Colorectal Cancer Screening: Eliminating Myths and Missed Opportunities

Susan Baum, MD, MPH
NMHR 19th Annual Retreat
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Disclosure of Relevant Financial Relationships

– The speakers and planners listed below disclose that they have no financial interest or other relationships with the manufacturer(s) of commercial products related to the content of this presentation.

• Susan Baum, MD, MPH
Objectives

• Provide rationale for colorectal cancer (CRC) screening
• Describe CRC burden, screening rates & screening capacity in NM
• Summarize U.S. Preventive Services Task Force (USPSTF) guidelines for screening average-risk adults
• Compare different CRC screening methods
• Avoid common misconceptions about CRC screening
• Identify ways to improve CRC screening in your practice or health care system
Acknowledgments

• James E. Allison, MD
  – Clinical Professor of Medicine Emeritus UCSF
  – Division of Gastroenterology

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  – Director, New Mexico Tumor Registry
  – University of New Mexico

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• Marion Nadel, Ph.D.
  – Centers for Disease Control and Prevention
  – Division of Cancer Prevention and Control
Diagram of Colon and Rectum
Natural History of Colorectal Cancer

- Normal
- Polyp
- Adenocarcinoma
Natural History

- ~95% of CRCs arise from pre-existing adenomatous polyps (adenomas)
  - Benign growths of bowel epithelium with the potential to become cancerous over time (estimated 10-15 years)

- Adenomas are very common
  - 10% at age 40
  - 18-28% at age 50
  - 30-37% at age 60

The good news
- An estimated 1-5% of adenomas would eventually become CRC

Advanced neoplasia (adenoma ≥10mm, or >25% villous, or high grade dysplasia)
- Risk of subsequent CRC 3x that other adenomas
- Small observational study
  - Unresected polyps >10mm
  - Cumulative risk of CRC at polyp site 2.5%, 8% and 24% at 5, 10 and 20 years
Natural history small adenomas (<5mm or 6-9mm) unknown

Not all polyps are adenomas

- Sessile serrated polyps (SSPs) are considered to convey the same risk as adenomas
- Classical small hyperplastic rectal polyps are generally not considered pre-cancerous
Opportunity to intervene in the natural history of CRC through screening
How CRC Screening Saves Lives

• Early Detection: Treatment of early-stage cancer

• Prevention: Detection and removal of polyps (adenomatous or sessile serrated types) that could become CRC in the future
Burden of CRC in New Mexico

- Of cancers that affect both men and women, CRC is the 2nd leading cause of cancer deaths and new cancer cases
- ~800 new cases of invasive CRC in NM per year
- ~300 New Mexicans die from CRC each year
Colorectal Cancer

Average annual age-adjusted incidence rate per 100,000 (US 2000 Standard), 2004-2008

- Male
- Female

NM Non-Hispanic White
NM Hispanic
NM American Indian
NM Black
NM Other
US All Races
Risk increases significantly with age
- In NM, ~85% of CRCs occur in persons aged 55+

Lifetime risk of developing CRC in U.S.
- Men (birth to 80) and Women (birth to 85)
  • 3.9% (1 in 26)

Lifetime risk of dying from CRC in U.S.
- Men (birth to 80) and Women (birth to 85)
  • 1.3% (1 in 75)
Cancer stage at detection is the most important prognostic factor for CRC

Overall five-year relative survival ~65%

– ~90% with local-stage disease

– ~67% with regional-stage disease

– Only 9% in those with distant-stage disease
Colorectal Cancer
Stage of Disease at Diagnosis
New Mexico Residents, 2004-2008

- Local
- Regional
- Distant
- Unknown

<table>
<thead>
<tr>
<th>Race/Ethnicity</th>
<th>Local</th>
<th>Regional</th>
<th>Distant</th>
<th>Unknown</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-Hispanic White</td>
<td>41.9</td>
<td>32.0</td>
<td>17.7</td>
<td>8.4</td>
</tr>
<tr>
<td>Hispanic</td>
<td>40.4</td>
<td>32.9</td>
<td>20.2</td>
<td>6.5</td>
</tr>
<tr>
<td>American Indian</td>
<td>36.5</td>
<td>32.2</td>
<td>24.0</td>
<td>7.2</td>
</tr>
</tbody>
</table>
Who is getting screened (or not) for CRC in New Mexico?

The following slides show data for NM adults ages 50 and older from 2006-2008.
# CRC Screening by Sex

<table>
<thead>
<tr>
<th>Sex</th>
<th>Never Been Screened for CRC</th>
<th>Current for CRC Screening</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>34.2</td>
<td>56.8</td>
</tr>
<tr>
<td>Female</td>
<td>34.8</td>
<td>54.3</td>
</tr>
</tbody>
</table>
## CRC Screening by Age

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Never Been Screened for CRC</th>
<th>Current for CRC Screening</th>
</tr>
</thead>
<tbody>
<tr>
<td>50-64</td>
<td>40.9</td>
<td>49.0</td>
</tr>
<tr>
<td>65-74</td>
<td>24.3</td>
<td>67.3</td>
</tr>
<tr>
<td>75+</td>
<td>25.0</td>
<td>63.4</td>
</tr>
<tr>
<td>Race/Ethnicity</td>
<td>Never Been Screened for CRC</td>
<td>Current for CRC Screening</td>
</tr>
<tr>
<td>-------------------</td>
<td>-----------------------------</td>
<td>--------------------------</td>
</tr>
<tr>
<td>African American</td>
<td>31.0</td>
<td>47.0</td>
</tr>
<tr>
<td>American Indian</td>
<td>52.8</td>
<td>33.5</td>
</tr>
<tr>
<td>Hispanic</td>
<td>45.9</td>
<td>46.5</td>
</tr>
<tr>
<td>White</td>
<td>28.1</td>
<td>61.2</td>
</tr>
</tbody>
</table>
## CRC Screening by Health Care Coverage Status

<table>
<thead>
<tr>
<th>Has health care coverage</th>
<th>Never Been Screened for CRC</th>
<th>Current for CRC Screening</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>30.7</td>
<td>59.1</td>
</tr>
<tr>
<td>No</td>
<td>68.1</td>
<td>23.4</td>
</tr>
</tbody>
</table>
# CRC Screening by Education

<table>
<thead>
<tr>
<th>Highest educational attainment</th>
<th>Never Been Screened for CRC</th>
<th>Current for CRC Screening</th>
</tr>
</thead>
<tbody>
<tr>
<td>Some High School or Less</td>
<td>56.7</td>
<td>37.5</td>
</tr>
<tr>
<td>High School or GED</td>
<td>38.2</td>
<td>51.0</td>
</tr>
<tr>
<td>Some College</td>
<td>30.8</td>
<td>57.5</td>
</tr>
<tr>
<td>College Graduate</td>
<td>26.9</td>
<td>63.3</td>
</tr>
<tr>
<td>Annual Household Income</td>
<td>Never Been Screened for CRC</td>
<td>Current for CRC Screening</td>
</tr>
<tr>
<td>-------------------------</td>
<td>-----------------------------</td>
<td>---------------------------</td>
</tr>
<tr>
<td>&lt;$15,000</td>
<td>51.5</td>
<td>41.4</td>
</tr>
<tr>
<td>$15,000 - $24,999</td>
<td>40.9</td>
<td>47.9</td>
</tr>
<tr>
<td>$25,000 - $49,999</td>
<td>34.2</td>
<td>54.9</td>
</tr>
<tr>
<td>$50,000 - $74,999</td>
<td>28.1</td>
<td>61.4</td>
</tr>
<tr>
<td>≥ $75,000</td>
<td>26.0</td>
<td>64.2</td>
</tr>
</tbody>
</table>
## CRC Screening by Geographic Region

<table>
<thead>
<tr>
<th>Region of New Mexico</th>
<th>Never Been Screened for CRC</th>
<th>Current for CRC Screening</th>
</tr>
</thead>
<tbody>
<tr>
<td>Northwest</td>
<td>36.5</td>
<td>52.4</td>
</tr>
<tr>
<td>Northeast</td>
<td>36.9</td>
<td>53.6</td>
</tr>
<tr>
<td>Central</td>
<td>28.6</td>
<td>60.8</td>
</tr>
<tr>
<td>Southeast</td>
<td>39.6</td>
<td>50.1</td>
</tr>
<tr>
<td>Southwest</td>
<td>36.4</td>
<td>55.0</td>
</tr>
</tbody>
</table>
New Mexico DOH is among 25 states and 4 tribes that receive funding from the Centers for Disease Control and Prevention (CDC) to improve colorectal cancer screening rates.

CDC’s long-term goal is to increase screening rates in the funded sites to 80% by 2014.
NM CRC Program Components

• **Screening Provision**: CRC screening, surveillance, and diagnostic services for CRC program priority population (1/3 of funding)

• **Screening Promotion**: strategies designed to increase CRC screening among the general population. May include public education/media campaigns, patient navigation, and policy/systems approaches (2/3 of funding).
Who Develops Colorectal Cancer?

- **Sporadic (average risk)** (65%–85%)
- **Family history** (10%–30%)
- **Hereditary nonpolyposis colorectal cancer (HNPCC)** (5%)
- **Familial adenomatous polyposis (FAP)** (1%)
- **Rare syndromes** (<0.1%)
Screening Average Risk Adults

• CDC requires state CRC programs to follow United States Preventive Services Task Force (USPSTF) guidelines

• USPSTF is an *independent* panel of non-Federal experts in prevention and evidence-based medicine convened by AHRQ

• USPSTF CRC screening guidelines last updated in 2008
Who should be considered “at average risk” for CRC screening purposes?

• A man or woman aged 50+ with:
  – No symptoms of possible CRC
  – No personal history of CRC or adenomas/SSPs
  – No family history of CRC or advanced adenomas
  – No history of inflammatory bowel disease
  – No history of genetic syndromes
NM CRC Program Services for Increased Risk Persons (≤ 20% of participants)

- USPSTF guidelines for average risk do not apply
  - NM CRCP Medical Advisory Board has adopted National Comprehensive Cancer Network (NCCN) guidelines for screening, re-screening and surveillance for this group

- Personal hx of CRC or adenoma/SSPs
  - Surveillance colonoscopy ONLY

- Significant family hx of CRC or advanced adenoma
  - Screening colonoscopy ONLY
USPSTF: Who should be screened?

<table>
<thead>
<tr>
<th>Adults Age 50 to 75*</th>
<th>Adults Age 76 to 85 years*</th>
<th>Adults Older than 85*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Screen with high sensitivity fecal occult blood testing (FOBT), sigmoidoscopy, or colonoscopy.</td>
<td>Do not screen routinely.</td>
<td>Do not screen.</td>
</tr>
<tr>
<td>Grade: A</td>
<td>Grade: C</td>
<td>Grade: D</td>
</tr>
</tbody>
</table>

- Grade A = high certainty that net benefit is substantial
- Grade C = moderate or high certainty that net benefit is small; considerations may support offering to an individual patient
- Grade D = moderate or high certainty of no net benefit or that harms outweigh benefits
USPSTF: Recommended Screening Strategies

• Annual screening with high-sensitivity fecal occult blood testing (FOBT) take-home kits*

• Flexible sigmoidoscopy plus high-sensitivity FOBT every 5 years, with mid-interval high-sensitivity FOBT at year 3*

• Screening colonoscopy every 10 years

*Follow-up of a positive FOBT or sigmoidoscopy requires diagnostic colonoscopy
What about other forms of CRC screening?

- USPSTF found insufficient evidence (Grade I) to access the benefits and harms of:
  - computerized tomography colonography (CTC)
  - “virtual colonoscopy”
  - fecal DNA testing
  - Endorsed by ACS-Multi-Society Task Force

- USPSTF no longer recommends double contrast barium enema as CRC screening modality
What is a “high sensitivity” FOBT?

- **Per USPSTF:**
  - Sensitivity for CRC ≥ 70%
  - Specificity ≥ 90%

- **Per CDC in 2010, the following FOBTs commercially available in U.S. met “high sensitivity” criteria:**
  - Hemoccult Sensa (gFOBT)
  - InSure (FIT)
  - Polymedco (FIT)
  - Hemoccult ICT (FIT)
FOBTs: The Options

$4.75

$23.00
Guaiac Fecal Occult Blood Tests (gFOBT)

- Three-card FOBT collected at home
  - Hemoccult II (not considered high sensitivity)
  - Hemoccult SENSA (high sensitivity)
- Detects peroxidase activity of heme portion of hemoglobin
- Not specific for human blood
- Not specific for lower GI blood
Requires dietary and medication restriction (especially for Hemoccult SENSA)

- Aspirin and NSAIDS can cause false (+) bleeding
- False (+) results from red meat, certain fresh fruits and vegetables
- False (−) results from Vitamin C
## gFOBT: Test Characteristics

<table>
<thead>
<tr>
<th></th>
<th>Hemoccult II</th>
<th>Hemoccult Sensa</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Percent test positive</strong></td>
<td>2.5%</td>
<td>10% - 13.6%</td>
</tr>
<tr>
<td><strong>Sensitivity CRC</strong></td>
<td>25% - 38%</td>
<td>64% - 80%</td>
</tr>
<tr>
<td><strong>Specificity CRC</strong></td>
<td>98% - 99%</td>
<td>87% - 90%</td>
</tr>
<tr>
<td><strong>Sensitivity adenoma ≥10 mm</strong></td>
<td>16% - 31%</td>
<td>41% - 68.6%</td>
</tr>
<tr>
<td><strong>Specificity adenoma ≥10 mm</strong></td>
<td>~91%</td>
<td>87% - 91%</td>
</tr>
</tbody>
</table>

## gFOBT: Evidence

<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td><strong>Frequency of Testing</strong></td>
<td>Annual</td>
<td>Biennial</td>
<td>Biennial</td>
<td>Biennial</td>
</tr>
<tr>
<td><strong>Duration (years)</strong></td>
<td>18</td>
<td>18</td>
<td>8</td>
<td>13</td>
</tr>
<tr>
<td><strong>Slide rehydration</strong></td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td><strong>% requiring colonoscopy</strong></td>
<td>30%</td>
<td>30%</td>
<td>5%</td>
<td>5%</td>
</tr>
<tr>
<td><strong>Mortality reduction</strong></td>
<td>33%</td>
<td>21%</td>
<td>15%</td>
<td>18%</td>
</tr>
<tr>
<td><strong>Incidence reduction</strong></td>
<td>20%</td>
<td>17%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Fecal Immunochemical Tests (FITs)

- Antibodies to globin portion of human hemoglobin, albumin, or other blood components
- Qualitative
  - Similar to OTC pregnancy test
- Quantitative
  - Sample placed in tube with buffer solution
  - Automated process mixes samples with antibody reagent
  - Creates “turbidity” which is translated into a hemoglobin level
## FIT Test Characteristics

<table>
<thead>
<tr>
<th>Condition Detected</th>
<th>Sensitivity</th>
<th>Specificity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cancer</td>
<td>61% - 91%</td>
<td>91% - 98%</td>
</tr>
<tr>
<td>Polyps ≥10mm</td>
<td>27% - 67%</td>
<td>95% - 97%</td>
</tr>
</tbody>
</table>

Test positivity: 2% - 18%

FIT Advantages over Sensitive gFOBT

- Superior sensitivity for CRC
- Superior specificity for CRC and advanced adenomas
- Dietary restriction not necessary
- Specific for colorectal bleeding
- Can be developed and interpreted by automation
- Specimen collection allows for less stool handling
- Quantifiable so that sensitivity, specificity, and positivity rates can be adjusted for different screening populations
Which FIT is Best?

• Head to head comparisons in large average risk settings not available yet
• Performance characteristics in large average risk populations available for only a few
• Immunochemistry appears to be similar
• Differences in sampling methods and development may be important
FIT – Outstanding Issues

• Are quantitative FITs an advantage over qualitative FITS?
• Setting for level of Hemoglobin detection
• Which sampling technique is most acceptable to patients?
• How many stool specimens should be tested for optimal sensitivity and specificity?
• Are FITs best developed and interpreted in the laboratory or the physician’s office?
• Are FITs best interpreted by technicians or automated technology?
FOBT Caveats

- FITs for which there is good evidence may or may not be the same as FITs currently marketed

- Mortality reduction depends on program of annual FOBT
  - Test sensitivity vs Program sensitivity

- Positive FOBTs must be followed up with colonoscopy
  - DO NOT REPEAT POSITIVE FOBTs
  - If colonoscopy negative, next screen in 10 years
Digital Rectal Exam (DRE) and In-Office FOBT for CRC Screening

- NOT RECOMMENDED!
- DRE not associated with reduction in distal rectal CA mortality
- FOBT performed on specimens obtained by DRE miss 95% of advanced neoplasms
  - No studies on CRC incidence or mortality

FOBT

**Advantages**
- Inexpensive
- Does not require specialized resources
- Test can be done at home
- FIT specific for human lower GI blood
- No dietary restrictions with FIT
- Proven CRC mortality reduction with gFOBT

**Disadvantages**
- Annual testing
- Dietary restriction for gFOBT
- Uncertain cost benefit over time
- Decreased sensitivity for adenomas (? Prevention of CRC)
- FIT test variation
Flexible Sigmoidoscopy

- **Test characteristics**
  - Estimated sensitivity for CRC throughout entire colon: 58% - 75%
  - Estimated sensitivity for advanced neoplasia: 72% - 86%

- **Adenoma miss rate**
  - 20% overall polyps any size (14.% polyps ≥10mm, 19% ≥6mm)

- **Refer for colonoscopy if adenoma found**
  - Risk proximal adenoma 2x greater with adenoma any size in distal colon
  - If no biopsy, refer for polyp >5mm
Flexible Sigmoidoscopy: Evidence

- **Case control studies**
  - **Selby**
    - Rigid sigmoidoscopy with polypectomy
    - 60% reduction in mortality from distal CRC over 10 years
    - Death from proximal cancers same in both groups
  - **Newcomb**
    - 79% mortality reduction for CRC within reach of sigmoidoscope
Flexible Sigmoidoscopy: Evidence (cont.)

- **Randomized control trial**
  - Atkin (UK trial)
    - One time flex sig between age 55-65 years
    - Incidence CRC in people attending screening reduced 33%
    - CRC mortality reduced 43%
    - Incidence distal CRC reduced 50%
Flexible Sigmoidoscopy

• Advantages
  – Office based
  – Does not require sedation
  – Simplified bowel preparation
  – Every 5 years
  – Evidence to support incidence/mortality reduction

• Disadvantages
  – Complications
  – Quality
  – Invasive
  – May miss isolated proximal adenomas/cancers
CRC Screening Test Trends
2000 - 2008


- Any exam (FOBT in past year, sigmoidoscopy in past 5 years, or colonoscopy in past 10 years)
- Colonoscopy in past 10 years
- Home FOBT in past year
- Sigmoidoscopy in past 5 years
The Opinion Leaders Speak 2000-2009

• The American College of Gastroenterology Screening Guidelines
  – “Colonoscopy every 10 years, beginning at age 50, remains the preferred CRC screening strategy.”

• “It is impractical for a PCP to discuss 6 different options for CRC screening with each patient. Recommending one preferred strategy simplifies the discussion. Colonoscopy is the preferred strategy because it is the best test.”

Rex D Medscape Medical News March 10,2009
It's considered the most effective test for detecting colon cancer, and as Katie Couric says in her special report, "It really didn't hurt." Katie’s first colonoscopy.

Colonoscopy: Evidence

- **Indirect evidence**
  - Observational studies: 60% - 90% reduction in CRC incidence after polypectomy
  - National Polyp Study
    - 76% - 90% reduction observed CRC incidence over 6 years

- **USPSTF: Insufficient evidence to provide precise estimates of sensitivity in community setting**
  - Lack of true gold standard
  - Sensitivity estimates from tandem CTC studies
**Colonoscopy**

<table>
<thead>
<tr>
<th></th>
<th>Sensitivity</th>
<th>Miss Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Adenoma</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>≥6mm</td>
<td>90% - 92%</td>
<td>10%</td>
</tr>
<tr>
<td>≥8mm</td>
<td>92%</td>
<td></td>
</tr>
<tr>
<td>≥10mm</td>
<td>88% - 100%</td>
<td>12%</td>
</tr>
<tr>
<td><strong>CRC</strong></td>
<td>1 of 2 cases</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1 of 5 cases</td>
<td></td>
</tr>
</tbody>
</table>

Evidence for Concern About Sensitivity

– Missed lesions
  • Comparison of CT colonography and colonoscopy
    – 12% miss rate for adenomas $\geq 1$ cm
  • Tandem colonoscopy studies
    – 0-6% miss rate for adenomas $> 1$ cm

– Interval lesions
  • Rate of interval cancers 3 years after “clearing” colonoscopy $\sim 1\%$

– Lower effectiveness for proximal colon
Association Between Colonoscopy and CRC Death

- Population-based Ontario-wide case-control study
  - Cases: people who died of CRC
  - Controls: randomly selected, matched to cases
  - Exposure: colonoscopy

Association Between Colonoscopy and CRC Death

• Result: colonoscopy was associated with fewer CRC deaths \( \text{OR}=0.69 \)
  – Left (distal) colon: \( \text{OR}=0.33 \)
  – Right (proximal) colon: \( \text{OR}=0.99 \)

• Conclusion:
  – Colonoscopy is associated with fewer deaths from CRC
  – The association is mainly limited to deaths from CRC developing on the left side
Why might colonoscopy be less effective in preventing death from proximal CRC?

• Quality of exam
  – Failure to reach the cecum
  – Poor bowel prep

• Biological differences between right and left-sided lesions
  – Right-sided adenomas are less often pedunculated
  – Right-sided lesions may be more likely to be fast-growing
So, How Much Does Colonoscopy Reduce CRC Mortality?

“Colonoscopy is an effective intervention, but as Baxter and colleagues suggest, we must realize that current evidence is indirect and does not support a claim of 90% effectiveness.

....a reasonable estimate ... might be closer to a 60% to 70% reduction of the risk for death from CRC with high-quality colonoscopy.

David Ransohoff  *(Ann Intern Med 2009;150:50-51)*
Estimates of Adverse Outcomes

Colonoscopy

- Major bleeding: 12/10,000 exams
- Perforation: 4/10,000 exams

All serious complications: 25/10,000 exams
Deaths, hosp admissions, diverticulitis, serious abd pain, CVD events

Sigmoidoscopy:
All serious complications: 3/10,000 exams

Surveillance Following Polypectomy

- Too frequent surveillance is common
  - Especially for small lesions
    - Wastes limited resources
    - Increases potential for harm

Colonoscopy

• **Advantages**
  – Most accurate test as single application
  – Detection and removal of polyps in single procedure
  – If negative, once every 10 years

• **Disadvantages**
  – Bowel preparation
  – Sedation (requires transportation and time off work)
  – Invasive
  – Complications
  – Expensive
  – Missed adenomas, interval cancers
So, which screening strategy is best?

• Comparisons of CRC screening methods over time from a population perspective are limited to data from analytic modeling (USPSTF)
  – Using any of the recommended 3 strategies will be approximately equally effective in life-years gained, assuming 100% adherence

<table>
<thead>
<tr>
<th></th>
<th>↓ CRC Incidence</th>
<th>↓ CRC Mortality</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model A</td>
<td>47—52 %</td>
<td>65—66%</td>
</tr>
<tr>
<td>Model B</td>
<td>71—81%</td>
<td>80—84%</td>
</tr>
</tbody>
</table>
USPSTF: Other Important Considerations

• Focus on strategies that maximize the number of individuals who get screened
  – FOBT: $4.75-$23.22
  – Screening sigmoidoscopy: $115.79
  – Screening colonoscopy on avg. risk adult: $345.24

• Test availability
  – 2 studies have shown limited capacity for screening colonoscopy in NM, especially in rural areas

• Potential serious complications with endoscopy
NM CRCP Recommendation for Screening Average Risk Program Participants

• Annual high sensitivity FOBT take-home testing is preferred strategy for average risk program participants who are willing to complete it
  – Maximize numbers of adults screened with limited $
  – Reserve limited NM colonoscopy resources for diagnostic procedures
  – Minimize serious complications from endoscopic screening procedures
However…

• NM CRCP will currently pay for all recommended USPSTF screening strategies for average risk participants

• Because, at the individual level, the best strategy is THE ONE THAT GETS DONE!
FIT: Valuable but Underutilized

Transparency and evidence behooves gastroenterologists and their societies to encourage use of any and all of the evidence-based recommended screening tests in the USPSTF CRC guidelines. Much more screening will be carried out if primary care providers and the American public are not made to feel that screening tests other than optical colonoscopy are ineffective.

James E. Allison, MD
Clinical Professor of Medicine Emeritus UCSF
Division of Gastroenterology
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How to Increase Colorectal Cancer Screening Rates in Practice:
A Primary Care Clinician’s Evidence-Based Toolbox and Guide 2008

*Including Family Physicians, General Internists, Obstetrician-Gynecologists, Nurse Practitioners, Physician Assistants, and their Office Managers

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http://www.cancer.org/acs/groups/content/documents/document/acspc-024588.pdf
1. The positive impact of advice from a doctor to get cancer screening is well-documented.

2. The magnitude of a clinician’s impact is considerable: State surveys have shown that 90 percent of people who reported a physician recommendation for CRC testing were screened vs. 17 percent of those who reported no provider recommendation, and 72 percent of those whose physician recommended a stool blood test completed it vs. 8 percent of those whose physician had not.

3. Every clinician has seen patients who should have received, but did not receive, cancer screening. A consistent and reliable recommendation will result if three other essential elements – an office policy, a reminder system, an effective communication system – are part of the practice.

4. The positive effect of a doctor’s advice is limited to those who have access to a doctor or a usual source of care. All patients need a usual source of care.

5. To prevent CRC and reduce mortality, the recommendation must include a referral for colonoscopy where any non-colonoscopy screening test is positive.
Essential #2: An Office Policy

A. An Office Policy Is Vital

B. Fit the Policy to Your Practice
  - Determine Individual Risk Level
  - Identify Local Medical Resources
  - Assess Insurance Coverage
  - Consider Patient Preference
  - Attend to Office Implementation
Essential #3: An Office Reminder System

A. Options For Patients:
   Education and Cues to Action

B. Options For Physicians
   - Chart Prompts
   - Audits and Feedback
   - Ticklers and Logs
   - Staff Assignments
Essential #4: An Effective Communication System

A. Options for Action
- Stage-based Communication
- Shared Decisions, Informed Decisions, Decision Aids
- Staff Involvement
The Quality of Colonoscopy: Responsibilities of Referring Clinicians

A Consensus Statement of the Quality Assurance Task Group of the NCCRT
Elements of Quality in Colonoscopy Services

• Does the colonoscopy report include:
  – Depth of insertion?
  – Bowel prep quality?
  – Patient tolerance of the procedure?
  – Description of polyps and whether they were removed or biopsied?
  – Pathology results for any biopsies?
  – Clear recommendations for follow-up and/or surveillance?
Elements of Quality in Colonoscopy Services

• Does the endoscopist have a high enough cecal intubation rate?
  >90% (adjusted rate)

• Does the endoscopist have a high enough adenoma detection rate?
  – Initial screening exams of adults 50+:
    • Women 15%
    • Men 25%

• Is the colonoscopy performed in a safe setting?
Improving the Quality of Screening

Summary

FOBT:
✓ Use sensitive tests (with recommended sample collection and QC of interpretation)
✓ Ensure appropriate f/u of positive tests
✓ Ensure regular re-screening

Colonoscopy:
✓ Promote good reporting
✓ Promote CQI
  ✓ Cecal intubation rate
  ✓ Adenoma detection rate
✓ Appropriate surveillance recommendations

To maximize utilization, make multiple options available
Conclusion

• Quantity and quality of CRC screening in NM can be improved by the combined efforts of:
  – Primary care providers
  – GI specialists /surgeons
  – Public health community
  – Payers / insurance
  – Consumers
Thank you!

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