Facilitators and Barriers of Colorectal Cancer Screening in an Outpatient Clinic

MaryKate Kratzer MD
Internal Medicine PGY-2
Authors

- Gbeminiyi Samuel, MD
- MaryKate Kratzer, MD
- Oghale Asagbra, PhD, MHA, CPHQ
- Joe Kinderwater, MD
- Shiva Poola, MD
- Jennifer Udom, MD
- Karissa Lambert, MD
- Muna Mian, MD
- Eslam Ali, MD
Introduction

- Colorectal cancer (CRC) is the 3rd most common cancer in US and 2nd leading cause of cancer-related deaths.

- Risk factors: Tobacco abuse, obesity/sedentary lifestyle, low fiber diet, excessive processed or red meat

- Comorbidities which may play a role: Type 2 DM, IBD

- Approximately 1 in 3 Americans ages 50-75 have not had CRC screening
Colorectal Cancer Screening: Acceptable Modalities

Fecal occult blood testing (FOBT): annual
Fecal immunohistochemical testing (FIT): annual
Multitarget stool DNA testing (Cologuard): every 3 years
CT colonography/Virtual colonoscopy: every 5 years
Flexible sigmoidoscopy: every 5 years
Colonoscopy: every 10 years
Methods

**Aims of study:** To determine proportion of our clinic patients who are up-to-date on CRC screening, and what factors could be contributing to adherence/nonadherence.

**Methods:** Retrospective review of EMR for all patients ages 50-75 who were seen at ECU IM Outpatient Clinic between July 1, 2018 and June 30, 2019

- CRC screening status
- Demographic/Socioeconomic
- Comorbidities
- Adherence to other healthcare maintenance
Methods

**Exclusion:** Patients seen in MedPeds, Family Medicine clinics. Patients <50 or > 75 years old during above time period

**Limitations:**
- Did not differentiate between diagnostic colonoscopies and screening colonoscopies
- Did not include BMI/Obesity as a factor
- Did include patients who were seen in IM Diabetes clinic
- Retrospective nature of study
Results: Demographics

N = 2,428

- 53.6% Female
- 46.4% Male
Results: Comorbid conditions

- COPD: 213 YES, 2211 NO
- Diabetes: 63 YES, 1506 NO
- Heart Failure: 299 YES, 2125 NO
- ESRD on Dialysis: 299 YES, 2361 NO
- Hypertension: 440 YES, 1839 NO
- Obstructive Sleep Apnea: 585 YES, 1984 NO
Results

- 66.9% up-to-date on CRC screening (n=1624)
  - 92.8% colonoscopy, 3.0% Cologuard, 1.8% flex sig, 1.4% FOBT, 1.0% CT colonography

- Significant facilitators:
  - Age
  - OSA
  - Screening pap smear, mammogram

- Significant barriers:
  - No-show percentage

<table>
<thead>
<tr>
<th>Variable</th>
<th>Odds Ratio</th>
<th>p-value</th>
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</thead>
<tbody>
<tr>
<td>Age</td>
<td>1.058</td>
<td>&lt; 0.05</td>
</tr>
<tr>
<td>No-show rate</td>
<td>0.962</td>
<td>&lt; 0.01</td>
</tr>
<tr>
<td>History of obstructive sleep apnea</td>
<td>1.875</td>
<td>&lt; 0.05</td>
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<tr>
<td>Adherence with influenza vaccine</td>
<td>1.673</td>
<td>&lt; 0.05</td>
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<tr>
<td>Adherence with screening mammogram</td>
<td>2.130</td>
<td>&lt; 0.01</td>
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<tr>
<td>Adherence with screening pap smear</td>
<td>2.708</td>
<td>&lt; 0.01</td>
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</tbody>
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Discussion

- What did we gain from this study?
  - Age
  - No show rate
  - OSA
  - Other health maintenance
  - No significant effect on CRC screening: marital status, ethnicity, insurance status, distance from clinic, level of provider, tobacco use, blood thinners, HTN, DM, COPD, CHF, ESRD, family history of CRC
Discussion

- What else do we want to know?
  - What about the 804 patients who were not up-to-date on screening?
  - What were the barriers in their eyes?
  - Are we doing an adequate job offering alternative screening methods to those who decline colonoscopy?
Takeaways

- 67% of patients age 50-75 were up-to-date with CRC screening, consistent with the national average

- Advancing age, history of OSA, and adherence to other healthcare maintenance were associated with up-to-date CRC screening

- Higher no-show rate was associated with lower CRC screening rates

- Need for further research on patient and physician-related factors
Questions?
Sources


