COLORECTAL CANCER SCREENING

CHANGE YOUR PRACTICE TO IMPROVE YOUR OUTCOMES
BARRIERS TO EFFECTIVE SCREENING

- Medical practice is demand (patient) driven
- Practice demands are numerous/diverse
- Few practices currently have mechanisms to assure that every eligible patient gets an appropriate recommendation for screening
- Opportunistic vs. organized screening
The Community Preventive Services Task Force recommends multicomponent interventions to increase screening for breast, cervical or colorectal cancers, on the basis of strong evidence of effectiveness in increasing screening use. For colorectal cancer screening, evidence shows these interventions are effective in increasing screening with colonoscopy or fecal occult blood test (FOBT).

-Task Force Finding and Rationale Statement, August 2016
Multicomponent interventions combine two or more intervention approaches reviewed by the CPSTF

- Two or more intervention approaches from the following strategies:
  - Interventions to increase community demand: client reminders, client incentives, small media, mass media, group education, and one-on-one education
  - Interventions to increase community access: reducing structural barriers, reducing client out-of-pocket costs
  - Interventions to increase provider delivery of screening services: provider assessment and feedback, provider incentives, provider reminders
- Two or more intervention approaches to reduce different structural barriers
FIGURE 1—Relationship of system strategies and estimated percentage of patients up-to-date with colorectal cancer screening at federally qualified health centers in 4 midwestern states: 2012.

Note. CRC = colorectal cancer.
## CHARACTERISTICS OF HIGH PERFORMING PRACTICES

### Table 2. Strategies to Achieve High Performance in Colorectal Cancer Screening

<table>
<thead>
<tr>
<th>Improvement Model</th>
<th>Strategies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prioritize performance</td>
<td>Commit to practice changes needed to improve.</td>
</tr>
<tr>
<td></td>
<td>Have regular practice meetings to review improvement approaches and their impact.</td>
</tr>
<tr>
<td></td>
<td>Offer patients choice of recommended CRC screening options.</td>
</tr>
<tr>
<td>Delivery system design</td>
<td>Adopt and publicize recommendation for regular health maintenance visits.</td>
</tr>
<tr>
<td></td>
<td>Remind patients of needed health maintenance visits.</td>
</tr>
<tr>
<td></td>
<td>Standing orders for CRC screening.</td>
</tr>
<tr>
<td></td>
<td>Review CRC screening status at all patient visits.</td>
</tr>
<tr>
<td>Electronic medical record tools</td>
<td>Maintain accurate information in the health maintenance tables.</td>
</tr>
<tr>
<td></td>
<td>Empower all staff to review health maintenance table at all patient contacts.</td>
</tr>
<tr>
<td></td>
<td>Use reports to identify and contact patients not current with CRC screening.</td>
</tr>
<tr>
<td>Patient activation</td>
<td>Repeat messages to patients who do not initially agree to screening.</td>
</tr>
<tr>
<td></td>
<td>Provide patient education materials about CRC screening.</td>
</tr>
<tr>
<td></td>
<td>Contact patients that have not completed ordered screening.</td>
</tr>
</tbody>
</table>
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

Mora Safaty, MD

Editors
Karen Peterson, PhD
Richard Woolf, MD

CLINICIANS CANNOT DO IT ALL!

- Time that patients spend with non-clinician staff is underutilized
- Standing orders can empower nurses, intake staff and others to distribute educational materials, schedule appointments, etc.
- Involve staff in meetings to discuss progress in achieving office goals for improving the delivery of preventive services
Improve Cancer Screening Rates
Using the Four Essential Strategies

1. Make a Recommendation
   - The primary reason patients say they have not gotten screened is because a doctor did not advise it.
   - A recommendation from you is vital.
2. Develop a Screening Policy
   - Create a standardized course of action.
   - Engage your team in creating, supporting, and following the policy.
3. Be Persistent with Reminders
   - Track test results, and follow up with providers and patients.
   - You may need to remind patients several times before they follow through.
4. Measure Practice Progress
   - Establish a baseline screening rate, and set an ambitious practice goal.
   - Seeing screening rates improve can be rewarding for your team.

COMMUNICATION

Be clear that screening is important. Ask patients about their needs and preferences.
Involve your staff to make screening more effective.
Measure your progress to tell if you are doing as well as you think.
Create a simple tracking system that will help you follow up as needed.
#1: MAKE A RECOMMENDATION

Assess a patient’s risk status and receptivity to screening
### Table 2. Relative Risks for Established Colorectal Cancer Risk Factors

<table>
<thead>
<tr>
<th>Factors that increase risk:</th>
<th>Relative risk*</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Heredity and medical history</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Family history</strong></td>
<td></td>
</tr>
<tr>
<td>1 first-degree relative</td>
<td>2.2</td>
</tr>
<tr>
<td>More than 1 relative</td>
<td>4.0</td>
</tr>
<tr>
<td>Relative with diagnosis before age 45</td>
<td>3.9</td>
</tr>
<tr>
<td>Inflammatory bowel disease</td>
<td>1.7</td>
</tr>
<tr>
<td>Diabetes</td>
<td>1.3</td>
</tr>
<tr>
<td><strong>Behavioral factors</strong></td>
<td></td>
</tr>
<tr>
<td>Alcohol consumption (daily average)</td>
<td>1.2</td>
</tr>
<tr>
<td>2-3 drinks</td>
<td>1.2</td>
</tr>
<tr>
<td>&gt;3 drinks</td>
<td>1.4</td>
</tr>
<tr>
<td>Obesity (body mass index ≥30 kg/m²)</td>
<td>1.3</td>
</tr>
<tr>
<td>Red meat consumption (100 g/day)</td>
<td>1.2</td>
</tr>
<tr>
<td>Processed meat consumption (50 g/day)</td>
<td>1.2</td>
</tr>
<tr>
<td>Smoking (ever vs. never)</td>
<td>1.2</td>
</tr>
<tr>
<td><strong>Factors that decrease risk:</strong></td>
<td></td>
</tr>
<tr>
<td>Physical activity (colon)</td>
<td>0.7</td>
</tr>
<tr>
<td>Dairy consumption (400 g/day)</td>
<td>0.8</td>
</tr>
<tr>
<td>Milk consumption (200 g/day)</td>
<td>0.9</td>
</tr>
</tbody>
</table>

*Relative risk compares the risk of disease among people with a particular "exposure" to the risk among people without that exposure. Relative risk for dietary factors compares the highest with the lowest consumption. If the relative risk is more than 1.0, then risk is higher among exposed than unexposed persons. Relative risks less than 1.0 indicate a protective effect.

©2017 American Cancer Society, Inc., Surveillance Research
COLONOSCOPY RATES IMPROVING IN FIRST DEGREE RELATIVES (BUT ARE STILL SUB-OPTIMAL)

Colonoscopy within 10 years

- FDRs ≥50
- Non-FDRs ≥50
- FDRs 40-49

Tsai et al. Prev Chronic Dis 2015;12:140533
Sample Colorectal Cancer Screening Algorithm
Recommendation to Start Screening at Age 45 per 2018 American Cancer Society Guideline

Assess Risk: Personal & Family

- Average risk (No personal or family history of CRC or adenomatous polyp)
  - < 45 years or > 85 years*
  - 45 to 75 years*
  - Do not screen
  - Screen: select from test options below.

- Increased or high risk based on personal history.
  - If personal Hx of CRC (285.038), colonic polyps (286.010), Ulcerative Colitis (K51.9), or 8 year or more diagnosed personal Hx of IBD (287.19 or K52.9), document as assessment in today’s encounter and use the diagnostic code to order a screening colonoscopy (CPT 45378)
  - Adenoma
  - CRC
  - IBD

Surveillance colonoscopy at regular intervals as recommended by provider.

- Genetic syndromes (FAP or Lynch Syndrome)
  - CRC or documented advanced adenoma in one FDR < 60 years - OR - CRC or advanced adenomas in two or more FDRs at any age
  - Lynch: Screening colonoscopy every 1-2 years starting at age 20-25.

- CRC or documented advanced adenoma in one FDR ≥ 60, has an indicator condition - OR - CRC in two or more SDRs
  - Screening colonoscopy every 5 years beginning age 40 - OR - 10 years earlier than age of youngest relative at diagnosis, whichever comes first.

For Medicare patients, use G codes:

<table>
<thead>
<tr>
<th>Stool-Based Tests</th>
<th>Direct Visualization Tests</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yearly fecal immunochemical test (FIT)*, or Multi-target stool DNA (FIT-DNA) every three years, or</td>
<td>Colonoscopy every 10 years, or CT colonography (virtual colonoscopy) every 5 years, or Flexible sigmoidoscopy every 5 years</td>
</tr>
</tbody>
</table>

* For adults ages 75 to 85 years, providers should individualize decisions about screening, after considering patient preferences, life expectancy, overall health, and prior screening history.
WHO SHOULD NOT BE SCREENED

What do the guidelines say?

► ACS
  - Clinicians should individualize colorectal cancer screening decisions for individuals aged 76 through 85 years, based on patient preferences, life expectancy, health status, and prior screening history.
  - Clinicians should discourage individuals over age 85 years from continuing colorectal cancer screening

► USPSTF
  - 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
Many Dialysis Patients Get Unnecessary Colonoscopies
Study finds that a limited life span offsets the benefits of the screening test.
Cuts both ways

- Guidelines are **not** measures, but are often operationalized that way
- Many who could benefit do not get screened

Charlson index and approximate life expectancy in a 75 year-old man

- 0 - >10 years
- 1-3 - 5-10 years
- ≥4 - <5 years

**Fig 2** Screening at age 75 vs age 76 (n=21 499)
#1: MAKE A RECOMMENDATION

- Assess a patient’s risk status and receptivity to screening
- Determine screening messages you and your staff will share with patients
### Top Of Mind Thoughts On Colon Cancer in Unscreened Adults

<table>
<thead>
<tr>
<th>1</th>
<th>DEATH/FATAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>➤ “You can die quickly if not found soon.”</td>
<td></td>
</tr>
<tr>
<td>➤ “I think of an awful disease that robs you of life and kills you.”</td>
<td></td>
</tr>
<tr>
<td>➤ “Death. The survival rate is very low.”</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2</th>
<th>TERRIBLE ILLNESS</th>
</tr>
</thead>
<tbody>
<tr>
<td>➤ “Terrible disease that requires removal of part of the colon.”</td>
<td></td>
</tr>
<tr>
<td>➤ “A serious disease that needs to be detected early.”</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>3</th>
<th>COLONOSCOPY</th>
</tr>
</thead>
<tbody>
<tr>
<td>➤ “That I should get a colonoscopy, but don't really want to.”</td>
<td></td>
</tr>
<tr>
<td>➤ “That having a colonoscopy can detect colon or colorectal cancer.”</td>
<td></td>
</tr>
</tbody>
</table>
Many admit they do not know much about the disease

- Most are unaware screening can prevent colon cancer and are surprised when they learn this fact
- Many think screening is only useful for early detection

Most do not personally worry about colon or colorectal cancer

✓ No stomach/digestive issues
✓ No family history
When thinking of colonoscopies, many, especially females, report concerns about the prep.

“Drinking the stuff the day before, I just don't think I could do it.”

Concerns about the test being painful and invasive are also commonly mentioned.

“I think about them going in, in an intrusive, very painful and very invasive way.”

Many understand the process of the stool tests, though few differentiate between the two types.

Overall, many find this option more appealing, however, some have questioned its accuracy.

“I don't know how accurate the one where you do it by mail would be compared to a colonoscopy.”

Demographic differences:
- Stool test & FIT-DNA test awareness higher among females
- FIT-DNA test awareness higher among 55+
Why aren’t they getting screened?

- **PROCRASTINATION (33%)**
  Often triggered by concerns about prep or the unpleasantness of the procedure

- **LACK OF SYMPTOMS (27%)**

- **UNPLEASANTNESS OF PREP (23%)**

- **NO FAMILY HISTORY (23%)**

---

**COST CONCERNS**

74% of the Uninsured are deterred by cost

Among the Insured, some have expressed cost concerns, mainly just not knowing what insurance would cover and what out-of-pocket costs they would incur

---

**IMPORTANCE OF SCREENING**

60% feel CRC screening is important

(Higher among young 50 & African Americans)

Top barriers:
- 42% Procrastination
- 25% Unpleasantness of prep
- 22% No symptoms

---

**Anxiety and fear** are leading emotions Unscreened participants have when they think of being screened, largely related to the prep and procedure, but some also fear the results.

“I’m filled with a sense of dread for the preparation and the actual procedure.”
Only ~ 4 in 10 talked with their health care provider about CRC Screening.

What health care providers are saying:
- They’re the recommended age
- They’re due for screening

What health care providers aren’t saying:
- Why it’s important
- The different testing options available

Many report if their doctor provided more information on why it’s important, it may be more influential. Some also want more details on test options and what the tests entail.

Demographic differences:
- Insured more likely to have had a conversation with health care provider
There are several screening options available, including simple take home options. Talk to your doctor about getting screened.

Colon cancer is the second leading cause of cancer deaths in the U.S., when men and women are combined, yet it can be prevented or detected at an early stage.

Preventing colon cancer, or finding it early, doesn’t have to be expensive. There are simple, affordable tests available. Get screened! Call your doctor today.
Summarizes research and provides guidance on how to encourage CRC screening for unscreened audiences

Includes tools and resources, including:

- Infographics
- Press release template
- Social media messages
- Web banner ads
- Cobranded inter-office TV slides
- “Ways to get involved” tools

New version coming Summer 2019
COMpanion Guides for Hispanics and Asian Americans
#2: DEVELOP A SCREENING POLICY

- Create a standing course of action for screenings, document it, and share it

- Ensure patient education and follow-up
# Screening Guidelines for Average Risk Adults

**ACS 2018; USPSTF 2016**

<table>
<thead>
<tr>
<th>Recommendations</th>
<th>ACS, 2018</th>
<th>USPSTF, 2016</th>
</tr>
</thead>
</table>
| Age to start screening           | **Age 45y**  
Starting at 45y (Q)  
Screening at aged 50y and older - (S) | Aged 50y (A)  
Different methods can accurately detect early stage CRC and adenomatous polyps. |
| Choice of test                   | High-sensitivity stool-based test or a structural exam.                    |                                                                           |
| Acceptable Test options          | • FIT annually  
• HSgFOBT annually  
• mt-sDNA every 3y  
• Colonoscopy every 10y  
• CTC every 5y  
• FS every 5y  
**All positive non-colonoscopy tests should be followed up with colonoscopy.** | • HSgFOBT annually  
• FIT annually  
• sDNA every 1 or 3y  
• Colonoscopy every 10y  
• CTC every 5y  
• FS every 5y  
• FS every 10y plus FIT every year |
| Age to stop screening            | Continue to 75y as long as health is good and life expectancy 10+y (Q)  
76-85y individual decision making (Q)  
>85y discouraged from screening (Q) | 76-85 y individual decision making (C) |

**SCREENING GUIDELINES FOR AVERAGE RISK ADULTS**
NCI survey of CRC screening practices among primary care physicians

Physicians’ CRC screening recommendations reflect both overuse and underuse, and few (<20%) made guideline-consistent CRC screening recommendations across all modalities.
Out of date knowledge

- 1 in 5 clinicians still perform single sample FOBT from DRE in the office
- Some believe a DRE is highly effective screening method
- Some repeat positive stool tests instead of referring patients for colonoscopy
- In most settings, 1 in 3 positive stool tests get no colonoscopy within a year
Analysis of 70,000+ FIT-positive patients (Kaiser)

Increased risk of CRC and advanced-stage CRC, when time to colonoscopy is greater than 6 months

Corley et al. JAMA 2017
Implementation factors required to achieve high quality:

- Annual testing
- Use only high sensitivity guaiac or FIT
- No DRE specimens
- Colonoscopy follow up for all positive stool tests
#3: BE PERSISTENT WITH REMINDERS

- Determine how your practice will notify patient and physician when screening and follow up is due

- Ensure that your system tracks test results and uses reminder prompts for patients and providers
Patient Reminder Types

- Education
- Cues to action
Shared Decision-Making Tools for CRC Screening

**Conversation Cards**

Using Conversation Cards to Help Your Patients Select an Option for Colorectal Cancer Screening

- These Conversation Cards are to be used with patients not previously screened or not up-to-date with screening.
- Each Conversation Card features the attributes of a different colorectal cancer screening test option.

![Conversation Cards Diagram]

**Patient Decision Aid**

Understanding Colorectal Cancer Screening

Colorectal Cancer Screening: Which test is right for you?

- Colorectal cancer is the second-leading cause of death from cancer in the U.S. for men and women combined. The best way to prevent death from colorectal cancer is to stay current with screening.

- There are many screening tests for colorectal cancer. You and your health care provider have a decision to make about which screening test is right for you. The best test you choose will depend on your preferences and with costs are available. Each test has its own advantages and disadvantages. It is important to choose a test that is right for you.

The American Cancer Society recommends that adults age 45 and older with an average risk of colorectal cancer get screened regularly with a stool test or a rectal exam. Regular screening helps in having a follow-up colonoscopy for positive results on any screening test (beyond colonoscopy).

What is colorectal cancer?

Colorectal cancer is cancer that starts in the colon or the rectum. These cancers can also be termed colon cancer or rectal cancer, depending on where they start. Colon cancer and rectal cancer can often be grouped together because they have many similarities and differences.

- Most colorectal cancers begin as growths called polyps on the inner lining of the colon or rectum. Some types of polyps can change into cancer over the course of several years, but not all polyps become cancer.

Why should I get screened for colorectal cancer?

With regular screening, most polyps can be found and removed before they have the chance to turn into cancer. Screening can also find colorectal cancer early, which is smaller and easier to treat.

Colorectal cancer is the second-leading cause of cancer death in the U.S., when men and women are combined, yet it can be prevented or detected at an early stage.

How can I lower my risk of getting colorectal cancer?

There are things you can do to help lower your risk, such as eating a healthy diet, being physically active, not smoking, limiting alcohol, and eating a diet high in vegetables and fruits.

https://www.cancer.org/health-care-professionals/colon-md.html
Main Street Medical

Date

Name
Street
City

Dear (Name):

Our office has made a commitment to promote the health of its members, and to provide education regarding preventive health measures that you can take to maintain a healthy lifestyle. Our records indicate that you are either overdue for colorectal cancer screening tests, or that you have never had a colorectal cancer screening test.

I am writing to ask you to call our office today to schedule a colorectal cancer screening appointment. By getting colorectal cancer screening tests regularly, colorectal cancer can be found and treated early when the chances for cure are best. Many of these tests can also help prevent the development of colorectal cancer.

The American Cancer Society and a number of other major medical organizations recommend that average-risk individuals choose one of the following options for colorectal cancer screening. Screening should begin at age 50.

**Tests That Find Polyps and Cancer**
- Flexible sigmoidoscopy every 5 years*, or
- Colonoscopy every 10 years, or
- Double-contrast barium enema every 5 years*, or
- CT colonography (virtual colonoscopy) every 5 years*

**Tests That Primarily Find Cancer**
- Yearly fecal occult blood test (FOBT)**, or
- Yearly fecal immunochemical test (FIT)**, or
- Stool DNA test (sDNA), interval uncertain*

* If the test is positive, a colonoscopy should be done.

** The multiplex stool take-home test should be used. One test done by the doctor in the office is not adequate for testing. A colonoscopy should be done if the test is positive.

The tests that are designed to find both early cancer and polyps are preferred if these tests are available to you and you are willing to have one of these more invasive tests. Talk to your doctor about which test is best for you.

We have also included for your reference an informational pamphlet on colorectal cancer. Should you have any questions about this pamphlet or colorectal cancer screening tests, please contact us. Thank you for taking time to take care of your health.

Sincerely,

Medical Director

Enclosure: Colorectal Cancer Screening Brochure

Dear _______________________

According to our records, you indicated that either you or a family member who is under age 60 has a history of colorectal polyps or cancer. This medical history places you at increased risk for colorectal cancer. Because of this, it is advisable that you have a colonoscopy now.

If you had a negative FOBT test, you still need a colonoscopy.

A colonoscopy is a procedure that must be done by a gastroenterologist or a surgeon at an endoscopy center or hospital. This test will allow a doctor to look inside the entire colon (large intestine) to check for a polyp or cancer.

If you do not have health insurance, please do not let this keep you from getting a colonoscopy. We can assist you with scheduling a colonoscopy or finding a doctor who will see you. Please call ______________ to set up an appointment if you have questions.

If you have health insurance (or Medicare/Medicaid), our office will refer you for a colonoscopy. To obtain the referral call or take this letter with you to your next doctor’s appointment.

Thank you for taking care of your health and following through on this important test.

Sincerely,

Medical Director
CLINICIAN REMINDER TYPES

- EMR Registries, Reminders
- Pre-visit chart reviews
- Chart prompts
  - Chart alerts, flags
  - Problem lists, integrated summaries
- Health plan data
  - Provider population information and prompts
  - Direct-to-patient prompts
FOLLOW UP REMINDERS

- Not enough to only schedule colonoscopy or hand out stool test kits
- Must also track test completion, reports, appropriate follow up for positives
  - EMR
  - “Tickler” system
  - Logs and tracking
- Requires staff time and commitment
  - Ideal role for navigators/CHWs

Note: Endoscopy reports and pathology reports are critical!
Discuss how your screening system is working during regular staff meetings and make adjustments as needed.

Have staff conduct a screening audit.
Determine your baseline

Set **realistic** goals

Chart audits or other tracking measures (i.e., EHR reports)

Track and report physician/team-specific feedback on performance (monthly, if possible)

Seek patient feedback

Identify strengths and weaknesses, barriers, opportunities to improve efficiency

Track progress and periodically reassess goals
REGULAR REPORTING OF SCREENING PERFORMANCE

% of patient 50-75yo who have received appropriate colorectal cancer screening

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
<th>Numerator</th>
<th>Denominator</th>
<th>Source</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colorectal Cancer Screening</td>
<td>Percentage of adults 50-80 years of age who had an appropriate screening for colorectal cancer</td>
<td>Patients in the denominator who received one or more screenings for colorectal cancer</td>
<td>All patients 51 to 80 years of age during the measurement year</td>
<td>NCQA/NQF PGRS/PCPI</td>
<td>National Committee for Quality Assurance</td>
</tr>
</tbody>
</table>
PDSA/PDCA CYCLE

**PLAN** for Changes to Bring About Improvement
- Brainstorming
- Flow charting
- Cause and Effect Diagram
- Timeline Development
- Evaluation Matrix

**DO** changes on a small scale first to ease into the intervention
- Timeline the roll out of each of the 4 quadrants
- Resolve issues
- Continuous training

**ACT** to get the greatest benefits from the changes
- Process Mapping
- Process Standardization
- Training

**CHECK** to see if the changes are working/being implemented
- Data check
- Key performance indicators
- Process Standardization

Adapted from Deming
THANK YOU!

Durado Brooks, MD, MPH
durado.brooks@cancer.org