KCP Screening Subcommittee: Colorectal Cancer Screening

Co-Chairs
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Introduction

- CRC is the #2 cancer killer in the US

- Colorectal Cancer (CRC) is amendable to primary and secondary forms of prevention through screening and early detection

- Screening reduces new cases and deaths (2014 estimates are for 136,830 new and 50,310 deaths)

- CRC screening rates remain significantly below other cancer screening modalities
Colorectal Cancer (CRC)

Sporadic (average risk) (65%–85%)

Family history (10%–30%)

Hereditary nonpolyposis colorectal cancer (HNPCC) (5%)

Familial adenomatous polyposis (FAP) (1%)

Rare syndromes (<0.1%)
Colorectal Cancer Growth
Screening = Prevention & Early Detection

1° Prevention = polyp removal
Decreased Incidence of CRC

Early Detection → surgical treatment
Decreased Mortality
Trends in Colorectal Cancer Incidence and Death Rates by Sex, U.S., 1930-2010

Rates were age adjusted to the 2000 US standard population. Incidence rates were adjusted for delays in reporting. Due to changes in International Classification of Diseases (ICD) coding for mortality, numerator information has changed over time.

Source: Incidence - Surveillance, Epidemiology, and End Results (SEER) Program, SEER 9 registries, National Cancer Institute, 2013.
American Cancer Society, Surveillance Research, 2014
The Underserved and CRC

- In Kansas, from 2006 to 2010, the age-adjusted incidence of colorectal cancer was higher among blacks than whites (59.90 per 100,000 [95% CI 53.80-66.55] and 44.90 per 100,000 [95% CI 43.79-46.04], respectively).

- “CRC screening rates are lower in blacks compared with whites (56% vs. 62%, respectively).” ACS, 2013

  [Link to ACS study](http://www.cancer.org/acs/groups/content/@epidemiology_surveillance/documents/document/acspc-036921.pdf)

- National Health Interview Survey (2010) found that 62% of insured versus 19% of uninsured were UTD with screening.
Background (cont.)

- All average risk individuals age 50 years and above should be screened.

- ACS, NCI, and USPSTF all list colonoscopy every 10 yrs., sigmoidoscopy every 5 yrs., DCBE every 5 yrs., CT Colonography every 5 years, or FIT/Hi Sensitivity FOBT every yr. as acceptable screening regimens (stool DNA test?)

- Each screening modality has corresponding costs/benefits

*Any screening test is better than no screening test!*
FIT versus FOBT

- **FOBT** - uses chemical guaiac (reagent derived from wood resin of Guajacum trees) to detect heme in stool. Heme is the iron-containing component of hemoglobin. Heme contains pseudoperoxidase, which converts guaiac to the color blue.

- **FIT** - uses antibodies to detect hemoglobin protein in stool (ELISA). Less likely to detect upper GI bleeding.

<table>
<thead>
<tr>
<th>Feature</th>
<th>Auto-FIT</th>
<th>Guaiac Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dietary Restrictions</td>
<td>None</td>
<td>Yes</td>
</tr>
<tr>
<td>Restriction on Medications</td>
<td>None</td>
<td>Yes</td>
</tr>
<tr>
<td>Number of Samples Required</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Number of Days Required for Sample Collection</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Specificity</td>
<td>99%</td>
<td>98%*</td>
</tr>
<tr>
<td>Sensitivity</td>
<td>100%</td>
<td>50%</td>
</tr>
<tr>
<td>Patient Compliance</td>
<td>91%**</td>
<td>23%</td>
</tr>
<tr>
<td>Methodology</td>
<td>Automated</td>
<td>Manual</td>
</tr>
<tr>
<td>Specimen Container</td>
<td>Completely Closed System</td>
<td>Open System, Risk of Exposure</td>
</tr>
<tr>
<td>Collection of Sample</td>
<td>Easy, one step</td>
<td>Subject to Patient Error</td>
</tr>
</tbody>
</table>

*Denotes strict adherence to sample collection regarding diet and medications
** European J of Cancer Prevention 2006; 15: 384-390
Reducing CRC Risk

Reduce your risk of colorectal cancer.

1. Get screened regularly.
2. Maintain a healthy weight throughout life.
3. Adopt a physically active lifestyle.
4. Consume a healthy diet with an emphasis on plant sources; specifically:
   - Choose foods and beverages in amounts that help achieve and maintain a healthy weight.
   - Limit consumption of red and processed meat.
   - Eat at least 2½ cups of vegetables and fruits each day.
   - Choose whole grains instead of refined grain products.
5. If you drink alcoholic beverages, limit consumption.
6. Consume the recommended levels of calcium, primarily through food sources
7. Avoid tobacco products.
Screening Methods

- Annual Hi Sensitivity Fecal Occult Blood Test (FOBT)
- Fecal Immunochemical Test (FIT)
- Flexible Sigmoidoscopy every 5 years
- Colonoscopy every 10 years
- Double Contrast Barium Enema (DCBE) every 5 years
- CT Colonography every 5 years

- Insufficient evidence for “best” test
## CRC Screening (%) U.S. Adults Age 50 and Older, 2010

<table>
<thead>
<tr>
<th>Gender</th>
<th>FOBT*</th>
<th>Endoscopy†</th>
<th>Either FOBT or Endoscopy†</th>
</tr>
</thead>
<tbody>
<tr>
<td>Men</td>
<td>9.0</td>
<td>57.4</td>
<td>60.2</td>
</tr>
<tr>
<td>Women</td>
<td>8.6</td>
<td>55.6</td>
<td>58.3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Age (years)</th>
<th>FOBT*</th>
<th>Endoscopy†</th>
<th>Either FOBT or Endoscopy†</th>
</tr>
</thead>
<tbody>
<tr>
<td>50-64</td>
<td>8.0</td>
<td>52.3</td>
<td>55.2</td>
</tr>
<tr>
<td>65+</td>
<td>9.7</td>
<td>61.2</td>
<td>63.7</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Race/Ethnicity</th>
<th>FOBT*</th>
<th>Endoscopy†</th>
<th>Either FOBT or Endoscopy†</th>
</tr>
</thead>
<tbody>
<tr>
<td>White (non-Hispanic)</td>
<td>9.2</td>
<td>58.5</td>
<td>61.5</td>
</tr>
<tr>
<td>Black (non-Hispanic)</td>
<td>8.4</td>
<td>53.0</td>
<td>55.5</td>
</tr>
<tr>
<td>Asian§</td>
<td>6.9</td>
<td>44.5</td>
<td>45.9</td>
</tr>
<tr>
<td>American Indian/Alaskan Native§</td>
<td>6.1</td>
<td>46.5</td>
<td>48.1</td>
</tr>
<tr>
<td>Hispanic/Latino</td>
<td>5.6</td>
<td>45.3</td>
<td>47.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Education (years)</th>
<th>FOBT*</th>
<th>Endoscopy†</th>
<th>Either FOBT or Endoscopy†</th>
</tr>
</thead>
<tbody>
<tr>
<td>11 or fewer</td>
<td>5.8</td>
<td>42.1</td>
<td>43.9</td>
</tr>
<tr>
<td>12</td>
<td>6.8</td>
<td>51.9</td>
<td>54.2</td>
</tr>
<tr>
<td>13 to 15</td>
<td>11.0</td>
<td>59.5</td>
<td>63.1</td>
</tr>
<tr>
<td>16 or more</td>
<td>10.4</td>
<td>66.7</td>
<td>69.2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Health Insurance</th>
<th>FOBT*</th>
<th>Endoscopy†</th>
<th>Either FOBT or Endoscopy†</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>9.2</td>
<td>59.4</td>
<td>62.2</td>
</tr>
<tr>
<td>No</td>
<td>1.6</td>
<td>17.8</td>
<td>18.8</td>
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</table>

<table>
<thead>
<tr>
<th>Immigration</th>
<th>FOBT*</th>
<th>Endoscopy†</th>
<th>Either FOBT or Endoscopy†</th>
</tr>
</thead>
<tbody>
<tr>
<td>Born in US</td>
<td>9.2</td>
<td>58.0</td>
<td>60.9</td>
</tr>
<tr>
<td>Born in US Territory</td>
<td>4.7</td>
<td>53.3</td>
<td>55.6</td>
</tr>
<tr>
<td>In US less than 10 years</td>
<td>1.7</td>
<td>24.1</td>
<td>25.3</td>
</tr>
<tr>
<td>In US 10 years or more</td>
<td>6.5</td>
<td>46.5</td>
<td>48.4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Total</th>
<th>FOBT*</th>
<th>Endoscopy†</th>
<th>Either FOBT or Endoscopy†</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>8.8</td>
<td>56.4</td>
<td>59.1</td>
</tr>
</tbody>
</table>

Percentages are age adjusted to the 2000 US standard population.

Note: The 2010 estimate for endoscopy and combined FOBT/endoscopy cannot be compared to estimates from 2008 and prior because of changes in questions assessing endoscopy use.

*A home fecal occult blood test within the past year. †A sigmoidoscopy within the past five years or a colonoscopy within the past 10 years. ‡Either a fecal occult blood test within the past year, sigmoidoscopy within the past five years, or a colonoscopy within the past 10 years. §Does not include Native Hawaiians or other Pacific Islanders. ¶Estimates should be interpreted with caution because of the small samples sizes.

Source: National Health Interview Survey Public Use Data File 2010, National Center for Health Statistics, Centers for Disease Control and Prevention.
KCP Screening Subcommittee 2013-14 Action Plan

- Target adults 50 and above with Medicaid coverage
- Work with Medicaid MCOs and ACS to develop targeted campaign based on data
- Following evidence-based “reminder” methodology
- Thorough evaluation plan
50 or older? Get tested.

It could save your life.

American Cancer Society®
THE OFFICIAL SPONSOR OF BIRTHDAYS®
cancer.org | 1.800.227.2345
Many colon cancers could be prevented or found early through regular screening. If you are 50 or older, it’s time. Our records show that you are due for a colon cancer screening test. Please call us today to schedule your colon cancer screening test.

We save lives and create more birthdays by helping you stay well, helping you get well, by finding cures, and by fighting back.

cancer.org  |  1.800.227.2345
Timeline

- Goal for mail out – September 1, 2014
- Data collection through MCO claims data at 6 and 12 month intervals
- Repeat mailings?
- Final evaluation reports/manuscripts completed – December 31, 2015
Conclusions

- Colorectal Cancer Screening is Underutilized
- Colorectal Cancer Screening Saves Lives
- Many Adults Over 50 are Unaware of the Importance of Colorectal Cancer Screening
- Underserved Patients are Enthusiastic About Screening
- But They Face a Complex Set of Barriers to Screening Completion
  - Costs, logistics, “uncomfortable” with test topics and preps
- Insightful and Persistent Health Care Teams Can Help
  - Patient-centered, opportunistic, detail oriented
References


Potential 2014-2015 Project: FluFIT/FluFOBT

- Evidence-based National Cancer Institute "Research-Tested Intervention Program" (RTIP)
- Offers home tests to patients at time of annual flu shots in public and private clinic settings
- Requires relatively few resources and is inexpensive to implement
- Includes customizable training materials and Implementation Guide from American Cancer Society
- Includes patient education materials in multiple formats and languages
Why do a FluFIT or FluFOBT Program?

1. Annual colorectal cancer screening tests are underused.
2. Annual flu shot activities are an opportunity to reach many people who need colorectal cancer screening.
3. FIT and FOBT kits can be given to patients by flu shot clinic staff.
4. FLU-FIT and FLU-FOBT Programs increase colorectal cancer screening rates.
5. FLU-FIT and FLU-FOBT Programs can be a first step toward other innovative preventive health and screening interventions.
How to Plan a FluFIT/FluFOBT Program

Materials include planning guides in 5 simple steps:

1. Put together FluFIT or FluFOBT Team
2. Choose times and places for FluFIT or FluFOBT and advertise them
3. Follow patient flow and line management plan
4. Develop systems to support follow-up of FIT/FOBT kits dispensed
5. Finalize Preparations
Future Screening and Prevention Activities

• Other Cancers?

• Additional thoughts of Comments?