OVER AND UNDERSCREENING OLDER ADULTS:
ACHIEVING OPTIMAL DECISIONS AT DIFFERENT LEVELS OF THE HEALTHCARE SYSTEM

April 24, 2014
Society for General Internal Medicine
Toronto, Canada
Disclosures

**Dr. Ayanian** does not have any disclosures.

**Dr. Breslau** works for the National Cancer Institute and this presentation does not represent the views or recommendations of the NCI, except where noted on individual slides.

**Dr. Pignone** is a member of the U.S. Preventive Services Task Force (USPSTF). Materials provided in this presentation reflect his individual views only and do not represent the views or recommendations of the USPSTF, except where noted on individual slides.

**Dr. Schonberg** does not have any disclosures.

**Dr. Walters** does not have any disclosures.
“We’ve been wrong about what our job is in medicine. We think our job is to ensure health and survival. But really it is larger than that. It is to enable well-being. And well-being is about the reasons one wishes to be alive. Those reasons matter not just at the end of life, or when debility comes, but all along the way.”

— Atul Gawande in Being Mortal
Overview
Decisions to screen older adults: A multilevel perspective

• Why screening is an important topic?
• Where screening fits in cancer care continuum
• Who is screened?
• What are optimal screening decisions?
• Where do optimal decisions fit in a multilevel framework?
• Symposium topics
Projections of the US population by age group: 1900-2050

Background

• Cancer is the second leading cause of death among adults older than 75 years

• Cancer screening offers potential benefit of decreased cancer-related mortality and morbidity but may be associated with significant harms and burdens with older adults
Background

**Patient Perspective:**
- Limited understanding of how preferences and goals affect screening decisions

**Provider Perspective:**
Inconsistent associations between:
- Proxies of life expectancy
- Risk of death from cancer
- Screening outcomes
- Estimated benefits and harms of screening
Background

Healthcare System Perspective:

- Variation in clinician practice recommendations

- Variations may affect quality of care and outcomes
Progression across the cancer care continuum affects quality and outcomes.
# USPSTF recommendations for cancer screening in older adults over 75 years

<table>
<thead>
<tr>
<th>Cancer Site</th>
<th>USPSTF Recommendation</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Breast cancer screening with mammography</td>
<td>Evidence is insufficient to assess the benefits and harms of screening mammography in women 75 years and older.</td>
<td>I</td>
</tr>
<tr>
<td>Cervical cancer screening</td>
<td>Against screening for cervical cancer in women older than age 65 years who have had adequate prior screening and are not otherwise at high risk for cervical cancer.</td>
<td>D</td>
</tr>
<tr>
<td>Colorectal cancer screening</td>
<td>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></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Against screening for colorectal cancer in adults older than age 85 years.</td>
<td>D</td>
</tr>
</tbody>
</table>

Source: USPSTF 2015
Prevalence of screening by age
(2005 and 2008 NHIS Surveys combined)

Bellizzi, Breslau, et al. 2013
*Archives of Internal Medicine*
Adjusted risk per 1000 persons for an adverse event within 30 days of outpatient colonoscopy

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Colonoscopy</th>
<th>Control</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(No Colonoscopy)</td>
<td></td>
</tr>
<tr>
<td>60-69</td>
<td>5.0 (3.8-6.2)</td>
<td>1.3 (0.9-2.7)</td>
</tr>
<tr>
<td>70-74</td>
<td>5.8 (4.6-6.9)</td>
<td>1.5 (1.1-1.9)</td>
</tr>
<tr>
<td>75-79</td>
<td>7.2 (5.9-8.6)</td>
<td>1.9 (1.4-2.4)</td>
</tr>
<tr>
<td>80-84</td>
<td>8.8 (6.9-10.7)</td>
<td>2.3 (1.7-3.0)</td>
</tr>
<tr>
<td>&gt; 85</td>
<td>12.1 (8.7-15.5)</td>
<td>3.2 (2.2-4.3)</td>
</tr>
</tbody>
</table>

Warren, Klabunde et al. 2009
Annals of Internal Medicine
The Challenge

**Optimal decisions**
- Patient preferences
- Health status
- Utilization
- Cost

What is the role of optimal decisions?

At what point should our dialogue shift from “recommending” to “discussing?”
Optimal Screening Decisions

Decision such that no other available decision choice will lead to a better outcome
Factors Affecting Screening in Primary Care

Screening Performance

Cancer Morbidity & Mortality

Zapka et al. 2008
Medical Care
Optimal decision factors and outcomes:
Multilevel framework of screening older adults

**Decision Factors**
- **Patient**
  - Values
  - Health
- **Clinician**
  - Patient life expectancy, functional status, time preferences
- **Health Organization**
  - Performance, quality measures incentives, costs

**Outcomes/Effects**

**Proximal Outcomes**
- Decision to screen/Not Screen

**Intermediate Outcomes**
- Decision to screen/Not Screen

**Distal Outcomes**
- Decision to screen/Not Screen

Some outcomes might necessitate another screening decision and therefore a return to consideration of decisional factors.

**Outcomes/Effects**

**Health Organization**
- Standardized computer alerts, decision aids
  - Enable clinician to discuss pros/cons with patient

**Clinician**
- Followed guidelines;
  - Interdisciplinary collaboration, anxiety

**Patient**
- Early detection, missed diagnosis.
  - Appropriately not screened Survival QoL

**Clinician**
- Quality of testing

**Patient**
- Protocol compliance;
  - Test cost, preparation, complications

**Patient**
- Comprehension of risks/benefits

**Clinician**
- Concordance with patient preference

**Patient**
- Screening Preparation, complications
  - Possible anxiety/reassurance

**Clinician**
- Quality of care, effective, efficient

**Patient**
- Life expectancy, functional status, time preferences

**Health Organization**
- Performance, quality incentives, cost

**Patient**
- Values
Symposium Topics

Patient age, health, functional status and life expectancy

(Louise Walter, MD, MPH)

Physician:patient relationship in screening decisions (Mara Schonberg, MD)

Delivery system role in over and underscreening (John Ayanian, MD)

Tying the discussion together (Michael Pignone, MD)
Too old to have that test?
Patient level factors that impact the benefits and harms of cancer screening

Louise C. Walter, MD
Professor of Medicine
Chief, Division of Geriatrics
University of California, San Francisco
San Francisco VA Medical Center
Objectives

• Describe methods for estimating life expectancy in older adults

• Explain impact of life expectancy on benefits and harms of cancer screening

• Realize the importance of factoring patient preferences into screening decisions
Case: Ms. A

• Ms. A is a 69 year old clinic patient with congestive heart failure, COPD, dependence on others for shopping, and difficulty walking a quarter mile.

• Should you recommend that Ms. A have a screening mammogram?

  1. Yes
  2. No
Screening Decisions

• Age should not be the most important factor in screening decisions

• “One-size-fits-all” approach to medical care based on age does not work in diverse older adult population
  – Variation in health/life expectancy/preferences

• Present a framework to guide how to think through screening decisions in older adults
  – Incorporates individual characteristics (life expectancy) and preferences into decisions
Framework for Individualized Decisions

• Estimate life expectancy
• Determine potential benefits of screening
• Determine potential harms of screening
• Weigh potential benefits and harms according to an individual’s values and preferences
Life Expectancy for Women

Walter LC. *JAMA* 2014;311:1336-1347
How to determine who is in the bottom or top quartile?

Consider Medical Conditions
Life Expectancy

• Possible to estimate if a person is likely to live substantially longer or shorter than average

• Number/severity of medical conditions are stronger predictors of life expectancy than age
  – Life expectancy substantially below average
    • Severe heart failure, lung disease requiring home oxygen, severe kidney disease requiring dialysis, severe dementia, dependency in many ADL, etc.
  – Life expectancy substantially above average
    • No significant medical problems; active
Add a Prognostic Index to Your Clinical Judgment

Consider a Prognostic Index
Prognostic Indices

- A prognostic index is: A clinical tool that quantifies the contributions that various components of the history, physical exam, and laboratory findings make towards a diagnosis, prognosis, or likely response to treatment.

- Physicians can use prognostic indices to lend confidence to their judgments about life expectancy

- Combining clinical estimates with prognostic indices results in more accurate estimates than either alone

Christakis & Iwashyna, Arch Intern Med 1998
Using a Prognostic Index: Case of Ms. A

- Ms. A is a 69 year old clinic patient with congestive heart failure, COPD, dependence on others for shopping, and difficulty walking a quarter mile. **What is your best guess of 9 year mortality risk?**
  1. 15%
  2. 40%
  3. 60%
  4. 75%
  5. 90%
Faculty in UCSF Division of Geriatrics developed ePrognosis

*Provides easy access to validated prognostic indices to estimate life expectancy in older adults

*ePrognosis website http://eprognosis.ucsf.edu
Ms. A

69 year old clinic patient with congestive heart failure, COPD, dependence on others for shopping, and difficulty walking a quarter mile.
Results Based on Score:
Your total score is 15

FIVE AND 9 YEAR MORTALITY:

<table>
<thead>
<tr>
<th>Points</th>
<th>Risk of 5 year mortality (95% CI)</th>
<th>Risk of 9 year mortality (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 - 1</td>
<td>2% (1-3)</td>
<td>7% (4-13)</td>
</tr>
<tr>
<td>2 - 3</td>
<td>4% (3-5)</td>
<td>8% (6-11)</td>
</tr>
<tr>
<td>4 - 5</td>
<td>6% (5-7)</td>
<td>16% (13-19)</td>
</tr>
<tr>
<td>6 - 7</td>
<td>9% (7-10)</td>
<td>26% (23-29)</td>
</tr>
<tr>
<td>8 - 9</td>
<td>13% (12-15)</td>
<td>33% (29-37)</td>
</tr>
<tr>
<td>10 - 11</td>
<td>23% (20-25)</td>
<td>52% (48-56)</td>
</tr>
<tr>
<td>12 - 13</td>
<td>35% (32-38)</td>
<td>58% (53-62)</td>
</tr>
<tr>
<td>14 - 15</td>
<td><strong>43% (39-47)</strong></td>
<td><strong>75% (69-80)</strong></td>
</tr>
<tr>
<td>16 - 17</td>
<td>59% (54-63)</td>
<td>83% (76-88)</td>
</tr>
<tr>
<td>≥ 18</td>
<td>69% (63-73)</td>
<td>92% (86-96)</td>
</tr>
</tbody>
</table>

Given 100 people with similar answers to the index, 75 will die and 25 will survive over the next 9 years.

- Suggests Ms. A’s life expectancy is < 9 years
Lag-Time to Benefit Mammography

- Pooled mortality curves from mammography RCTs that included women $\geq 50$ years

Cumulative Breast Cancer Mortality by Study Group

- NNS=2000 women to prevent 1 breast cancer death after 5 years
- NNS=1000 women to prevent 1 breast cancer death after 10 years

Lee SJ et al, BMJ 2013
Individualize Screening

• Cancer screening should be targeted to patients whose life expectancy > lag-time to benefit

• Patients whose life expectancy < lag-time to benefit of cancer screening are
  – unlikely to survive to benefit from screening
  – yet they are exposed to the harms immediately

Lee SJ et al. JAMA 2013;310:2609-2610
ePrognosis Cancer Screening App

- Compares life expectancy calculated by ePrognosis with lag-time to benefit of mammography and colorectal cancer screening.
Harms of Screening

- Complications from additional procedures to work-up inaccurate test results (false-positives)
- Identification and treatment of clinically unimportant disease that would not have progressed to symptoms in patient’s lifetime
- Psychological distress
All Screening Tests Can Cause Harm

• Mammography Screening
  – 16% false-positive mammogram risk in frail older women
  – ~30% of breast cancers detected by mammography would never have caused symptoms but almost all are treated

  Walter LC and Schonberg MA, JAMA 2014

• Colorectal Cancer Screening
  – 26 per 1,000 colonoscopies in people 65+ have a major complication (perforation, bleeding, stroke)

  Day LW et al. Am J Gastroenterol 2011;106:1197-1206

• Cervical Cancer Screening
  – More false-positive results in older women lead to unnecessary biopsies and procedures

  Sawaya G, Ann Intern Med 2000;942-950
Harms Increase as Life Expectancy Decreases

- Likelihood of harm increases as the number of comorbid conditions increases
  - Comorbidity increases complications of most interventions

- Likelihood of finding clinically insignificant disease increases as life expectancy decreases
  - Because of increased risk of dying from other causes before screen-detected cancer can progress to sx

- Magnitude of psychological harm is individual
  - Cognitive or sensory problems may make tests and follow-up procedures more difficult, painful or frightening

Preferences

- Understand how individuals view potential harms/benefits and integrate values/preferences into decisions
- Different from public health strategy in which experts weigh benefits/risks and decide what is best for a population
- Important to consider individual’s values and preferences
  - Harms look larger to some people
  - Patients who would not want work-up/treatment for an abnormal result should NOT be screened
Individualized Decisions

Do Screen

Likelihood of Benefit

Patient Preferences (moveable fulcrum)

Likelihood of Harm

Don’t Screen
Conclusion

• Be thoughtful about cancer screening and prevention (rather than a checkbox approach)

• Think about
  – Life expectancy
  – Benefits and Harms
  – Patient Preferences

• These are core principles of good medicine and should be applied to screening decisions
Why is Life Expectancy Important?

• Benefit of screening does NOT occur immediately

• Screening results in benefit by finding cancers at an early asymptomatic stage, which would have caused symptoms or killed a person years later

• A life expectancy >10 years is required to have 1:1000 chance of survival benefit from screening
  • This is the “lag-time to benefit” for mammography and colorectal cancer screening
  • Cervical cancer different—risk of cancer remote in women 65+ with normal Paps regardless of life expectancy

Lee SJ et al. BMJ 2013
Symposium Topics

Patient age, health, functional status and life expectancy (Louise Walter)

Physician:patient relationship in screening decisions (Mara Schonberg, MD, MPH)

Delivery system role in over and underscreening (John Ayanian)

Tying the discussion together (Michael Pignone)
The Clinician-Patient Relationship Influence on Cancer Screening Among Older Adults

Mara Schonberg, MD, MPH
Division of General Medicine and Primary Care
Beth Israel Deaconess Medical Center
Harvard Medical School
April 24, 2015
Overview

• Factors that influence physician cancer screening recommendations

• A framework for discussing stopping screening

• Decision aids
Many with short life expectancy screened

• Few adults are adequately informed about risks
  – 19% of US women ≥50 report clinician addressed harms of mammography
  – 26% of US adults ≥50 report clinician addressed harms of colon cancer screening

• The dominant approach to promote uptake of screening; a quality marker

• 30-40% of older adults with <10 year life expectancy are screened
• Clinicians uncomfortable discussing life-expectancy and find discussing risks of cancer screening challenging

“It is very hard for me to say you do not need a mammogram, you are not going to benefit…so sometimes even though I know that it does not make sense, I will still do it.”

Schonberg et al., JGIM, 2006
Three Groups of Women 80+

1. Want screening no matter what
2. Do not want screening no matter what
3. Whatever the doctor recommends

“I go along with what they say. If they say you do not need a mammogram at your age, I will settle for that. If they say you need a mammogram then I will just get one.”

• Clinician recommendation is the strongest driver of screening

Schonberg et al., JGIM, 2006
Factors influencing clinician screening recommendations

- Patient age, health, function, life expectancy
- Patient’s living situation, family support, personality (anxiety), expectations, previous screening behavior
- Proximity to cancer treatment sites, available treatments
- Time available in a clinic visit, frequency of visits
- Clinician-patient relationship
- Physician specialty, # of practitioners in a practice
- Concerned about litigation for a missed cancer
Framework for discussing stopping

• Estimate patient life expectancy

• Initiate and reinitiate discussions about stopping screening (even before you would recommend it)
  – Inform patient of benefits and risks of screening

• Clarify patient’s values around screening
  – Chance of cancer
  – Likelihood of death from cancer if screened or not
  – Harms from screening

• Focus on health promotion measures that benefit older adults within their life expectancy (exercise)
Talking to patients about prognosis in setting of cancer screening

• Many want to discuss prognosis; 20-50% do not
• Patient may need a level of acceptance about mortality
• Need to ask patients if they want this information
  • Would you like me to talk about your life expectancy or how long you are likely to live?
• Takes time, needs structure, empathy
• Acknowledge the patient’s reaction to the news
• Focus on what you can do for the patient to optimize their health in remaining life expectancy
Decision Aids (DA)

- Leaflets, video, interactive media, etc.

- Designed to help patients:
  - understand risks and benefits of tests/treatments,
  - clarify preferences and values
  - be more involved in decision-making
Should I Continue Getting Mammograms after age 75?

This is a tool to help you make this decision. You will need a pen/pencil to complete parts of this tool.
Content of Mammography Decision Aid for Women 75+

• Likely outcomes if screened or not screened for breast cancer with mammography

• Health score

• Competing mortality risks

• Values clarification exercise
7. Because of a physical, mental or emotional problem, do you need help from other people with routine needs? These include everyday household chores, shopping or getting around for other purposes?
   
   No (0 points)  Yes (2 points)  write your points here------------------------→  

8. By yourself and without using any special equipment, how difficult is it for you to walk a quarter of a mile (about 3 city blocks)?
   Not at all difficult (0 points)
   A little difficult to very difficult (3 points)
   Can’t do at all/do not do/can only do with a cane or walker (3 points)  

9. Which best describes your cigarette use?
   Never smoked or smoked less than 100 cigarettes in your life (0 points)
   Former smoker (1 point)
   Current smoker (3 points)  

10. During the past 12 months, how many times were you hospitalized overnight?
    None (0 points)
    Once (1 point)
    Twice or more (3 points)  write your points here------------------------→  

Now add up all of your points from questions 1-10 from BOTH pages:  

Circle your score below to learn what it means:

0 1 2 3 4 5 6 7 8 9 10 11 or more

A mammogram may help you live longer  
A mammogram is unlikely to help you live longer  
A mammogram is very unlikely to help you live longer
• Increased older women’s knowledge of the benefits and risks of mammography
• Led to more discussions about mammography with PCPs
• Led to fewer women intending to be screened, especially with short life expectancy
Large RCT of Decision Aid

• Aim to test the efficacy of mammography screening DA for women aged 75 and older in a large cluster randomized controlled trial (RCT)

• Plan to recruit 550 women 75-89 years from 100 PCPs in Boston area or North Carolina

• Video example for PCPs on discussing the pros and cons of mammography screening with a woman that has read the DA (VIDEO)
Available DAs

• Mammography women 70+:

• Colon cancer screening DA for adults aged 75 and older (Carmen Lewis, MD, MPH)
  – http://shareddecisionmaking.org/Site/Female%20Age%2080.pdf

• ePrognosis: Cancer screening
How do we improve older adult’s decision-making around cancer screening?

- Life Expectancy
- Risk of Disease
- Preferences and Values

Personalized Cancer Screening Decision
Symposium Topics

Patient age, health, functional status and life expectancy
*(Louise Walter)*

Physician:patient relationship in screening decisions *(Mara Schonberg)*

Delivery system role in over and underscreening
*(John Ayanian, MD, MPP)*

Tying the discussion together
*(Michael Pignone)*
Role of Practice & Health System Factors in Cancer Screening for Older Adults

John Z. Ayanian, MD, MPP
Institute Director &
Alice Hamilton Professor of Medicine
University of Michigan

SGIM Annual Meeting
April 24, 2015
Outline of Presentation

1) Practice factors
   - Electronic health records
   - Patient & physician reminders
   - Team-based approaches

2) Health system factors
   - Health insurance coverage & cost-sharing
   - Public reporting of performance measures

3) Addressing overuse
   - New HEDIS overuse measure
   - “Choosing Wisely” AGA recommendations
Factors Affecting Screening in Primary Care

- Health System
- Organization and/or Practice Setting
- Provider Characteristics
- Patient Characteristics
- Proactive Provider Team
- Productive Encounters
- Activated Patients

Screening Performance

- Cancer Morbidity & Mortality

Adapted from Zapka et al. Med Care 2008
Public Awareness of Need for Screening

Touring giant colon at AARP Convention in Boston
Practice Factors in Colorectal Cancer Screening
Practice Systems to Support CRC Screening

National survey of 1266 primary physicians, 2006-07

- Colorectal cancer screening guidelines
  - Implemented in practice: 62%
  - Available electronically: 41%
- Electronic health records: full 18%, partial 10%
- Reminder systems: physicians 30%, patients 15%
- Screening reports to physicians: 12%

Importance of Clinical Information Systems
412 Massachusetts Primary Care Practices

Multi-functional electronic health record (1/3 of practices):

– Only significant structural predictor of HEDIS colon cancer screening rate: +4%

– Also predicted increased breast cancer screening

Team-Based Counseling & Patient Reminders to Promote Colorectal Cancer Screening
22 NJ & PA Family Medicine Practices

Percent

60
54
27
40
20

Counseling by non-MD staff
Patient Reminder Systems

Both P<0.001

Use of Information Systems
to Remind Patients & Physicians
Harvard Vanguard Medical Associates

22,000 patients age 50-80 overdue for screening in integrated electronic health record at 14 health centers

Randomized Interventions:
Mailed reminders to patients with FOBT kits and colonoscopy scheduling number
Electronic reminders to physicians at primary care visits

Impact of Patient Reminders in Older Patients

Enhanced Office Systems for CRC Screening
10 Pittsburgh Primary Care Practices

Patient reminder letters combined with:
• Educational meetings with physicians & office staff
• Office protocols drafted & implemented
• Patient tracking systems
• Motivational patient interviews to overcome barriers

Intervention vs. Control: Overall 54% vs. 41%
Age 50-64: 54% vs. 35%  Age 65-79: 54% vs. 52%

BS Ling et al. Arch Intern Med 2009
Health System Factors in Colorectal Cancer Screening
Public Reporting to Promote CRC Screening

HEDIS measure on colorectal cancer screening introduced by NCQA in 2004

13 Pennsylvania insurers’ responses:
  • 69% implemented HEDIS measure
  • 54% revised CRC screening guidelines
  • 46% developed new tracking systems
  • 46% developed new reminder systems
  • 23% expanded CRC screening coverage

Sarfaty & Myers, Am J Managed Care 2008
HEDIS Colorectal Cancer Screening Rates
Medicare HMOs & PPOs, Adults 50-75

Percent

2007 2010 2013

Medicare HMOs
50.4 57.6 64.3

Medicare PPOs
39.5 41 60.8

State of Health Care Quality 2013, NCQA
Supplemental Insurance Matters in Medicare
Medicare Current Beneficiary Survey, 2000

In Medicare fee-for-service, \( \uparrow \) CRC screening with supplemental insurance:

55% vs. 36%

Significant adjusted difference persists*:

+9% higher screening rate

*Adjusting for sociodemographics, health status & care-seeking behaviors

Schneider et al. Med Care 2008
Poor & Minority Communities Not Benefiting Equally from CRC Screening

Endoscopic screening rates rising more slowly (or falling) for blacks and Hispanics in counties with:
- Greater poverty
- Fewer PCPs

CRC incidence rates not declining in counties with:
- Greater poverty
- More uninsurance
- Fewer PCPs

Hao et al. Cancer Causes Control 2009
Addressing Overuse of Colorectal Cancer Screening
% of repeat colonoscopies for patients ≥66 years after colonoscopy, 2001-2003

Blue = all patients  Green = patients with negative colonoscopy
Black = patients with negative colonoscopy & no indication other than screening

Goodwin et al. Arch Intern Med 2011
## Overuse of Colonoscopy for Colorectal Cancer Screening and Surveillance

**Gina R. Kruse, MD, MS, MPH\(^1\), Sami M. Khan, BA\(^2\), Alan M. Zaslavsky, PhD\(^3\), John Z. Ayanian, MD, MPP\(^2\), and Thomas D. Sequist, MD, MPH\(^2\)**

### Table 3: Colorectal Cancer Screening and Surveillance Endoscopy Exam Findings and Median Time to Next Colonoscopy

<table>
<thead>
<tr>
<th>SCREENING</th>
<th>N (%)</th>
<th>Median Time (years)</th>
<th>IQR</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>INCIDENT SCREENING COLONOSCOPY</strong> (^a)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No polyps</td>
<td>713 (50)</td>
<td>6.9</td>
<td>5.1-10.0</td>
</tr>
<tr>
<td>Hyperplastic polyp(s) only</td>
<td>338 (24)</td>
<td>5.7</td>
<td>4.9-9.7</td>
</tr>
<tr>
<td>1–2 small tubular adenoma(s)</td>
<td>257 (18)</td>
<td>5.1</td>
<td>3.3-6.3</td>
</tr>
<tr>
<td>3–10 adenomas, large adenoma, villous histology or high-grade dysplasia</td>
<td>109 (8)</td>
<td>2.9</td>
<td>2.0-3.4</td>
</tr>
<tr>
<td>Malignancy or &gt; 10 adenomas (^b)</td>
<td>12 (1)</td>
<td>—</td>
<td>—</td>
</tr>
</tbody>
</table>

**Adults, Age 50-65**

Harvard Vanguard Medical Associates

2001-2010

*J Gen Intern Med* March 2015

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Endoscopists’ baseline recommendations most important predictor of colonoscopy

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\(^{a}\) Median time with a range.

\(^{b}\) No cases of malignancy or >10 adenomas were identified in incident screening colonoscopy.
New HEDIS Measure in 2015:

*Overuse of CRC Screening in Older Adults*

**Measure:**

% age 86+ screened unnecessarily for colorectal cancer

**Rationale:**

US Preventive Services Task Force recommends not screening adults >age 85: *Grade D, harms > benefits*

New CRC cases: 24% ages 75-84 ➔ 12% ages 85+

Shorter life expectancy

↑ risk from adverse events

Choosing Wisely Recommendations of American Gastroenterological Association

• Do not repeat colorectal cancer screening (by any method) for 10 years after high-quality negative colonoscopy in average-risk adults

• Do not repeat colonoscopy for at least 5 years after 1-2 small (<1 cm) adenomas (w/o high-grade dysplasia) removed via high-quality colonoscopy
Practice & Heath System Priorities for Colorectal Cancer Screening

Develop & implement quality measures & tools to:

Identify and reduce potential overuse, e.g.:

• Too frequent colonoscopy for low-risk findings (hyperplastic polyps, 1-2 very small adenomas)
• Wide practice variation in repeat colonoscopy recommendations among endoscopists

Enhance quality of CRC screening tests:

• Colonoscopy after positive FOBT
• Good bowel preps
• Colonoscopy withdrawal times
• Adenoma detection rates
Colon polyps. Stop them before they go bad.

"Colon polyps. Stop them before they go bad."

Colon cancer almost always starts with a polyp. Get the polyp early and stop colon cancer before it even starts. And that’s for both men and women.

Just get a test from your doctor. 1-800-ACS-2345 or cancer.org

Colon cancer. Get the test. Get the polyp. Get the cure.
Symposium Topics

Patient age, health, functional status and life expectancy *(Louise Walter)*

Physician:patient relationship in screening decisions *(Mara Schonberg)*

Delivery system role in over and underscreening *(John Ayanian)*

Tying the discussion together *(Michael Pignone, MD, MPH)*
• Cancer screening decisions in older adults should be individualized
  – Based on potential benefits and harms
• Potential benefit depends on epidemiological risk and competing risk of mortality
  – Life expectancy important
    • Depends on age, co-morbidity, and function
• Harms increase with age and co-morbidity
• Providers should help patients consider benefits and harms in context of patient values
• Health systems should focus on decision quality rather than simply counting tests completed
Some Questions

- Can providers access information to individualize assessment of benefits and harms?
- Are patients willing to engage in weighing benefits and harms?
- Do healthcare systems have sufficient information to assess decision quality?
Questions?