## **B. Study Design and Statistical Analysis**

This is a cross-sectional study and is purely observational. Medical records and computer data for the eligible patients will be reviewed for annual FOBT documented in the assessment and plan, completed FOBT documented on the computer, and further follow-up for positive results documented in physician notes and on the computer.

## **C. Study Procedures**

There are no experimental procedures.

## **D. Study Drugs**

There are no investigational drugs.

## **E. Medical Devices**

There are no investigational medical devices.

## **F. Study Questionnaire**

A questionnaire (in English and in Spanish) will be written and sent to all patients eligible for the study. The questionnaire will address patients' awareness of colorectal cancer, their compliance with screening, and their reasons for non-compliance.

## **F. Study Subjects**

A list of patients followed by the residents in AIM clinic will be compiled from outpatient binders and/or patient lists kept by each resident. In my outpatient practice, I follow 92 patients. Approximately 60 of these I have seen at least twice in the last 18 months. Multiplying this number by the number of junior and senior residents (87), there will be over 5,000 patients screened for the study. Of these, patients will be excluded if 1) they are < 50 years of age, 2) they are not average-risk (defined

above), 3) they have only one visit to the primary care physician documented in the outpatient binder. There will be no restriction by gender or race.

#### **G. Recruitment of Subjects**

Subjects will be identified by their primary care provider. The primary care physicians will be notified that the study is being conducted, but will not be required to discuss the study with the patient since it is an observational study and will not affect the patient's care.

#### **H. Confidentiality of Study Data**

A unique code number will be used for all study subjects. Data will be stored in a secure location, accessible only to the investigator.

#### **I. Potential Conflict of Interest**

Neither the investigator nor the University stand to benefit financially from this investigation.

#### **J. Location of the Study**

The study will be conducted in the AIM clinic at Columbia Presbyterian Medical Center.

#### **K. Potential Risks**

Since this is an observational study, there are no potential risks or discomforts to the patient.

#### **L. Potential Benefits**

The patient has no, immediate benefit from participation in this study. The longterm benefit is improved awareness of colorectal cancer screening among patients and their physicians, as well as an improved system of providing that screening in the AIM clinic.

#### **M. Alternative Therapies**

There are no alternative or experimental therapies involved in the study.

#### **N. Compensation to Subjects**

No compensation will be provided.

#### **O. Costs to Subjects**

The subject will incur no additional costs as a result of participating in the study.

#### **P. Minors as Research Subjects**

There will be no person under the age of 18 in the study.

#### **Q. Radiation or Radioactive Substances**

This study involves no exposure to radiation or radioactive substances.

**R. References**

Burt RW. Colon cancer screeninR. *Gastroenterology* 2000; 119: 837-53.

Garcia-Carrasquillo RJ. Notes on colon cancer screening.

Helm JF and Sandler RS. Colorectal cancer screening. *Med Clin of N Amer* 1999; 83:1403-20.

Mandel JS, et al. Reducing mortality from colorcetal cancer by screenindfor fecal occult blood. *N Eng J Med* 1993; 328: 1365-71

Mandel JS, et al., Sensitivity, specificity and positive predictivity of the Hernoccult test in screening for colorectal cancer (The University of Minnesota's Colon Cancer Control SLudy). *Gastroenterology* 1989; 597-600

Rex D& et al. Colorectal cancer prevention 200% Screening recommendations of the American College of Gastroenterology. *Amer J of Gastroenterology* 2000; 95: 868-75

Scheitel AM, et al. Colorectal cancer screening:Acommunity case-control stjLdy of proctosigmoidoscopy, barium enema radiogrphy, an&fecal occult blood test effigggy. *Mayo Clin Prac* 1999; 74: 1208-13

U.S. Preventive Services Task Force. Colon cancer screening. *J ofAmer Ger Soc* 2000; 48: 333-5

Winawer SJ, et al. Prevention of colorectal cancer by colonoscopic polvecto *NEngJMed* 1993; 329:1977-81.