Colorectal Cancer (CRC)

- 2\textsuperscript{nd} most common cause of cancer death in US
  - 136,800 new cases expected
  - More than 50,000 deaths
- 1.2 million Americans living with CRC
- Death rates have fallen steadily past 20 years
Trends in CRC incidence and mortality

Research suggests that observed declines in incidence and mortality are due in large part to:

- CRC treatment advances
- Screening → detecting cancers at earlier, more treatable stages
- Screening and polyp removal, preventing progression of polyps to invasive cancers
  - NEJM study Feb 2012 showed polyp removal associated with 53% lower risk of CRC death

Trends in Colorectal Cancer Death Rates* by Race/Ethnicity and Sex, US, 1975-2010
Risk Factors

Age: the most impactful risk factor

CRC usually develops after age 50.

The chances of getting it increases as you get older.

CRC screening should begin at age 50 for most people, earlier for those with a family history.
Non-Modifiable Risk Factors

- **Age**
  - 90% of cases occur in people 50 and older

- **Gender**
  - slight male predominance, but common in both men and women

- **Race/Ethnicity – higher rates among**
  - African Americans
  - Native Americans (esp. Northern Plains Tribes)
  - Alaska Natives
  - Ashkenazi Jews

Risk factor - polyps

Different types of polyps:

- **Hyperplastic**
  - Low risk: very small chance they’ll grow into cancer

- **Adenomas**
  - About **9 out of 10** colon and rectal cancers start as adenomas
Normal to Adenoma to Carcinoma

Human colon carcinogenesis progresses by the dysplasia/adenoma to carcinoma pathway

*Usually takes 10 or more years for polyp to become cancer*

**Screening Impact**
Why Screen?

There are two aims of screening:

1. **Prevention**
   - Find and remove polyps to prevent cancer

2. **Early Detection**
   - Find cancer in the early stages, when best chance for a cure

Impact of Screening

*JAMA Surg. 2013*
Benefits of Screening

Survival Rates by Disease Stage*

- Local: 90.3%
- Regional: 70.4%
- Distant: 12.5%

*Stage of Detection

5-yr Survival

Screening Rates

*1996 - 2003
Trends in Recent* CRC Screening Prevalence (%), by Educational Attainment and Health Insurance Status, Adults 50-75 Years, US, 2000-2010

Source: Klabunde et al. Cancer Epidemiol Biomarkers Prev 2011;20:1611-1621
National Health Interview Survey Public Use Data File 2010, National Center for Health Statistics, Centers for Disease Control and Prevention, 2011.
American Cancer Society, Surveillance Research, 2011.
Who’s Not Screened?

Testing status of adults aged 50–75 years

- Up-to-date CRC testing
- Tested but not up-to-date
- Never tested

Insurance status of never tested adults aged 50–75 years

- Insured
- Uninsured


UTD with CRC Screening (BRFSS 2012)

<table>
<thead>
<tr>
<th>State</th>
<th>%</th>
<th>(95%-CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall</td>
<td>65.1</td>
<td>(64.7–65.5)</td>
</tr>
<tr>
<td>Highest tertile</td>
<td></td>
<td></td>
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<tr>
<td>Massachusetts</td>
<td>76.3</td>
<td>(74.9–77.6)</td>
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<tr>
<td>New Hampshire</td>
<td>75.3</td>
<td>(73.4–77.3)</td>
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<tr>
<td>Maine</td>
<td>73.1</td>
<td>(71.6–74.6)</td>
</tr>
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<td>Rhode Island</td>
<td>72.7</td>
<td>(70.5–74.9)</td>
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<tr>
<td>Connecticut</td>
<td>72.1</td>
<td>(70.1–74.0)</td>
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<td>Vermont</td>
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<td>(69.4–73.3)</td>
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<tr>
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<td>71.2</td>
<td>(68.6–73.6)</td>
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<td>Minnesota</td>
<td>70.6</td>
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<td>Maryland</td>
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<td>Michigan</td>
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<td>North Carolina</td>
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<td>Utah</td>
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<td>Georgia</td>
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<td>California</td>
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<td>Middle tertile</td>
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<tr>
<td>Washington</td>
<td>66.8</td>
<td>(65.4–68.2)</td>
</tr>
<tr>
<td>District of Columbia</td>
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<td>(65.3–68.0)</td>
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<tr>
<td>Pennsylvania</td>
<td>66.5</td>
<td>(65.1–68.0)</td>
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<td>Iowa</td>
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<td>Colorado</td>
<td>65.4</td>
<td>(63.8–66.9)</td>
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<td>Alabama</td>
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<td>Oregon</td>
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<td>Kansas</td>
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<td>(63.0–66.1)</td>
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<td>Tennessee</td>
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<td>(62.1–66.5)</td>
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<td>Florida</td>
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<td>South Carolina</td>
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<td>Hawaii</td>
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<td>(61.7–64.9)</td>
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<td>Kentucky</td>
<td>62.9</td>
<td>(61.0–64.8)</td>
</tr>
<tr>
<td>West Virginia</td>
<td>62.7</td>
<td>(60.8–64.8)</td>
</tr>
<tr>
<td>New Jersey</td>
<td>62.4</td>
<td>(60.6–64.0)</td>
</tr>
</tbody>
</table>
CRC screening in Community Health Centers

**UDS measure on CRC Screening introduced in 2012**

- Measure – Percent of patients in universe who received appropriate screening for colorectal cancer

- Universe is adults who were age 51 through age 74 during the measurement year and seen in the measurement year

- Requires documentation of test performed by grantee or by another care giver

- 2012 Nationwide Rate – 30.2%
  - Slightly increased in 2013

---

*Data Source: UDS data 2012. Adults 50-75 years of age who have received any of the following: colonoscopy during reporting year or previous 9 years, flexible sigmoidoscopy conducted during reporting year or previous 4 years, or FIT or FIT during reporting year.*
Improving Screening Rates

ACS and Community Health Centers

- ACS has defined health equity as a nationwide organizational priority
- Partnership with CHCs is a key element of this work
- Hired and deployed more than 100 staff across the country whose primary responsibility is establishing relationships and providing support to CHCs and state Primary Care Associations (PCAs)
- Providing grants to CHCs for quality improvement and practice change initiatives
- A variety of evidence-based tools and resources available at no cost
“Action Plan” Toolkit Version

- Eight page guide introduces clinicians and staff to concepts and tools provided in the full Toolkit
- Contains links to the full Toolkit, tools and resources
- Not colorectal-specific; practical, action-oriented assistance that can be used in the office to improve screening rates for multiple cancer sites (colorectal, breast and cervical)

Available at http://nccrt.org/about/provider-education/crc-clinician-guide/
Staff Involvement

- Key Point.....the clinicians cannot do it all!
- Time that patients spend with non-clinician staff is underutilized
- Standing orders can empower nurses, intake staff, etc. 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

![Circular diagram with sections for Make a Recommendation, Develop a Screening Policy, Measure Practice Progress, and Be Persistent With Reminders]

- Make a Recommendation
  - The primary reason patients say they are not screened is because a doctor did not advise it. A recommendation from you is vital.

- Develop a Screening Policy
  - Create a standardized course of action.
  - Engage your team in creating, supporting, and following the policy.

- Measure Practice Progress
  - Establish a baseline screening rate, and set an ambitious practice goal.
  - Seeing screening rates improve can be rewarding for your team.

- 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.
Essential #1: Explore how your practice will assess a patient’s risk status and receptivity to screening.

Essential #1: Determine the screening tests and related messages you and your staff will share with patients.

#1: Make a Recommendation

Sample Screening Algorithm

Assess Risk: Person & Family

- Average Risk = no family hx of CRC or adenomatous polyp
- Increased or High Risk = + family or personal hx of CRC or adenomatous polyp, IBD or HNPCC related cancer

Personal History

- < 50 yrs
- ≥ 50 yrs
- Do Not Screen
- Screen*
- Adenoma
- CRC
- IBD**
- Germline Syndrome
- Adenoma or Cancer

If + Diagnosis by Colonoscopy

Surveillance Colonoscopy

Childhood Screening

Screen 10 yrs before youngest relative or age 40

* Options: FOBT, DNA stool test, colonoscopy
** Refer to inflammatory bowel disease for eight years
Recognize potential barriers to screening

Recommendation discussions must be sensitive to and address:

- Fear of cancer diagnosis
  - Perception that cancer is a “death sentence”
- Lack of understanding of need for asymptomatic screening
- Misconceptions about cancer causes and risks
- Embarrassment
- Concern over discomfort
- Cultural issues
- Patient preferences

#2 Develop a Screening Policy

Essential #2:

Create a standard course of action for screenings, document it, and share it.

Essential #2:

Compile a list of screening resources and determine the screening capacity available in your community.
ACS Screening Guidelines

Options for Average risk adults age 50 and older:

**Tests That Detect Adenomatous Polyps and Cancer**
- **Colonoscopy** every 10 years, or
- **Flexible sigmoidoscopy** (FSIG) every 5 years, or
- **Double contrast barium enema** (DCBE) every 5 years, or
- **CT colonography** (CTC) every 5 years

**Tests That Primarily Detect Cancer**
- **Guaiac-based fecal occult blood test** (gFOBT) with high test sensitivity for cancer, or
- **Fecal immunochemical test** (FIT) with high test sensitivity for cancer, or
- **Stool DNA test** (sDNA), with high sensitivity for cancer

Age to Begin and End Screening (ACS and USPSTF Comparison)

<table>
<thead>
<tr>
<th>Recommendation</th>
<th>ACS/USMSTF/ACR</th>
<th>USPSTF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age to begin and end screening in average risk adults</td>
<td>Begin and age 50, and end screening at a point where curative therapy would not be offered due to life-limiting comorbidity</td>
<td>Begin screening at age 50. <strong>Routine screening between ages 76-85 is not recommended.</strong> Screening after age 85 is not recommended.</td>
</tr>
<tr>
<td>Screening in high risk adults</td>
<td>Detailed recommendations based on personal risk and family history</td>
<td>No specific recommendations for age to begin testing or type of testing</td>
</tr>
</tbody>
</table>
Age, Co-morbidity and CRC Screening (VA)

Recommended Screening Tests

ACS and USPSTF

- Colonoscopy
- High Sensitivity Fecal Occult Blood Testing
  - Guaiac
  - Immunochemical
- Flexible Sigmoidoscopy (FSIG)
  - Recent studies support efficacy
  - Availability extremely limited in U.S.

Saini et al, BMJ 2014
Colonoscopy

- Allows direct visualization of entire colon lumen
- Screening, diagnostic and therapeutic
- 10 yr interval
- The most common screening test in US (>80%)

Why Colonoscopy is NOT gold standard

- Evidence does not support “best test” or “gold standard”
  - Colonoscopy misses ~ 10% of significant lesions in expert settings
  - More costly on a one-time basis
  - Higher potential for patient injury than other tests
  - Measurable outcomes vary widely (i.e. test performance is highly operator dependent)
Colonoscopy: Risk for Patient Injury

Quality Issues with Colonoscopy

- In the vast majority of endoscopy centers and hospitals in the US there are no requirements for reporting of endoscopic quality measures (this is gradually changing)

- There is significant variation among endoscopists relative to tracking of key quality metrics including:
  - withdrawal time
  - quality of bowel prep
  - cecal intubation rate
  - adenoma detection rate
Adenoma Detection Rate (ADR)

- ADR - detection of adenomatous polyps at least 25 percent of the time in men, and 15 percent of the time in women (20 percent composite)
- In one large series, ADR varied from 7% - 52%
  - ADR inversely associated with the interval cancer rate
  - ADR inversely associated with colorectal cancer death

ADR and Risk of Interval Cancer

Kaminski; NEJM 2010: 362: 1795-803
Why Colonoscopy is NOT gold standard

- Greater patient requirements for successful completion
  - Requires a bowel prep and facility visit, and often a pre-procedure specialty office visit
- Access
  - Limited by insurance status, local resources
- Patient preference
  - Many individuals don’t want an invasive test or a test that requires a bowel prep

Patient Preferences

![Graph showing patient preferences]

Inadomi, Arch Intern Med 2012
Stool Tests

- Look for hidden blood in stool
- Two major types (but multiple brands)

Stool Test: Guaiac

- Most common type in U.S.
- Solid evidence (3 RCT’s)
- 30 year f/u (NEJM Oct 2013)
- Need specimens from 3 bowel movements
- Non-specific
- Results influenced by foods and medications
- Better sensitivity with newer versions (Hemoccult Sensa)
- Older forms (Hemoccult II) not recommended!
Fecal Immunochemical Tests (FIT)

- Specific for human blood and for lower GI bleeding
- Results not influenced by foods or medications
- Some types require only 1 or 2 stool specimens
- Higher sensitivity than older forms of guaiac-based FOBT
- Costs more than guaiac tests (but higher reimbursement)

Stool Tests: Accuracy

Accuracy of Fecal Immunochemical Tests for Colorectal Cancer
Systematic Review and Meta-analysis

Jeffrey K. Lee, MD, MSc; Elizabeth G. Liers, MD, MCR; Stephen Bent, MD; Theodore R. Levin, MD; and Douglas A. Conley, MD, PhD

Background: Performance characteristics of fecal immunochemical tests (FITs) to screen for colorectal cancer (CRC) have been inconsistent.

Purpose: To synthesize data about the diagnostic accuracy of FITs for CRC and identify factors affecting its performance characteristics.

Data Sources: Online databases, including MEDLINE and EMBASE, and bibliographies of included studies from 1996 to 2013.

Study Selection: All studies evaluating the diagnostic accuracy of FITs for CRC in asymptomatic, average-risk adults.

Data Extraction: Two reviewers independently extracted data and critiqued study quality.

Data Synthesis: Nineteen eligible studies were included and meta-analyzed. The pooled sensitivity, specificity, positive likelihood ratio, and negative likelihood ratio of FITs for CRC were 0.79 (95% CI, 0.69 to 0.86), 0.94 (CI, 0.92 to 0.96), 13.10 (CI, 10.49 to 16.35), and 0.23 (CI, 0.15 to 0.33), respectively, with an overall diagnostic accuracy of 95% (CI, 93% to 97%). There was substantial heterogeneity between studies in both the pooled sensitivity and specificity estimates. Stratifying by cutoff value for a positive test result or removal of discontinued FIT brands resulted in homogeneous sensitivity estimates. Sensitivity for CRC improved with lower assay cutoff values for a positive test result (for example, 0.89 [CI, 0.80 to 0.95] at a cutoff value less than 20 μg/g vs. 0.79 [CI, 0.56 to 0.81] at cutoff values of 20 to 50 μg/g but with a corresponding decrease in specificity. A single-sample FIT had similar sensitivity and specificity as several samples, independent of FIT brand.

Limitations: Only English-language articles were included. Lack of data prevented complete subgroup analyses by FIT brand.

Conclusion: Fecal immunochemical tests are moderately sensitive, are highly specific, and have high overall diagnostic accuracy for detecting CRC. Diagnostic performance of FITs depends on the cutoff value for a positive test result.

Primary Funding Source: National Institute of Diabetes and Digestive and Kidney Diseases and National Cancer Institute.
Screen-detected colorectal cancers show improved cancer-specific survival when compared with cancers diagnosed via the 2-week suspected colorectal cancer referral guidelines

E. D. Courtney*, D. Chong*, R. Tighe, J. R. Easterbrook*, W. S. L. Stobbings* and J. Hernon*

*Department of Colorectal Surgery, Norfolk and Norwich University Hospital, Norwich, UK; [Department of Gastroenterology, Norfolk and Norwich University Hospital, Norwich, UK and 2Department of Colorectal Surgery, Queen Elizabeth Hospital, King’s Lynn, UK]
Stool Testing Quality Issues

In-office FOBT is essentially worthless as a screening tool for CRC and should never be used for this purpose.
FOBT Quality Issues

Sensitivity of Take Home vs. In-Office FOBT

<table>
<thead>
<tr>
<th>FOBT method (Hemoccult II)</th>
<th>Sensitivity</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>All Advanced Lesions</td>
<td>Cancer</td>
<td></td>
</tr>
<tr>
<td>3 card, take-home</td>
<td>23.9 %</td>
<td>43.9 %</td>
<td></td>
</tr>
<tr>
<td>Single sample, in-office</td>
<td>4.9 %</td>
<td>9.5 %</td>
<td></td>
</tr>
</tbody>
</table>

Collins et al, Annals of Int Med Jan 2005

Stool Testing Quality Issues

- **In-office FOBT is essentially worthless** as a screening tool for CRC and **should never be used**.
- CRC screening by FOBT should be performed with **high-sensitivity FOBT** - either FIT or a highly sensitive gFOBT (such as Hemoccult SENSA).
  - Older, less sensitive guaiac tests (such as Hemoccult II) should not be used for CRC screening.
- Annual testing
- All positive screening tests should be evaluated by colonoscopy
High Quality Stool Testing

Clinicians Reference: FOBT
One page document designed to educate clinicians about important elements of colorectal cancer screening using fecal occult blood tests (FOBT).

Provides state-of-the-science information about guaiac and immunochemical FOBT, test performance and characteristics of high quality screening programs.

Available at www.cancer.org/colonmd

#3 Be Persistent with Reminders

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

Essential #3:
Ensure that your system tracks test results and uses reminder prompts for patients and providers.
Get Tested For Colon Cancer: Here’s How.
An 7-minute video reviewing options for colorectal cancer screening tests, including test preparation.

Available as DVD, or you can refer patients to the URL to view from their personal computer.

Reminder Fold-Over Postcard

Dear (Name):

Colon cancer is the second leading cause of cancer-related deaths in the United States, and men and women are equally at risk. The good news is that colon cancer can be prevented or detected early and death from colon cancer can be prevented if screening is done on a regular basis.

Our records indicate that it is time for your annual physical and cancer screening. Please call your primary care physician, at XXX-XXXX-XXXX so that you can schedule an appointment at your earliest convenience.

Sincerely,
Clinician Reminder Types

- EMR Reminders
- Chart Prompts
  - Problem lists
  - Integrated summaries
- Chart Alerts / “Flags”
- Follow up and Tracking

#4 Measure Practice Progress

**Essential #4:** Discuss how your screening system is working during regular staff meetings and make adjustments as needed.

**Essential #4:** Have staff conduct a screening audit or contact a local company that can perform such a service.
New Resource!

http://ncrct.org/about/provider-education/manual-for-community-health-centers-2/

Step #1 Make A Plan
- Determine Baseline Screening Rates
  - Identify your patients due for screening
  - Identify patients who received screening
  - Calculate the baseline screening rate
  - Improve the accuracy of the baseline screening rate
- Design Your Practice’s Screening Strategy
  - Choose a screening method
  - Use a high sensitivity stool-based test
  - Understand insurance complexities
  - Calculate the clinic’s need for colonoscopy
  - Consider a direct endoscopy referral system

Step #2 Assemble A Team
- Form An Internal CHC Leadership Team
  - Identify an internal champion
  - Define roles of internal champions
  - Utilize patient navigators
  - Define roles of patient navigators
  - Agree on team tasks
- Partner with Colonoscopists
  - Identify a physician champion

Step #3 Get Patients Screened
- Prepare The Clinic
  - Conduct a risk assessment
- Prepare The Patient
  - Provide patient education materials
- Make A Recommendation
  - Convince reluctant patients to get screened
- Ensure Quality Screening for Stool-Based Screening Program
  - Track Return Rates and Follow-Up
- Measure and Improve Performance

Step #4 Coordinate Care Across The Continuum
- Coordinate Follow-Up After Colonoscopy
  - Establish a medical neighborhood

60
Flu + Stool testing

(A.K.A. “FluFIT”)
Potential Benefits of FluFIT

- Reaches patients at a time each year when they are already thinking about prevention
- Creates a seasonal focus on cancer screening that may add to other screening efforts
- Time-efficient way to expand team based care and involve non-physician staff in screening activities
- Educates patients that “just like a flu shot, you need FOBT/FIT every year”

*Slide courtesy of M. Potter, MD*

FluFIT

- FLU-FOBT/FIT Interventions
  - Have been tailored and results replicated in:
    - (1) primary care underserved settings,
    - (2) high volume managed care flu shot clinics
    - (3) commercial pharmacies where flu shots are increasingly provided
  - Can be done with limited resources
  - Leads to higher screening rates
American Cancer Society FluFOBT Program
Implementation Guide and Materials

www.cancer.org/flubot

80% Colon Cancer Screening Rate By 2018
ACS Resources

- Information and materials on CRC for clinicians and patients [www.cancer.org/colonmd](http://www.cancer.org/colonmd)
- Updated materials for all cancers are available at [www.cancer.org/professionals](http://www.cancer.org/professionals)
- National Cancer Information Center – 24/7, 365
  1-800-227-2345

Stool DNA Test
Stool DNA Test (sDNA)

- Fecal occult blood tests detect blood in the stool — which is intermittent and non-specific
- Colon cells are shed continuously
- Polyps and cancer cells contain abnormal DNA
- Stool DNA tests look for abnormal DNA from cells that are passed in the stool*

*All positive tests should be followed with colonoscopy

ORIGINAL ARTICLE

Multitarget Stool DNA Testing for Colorectal-Cancer Screening

Thomas F. Imperiale, M.D., David F. Ransohoff, M.D., Steven H. Itzkowitz, M.D., Theodore R. Levin, M.D., Phillip Lavin, Ph.D., Graham P. Lidgard, Ph.D., David A. Ahlquist, M.D., and Barry M. Berger, M.D.

ABSTRACT

BACKGROUND
An accurate, noninvasive test could improve the effectiveness of colorectal-cancer screening.

METHODS
We compared a noninvasive, multitarget stool DNA test with a fecal immunochemical test (FIT) in persons at average risk for colorectal cancer. The DNA test includes quantitative molecular assays for KRAS mutations, aberrant NDRG4 and BMP3 methylation, and β-actin, plus a hemoglobin immunoassay. Results were generated with

NEJM 2014
**Table 1. Sensitivity and Specificity of the Multitarget Stool DNA Test and the Fecal Immunochemical Test (FIT) for the Most Advanced Findings on Colonoscopy.**

<table>
<thead>
<tr>
<th>Most Advanced Finding</th>
<th>Colonoscopy (N=9989)</th>
<th>Multitarget DNA Test (N=9989)</th>
<th>FIT (N=9989)</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>no.</td>
<td>Positive Results</td>
<td>Sensitivity (95% CI)</td>
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<td>Colorectal cancer</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Any</td>
<td>65</td>
<td>60</td>
<td>92.3 (83.0–97.5)</td>
</tr>
<tr>
<td>Stage I to III†</td>
<td>60</td>
<td>56</td>
<td>93.3 (83.8–98.3)</td>
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<tr>
<td>Colorectal cancer and high-grade dysplasia</td>
<td>104</td>
<td>87</td>
<td>87.7 (75.1–95.2)</td>
</tr>
<tr>
<td>Advanced precancerous lesions†</td>
<td>757</td>
<td>321</td>
<td>42.4 (38.9–46.0)</td>
</tr>
<tr>
<td>Nonadvanced adenoma</td>
<td>2893</td>
<td>498</td>
<td>12.2 (15.9–18.6)</td>
</tr>
<tr>
<td>All nonadvanced adenomas, non-neoplastic findings, and negative results on colonoscopy</td>
<td>9167</td>
<td>1231</td>
<td>86.6 (85.9–87.2)</td>
</tr>
<tr>
<td>Negative results on colonoscopy</td>
<td>4457</td>
<td>455</td>
<td>89.8 (88.9–90.7)</td>
</tr>
</tbody>
</table>

*These stages of colorectal cancer, as defined by the system recommended by the American Joint Committee on Cancer, are associated with an increased rate of cure.
†Advanced precancerous lesions include advanced adenomas and sessile serrated polyps measuring 1 cm or more.

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**Stool DNA - Sample Collection**

- Patient supplies whole stool sample; no diet or medication restrictions
- Patient seals sample in outer container and freezer pack
- Patient seals container and ships back to designated lab (all packing materials and labels supplied)
Stool DNA Test

- One test (Cologuard) currently available
- Combines an FIT with tests for stool DNA markers asso w/ cancers and adenomas
- Every 3 year testing interval recommended by manufacturer
- FDA has cleared it for marketing as CRC screening test
- CMS has agreed to cover Cologuard for Medicare beneficiaries age 50 – 85 yrs
  - Medicare will reimburse $502 q 3 yrs for the test
  - Private insurance coverage – tbd
- All positive tests should be evaluated by colonoscopy