The Use of Quality Measures in Colorectal Cancer Screening

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Prevent Cancer Foundation
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Colorectal Cancer Screening Prevents Death from Colorectal Cancer

- US Preventive Services Task Force (USPSTF)
  - Colorectal cancer is the third most common type of cancer and the second leading cause of cancer death in the United States
  - Estimated that attainment of goals for population colorectal cancer screening could save 18,800 lives per year

Colorectal Cancer Screening Goal is 70-80%

- Healthy People 2020 Goal: 70.5%
  - Federal Interagency Workgroup develops targets
- 80% by 2018 Pledge
  - National Colorectal Cancer Roundtable Program to increase colorectal cancer screening to 80% by 2018
    - ~700 participating organizations (March 2016)

https://www.healthypeople.gov/2020/topics-objectives/topic/cancer/objectives
64.5% Current with Colorectal Cancer Screening
# USPSTF Colorectal Cancer Screening Options (Draft Recommendations)

<table>
<thead>
<tr>
<th>Modality</th>
<th>Frequency</th>
<th>2010 Use</th>
<th>Considerations</th>
</tr>
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</table>
| FIT or high-sensitivity gFOBT               | Every year                     | 11.7%    | • Requires the fewest lifetime colonoscopies (a proxy for harms).  
  • Does not require bowel cleanout, anesthesia, or transportation to and from the screening examination (test is performed at home). |
| Flexible sigmoidoscopy with FIT             | Flexible sig every 10 years + FIT every year | 1.3%    | • Potentially attractive option for persons who want endoscopic screening but wish to limit exposure to colonoscopy.  
  • May be useful when access to colonoscopy is geographically limited. |
| Colonoscopy                                 | Every 10 years                  | 60.3%    | • Less frequent screening.  
  • Screening and diagnostic followup of positive results can be performed during the same examination. |
Recommendations are being updated

- The decision to screen for colorectal cancer in **adults ages 76 to 85 years** should be an individual one, taking into account the patient’s overall health and prior screening history.

- Adults in this age group who have never been screened for colorectal cancer are more likely to benefit.

- Screening most appropriate 1) Those healthy enough to undergo treatment if colorectal cancer is detected, and 2) do not have comorbid conditions that would significantly limit life expectancy.

### Summary of Recommendations

<table>
<thead>
<tr>
<th>Population</th>
<th>Recommendation</th>
<th>Grade (What's This?)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adults, beginning at age 50 years and continuing until age 75 years</td>
<td>The USPSTF recommends screening for colorectal cancer using fecal occult blood testing, sigmoidoscopy, or colonoscopy in adults, beginning at age 50 years and continuing until age 75 years. The risks and benefits of these screening methods vary.</td>
<td>A</td>
</tr>
<tr>
<td>Adults age 76 to 85 years</td>
<td>The USPSTF recommends against routine screening for colorectal cancer in adults 76 to 85 years of age. There may be considerations that support colorectal cancer screening in an individual patient.</td>
<td>C</td>
</tr>
<tr>
<td>Adults older than age 85 years</td>
<td>The USPSTF recommends against screening for colorectal cancer in adults older than age 85 years.</td>
<td>D</td>
</tr>
<tr>
<td>Computed Tomographic Colonoscopy and Fecal DNA testing as screening modalities</td>
<td>The USPSTF concludes that the evidence is insufficient to assess the benefits and harms of computed tomographic colonoscopy and fecal DNA testing as screening modalities for colorectal cancer.</td>
<td>I</td>
</tr>
</tbody>
</table>

This topic page summarizes the U.S. Preventive Services Task Force (USPSTF) recommendations on screening for colorectal cancer.

Release Date: October 2008
Newer Screening Options Have Insufficient Evidence (USPSTF)

- Fecal DNA testing
  - Limited information on sensitivity and specificity
- CT Colonography
  - Impact of harms related to extracolonic findings is insufficient
  - Radiation exposure of 10 mSv per examination
    - 1 additional cancer per 1000 examinations.

What is the best screening option?

• Best screening modality is the one that patients will do

• True, but… all screening options with findings end up in colonoscopy that aren’t colonoscopy
  – GI societies recommend colonoscopy
  – Majority of patients choose/receive colonoscopy
    • After colonoscopy the 2nd most common choice is to not be screened
Quality Metrics Exist for Colonoscopy

Consistent with high utilization, there is interest in measuring quality in colonoscopy

- Adenoma Detection Rate
- Perforation
- Post-polypectomy bleeding
- % Admissions/ED visits within 7 days of colonoscopy
- Withdrawal time
- Document of bowel preparation
- Documentation of informed consent
- Documentation of appropriate next screening based on findings

http://www.asge.org/assets/0/71542/71544/e399c476-36c3-4d4d-b7bd-4157bd0c8a55.pdf
www.qualityforum.org/Projects/e-g/Gastrointestinal/2056.aspx
Are these good metrics of quality?

- **Attributes of Good Quality Measures**
  - Measure a meaningful outcome
  - Variation in performance
  - Can be reliably measured
  - Feasible to measure

- **Worth it?**
  - Should be useful to patients, providers or payers
  - Practices spend $15 billion/year reporting quality measures

http://content.healthaffairs.org/content/35/3/401.abstract
Why do we need quality measures?
Why do we need quality measures?

Average complication rate 5%

30% complication rate
Biggest Concern

• What if the provider with the 30% complication rate sees the most sick and highest-risk patients and the others see healthiest lowest risk patients?
• Nobody wants to punish the providers taking care of patients most in need of care
What is risk adjustment?
Observed/Expected
How can you find out your provider’s performance?

• Gastroenterology Societies: AGA, ASGE
• CMS: Physician Compare, Hospital Compare
• Newspapers: WSJ/ProPublica
• Non-profits: Choosing Wisely, Improving Wisely
• All use big data to measure performance
Improving Wisely

Measure
Develop metrics with input from the providers

Evaluate
Patient
Provider
Systems

Improve
Internal data transparency

Current Partners
American College of Mohs Surgeons: Skin Cancer
Society of American Gastrointestinal and Endoscopic Surgeons: Colorectal Cancer
Complications After Colectomy For Colorectal Cancer Vary by Surgeon

Surgeons performing fewer than 10 procedures are not shown.
Complications After Colectomy For Colorectal Cancer Vary by Surgeon

Surgeons performing fewer than 10 procedures were included in the adjustment but are not shown.
Notify Providers of Their Outcomes: They Adjust Performance

**Intervention opportunities**

- Confidential notification
- Hawthorne effect
- Targeted practice improvement
How will existing and new metrics be used?

• Patient choice
• Inform referring providers
• Payers
  – CMS payment reforms
  – Private payer reforms
    • Limit customer access to providers
    • Incentivize providers to meet metrics
      – Role for metrics outside of colonoscopy?
Big Data Allows Us to Measure, Improve and Choose

• Screening for colorectal cancer has increased dramatically but work is still needed to meet goals
  – Ability to measure adherence allows us to keep raising the bar
• Quality metrics exist for colonoscopy but no other screening modality
• Quality metrics will affect which providers we want to see and which we can see