

Access matters: Improved detection of premalignant polyps with a screening colonoscopy program for the uninsured

Damian Casadesus, M.D., Ph.D., Orlando Penaloza, M.D., Anubha Mishra Tewary, M.D., Delaram Moazami, M.D., Armen Simonian, M.D., Daniel Goldsmith, M.D.

Background: Colonoscopy is an effective screening modality for the early detection of colonic polyps and cancer, but screening rates are low particularly among minorities and the uninsured. In 2008, Capital Health obtained a clinical grant from the American Cancer Society to perform screening colonoscopies for patients without insurance who were established at the hospital's primary care clinic. The aim of this study is to evaluate the grant program with respect to endoscopic findings and changes in the demographics of patients undergoing colonoscopy.

Methods: A retrospective review was performed on all patients registered for colonoscopy at the endoscopy suite of Capital Health Regional Medical Center. A pre- and postimplementation analysis was designed to compare 3 groups: 1) all colonoscopies performed in the twenty four months prior to the program's start (pre-program group) 2) all screening colonoscopies performed on uninsured patients in the program during twenty four months period (program group) and 3) all other colonoscopies performed in the same suite during the time of the program (parallel group). A descriptive analysis of demographics, ethnicity and insurance status was performed.

Results: There were a total of 4004 colonoscopies performed during this 52 month period, 53 (1.3%) were excluded because the data was incomplete. The pre-program group had 1892 colonoscopies of which 375 were screening colonoscopies, the program group had 363 screening colonoscopies, and the parallel group had 1750 colonoscopies of which 343 were screening colonoscopies. Implementation of the grant program resulted in nearly double the screening colonoscopies performed as compared to the pre-program period (375 vs 705). There was no change in the number of the reimbursed procedures performed in the same suite after initiation of the grant program. The proportion of minority patients undergoing a screening procedure in the program group was significantly increased compared to the other groups and this increase was largely accounted for by a higher proportion of Hispanic patients. The number of patients with polyps was higher in the program group compared with the preprogram and parallel group (42%, 36.8%, and 33.9%, respectively).

Conclusions: A grant-funded program offering screening colonoscopies to uninsured patients demonstrated a high number of premalignant polyps that might otherwise have been undetected. Our experience suggests that targeting health care disparities by insurance status can increase access to preventive services and detect a high number of premalignant lesions.

Keywords: Colorectal Cancer ■ Screening ■ Colonoscopy

Authors Affiliations: Damian Casadesus, M.D., Ph.D., Capital Health Regional Medical Center; Orlando Penaloza, M.D., Capital Health Regional Medical Center; Anubha Mishra Tewary, M.D., Capital Health Regional Medical Center; Delaram Moazami, M.D., Capital Health Regional Medical Center; Armen Simonian, M.D., Capital Health Regional Medical Center; Daniel Goldsmith, M.D., Capital Health Regional Medical Center

INTRODUCTION

Colorectal Cancer (CRC) is the third most common cause of cancer and the second leading cause of cancer death among women and men.¹ Five potential CRC screening strategies have been recommended: annual fecal occult blood testing (FOBT), flexible sigmoidoscopy every 5 years, annual FOBT plus flexible sigmoidoscopy every 5

years, double-contrast barium enema every 5 years, and colonoscopy every 10 years.^{1,2} Many entities have favored screening for early detection of CRC³⁻⁶ and multiple studies have showed that screening for CRC significantly reduce morbidity and mortality; however, the number of Americans being screened for CRC remains low.

Colonoscopy is probably the most effective screening modality for the early detection of colonic polyps and cancer, but it is underutilized particularly among minorities and underinsured patients. Many factors have been associated with the low screening rate such as race and ethnicity, incomes, gender, age, and insurance status.⁷⁻¹⁶ Previous studies have suggested several explanations for screening disparities between minorities and non-Hispanic whites including lower socioeconomic status, reduced access to care and lack of insurance and language or cultural barriers.¹⁷⁻²⁶

This study aims to explore the efficacy of a program of screening colonoscopies for underinsured patients can detect more pre malignant polyps in underinsured patients and if there is any difference in the rate of detection between groups.

METHOD

In 2008, Capital Health Regional Medical Center obtained a clinical grant from the American Cancer Society to perform screening colonoscopies for patients without insurance who were established at the hospital's primary care clinic. The aim of this study was to evaluate the grant program with respect to endoscopic findings and changes in the demographics of patients undergoing colonoscopy.

The screening colonoscopies program started on October 2008 and lasted for 26 months. Researchers reviewed the charts of all patients registered for colonoscopy at the endoscopy suite of Capital Health Regional Medical Center for this twenty-six month period and for the same period of time before the program started. All patients were divided in three groups: 1) all colonoscopies performed in the twenty six months (July 2006–September 2008) prior to the program's start (pre-

program group) 2) all screening colonoscopies performed on consecutive uninsured patients in the program during twenty six months (October 2008–December 2010) that the program lasted (program group) and 3) all other colonoscopies performed in the same suite during the time the program lasted (parallel group). Only the screening colonoscopies were compared between the three groups. The purpose of including the parallel group was to analyze whether the presence of a screening program for uninsured patients was associated with any change in the screening colonoscopy activity outside of the grant funded program.

A descriptive analysis of demographics, ethnicity and insurance status was performed. Statistical analysis was performed to detect differences between groups in demographic parameters, polyp detection rates, and premalignant polyp detection rates. The results are expressed in number of patients and percentages. Statistical significance was calculated using SPSS 16 (SPSS Inc., Chicago, IL, USA) using the t-test (independent samples) and the results were considered significant at $p < 0.05$.

RESULTS

There were a total of 4004 colonoscopies performed during this 52 month period, 53 (1.3%) of them were excluded because the data was incomplete. The pre-program group had 1892 colonoscopies, 375 of which were screening colonoscopies; the program group had 362 screening colonoscopies, and the parallel group had 1750 colonoscopies, 343 of which were screening colonoscopies (see Table 1).

Implementation of the grant program resulted in nearly double the screening colonoscopies performed in the same suite within the 26 months period that the program lasted compared to the pre-program period (375 vs. 705) without any change in the number of the reimbursed procedures performed in the same suite after initiation of the grant program.

The proportion of minority patients undergoing screening in the program group was significantly increased compared to the pre-program group (295/362, 81.4% vs. 117/375, 31.2%; $p < 0.001$) and parallel group (295/362, 81.4%; vs. 151/343, 44.0%; $p < 0.001$). This increase was largely accounted for by a higher proportion of Hispanic in the program group.

Changes in the demographics of the parallel group were observed as well. The proportion of minority patient undergoing screening increased even outside the program, accounted for primarily by African American and Hispanic patients. The proportional increase in Hispanic patients was almost double compared to the pre-program group. This finding suggests that the presence of the

grant funded program was associated with an increased recruitment of insured minority patients. Whether this is related to provider factors (changes in patterns of offering screening) or patient factors (patients are more likely to present themselves for screening) is not clear, but would be enlightening to study further.

The total number of polyps detected was higher in the program group (292 polyps, 159 premalignant) compared with the parallel group (170 polyps, 105 premalignant) and the preprogram group (212 polyps, 122 premalignant). The program also detected 2 patients with established colorectal cancer compared with only one patient in the preprogram group.

In the program group, the percentage of patients with any polyps (151/362; 41.7 %; $p = 0.004$) was slightly higher compared with the pre-program group (142/375; 37.8 %) and the parallel group (122/343; 35.5 %). The total number of patients with premalignant polyps was similar in the three groups (91 in pre-program, 81 in parallel and 92 in program groups). The number of premalignant polyps detected among African America and Hispanics was higher in the program group compared with the parallel group and pre-program group but it is probably related with the increase number of minorities included in these groups.

DISCUSSION

The most important finding of our evaluation is that the overall number of screening procedures occurring in the same suite was nearly double in the same time period. This suggests that capacity is not a significant barrier in our environment. Providing a funding source for uninsured patients resulted in no conflict over access to screening for insured patients, but merely added to the endoscopy suite's overall volume. Although there is clearly a finite number of procedures that can be performed in one center in a given time, that ceiling was not reached in our center.

We detected clear changes in the demographics of the patients screened in our suite, with a far higher proportion of minority patients in the program group. Ethnic minorities are well documented to be at higher risk for being uninsured, so this finding is perhaps not surprising. However, an interesting finding in our analysis of demographic changes was that the increase in minorities undergoing screening was overwhelmingly accounted for by an increase in Hispanic patients, despite the overall larger population of African Americans. An explanation for this finding is not immediately apparent, though it may suggest that the Hispanic community is particularly poised to benefit from outreach efforts for increased screening.^{19–21}

Total number of patient with polyps was similar across group, as were the overall rate of polyp detection and the

Download English Version:

<https://daneshyari.com/en/article/4199339>

Download Persian Version:

<https://daneshyari.com/article/4199339>

[Daneshyari.com](https://daneshyari.com)