CancerCare Manitoba

Guidelines for Breast, Cervical and Colorectal Cancer Screening

Your recommendation counts.

Talk to your patients about screening for cancer.

CancerCare Manitoba provides organized, population-based screening programs for breast, cervical and colorectal cancer. These programs are based on evidence of reduced cancer specific mortality, and that the benefits of screening outweigh harms at the population level. Clinicians should discuss the benefits and harms of each screening test in the context of the patient's values and preferences. Screening and follow up for the individual patient may vary depending on clinical judgment and/or available resources.

To access supporting references for the screening guidelines or for more information about the programs, visit **GetCheckedManitoba.ca**

For information on screening for prostate, lung and ovarian cancers, visit Anticipatory Science under Prevention and Screening at **cancerview.ca**

January 2013

Screening Guidelines

PATIENT CHARACTERISTICS	RECOMMENDATIONS
40 years of age or under	Routine screening mammograms are **not** recommended
40 to 49 years of age at average risk	Routine screening mammograms are **not** recommended Benefits and harms of screening should be discussed with patients to support informed decision making Women who choose to be screened should be referred to a diagnostic center
50 to 74 years of age • no signs or symptoms of breast cancer (e.g. lumps or nipple discharge) • no breast implants • no previous diagnosis of breast cancer	**Routine screening mammograms every 2 years** BreastCheck may screen annually based on: • significant family history* • pathological diagnosis of lobular carcinoma in-situ (LCIS) or atypical ductal hyperplasia (ADH)
75 years of age or over	Routine screening mammograms are **not** recommended Benefits and harms of screening should be discussed and women can choose to continue attending BreastCheck Discuss stopping screening when there are: • comorbidities associated with a limited life expectancy • physical limitations for mammography that prevent proper positioning
Symptomatic	Perform a clinical breast exam to aid with assessment Refer to a diagnostic centre for mammogram, ultrasound and/or surgical consultation If a mammogram is negative in the presence of a palpable abnormality, send for further assessment
Breast implants	Based on age refer to a diagnostic center for screening
Confirmed BRCA gene mutation	Consult with the WRHA Breast Health Centre or a breast specialist Monitoring will vary depending on age and personal history of breast cancer
Breast cancer diagnosis	Refer to a diagnostic centre for mammogram or other follow up

* *≥ 25% lifetime risk of developing breast cancer based on the Claus Model, which takes into consideration the number of first or second degree blood relatives (male and female) diagnosed with breast cancer and/or ovarian cancer, and the age at which they were diagnosed.*

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Potential Benefits & Harms of Breast Screening with Mammography

BENEFITS	HARMS
• Randomized controlled trials (RCT) have demonstrated a 21% reduction in deaths from breast cancer among women who are screened. For women screened through BreastCheck the reduction was 23% • Detecting cancer at an early stage may result in simpler treatment, more treatment options, and less need for chemotherapy • May provide peace of mind knowing cancer was not found on a screening mammogram	• False positives • False negatives • Screening and follow up may cause anxiety • Overdiagnosis. Screening may result in detection of conditions which may not have become clinically significant in a patient's lifetime and may result in unnecessary interventions and/or treatment • Discomfort or pain from the mammogram • Radiation exposure

Management of Mammography Results

RESULTS	MANAGEMENT
Normal (negative)	BreastCheck will recall these women every 1 or 2 years depending on the radiologist's recommendations
Abnormal (positive)	BreastCheck will coordinate further testing, as recommended by the radiologist, for women whose clinicians have given BreastCheck permission for direct referral. Follow up tests may include: • diagnostic mammogram • ultrasound, with or without a core biopsy • stereotactic core biopsy • surgical consultation If BreastCheck does not have permission for direct referral, it is the clinician's responsibility to arrange for follow up tests

Key Messages

- Routine clinical breast exams and breast self exams are **not** recommended. Encourage women to know how their breasts normally look and feel.
- The balance of benefits and harms differs by age. Refer to the Canadian Task Force on Preventive Health Care Recommendations and Public Health Agency of Canada Decision Aid for Breast Cancer Screening to support decision making (canadian-taskforce.ca or publichealth.gc.ca/decisionaids).
- Women at higher risk for breast cancer should have individualized assessment as general screening recommendations do not apply. Higher risk is based on factors such as:
  - previous diagnosis of breast cancer,
  - significant family history,* and/or
  - mutations in the BRCA1/BRCA2 genes.
- The sensitivity of mammography is about 80% and the specificity is about 95%.

BreastCheck Operations

- Invites and recalls women 50 to 74 years of age for mammography screening. No referral or invitation letter is required to attend BreastCheck.
- Accepts women 40 to 49 years of age at BreastCheck mobile sites, on a limited basis. A referral from a primary care provider is required.
- Sends result letters to women and their primary care provider.
- Coordinates education and awareness activities for the public and health care professionals.
- Permanent screening sites are located in Brandon, Morden/Winkler, Thompson and Winnipeg. In addition there are 90 mobile sites province-wide.

CervixCheck Screening Guidelines

PATIENT CHARACTERISTICS	RECOMMENDATIONS
Never been sexually active Sexual activity includes intercourse, as well as digital or oral sexual activity involving the genital area with a partner of either gender	Screening **not** recommended Women who are not sexually active by age 21 should delay screening until sexually active
Hysterectomy	Screening the vaginal vault is not recommended if: • Hysterectomy was total, • Hysterectomy was performed for a benign disease (pathology negative for high-grade dysplasia), and • The woman has no previous high-grade Pap test result. If Pap test results or hysterectomy pathology is unavailable, continue screening until two negative vaginal vault tests are obtained.
70 years of age or older	**Discontinue screening if the woman has had 3 negative Pap tests in the previous 10 years**
All women who have ever been sexually active **HPV Vaccinated** **Women having sex with women** **Transgender** **Pregnant**	**Initiate screening with Pap tests* at age 21** **Routine screening should continue every three years until age 69** Health care providers should discuss the benefits and harms of screening with their patients
Immunocompromised or HIV positive	Screen every year
Previous high-grade cervical pathology result (≥HSIL/CIN2/moderate dysplasia)	Screen every year once discharged from colposcopy. There is no evidence to support how long a woman should be screened annually. A conservative approach would be to screen annually until the woman is 69 years of age and can discontinue if her results are Negative in previous 10 years.

* HPV testing is not routinely available in Manitoba.

Any visual abnormalities and/or symptoms (ie. abnormal bleeding or discharge) must be investigated regardless of cytology findings.

For more information visit canadiantaskforce.ca

Potential Benefits & Harms of Cervical Screening with the Pap Test

BENEFITS	HARMS
• Observational data have shown declines of up to 80% in cervical cancer mortality following introduction of organized screening with Pap tests. • Cervical dysplasia can be removed with procedures during colposcopy. • Detecting cancer at an early stage may result in simpler treatment, more treatment options, and less need for chemotherapy.	• False positives. • False negatives. • Screening and follow up may cause anxiety. • Discomfort or bleeding may result from the Pap test or colposcopy. • Treatment with cold knife conisation and large loop excision of the transformation zone (LLETZ) may increase a woman's risk for pre-term delivery, low birth weight, caesarean section, and premature rupturing of membranes.

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Management of Cytology Results

CYTOLOGY RESULTS	MANAGEMENT
Negative	Routine screening every 3 years The absence of transformation zone is not a reason to repeat a Pap test earlier than the recommended interval
Unsatisfactory	Repeat Pap test in 3 months If persistent (2 consecutive, or 2 within 12 months) unsatisfactory due to "obscuring blood" or "obscuring inflammation," refer for colposcopy
ASC-US Atypical squamous cells of undetermined significance **LSIL** Low-grade squamous intraepithelial lesion	**Repeat Pap test in 6 months** Negative → Repeat Pap test in 6 months → Negative → Routine screening Abnormal → Colposcopy Negative → Repeat Pap test in 6 months → Abnormal → Colposcopy
ASC-H Atypical squamous cells, cannot rule out high-grade **HSIL** High-grade squamous intraepithelial lesion	Refer for colposcopy
AGC Atypical glandular cells	Refer for colposcopy and endocervical curettage • If woman is ≥ 35 years of age or has abnormal bleeding, refer for endometrial biopsy
Atypical endocervical cells	Refer for colposcopy
Atypical endometrial cells	Refer for endometrial biopsy
Benign endometrial cells	**< 45 years of age:** In the absence of abnormal bleeding, woman can continue routine screening **≥ 45 years of age:** If woman is postmenopausal and/or has abnormal bleeding, refer for endometrial biopsy
AIS (Adenocarcinoma in situ)	Refer for colposcopy and endocervical curettage
Squamous carcinoma, adenocarcinoma, other malignant neoplasms.	Refer for colposcopy and oncology
Absence of transformation zone cells	Screen according to cytology result. The absence of transformation zone is not a reason to repeat a Pap test earlier than the recommended interval
Rejected specimen	Repeat Pap test in 3 months Inform woman repeat is not due to abnormal cytology

Key Messages

- 90% of HPV infections will spontaneously regress within 2 years.
- High grade lesions and cervical cancer are very rare in young women < 21 years of age.
- There is a long latent period between exposure to HPV infection and the development of precancerous lesions and invasive cervical cancer.
- Annual screening offers little benefit over screening performed at 2 to 3 year intervals and exposes women to unnecessary risks and anxieties.
- The sensitivity of the Pap test is about 51% and the specificity is about 98%.

CervixCheck Operations

- Operates a registry of Pap test and colposcopy results for all Manitoba women.
- Sends letters to:
  - clinicians and women when follow up has not occurred for low-grade abnormal and unsatisfactory cytology
  - result letters to women with high-grade Pap test results
  - reminder letters for women who are overdue for a Pap, and
  - invitation letters to women who are unscreened.
- Sends screening histories to clinicians and women upon request.
- Coordinates education and awareness activities for the public and health care professionals.

February 2016

Screening Guidelines

	PATIENT CHARACTERISTICS	RECOMMENDATIONS
Average Risk	50 to 74 years of age with: • with no symptoms of Colorectal Cancer (CRC) • no personal history of CRC, polyps • no diseases of the colon requiring monitoring by colonoscopy	**Fecal Occult Blood Test (FOBT) every 2 years** On an individual basis, other screening tests may be appropriate based on clinical judgment, risk assessment, or patient concerns: • Colonoscopy every 10 years • Flexible sigmoidoscopy at intervals of 10 years or more
Slightly Above Average Risk	40+ years of age with no symptoms of CRC and: • one first degree relative diagnosed with CRC or advanced adenomatous polyps* at 60 years of age or older, or • 2 or more second degree relatives diagnosed with CRC or advanced adenomatous polyps*	Same as for average risk patient
Above Average Risk	One first-degree relative diagnosed with CRC or advanced adenomatous polyps* before 60 years of age, or 2 or more first-degree relatives diagnosed with CRC or advanced adenomatous polyps* at any age	Colonoscopy, every 5 years - begin at 40 years of age or 10 years earlier than youngest diagnosis of CRC or polyps in the family
High Risk	A personal history of CRC, adenomatous polyps or inflammatory bowel disease (IBD) with associated colitis	Ongoing investigation and surveillance with colonoscopy; individuals with IBD should be referred for colonoscopic surveillance 8 years after the onset of colitis
	Confirmed hereditary colon cancer syndrome such as Hereditary Non-Polyposis Colon Cancer (HNPCC) or Familial Adenomatous Polyposis (FAP)	Ongoing endoscopic surveillance
	Suspected hereditary colon cancer syndrome: • multiple family members with disease (CRC, adenomatous polyps, and other HNPCC associated tumors) • disease at a younger age (< 45 years) • and/or disease present in successive generations	Ongoing endoscopic surveillance: Consider referral to the WRHA Program in Genetics and Metabolism, Phone: (204) 787-2494; Fax: (204) 787-1419
Symptomatic	Rectal bleeding or persistent change in bowel habits or abdominal pain or unexplained weight loss or anemia	Individuals should **not** undergo FOBT screening as they require urgent investigation
	Under 50 or over 74 years of age	Decisions to screen individuals under 50 or over 74 years of age should be made on an individual basis based on patient concerns, additional risk factors including family history, and comorbidities

* *"Advanced adenomas" or "advanced adenomatous polyps" are defined as having one of the following features: ≥ 1 cm in size, high grade dysplasia, or villous component (villous or tubulovillous).*

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Potential Benefits & Harms of Colorectal Screening with FOBT

BENEFITS	HARMS
• RCTs have shown regular screening with the FOBT can reduce deaths from colorectal cancer by up to 25% • Polyps and other abnormal tissue can be removed during a colonoscopy • Detecting cancer at an early stage may result in simpler treatment, more treatment options, and less need for chemotherapy	• False positives • False negatives • Screening and follow up may cause anxiety • Colonoscopy, recommended for individuals with a positive FOBT, can cause bleeding and perforation of the colon

Management of FOBT and Colonoscopy Results

FOBT RESULTS	MANAGEMENT
Normal	Repeat FOBT in 2 years. ColonCheck will recall participants for screening in 2 years
Abnormal (any one window positive for blood)	Refer for colonoscopy

COLONOSCOPY RESULTS	MANAGEMENT
Negative colonoscopy with no additional risk factors for CRC (includes hyperplastic polyps and those with positive FOBT and negative colonscopy)	ColonCheck will recall participants for FOBT screening in 5 years Colonoscopy is considered to have a protective effect for at least 10 years
1-2 tubular adenomas < 1cm	Repeat colonoscopy in 5-10 years
More than 2 tubular adenomas or any advanced adenoma*	Repeat colonoscopy in 3 years; repeat colonoscopy every 5 years when polyp clearance is achieved. Consider referral for genetic testing if > 10 adenomas
Post–curative resection for CRC	Colonoscopy end of year 1 (within 6 months if colon is not cleared preoperatively): rescope at 3 years then every 5 years indefinitely if the outcome is normal
Colon was not cleared of polyps: an incomplete polypectomy or removal of an advanced adenoma	Consider repeating colonoscopy in 3 to 6 months

Key Messages

- Evidence shows that screening regularly with the FOBT will lead to a reduction in mortality from CRC.
- A colonoscopy is recommended for any individual with a positive FOBT. As bleeding from cancers or adenomas may be intermittent, any positive result must be investigated. Further FOB testing for an individual with a positive result is unwarranted and does not rule out serious pathology, even if it is negative.
- For the Hemoccult II Sensa, the sensitivity ranges from 64% - 85% and the specificity ranges from 87% - 95%.
- Double contrast barium enema or CT colonography may be alternatives in individuals with a positive FOBT if colonoscopy is refused, medically unsuitable or unsuccessful.

ColonCheck Operations

- Invites eligible individuals of average risk who are between the ages of 50 to 74 years of age to complete a FOBT. Invitation strategies include direct mail, recruitment through BreastCheck and primary care providers and advertising to promote self referrals.
- Arranges referral for colonoscopy of ColonCheck patients with a positive FOBT.
- Coordinates education and awareness activities for the public and health care professionals.
- ColonCheck no longer requires patients to exclude red meat from their diet or stop taking NSAIDS. Individuals will still be instructed to limit their Vitamin C intake to minimize the risk of false negatives.

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