

## Lack of Knowledge about Colonoscopy in High Risk Patients: Clinical and Public Health Challenges

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### Introduction

In the United States and worldwide, public health officials are publishing guidelines for the management of high risk patients with biopsy proven colorectal polyps [1]. With respect to high risk patients with colorectal polyps, they have 20.6% risk of developing a recurrence in 3 years when compared with those without this diagnosis following an initial colonoscopy. Further, such high risk patients who are diagnosed with advanced colorectal polyps have a 3 fold higher subsequent risk of developing colorectal cancer [2, 3]. These alarming increased rates of recurrence of colorectal polyps as well as colorectal cancer pose clinical and public health challenges. Clinical challenges are addressed by prescribing numerous possible screening modalities for such high risk patients which include yearly fecal immune testing, multi-targeted stool DNA testing, flexible sigmoidoscopy, and colonoscopy [4]. The timing of surveillance colonoscopy is largely determined by the findings on index colonoscopy. If there are no precancerous polyps in a patient without a family history of colon cancer or advanced colon polyps, then a 10 year follow up interval is generally recommended. For patients with advanced colorectal polyps, however, follow up colonoscopy is generally recommended at 3 years [1]. Many clinicians rely on self-reports from their high risk patients with biopsy proven advanced colorectal polyps about their need and proper interval for repeat surveillance colonoscopy [4]. The validity of these assumptions poses clinical and public health challenges. In this report our primary goals are to quantitate

knowledge of patients with biopsy proven advanced colorectal polyps of their need for a repeat colonoscopy and, if so, their knowledge of the proper surveillance interval. These data create both clinical and public health challenges.

### Methods

We utilized questionnaire data from the practices of 55 gastroenterologists to identify patients with biopsy proven advanced colorectal polyps. All diagnoses were confirmed by a single laboratory which was accredited by the Laboratory Accreditation Program of the College of American Pathologists.

Over a 4 years period from 2013 to 2017 we identified 249 consecutive patients aged 40 to 95 years from relatively affluent communities in south Florida who had biopsy proven advanced colorectal polyps.

We employed two registered medical assistants certified by American Medical Technologies, to achieve homogeneity in the telephone interviews.

We obtained informed consents and conducted brief telephone interviews to complete semi-structured questionnaires and were able to achieve complete data on 84 willing and eligible patients aged 40 to 91 years.

The protocol was approved by the Institutional Review Board of Florida Atlantic University (IRB Net ID 734261-1).

Using these methods we were able to clean and code the data and calculate frequencies of their knowledge of whether they needed a surveillance colonoscopy as well as their perceived appropriate follow up interval [5].

## Results

Of 84 eligible and willing patients who provided complete data, 24 (28.6%) were unaware of either the need for a repeat colonoscopy or the proper surveillance interval. Of these, 14 (16.6%) were unaware of the proper 3 year interval to obtain a follow up surveillance colonoscopy. In addition, 10 (12.0%) were not aware that they required a follow up surveillance colonoscopy.

## Discussion

These data demonstrate a lack of knowledge of patients with biopsy proven advanced colorectal polyps about their need for repeat colonoscopy as well as the proper surveillance interval. They extend our previous finding about a lack of reliability of the knowledge of patients of the presence of their biopsy proven advanced colorectal polyps [5]. These data pose clinical and public health challenges to reduce the rates of recurrences of colorectal polyps as well as subsequent risks of colorectal cancer in these high risk patients.

One challenge is to rely on more objective data than self-reports. Clinicians should have the ability and willingness to share his or her objective findings with all clinical colleagues involved in the care of the patient. In addition, clinicians will likely need to rely on robust recall protocols and systems which are, in many cases already in place. This valuable strategy will ensure that all patients receive regular and timely follow up care reminders. If such strategies were adopted for all patients this would have clinical and public health implications. Specifically, this would also avoid the overutilization of colonoscopies for lower risk patients and increase both the benefit to risk and benefit to cost ratio from a public health perspective [6]. For the high risk patients clinicians should also focus on the fact that their patients at high risk of colorectal cancer are also at high risk for myocardial infarction and stroke. The major risk factors for both these common and serious diseases include overweight and obesity as well as low levels of regular physical activity and type 2 diabetes. Such patients will require multifactorial interventions which include therapeutic lifestyle changes as well as adjunctive drug therapies of proven benefit [7].

These data derived from a case series with a relatively low response rate. Thus, it is possible that bias may be a plausible alternative explanation for the observed findings [5]. We believe that several factors mitigate against this possibility. First, these high risk patients were reasonably homogeneous with respect to high socioeconomic status and education level. Thus, we believe, that if there is a bias, these data would underestimate the true magnitude of the clinical and public health challenges.

Despite these and other possible limitations, we believe that the most plausible interpretation of the data to be that clinicians should not rely on self-reports of their patients about either their need or the proper interval for a repeat surveillance colonoscopy.

In summary, the ability to address the clinical and public health challenges posed by these data would reduce premature and avoidable morbidity and mortality in all their high risk patients with biopsy proven advanced colorectal polyps from future recurrences as well as the development of colorectal cancer.

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## Disclosures

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