Screening Guidelines Update: What’s New and Why?

What, Why and How are we Doing?

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Multidisciplinary Oncology Symposium
Disclosures

Disclosure of potential for conflict of interest:
Dr. Rachael Halligan MD and RPCL with CCO and Cheryl Shoemaker RN, BScN(Candidate)
“Screening Guidelines Update: What’s New and Why? What, Why and How are we Doing”

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Learning Objectives

• What is Screening?
• What organized screening programs are available?
• What are the current screening recommendations?
• Why screen with these tests? Sensitivity & Specificity
• Why have some guidelines changed?
• Apply knowledge to cancer based case studies
Poll
Do you have a white clicker?

A. True
B. False

0% 0%
Poll

Ontario currently has organized screening programs for the following cancers:

A. Lung, Breast, Colorectal
B. Breast, Prostate, Colorectal
C. **Breast, Colorectal, Cervical**
D. Breast, Cervical, Lung
E. None of the above
Poll

Would you be comfortable discussing the benefits/harms of screening and the current screening recommendations with a patient or loved one?

A. Yes
B. No
Where do we Start?
What is Screening?

The application of a test, examination or other procedure to asymptomatic target population to distinguish between:

• those who may have a disease and
• those who probably do not
Criteria for Use of a Screening Test

- Significant burden of disease in the population
- Preclinical stage is detectable and prevalent
- Early detection improves outcome (mortality) with acceptable morbidity
- Screening tests are acceptable to population, inexpensive, and relatively accurate
- Effective treatment is available for detected disease.
## Organized Screening Programs

<table>
<thead>
<tr>
<th>Features</th>
<th>OBSP</th>
<th>Non – OBSP</th>
<th>OCSP</th>
<th>CCC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recent Ontario/PEBC guidelines</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Initiatives to increase screening participation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Public</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Providers</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Routine recall</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Follow-up of abnormal results</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>QA</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Monitoring/evaluation</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Information system</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
</tbody>
</table>

- ● Yes
- ● Partial
- ● No

Not for reproduction
# Ontario Cancer Statistics 2012

<table>
<thead>
<tr>
<th>Cancer Type</th>
<th># New Cases</th>
<th># Deaths</th>
</tr>
</thead>
<tbody>
<tr>
<td>Breast</td>
<td>9,100 (F)</td>
<td>2,000 (F)</td>
</tr>
<tr>
<td>Cervix</td>
<td>550 (F)</td>
<td>160 (F)</td>
</tr>
<tr>
<td>Colorectal</td>
<td>4,800 (M)</td>
<td>1,900 (M)</td>
</tr>
<tr>
<td></td>
<td>3,900 (F)</td>
<td>1,550 (F)</td>
</tr>
</tbody>
</table>
Potential Benefits of Screening

• Reduced mortality and morbidity from the disease, and in some cases reduced incidence

• More treatment options when cancer diagnosed early or at a pre-malignant stage

• Improved quality of life

• Peace of mind
Possible Harms of Screening

• Anxiety about the test
• False positive results
  • Psychological harm
  • Unnecessary follow-up tests
• False negative results
  • Delayed treatment
• Over-diagnosis and over-treatment
# Sensitivity and Specificity

<table>
<thead>
<tr>
<th>Screening Test Result</th>
<th>Cancer Present</th>
<th>Cancer Absent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive</td>
<td>a</td>
<td>b</td>
</tr>
<tr>
<td>Negative</td>
<td>c</td>
<td>d</td>
</tr>
</tbody>
</table>

### Definitions:
- **True positive**: those with a positive screening test and confirmed cancer (a),
- **False positive**: those with a positive screening test and no confirmed cancer (b),
- **True negative**: those with a negative screening test and no confirmed cancer (d),
- **False negative**: those with a negative screening test and confirmed cancer (c),
- **Positive predictive value (PPV)**: proportion of people with a positive screening test who have confirmed cancer $a/(a+b)$,
- **Sensitivity**: proportion of people with cancer who have a positive screening test $a/(a+c)$,
- **Specificity**: proportion of people who do not have cancer who have a negative screening test $d/(b)$
# Sensitivity and Specificity

<table>
<thead>
<tr>
<th>Test</th>
<th>Sensitivity</th>
<th>Specificity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mammography</td>
<td>77% to 95% Less sensitive in younger women and those with dense breasts</td>
<td>94% to 97%</td>
</tr>
<tr>
<td>Breast MRI</td>
<td>71% to 100% Studies conducted in populations of women at high risk for breast cancer</td>
<td>81% to 97% Studies conducted in populations of women at high risk for breast cancer</td>
</tr>
<tr>
<td>gFOBT (repeat testing)</td>
<td>51% to 97%</td>
<td>90% to 100%</td>
</tr>
<tr>
<td>Pap Test</td>
<td>44% to 78%</td>
<td>91% to 96%</td>
</tr>
<tr>
<td>HPV Test</td>
<td>66% to 100%</td>
<td>61% to 96%</td>
</tr>
</tbody>
</table>
## Effectiveness of Screening

<table>
<thead>
<tr>
<th>Cancer Site</th>
<th>Effectiveness of Screening</th>
<th>Type of Studies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Breast</td>
<td>With mammography: 21% reduction in mortality with regular screening in 50 to 69-year-olds</td>
<td>Randomized controlled trials</td>
</tr>
<tr>
<td>Cervical</td>
<td>With Pap testing: Incidence reduced by up to about 80% with regular screening</td>
<td>Global incidence data</td>
</tr>
<tr>
<td>Colorectal</td>
<td>With FOBT: 16% reduction in mortality with regular screening; 20% reduction in incidence</td>
<td>Randomized controlled trials</td>
</tr>
</tbody>
</table>
Spotlight on Breast Cancer Screening
Burden of Disease

- Most frequently diagnosed cancer in women
- 1 in 9 Canadian women will develop breast cancer in their lifetime
- Breast cancer occurs primarily in women aged 50 to 69 (51% of cases). Eight in every 10 breast cancers are found in women aged 50+
- More deaths occur in women aged 80+ than in any other age group
- Reflects benefits of screening/treatment in prolonging life for middle-aged women
Poll

What % of eligible women in our region are currently up-to-date with breast screening?

A. 67%
B. 32%
C. 57%
D. 74%
E. 88%
Clinical Case Study

- GK is a 46-year-old woman who presents to your office for a well-woman examination.
- She informs you that her 51-year-old sister was diagnosed with breast cancer one month ago and that she is worried about getting breast cancer.
- On further inquiry, you learn that her mother died at a young age of ovarian cancer, one maternal cousin also had breast cancer at a young age.
- She does not perform breast self-examinations and has never had a mammogram.
- GK asks for your advice on breast cancer screening.
Breast Case Study 1

Which one of the following options is best for this patient?

A. Discuss the harms and benefits of screening and discourage her from pursuing mammogram due to her increased risk of a worrying false positive result.

B. Do not offer screening because she is younger than age 50.

C. Discuss the harms and benefits of screening, and offer screening because she is older than age 40.

D. Refer her to the High Risk Breast Screening program through the OBSP due to her significant family history.
Breast Case Study 2

Which of the following statements regarding the benefits and harms of screening for breast cancer is/are correct?

A. The majority (80 to 90 percent) of patients with abnormal screening mammograms are diagnosed with breast cancer.
B. The benefits of screening for breast cancer increase as a woman becomes older.
C. The harms of screening for breast cancer increase as a woman becomes older.
D. The balance of benefits and harms and the decision about when to initiate screening vary from patient to patient.
# Screening Recommendations

<table>
<thead>
<tr>
<th>Screening Modality</th>
<th>Canadian Task Force On Preventive Health Care (2011)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mammography</td>
<td>• Women 40 to 49: Recommend <strong>not routinely screening</strong>&lt;br&gt;• Women 50 to 69: Recommend <strong>routinely screening</strong>&lt;br&gt;• Women 70 to 74: Recommend <strong>routinely screening</strong>&lt;br&gt;• Women aged 50 to 74, suggest screening every 2 to 3 years</td>
</tr>
<tr>
<td>MRI</td>
<td>• Women aged 40 to 74 who are not at high risk for breast cancer: Recommend <strong>not routinely screening</strong> with MRI&lt;br&gt;• Women at high risk aged 30 to 69: Recommend annual screening MRI (in addition to mammography)</td>
</tr>
</tbody>
</table>
## Conversation Starters

### Should I be screened with mammography for breast cancer?

#### For women between 40 and 49 years of age:

- Among women who do not screen, the risk of dying from breast cancer is: 1 in 313
- With regular screening your risk of dying of breast cancer is: 1 in 370

However, with regular screening:
- your risk of having a false positive mammogram requiring further screening is: 1 in 3
- your risk of having a biopsy is: 1 in 28
- your risk of having part or all of a breast removed unnecessarily is: 1 in 200

Be informed!

You may hear the risks or benefits of breast cancer screening described as either absolute or relative. But what does all this mean and how does it apply to you?

The main difference is that absolute risk takes into consideration the fact that whether or not you get screened or treated, you still have a baseline risk of dying of breast cancer: 1 in 313 or 0.32%. With regular screening that risk changes to: 1 in 370 or about 0.27%. Relative risk does not consider baseline risk in the same way and may lead to confusion about how regular screening reduces risk.

### Risk of Breast Cancer

<table>
<thead>
<tr>
<th>Absolute Risk (%)</th>
<th>without screening</th>
<th>with screening</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.32%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0.27%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The absolute risk is simply the difference in risk between regular screening (0.27%) and no screening (0.32%).

0.32% - 0.27% = 0.05%

Therefore screening in women aged 40-49 reduces your absolute risk of dying of breast cancer by 0.05%. So the absolute benefit of screening is 0.05%.

Relative risk only looks at the reduction in risk as a proportion of the total risk (so it doesn’t consider that you are already at risk of cancer, this can lead to larger values than absolute risk).

0.05%/0.32% = 15%

Thus, screening in women aged 40-49 reduces your relative risk of dying of breast cancer by 15%. So the relative benefit of screening is 15%.

So how does this translate into actual numbers? Among 100 000 women aged 40 to 49 who are:

- Screened EVERY 2 years for 11 years:
  - 270 would die of breast cancer
  - 320 would be diagnosed with breast cancer
  - 3600 would have a biopsy
  - 500 would have part or all of a breast removed without having cancer
  - 50 would escape a breast cancer death

- NOT screened for 11 years:
  - 320 would die of breast cancer
  - 99 680 would not

For more info visit: [http://www.canadianstore.ca](http://www.canadianstore.ca)

### Should I be screened with mammography for breast cancer?

#### For women between 50 and 69 years of age:

- Among women who do not screen, the risk of dying from breast cancer is: 1 in 155
- With regular screening your risk of dying of breast cancer is: 1 in 196

However, with regular screening:
- your risk of having a false positive mammogram requiring further screening is: 1 in 4
- your risk of having a biopsy is: 1 in 28
- your risk of having part or all of a breast removed unnecessarily is: 1 in 200

Be informed!

You may hear the risks or benefits of breast cancer screening described as either absolute or relative. But what does all this mean and how does it apply to you?

The main difference is that absolute risk takes into consideration the fact that whether or not you get screened or treated, you still have a baseline risk of dying of breast cancer: 1 in 155 or 0.64%. With regular screening that risk changes to: 1 in 196 or about 0.51%. Relative risk does not consider baseline risk in the same way and may lead to confusion about how regular screening reduces risk.

### Risk of Breast Cancer

<table>
<thead>
<tr>
<th>Absolute Risk (%)</th>
<th>without screening</th>
<th>with screening</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.64%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0.51%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The absolute risk is simply the difference in risk between regular screening (0.47%) and no screening (0.64%).

0.64% - 0.51% = 0.13%

Therefore screening in women aged 50-69 reduces your absolute risk of dying of breast cancer by 0.13%. So the absolute benefit of screening is 0.13%.

Relative risk only looks at the reduction in risk as a proportion of the total risk (so it doesn’t consider that you are already at risk of cancer, this can lead to larger values than absolute risk).

0.13%/0.64% = 21%

Thus, screening in women aged 50-69 reduces your relative risk of dying of breast cancer by 21%. So the relative benefit of screening is 21%.

So how does this translate into actual numbers? Among 100 000 women aged 50 to 69 who are:

- Screened EVERY 2 years for 11 years:
  - 510 would die of breast cancer
  - 28 200 would be diagnosed with breast cancer
  - 3700 would have a biopsy
  - 500 would have part or all of a breast removed without having cancer
  - 138 would escape a breast cancer death

- NOT screened for 11 years:
  - 640 would die of breast cancer
  - 99 360 would not

For more info visit: [http://www.canadianstore.ca](http://www.canadianstore.ca)
Screening Recommendations and WHY?

<table>
<thead>
<tr>
<th>Screening Modality</th>
<th>Canadian Task Force On Preventive Health Care (2011)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Breast self examination (BSE)</td>
<td>Recommend <strong>not advising</strong> women to routinely practice BSE.</td>
</tr>
<tr>
<td>Clinical breast examination (CBE)</td>
<td>Recommend <strong>not routinely performing</strong> CBE alone or in conjunction with mammography.</td>
</tr>
</tbody>
</table>
OBSP Eligibility Criteria

Average-risk screening:

• Women aged 50 to 74 years
• Asymptomatic
• No personal history of breast cancer
• No current breast implants
OBSP Eligibility Criteria

High-risk screening:

• Women aged 30 to 69 years
• Asymptomatic
• May have personal history of breast cancer
• May have current breast implants
• Confirmed to be at high risk for breast cancer (see next slide)
OBSP Eligibility Criteria

High-risk categories:

1. Confirmed carrier of gene mutation
2. First-degree relative of mutation carrier and refused genetic testing
3. $\geq 25\%$ personal lifetime risk (IBIS, BOADICEA tools)
4. Radiation therapy to chest more than 8 years ago and before age 30
OBSP Screening Intervals

• Average risk: biennial recall (every 2 years)

• Increased risk: annual (ongoing) recall, e.g.,:
  • High-risk pathology lesions
  • Family history

• Increased risk: one-year (temporary) recall, e.g.,:
  • Breast density $\geq 75%$
  • Radiologist recommendation

• High risk: annual recall
Clinical Case Study 1

• GK is a 46-year-old woman who presents to your office for a well-woman examination.

• She informs you that her 51-year-old sister was diagnosed with breast cancer one month ago and that she is worried about getting breast cancer.

• On further inquiry, you learn that her mother died at a young age of ovarian cancer, one maternal cousin also had breast cancer at a young age.

• She does not perform breast self-examinations and has never had a mammogram.

• GK asks for your advice on breast cancer screening.
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B. Do not offer screening because she is younger than age 50.

C. Discuss the harms and benefits of screening, and offer screening because she is older than age 40.

D. Refer her to the High Risk Breast Screening program through the OBSP due to her significant family history.
Poll: Which one of the following options is best for this patient?

- Discuss the harms and benefits of screening and discourage her from pursuing mammogram due to her increased risk of a worrying false positive result. (100%)
- Do not offer screening because she is younger than age 50. (0%)
- Discuss the harms and benefits of screening, and offer screening because she is older than age 40. (0%)
- D. Refer her to the High Risk Breast Screening program through the OBSP due to her significant family history. (100%)
Breast Case Study 2

Which of the following statements regarding the benefits and harms of screening for breast cancer is/are correct?

A. The majority (80 to 90 percent) of patients with abnormal screening mammograms are diagnosed with breast cancer.

B. The balance of benefits and harms and the decision about when to initiate screening vary from patient to patient.

C. The benefits of screening for breast cancer increase as a woman becomes older.

D. The harms for screening for breast cancer increase as a woman becomes older.
Poll  Which of the following statements regarding the benefits and harms of screening for breast cancer is/are correct?

- The majority (80 to 90 percent) of patients with abnormal screening mammograms are diagnosed with breast cancer.
- The balance of benefits and harms and the decision about when to initiate screening vary from patient to patient.
- The benefits of screening for breast cancer increase as a woman becomes older.
- The harms for screening for breast cancer increase as a woman becomes older.
Spotlight on Colorectal Cancer Screening
Burden of Disease

• In 2012, an estimated 8,700 new cases of colorectal cancer will be diagnosed and 3,450 Ontarians will die of colorectal cancer

• Ontario’s incidence of colorectal cancer is similar to other developed countries, and incidence in Canada is among the highest in the world

• Approximately 93% of cases are diagnosed in people aged 50 years and older

• 5-year relative survival rate for colorectal cancer has improved over the past decade in Canada
Poll

What % of eligible people in our region are up-to-date with Colorectal screening?

A. 17%
B. 53%
C. 44%
D. 57%
E. 74%

Colorectal Screening Includes: FOBT Tests within the last 2 years, Colonoscopy in the past 10 yrs, and Flexible Sigmoidoscopy in the past 5 years
Colorectal Case Study

S.D. is a 53 year old woman who has been followed in your office for two years. She is a health professional who is morbidly obese; has a stressful job, and poor diet. Currently, aside from being hypertensive, she has no other active medical problems.

During her visit, she notes her 48 year old cousin recently had surgical treatment for colorectal cancer. She inquires about the likelihood of developing colorectal cancer herself.

Her physical examination is unremarkable.
Colorectal Case Study 1

Which is the initial screening investigation test that you would suggest?

A. She is asymptomatic, so you would recommend the FOBT test as baseline.
B. Discuss the harms and benefits of screening and offer a colonoscopy referral.
C. Ask about any other familial cancers and send a Genetics referral if appropriate
D. A & C
E. B & C
Colorectal Case Study 2

Would you suggest a different test if she had a first degree relative with Colorectal Cancer?

A. FOBT biannually starting at age 50.
B. No Colorectal cancer screening until she becomes symptomatic.
C. Colonoscopy starting at age 50, or 10 years before the diagnosis of her first degree relative.
D. FOBT at 50, and if negative offer her a referral for Flexible Sigmoidoscopy.
Assessing Risk

Assess for CRC signs and symptoms

- **Symptoms (high risk of CRC)**
  - Refer to colonoscopy; FOBT not appropriate

- **No symptoms; 1 or more 1st degree relatives with CRC (increased risk of CRC)**
  - Refer to colonoscopy; start at 50 years of age or 10 years before age of relative’s diagnosis

- **Age 50 to 74; no symptoms; no affected 1st degree relatives (average risk of CRC)**
  - FOBT every 2 years
# Symptomatic Patient Assessment

## CCO Guideline

### Colorectal Cancer Guideline Recommendations for Symptomatic Patients

<table>
<thead>
<tr>
<th>Does the patient have one or more of the following signs/symptoms?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Palpable rectal mass</td>
</tr>
<tr>
<td>Palpable abdominal mass</td>
</tr>
<tr>
<td>Rectal bleeding</td>
</tr>
<tr>
<td>Abdominal discomfort</td>
</tr>
</tbody>
</table>

If Yes, perform a focused history and physical exam:

#### FOCUSED HISTORY:
- Age and gender
- Rectal bleeding, if yes: colour, location
- Change in bowel habit, if yes: increased stool, looseness, constipation and/or urgency; feel incomplete emptying; stool incontinence
- Weight loss
- Abdominal discomfort
- Perianal symptoms (lump, pruritus, pain)
- Symptoms of anemia
- If IDA - explore possible causes of blood loss
- Personal history of colorectal polyps or IBD or family history of 1st degree relative with CRC

#### FOCUSED PHYSICAL EXAM/TEST:
- Digital rectal exam
- Abdominal exam (if palpable mass do abdominal/pelvic imaging)
- Look for signs of anemia
- Weight
- CBC (if microcytic do ferritin)

### Suspicious palpable rectal mass

- Unexplained rectal bleeding with:
  - dark blood
  - blood mixed with stool
  - absence of perianal symptoms
  - with change in bowel habits
  - with weight loss
- Unexplained IDA:
  - males: Hb <110 g/L
  - menstrual females: Hb <100 g/L

### Urgent referral to a specialist competent in endoscopy or to a CRC DAP within 24 hours

Expect a consultation within 3 weeks and definitive diagnostic work-up completed within 4 weeks of referral.

### Semi-Urgent referral

To a specialist competent in endoscopy or to a CRC DAP within 24 hours

Expect a consultation within 4 weeks and definitive diagnostic work-up completed within 5 weeks of referral.

### For all other unexplained signs/symptoms that do not meet criteria for urgent or semi-urgent referral:

- low level of CRC suspicion
- high level of CRC suspicion

- treat sign/symptom if applicable
- if no active rectal bleeding, may order PUBT (non-CCC)
- review and ensure resolution of symptoms within 4-6 weeks

### If signs/symptoms have not resolved in 4 to 6 weeks, then confer with or refer:

- to a CRC DAP or endoscopy specialist

### If wait time is considered excessive, order:
- CT Colonography or
- DCE

This is best done in coordination with a CRC DAP or specialist, if possible. Normal or negative results should not lead to a cancellation of the consult with the CRC DAP or specialist. Positive results may facilitate more timely investigation of a patient.

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**Definitions:**
- CRC: colorectal cancer
- DAP: Diagnostic Assessment Program
- IDA: iron deficiency anemia
- CBC: complete blood count
- CT: computed tomography
- DCE: double contrast barium enema
- PUBT: proctosigmoidoscopy
Recommended Screening

**Increased Risk: Colonoscopy**

One or more first-degree relatives with a history of colorectal cancer

Begin at age 50, or 10 years earlier than age relative was diagnosed, whichever is first

**Average Risk: FOBT**

- Biennial (every 2 years), aged 50 to 74
- Follow up abnormal FOBT with colonoscopy
- Entry into CCC program
When to resume FOBT after Colonoscopy?

- The ColonCancerCheck Clinical Advisory Committee recommends: Average risk patients who have had a negative/normal colonoscopy should resume screening by FOBT or colonoscopy for a 10-year period.
Adenoma-Carcinoma Sequence

• Majority of colorectal cancers arise from adenomatous polyps
• Progression to invasive cancer takes 10 years on average
FOBT vs. Colonoscopy Debate

If Colonoscopy as Primary Screen: 3/1000 (50-74)

- 333 scopes: 1 cancer

Risks with Colonoscopy:

- Prep Risks
- Perforation Risks 1:1000-3000
- Death 1:15000
- Economy impact (cost of prep)
- Work/sick days
- Fear/Anxiety

ColonCancerCheck Clinical Tool: Evidence Summary 2008
FOBT as a Triage Tool

40/1000 FOBTs will be positive
40 should be referred for colonoscopy

5% of positive FOBTs followed up with colonoscopy will be cancer.
Therefore we will find 1.5 cancers per 1000 FOBTs.

Saving 960 colonoscopies to find approx. 1.5 cancers

Equal Access/Publically Funded

ColonCancerCheck 2010 Program Report p. 6-8
Colorectal Case Study

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Her physical examination is unremarkable.
Which is the initial screening investigation test that you would suggest?

A. She is asymptomatic, so you would recommend the FOBT test as baseline.
B. Discuss the harms and benefits of screening and offer a colonoscopy referral.
C. Ask about any other familial cancers and send a Genetics referral if appropriate
D. A & C
E. B & C
Colorectal Case Study  Which is the initial screening investigation test that you would suggest?

- She is asymptomatic, so you would recommend the FOBT test as baseline. 100%
- Discuss the harms and benefits of screening and offer a colonoscopy referral. 50%
- Ask about any other familial cancers and send a Genetics referral if appropriate 0%

A & C 0%
B & C 0%

First Slide  Second Slide
Colorectal Case Study 2

Would you suggest a different test if she had a first degree relative with Colorectal Cancer?

A. FOBT biannually starting at age 50.
B. No Colorectal cancer screening until she becomes symptomatic.
C. Colonoscopy starting at age 50, or 10 years before the diagnosis of her first degree relative.
D. FOBT at 50, and if negative offer her a referral for Flexible Sigmoidoscopy.
Colorectal Case Study  Would you suggest a different test if she had a first degree relative with Colorectal Cancer?

- FOBT biannually starting at age 50. (100%)
- No Colorectal cancer screening until she becomes symptomatic. (0%)
- Colonoscopy starting at age 50, or 10 years before the diagnosis of her first degree relative. (0%)
- FOBT at 50, and if negative offer her a referral for Flexible Sigmoidoscopy. (50%)
Spotlight on Cervical Cancer Screening
Burden of Disease in Ontario

• Estimated 550 women will be diagnosed and 160 will die of cervical cancer in 2012

• Up to 80,000 abnormal Pap tests require assessment each year

• 4th most common cancer among women under age 50
Poll

According to the most recent data, in Waterloo Wellington, which % of eligible women are currently up-to-date with cervical screening?

A. 63%
B. 91%
C. 33%
D. 73%
E. 12%
Cervical Case Study

• TS, a 24-year-old, sexually active woman, visits your office to discuss birth control methods.

• She first had intercourse at age 16 and smokes two packs of cigarettes per week.

• You suggest that she be screened for cervical cancer as part of routine health maintenance.
Cervical Case Study 1

Which one of the following tests is recommended by the Canadian Task Force on Preventative Health Care (CTFPHC) for routine cervical cancer screening?

A. Human papillomavirus (HPV) testing.
B. Liquid-based cytology or Conventional Papanicolaou (Pap) smear.
C. Computerized rescreening.
D. Primary HPV testing with cytology triage.
Cervical Case Study 2
Which of the following answers is/are correct?

A. Younger women are more likely to become infected with HPV.
B. Rates of abnormal Pap test results are highest among young women and decrease with age.
C. 80% of women will acquire an HPV infection in their lifetime.
D. The majority of cervical cancer deaths occur in women who have been under or never screened or were lost to follow-up.
E. All of the above.
Updated Screening Guidelines

• CCO’s 2005 cervical guidelines were due for update

• Program redevelopment required clarity for screening initiation, interval and cessation

• New high-quality research and evidence
New Guidelines

- Clear evidence for primary HPV screening with cytology triage, starting at age 30, every 5 years
- Must implement within organized program
- Must be publicly-funded
- Interim cytology-based guidelines to bridge transition
Screening Initiation

- Start at age 21 in sexually active women
- Cervical cancer extremely rare < 21 years and rare < 25 years
- 10 to 15 years to develop cervical cancer
- Aligns with other jurisdictions
Screening Interval

- Cytology screening every 3 years
- No incremental benefit of screening more frequently than every 3 years
- Aligns with other jurisdictions
- Need to individualize for women previously treated for dysplasia
Screening Cessation

• Stop screening at age 70 if adequate and negative screening history
  • Low incidence of cancer in women who have been adequately screened
  • Potential discomfort of procedure
  • Difficulties visualizing squamocolumnar junction
• Aligns with other jurisdictions
Cervical Cancer Natural History
Harms of Screening Adolescents

• 90% will clear infection within 2 years
• High rates of low-grade mostly transient abnormalities
• Unnecessary anxiety from detection, biopsies and treatment
• Treatment linked to adverse future pregnancy outcomes
• No protective effect with screening
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Answer: E. All of the above.
Poll  Which of the following answers is/are correct?

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D. The majority of cervical cancer deaths occur in women who have been under or never screened or were lost to follow-up

E. All of the above
Poll

Would you be comfortable discussing the benefits/harms of screening and the current screening recommendations with a patient or loved one?

A. Yes
B. No
Poll  Would you be comfortable discussing the benefits/harms of screening and the current screening recommendations with a patient or loved one?

- Yes: 50%
- No: 0%
Call to Action!
It’s Time to Talk!

<table>
<thead>
<tr>
<th></th>
<th>Screened</th>
<th>Not Screened</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Breast</strong></td>
<td>67%</td>
<td>33%</td>
</tr>
<tr>
<td><strong>Cervical</strong></td>
<td>73%</td>
<td>27%</td>
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<tr>
<td><strong>Colorectal</strong></td>
<td>53%</td>
<td>47%</td>
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</tbody>
</table>
Thank You!
www.cancercare4primarycare.ca