Colorectal Cancer Screening in Later Life: Blum Center Rounds

OCTOBER 10, 2018
Agenda

• CRC Screening and Surveillance Recommendation
• Screening for Colon Cancer later in life
• Discussion and listening
Families have young and old
The experienced lead the way
We support and protect our loved ones.
Colorectal Cancer (CRC)

- 3rd most common cause of cancer death in the U.S.
  - More than 97,000 new cases expected in U.S. in 2018
  - Nearly 50,000 US deaths during 2018
- 1.5 million Americans living with CRC
- The death rates have fallen in both men and women for several decades due to:
  - Improvements in treatment
  - Screening ➔ Early cancer detection and improved outcomes
  - Screening ➔ Polyp removal ➔ Prevention
ACS New screening age recommendations for those at average risk

- People at average risk of colorectal cancer should start regular screening at age 45.
- People who are in good health and with a life expectancy of more than 10 years should continue regular CRC screening through the age of 75.
- People ages 76 through 85 should make a decision with their medical provider about whether to be screened, based on their own personal preferences, life expectancy, overall health, and prior screening history.
- People over 85 should no longer get CRC screening.
ACS Recommended colorectal cancer screening tests

Stool-based tests:
- Highly sensitive fecal immunochemical test (FIT) every year
- Highly sensitive guaiac-based fecal occult blood test (gFOBT) every year
- Multi-targeted stool DNA test (MT-sDNA) every 3 years

Visual exams:
- Colonoscopy every 10 years
- CT colonography (virtual colonoscopy) every 5 years
- Flexible sigmoidoscopy (FSIG) every 5 years
<table>
<thead>
<tr>
<th>Population</th>
<th>Recommendation</th>
<th>Grade (What’s This?)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adults aged 50 to 75 years</td>
<td>The USPSTF recommends screening for colorectal cancer starting at age 50 years and continuing until age 75 years. The risks and benefits of different screening methods vary. See the Clinical Considerations section and the Table for details about screening strategies.</td>
<td>A</td>
</tr>
</tbody>
</table>
| Adults aged 76 to 85 years | The decision to screen for colorectal cancer in adults aged 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 would be most appropriate among adults who 1) are healthy enough to undergo treatment if colorectal cancer is detected and 2) do not have comorbid conditions that would significantly limit their life expectancy. | C                    |
• Post-polypectomy surveillance intervals vary, depending on histology, size and number of lesions removed

• For those at average-risk, begin at 50 yo and repeat every 10 years if results are negative

• Performing colonoscopy too often not only increases patients’ exposure to procedural harm, but also drains resources that could be more effectively used to adequately screen those in need

Table 3. Guidelines for Follow-Up Surveillance Colonoscopy

<table>
<thead>
<tr>
<th>Initial colonoscopy findings</th>
<th>Follow-up interval</th>
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<tbody>
<tr>
<td>Normal*</td>
<td></td>
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<tr>
<td>No polyps or normal biopsy results</td>
<td>10 years</td>
</tr>
<tr>
<td>Hyperplastic polyps*</td>
<td></td>
</tr>
<tr>
<td>Small (&lt; 10 mm) hyperplastic polyps in rectum or sigmoid</td>
<td>10 years</td>
</tr>
<tr>
<td>Low-risk polyps*</td>
<td></td>
</tr>
<tr>
<td>1 or 2 small (&lt; 10 mm) tubular adenomas</td>
<td>5 to 10 years</td>
</tr>
<tr>
<td>Small sessile serrated polyp (&lt; 10 mm) without dysplasia</td>
<td>5 years</td>
</tr>
<tr>
<td>High-risk polyps*</td>
<td></td>
</tr>
<tr>
<td>3 to 10 tubular adenomas</td>
<td>3 years</td>
</tr>
<tr>
<td>Tubular adenoma or serrated polyp that is ≥ 10 mm</td>
<td></td>
</tr>
<tr>
<td>Adenoma with villous features or high-grade dysplasia</td>
<td></td>
</tr>
<tr>
<td>Sessile serrated polyp with cytologic dysplasia</td>
<td></td>
</tr>
<tr>
<td>Traditional serrated adenoma</td>
<td></td>
</tr>
<tr>
<td>Other circumstances*</td>
<td></td>
</tr>
<tr>
<td>More than 10 adenomas</td>
<td>&lt; 3 years</td>
</tr>
<tr>
<td>Serrated polyposis syndrome*</td>
<td>1 year</td>
</tr>
<tr>
<td>Following piecemeal removal of a large (&gt; 15 mm) sessile adenoma or serrated polyp</td>
<td>Consider repeat in &lt; 1 year if question of residual polyp</td>
</tr>
<tr>
<td>Following curative resection of colorectal cancer*</td>
<td>1 year after resection, then 3 and 5 years if normal</td>
</tr>
</tbody>
</table>

What the guidelines don't say

▪ The USPSTF has found that there isn't enough evidence to recommend screening over age 75 for certain diseases, particularly breast cancer, cervical cancer, and colorectal cancer.

▪ That doesn't necessarily mean the screening tests aren't effective. In many cases, there just weren't enough older people in the studies to permit a judgment for or against screening.

▪ In other cases, screening was recommended, but the panel couldn't determine how often it should be done.

▪ Most screening guidelines are developed for the maximum benefit of a whole population rather than the individual.

▪ They aren't designed to consider each unique family history, state of health, and risk factors — not to mention expectations for the future, treatment preferences, and tolerance for uncertainty.
Colonoscopy has risks and costs

- Colonoscopy costs society about $800 in direct health care costs
- There are the costs of loss of time and productivity for the patient and escort
- There is a perforation in about 1 in 2000 patients
- There is bleeding (usually post polypectomy) in 1 in 1000 patients
- There is an anesthesia or sedation event in about 1 in 1000 patients
- And then there is the preparation
Unscreened elderly persons are at high risk for CRC—represent 23% of all U.S. persons older than 75 years.

Van Hees F et al. simulated a cohort of 10 million elderly persons between the ages of 76 and 90 years without previous screening with no, moderate, and severe comorbid conditions.

For each cohort, they evaluated the number of CRC cases prevented, CRC deaths prevented, Life-Years (LY) gained, and Quality-Adjusted Life-Years (QALY) gained and costs of 1-time colonoscopy, sigmoidoscopy, and FIT screening.
Findings: CRC screening should be considered beyond 75 years

- Colonoscopy screening in healthy persons aged 76 years with no previous screening resulted in a positive overall effect on length and quality of life.

- For healthy persons aged 90 years it resulted in a net harm.

- Although 1-time sigmoidoscopy and FIT screening were generally less effective than 1-time colonoscopy, FIT screening was most effective in the most advanced ages.
Cost-effectiveness of screening decline with age

No Comorbid Conditions

Moderate Comorbid Conditions

Severe Comorbid Conditions

- 1-time FIT screening
- 1-time sigmoidoscopy screening
- 1-time colonoscopy screening
What is the optimal screening strategy?

- In unscreened elderly persons with no comorbid conditions, screening was cost-effective up to age 86 years (up to age 83 years for those with moderate comorbid conditions and up to age 80 years for those with severe comorbid conditions).
- In persons with severe comorbid conditions, colonoscopy screening was the optimal strategy up to age 77 years, sigmoidoscopy screening at age 78 years and FIT screening at ages 79 and 80 years.

<table>
<thead>
<tr>
<th>Comorbid Condition Level*</th>
<th>Age up to Which CRC Screening Should Be Considered, y</th>
<th>Screening Strategy Indicated, by Age</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>76 y</td>
<td>77 y</td>
</tr>
<tr>
<td>No comorbid conditions</td>
<td>COL</td>
<td>COL</td>
</tr>
<tr>
<td>Moderate comorbid conditions</td>
<td>COL</td>
<td>COL</td>
</tr>
<tr>
<td>Severe comorbid conditions</td>
<td>COL</td>
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How do we decide?

- Systems offer efficiency and consistency but every individual is different
- Ken Minaker recommended continued vigilance and customization
- Continued screening for anyone with a life expectancy >10 years
- No screening for patients with a life expectancy of <5 years
- Screen patient with life expectancy between 5 and 10 years if they are at high-risk or if they are informed and request it.
Shared Decision Making in Screening

- The elderly patient's preferences and perceptions are infrequently considered.

- Walter and Covinsky stress the importance of an assessment of the patient's preferences and values regarding invasive studies, discomfort versus concerns or uncertainty about cancer status.

- In depth discussion and accurate conveyance of the risks of cancer, benefits of studies and harms associated with studies may take considerable time and skill on the part of the practitioner.

- This process may require specialized training but should be accessible to the elderly, their caregivers and providers.
Discussion

• The MGH does not have a policy or guidelines on later life screening and surveillance. Should we?
• How do you want to customize our recommendations?
• What do you want for yourself?
• You and your clinician can work together to develop a screening schedule that's appropriate for you