

BC Cancer Breast Screening Standards and Protocols

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Guidance Document – Breast Standards and Protocols Breast Screening Program

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About BC Cancer

BC Cancer, an agency of the Provincial Health Services Authority, provides a comprehensive cancer control program for the people of BC in partnership with regional health authorities. BC Cancer's mandate covers the full spectrum of cancer care from prevention, screening, diagnosis and treatment, to research and education, to supportive and palliative care.

BC Cancer's mission is to reduce the burden of cancer in British Columbia. Reducing the incidence of cancer is an essential part of BC Cancer's mission.

- Cancer prevention is an essential part of cancer control. While many cancers are not yet preventable, evidence shows that a number are influenced by lifestyle or environment choices.
- Screening helps identify those with risk factors for cancer or who are in its early stages. Screens are used for the types of cancers that when detected early can reduce deaths.

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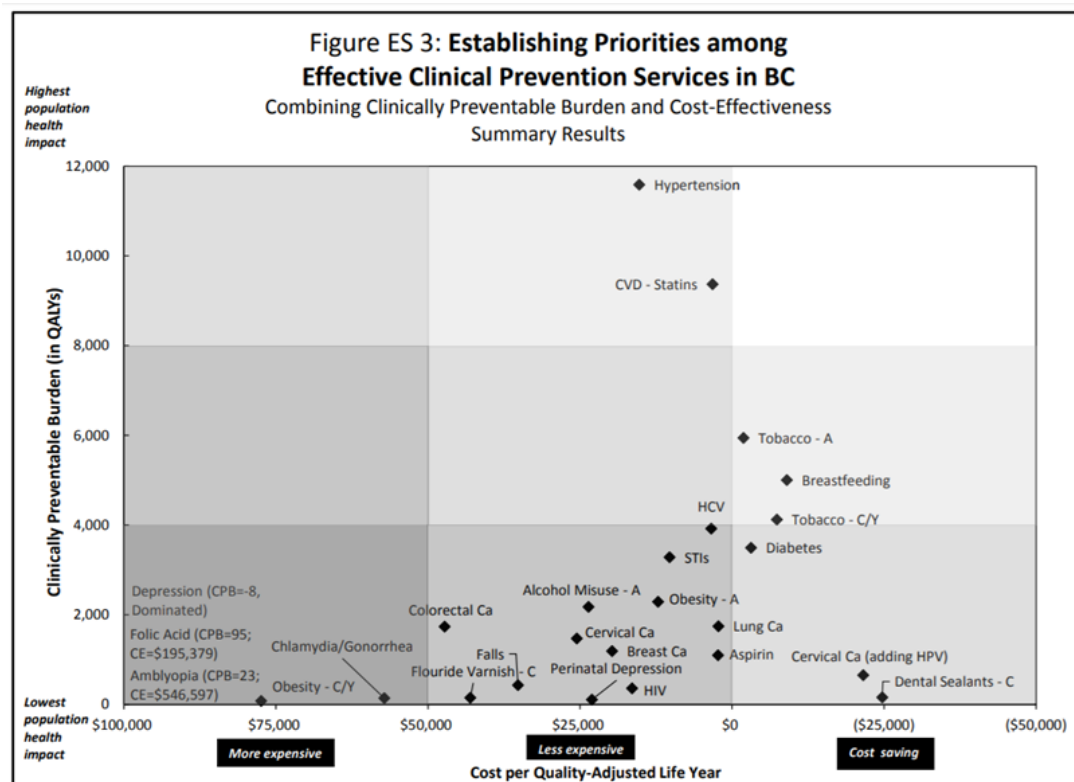
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1. Introduction

1.1 Breast Screening Program

Breast cancer is the most commonly diagnosed cancer among those assigned female at birth (25%) and the second leading cause of cancer death (14%) (CMAJ 2022 May 2). Breast cancer mortality rates have declined steadily since the introduction of organized breast screening, however screening participation and retention could be improved in order to further maximize the benefits of early detection. BC has some of the lowest breast cancer incidence mortality rates for breast cancer (*Canadian Cancer Statistics 2022*).

The Canadian Task Force on Preventive Health Care (CTPHC)¹ and British Columbia's Lifetime Prevention Schedule (LPS)² recommend breast cancer screening for females ages 50-74. In BC, individuals aged 40 and over are encouraged to have a discussion with their providers to consider their personal risk factors, and benefits and limitations of breast screening³. Breast cancer screening is considered cost-effective (Below Figure: The Lifetime Prevention Schedule - Establishing Priorities among Effective Clinical Prevention Services in British Columbia: March 2021). There currently is not sufficient evidence to support a recommendation for routine clinical breast examination or breast self-exam.



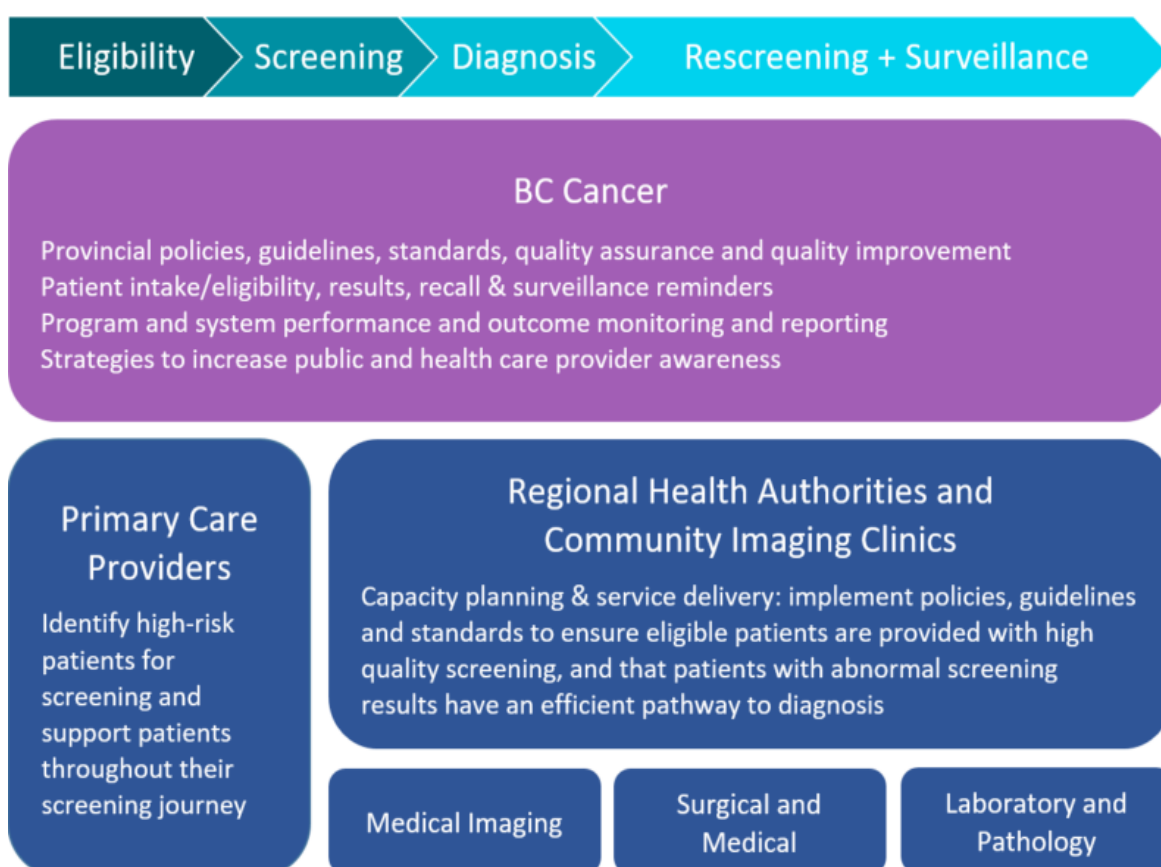
1.2 Purpose of the Standards

The purpose of developing Breast Screening Standards is to maximize participant safety and program efficiency and efficacy. Standardization of Breast Screening supports ongoing quality improvement to reflect current best practices in the field. Furthermore, by improving the communication amongst primary care providers and participants regarding appropriate screening activities, the benefits of screening can be maximized, and potential harms of screening can be minimized.

Program Overview

Population screening for breast cancer in BC began in 1988 with the Breast Screening Program (the Program), the first of its kind in Canada. There are breast screening centres located in all five health authorities, with 36 fixed sites across the province and three mobile units providing access for remote and underserved regions.

In British Columbia, organized screening programs are established following the provincial cancer screening framework.



BC Cancer oversees the provincial cancer screening programs, which include breast, cervix, colon and lung. Organized screening programs are designed to ensure eligible populations have an opportunity to participate in high quality screening, and if the screening result is abnormal, the patient is provided with the appropriate recommendation for further testing and follow-up. An organized breast screening program supports:

- development of provincial policies, guidelines and standards for screening,
- strategies to increase public and primary care provider awareness,
- strategies to address disparities in access, service and outcomes,
- correspondences to eligible British Columbians about results, follow-up and rescreening,
- fast track referral to diagnostic centers in local health region for findings suspicious of breast cancer,
- quality assurance and quality improvement, and,
- reporting and monitoring of system performance and screening outcomes.

Regional health authorities (RHAs) and Community Imaging Clinics (CICs) are responsible for the planning and delivery of healthcare services within their geographic areas. RHAs and CICs work with BC Cancer to implement policies, guidelines and standards to ensure eligible patients in BC are provided with high quality screening, and that patients with an abnormal screening result have an efficient pathway to diagnosis.

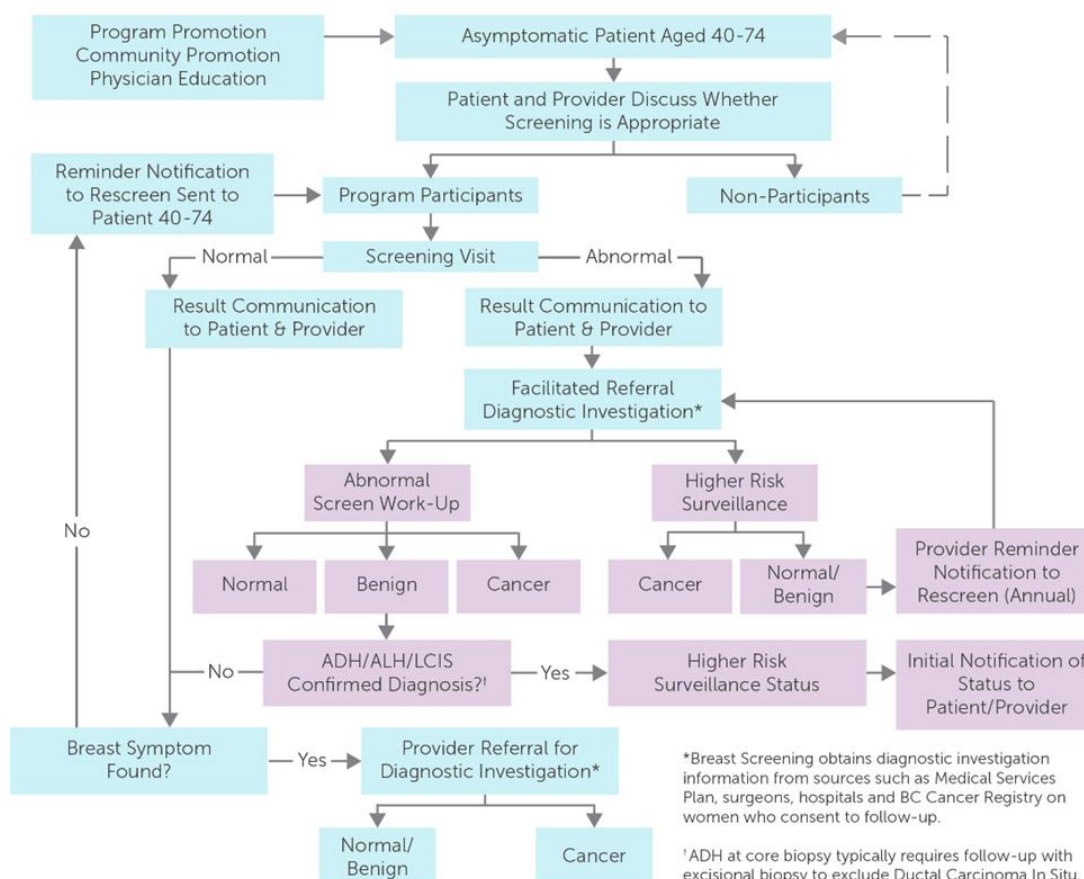
Primary care providers play the important role of identifying patients at risk and referring them to screening programs, and to support patients throughout their screening journey such as management of incidental findings to improve the general health of patients.

In addition, BC Cancer participates in Pan-Canadian Cancer Screening networks, hosted by the Canadian Partnership Against Cancer (CPAC), which leverages expertise across the country and makes use of evidence to support policy decisions and best practices in cancer screening.

The provincial Cancer Screening Partnership Framework has enabled British Columbia to provide internationally recognized population-based Breast, Cervix, Lung and Colon Screening Programs. The provincially led and regionally delivered model will minimize health inequity and improve outcomes in population-based breast cancer screening.

2. Breast Screening Pathway



BC Cancer Breast Screening Program Flowchart




2.1 Eligibility

Population screening recommendations for breast cancer in BC are categorized by age and other determinants of risk, including family history and genetic factors (refer to Table 1). Participants eligible for screening are asymptomatic, without a personal history of breast cancer, and without breast implants. Individuals aged 40 to 49 are encouraged to consider the benefits relative to the downsides and limitations in discussion with their primary care provider. A limitation for individuals in this age group, where the incidence of cancer is lower than in older age groups, is the greater prevalence of dense breast tissue that may impede cancer detection.


Table 1: Breast Screening Eligibility

	Patient Characteristics	Recommendation	Referral
Asymptomatic – Average Risk	Age 39 and under	Routine screening mammogram is not recommended (refer to High Risk section below).	
	Age 40 to 49	Screening mammography is available every 2 years. Speak with the patient about the benefits and limitations of mammography.	No referral required. Patient can call a breast screening centre directly or 1-800-663-9203 to book their appointment.  Inform the patient that they will need to identify a health care provider (physician, nurse practitioner, naturopath or walk-in clinic) who can follow-up with them if needed.
	Age 50 to 74	Routine screening mammogram every 2 years.	
	Age 75 and over	Screening mammography is available every 2 years if the patient is in good health. Speak with the patient about the benefits and limitations of mammography.	
Higher than Average Risk	Age 40 to 74		
	1 st degree relative ^a with breast cancer	Routine screening mammogram every year.	No referral required. Patient can call a breast screening centre directly or 1-800-663-9203 to book their appointment.  Inform the patient that they will need to identify a health care provider (physician, nurse practitioner, naturopath or walk-in clinic) who can follow-up with them if needed.
	Atypical ductal hyperplasia (ADH)		Refer patient for diagnostic imaging .
	Atypical lobular hyperplasia (ALH)		
	Classical lobular carcinoma in situ (LCIS)		

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Higher than Average Risk (continued)	Age 75 and over		
	Patient is in good general health	Screening mammography is available every year. Speak with the patient about the benefits and limitations of mammography.	<p>No referral required. Patient can call a breast screening centre directly or 1-800-663-9203 to book their appointment.</p> <div>  Inform the patient that they will need to identify a health care provider (physician, nurse practitioner, naturopath or walk-in clinic) who can follow-up with them if needed. </div>
High Risk	Age 25 to 74		
	Thoracic radiation ^b between age 10 to 30	Routine screening mammogram every year.	<p>Initial referral required if patient is 25 to 39 years old.</p> <p>Recommend referral to Late Effects, Assessment and Follow-Up Clinic if not already done.</p>
	Age 30 to 74		
	<p>Very strong family history:</p> <ul style="list-style-type: none"> • 2 cases of breast cancer in close female relatives^c on the same side of the family, with both diagnosed before age 50; or, • 3 or more cases of breast cancer in close female relatives^c on the same side of the family, with at least one diagnosed before age 50. 	Routine screening mammogram every year.	<p>Initial referral required if patient is 30 to 39 years old.</p> <p>Recommend referral to Hereditary Cancer Program if not already done.</p>
	Known BRCA1 or BRCA2 carrier, or other pathogenic gene ^d variant carrier		
	Untested family member of a BRCA1 or BRCA2 carrier, or other known pathogenic gene ^d variant carrier		

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High Risk (continued)	Age 75 and over		
	Patient is in good general health	Screening mammography is available every year. Speak with the patient about the benefits and limitations of mammography.	<p>No referral required. Patient can call a breast screening centre directly or 1-800-663-9203 to book their appointment.</p> <div>  <p>Inform the patient that they will need to identify a health care provider (physician, nurse practitioner, naturopath or walk-in clinic) who can follow-up with them if needed.</p> </div>
Symptomatic	<p>Symptomatic, includes:</p> <ul style="list-style-type: none"> • A mass, lump, thickening or any change in the breast that is new or stays over time • A lump that gets bigger or the whole breast gets smaller or bigger • Nipple starts to draw in • Dimpling or puckering of the skin of the breast • Changes in the shape of the breast • Nipple changes or discharge • Breast is red, swollen or hot • A lump under the arm or in the armpit 	Do not screen. Refer for diagnostic testing .	

^aParent, child, full sibling

^bTypically refers to chest wall radiation therapy for pediatric and adolescent cancers

^cMother, sister, daughter, aunt, grandmother, great-aunt

^dBRCA1, BRCA2, ATM, CDH1, CHEK2, NBN, NF1, PALB2, PTEN, STK11, TP53, or others identified by the Hereditary Cancer Program

Breast and chest screening is an important component of gender-affirming healthcare for transgender, Two-Spirit and gender diverse clients in British Columbia. The term transgender is an umbrella term that describes a wide range of people whose gender and/or gender expression is different from the sex assigned to them at birth and/or the societal and cultural expectations of their assigned sex. For more information on eligibility, please refer to the guidance document⁴.

For individuals at high risk due to a genetic predisposition or a history of chest radiation between the ages of 10 and 30 years, screening MRI is recommended in addition to annual mammography, although MRI is not provided through the Program. Regarding clinical breast examination, there is no recommendation for or against this practice in asymptomatic individuals. Finally, the policy recommends against breast self-examination as an alternative to mammography.

Breast Screening Referral Algorithm

A decision aid to assist health care providers to appropriately refer and book asymptomatic patients for breast screening.

Age	Risk Detail(s)	Gene	Risk Level	Screening Interval	Referral Needed?
40-49			Average	Available every 2 years	No
50-74			Average	Recommended every 2 years	No
40-74	1st degree relative with breast cancer		Higher than average	Recommended every year	No
	Known diagnosis of ADH, ALH or LCIS		Higher than average	Recommended every year	Yes - send through diagnostic*
	Known pathogenic gene variant carrier	RAD51D RAD51C BARD1 Other	Higher than average	Recommended every year	Referral to HCP** is recommended if not already done
	Untested family member of a known pathogenic gene variant		Higher than average	Recommended every year	Referral to HCP** is recommended if not already done
30-74	Thoracic radiation at 10-30 yo ¹		High	Recommended every year	Yes - for initial only if <40 yo Referral to LEAF*** is recommended if not already done.
	Very strong family history ²		High	Recommended every year	Yes - for initial only if <40 yo Referral to HCP** is recommended if not already done
	Known pathogenic gene variant carrier	BRCA1 BRCA2 ATM CDH1 CHEK2 NBN NF1 PALB2 PTEN STK11 TP53 Other	High	Recommended every year	Yes - for initial only if <40 yo Referral to HCP** is recommended if not already done
	Untested family member of a known pathogenic gene variant carrier		High	Recommended every year	Yes - for initial only if <40 yo Referral to HCP** is recommended if not already done
75+			All	Available every 2-3 years ³ (Pending discussion with your patient)	No

¹Typically refers to radiation therapy for pediatric and adolescent cancers.

²(A) 2 cases of breast cancer in close female relatives (mother, sister, daughter, aunt, grandmother, or great-aunt) on the same side of the family, both diagnosed before age 50, or (B) 3 or more cases of breast cancer in close female relatives on the same side of the family, with at least one diagnosed before age 50.

³Those who are higher or higher than average risk may continue screening annually.

* www.bccancer.bc.ca/screening/Documents/Breast-Higher-Risk.pdf

** www.bccancer.bc.ca/hereditary

*** www.bccancer.bc.ca/our-services/services/late-effects-assessment-follow-up

2.2 Duration of Screening

Continue annual/biennial screening for those with no breast symptoms until the upper age limit of 74, or until screening is no longer suitable due to development of health problems that substantially limit life expectancy, or the ability or willingness to have curative treatment.

2.3 Accessing the Program

Primary care providers (PCPs) are provided with tear-off pads to give to individuals between ages 40 to 74 to encourage them to call the BC Breast Screening Program (1-800-663-9203) to confirm their eligibility and book an appointment. Individuals may also self-refer but they must have an identified health care provider (i.e. family doctor, naturopath, nurse practitioner, or program affiliated walk-in clinic) to ensure appropriate management of any abnormal screening results and incidental findings.

Mobile breast screening services support rural and remote communities. The goal of the service is to ensure equitable screening access across BC, including indigenous communities.

2.4 Breast Screening Sites

There are 36 sites that provide year round breast screening and 3 mobile mammography units that cover the province. Use the [clinic locator](#) to find a fixed location or to learn about the mobile mammography schedule. The mobile mammography service goes to rural and remote locations, including many indigenous communities to help reach the more isolated communities in BC.

Health Authority	Screening Centre	City
Northern Health	University Hospital of Northern BC	Prince George
	Dawson Creek and District Hospital	Dawson Creek
	Fort St John Hospital	Fort St John
	Prince Rupert Regional Hospital	Prince Rupert
	GR Baker Memorial Hospital	Quesnel
	Bulkley Valley District Hospital	Smithers
	Mills Memorial Hospital	Terrace
Interior Health	Kelowna Medical Imaging	Kelowna
	Penticton Regional Hospital	Penticton
	Vernon Jubilee Hospital	Vernon
	Shuswap Lake Hospital	Salmon Arm
	Royal Inland Hospital	Kamloops
	Cariboo Memorial Hospital	Williams Lake
	East Kootenay Regional Hospital	Cranbrook
Vancouver Coastal	North Shore Breast Screening	North Vancouver
	qathet Hospital	Powell River
	Sechelt Hospital	Sechelt
	Richmond General Hospital	Richmond
	BC Women's Hospital	Vancouver
	Mount Saint Joseph Hospital	Vancouver
	Greig & Associates	Vancouver
Fraser Health	Vancouver Breast Centre X-Ray 505	Vancouver
	Abbotsford Regional Hospital	Abbotsford
	Chilliwack General Hospital	Chilliwack
	Jim Pattison Outpatient Centre	Surrey
	Brooke Radiology	Burnaby
	MedRay Imaging Clinic	Coquitlam
	Langley Memorial Hospital	Langley
Island Health	Delta Hospital	Delta
	Peace Arch Hospital	White Rock
	West Coast Medical Imaging	Victoria
	Victoria General Hospital	Victoria
	West Coast General Hospital	Port Alberni
	Cowichan District Hospital	Duncan
	Nanaimo Regional General Hospital	Nanaimo
Island Health	North Island Hospital	Comox Valley
	North Island Hospital	Campbell River

3. The Screening Test

The Program screening test is a two-view digital mammogram, performed at designated sites following strict adherence to program standards in personnel training and qualifications, and image acquisition and processing to ensure a high quality service.

3.1 Accreditation of Breast Screening Sites

BC Cancer Breast Screening requires current Canadian Association of Radiologists Mammography Accreditation Program (CAR-MAP)⁵ accreditation status of all sites that participate in the screening program. Sites that successfully complete all the CAR requirements, including breast image quality, personnel, quality control, and equipment specifications are granted accreditation for a three-year period.

3.2 Professional Standards for Technologists

The Program has established the following professional standards for the technologist imaging professionals involved:

Prior to beginning	<ul style="list-style-type: none"> • Canadian Association of Medical Radiation Technologists (CAMRT) certification or the equivalent provincial registration. • Completion of CAMRT Mammography I and Mammography II or the equivalent is recommended.
Mandatory training	<ul style="list-style-type: none"> • Special training in mammography, either through the training curriculum or special courses one (1) year experience in mammography procedures preferred. • Minimum of 40 hours of mammography training under the supervision of a qualified instructor or senior mammography technologist. Must include: <ul style="list-style-type: none"> ○ Breast anatomy and physiology ○ Quality assurance and quality control techniques; including image assessment ○ Positioning ○ Patient Management ○ Operation of mammography equipment including networking and archival systems ○ Completion of a minimum of 50 exams under direct supervision of an experienced mammography technologist ○ Completion of a minimum of 300 exams under close supervision of an experienced mammographic technologist
Participation in continuing education – CME	<ul style="list-style-type: none"> • Adopt CAR CME guidelines • Attend provincial educational forum meeting to include diagnostic group, technologists, and program physicists to ensure team approach
Ongoing Performance	<ul style="list-style-type: none"> • All standards of practice as set down by the CAMRT must be met including; excellent patient care, confidentiality, proper patient verification, accurate record taking and accountability,

and optimum positioning skills.

- Excellent interpersonal skills including the ability to communicate effectively (verbally and written) with patients and all levels of staff.
- Perform mammographic exams with a technical repeat rate of less than 2%.
- Mammography radiological technologists must participate fully in the quality assurance program by:
 - Ensuring that the optimal level of diagnostic image quality is maintained;
 - Communicating with staff any changes in image quality;
 - Reporting any change in equipment performance to the owner;
 - Performing daily and other routine quality control tests of mammographic x-ray equipment, image processing system (film or digital), and ancillary equipment and keeping records of these tests;
 - Recognizing the radiation hazards associated with their work and taking measures to minimize them;
 - Being aware of the consequences of improperly performed mammographic procedures on image quality and patient doses;
 - Striving to eliminate unnecessary mammographic examinations by reducing the number of retakes, and reducing all patient radiation exposures to the lowest practical values; and
 - Understanding the requirements and recommendations of Safety Code 36.⁶

3.3 Professional Standards for Radiologists

An organized approach to high quality breast screening is reliant upon the adoption of best practices for all aspects of the BC Cancer Breast Screening Program. The program has established the following professional standards for the Radiologist Screener imaging professionals involved in the program:

<p>Prior to beginning</p>	<p>Exceptions for those having completed a breast imaging fellowship within the past 5 years are shown in italics.</p> <p>Documented 40 hours of AMA Category 1 credits in mammography within the past five (5) years.</p> <p><i>Exempt from this requirement</i></p> <p>Demonstrated experience in clinical mammography, including a minimum of two years experience and at least 2,500 mammographic interpretations.</p> <p><i>1:1 credit for both the fellowship duration in months and number of mammographic interpretations.</i></p> <p>Attendance at two (2) recent formal mammography training courses of two to three (2-3) days' duration, at least one within the previous three (3) years. These courses must include a screening mammography component.</p> <p>Exception: In the case where all other qualification criteria are met, the applicant may be granted temporary acceptance with the understanding to complete the recent formal mammography training requirement within six (6) months from the date of acceptance to the Program.</p> <p>Or one (1) such course is completed and the second (2nd) to follow within one (1) year.</p>
<p>Mandatory training</p>	<ul style="list-style-type: none"> • All applicants are required to take the standardized interpretation test of 100 randomly-selected normal and abnormal cases during orientation at the Program Central Office. • All radiologist screeners are expected to achieve the following standards on the test: <p>On interpretation by case:</p> <ul style="list-style-type: none"> ○ Sensitivity should be above 81.8% with no obvious cancers missed ○ Specificity should be above 48.7%, and above 65% on exclusion of benign lesions <p>On interpretation by breast (excluding two-sided malignancies):</p> <ul style="list-style-type: none"> ○ Sensitivity should be above 80%, and above 90% on obvious cancers ○ Specificity should be at least 70% • All applicants who do not achieve the minimum program standard will be required to attain further experience before retaking the test.

Minimum number of annual exams to be read by radiologist	<ul style="list-style-type: none"> • Read >2,500 screening mammograms annually • Minimum of 2 radiologists per reading centre to ensure reading coverage during absences and vacations • Available volume should be evenly distributed amongst qualified screening radiologists 						
Participation in continuing education – CME	<ul style="list-style-type: none"> • Adopt CAR CME guidelines • Attend provincial educational forum meeting to include diagnostic group, technologists, and program physicists to ensure team approach • Adhere to the Maintenance of Certification (MOC) program of the Royal College of Physicians and Surgeons of Canada 						
Ongoing Performance	<p>Internal Reviews</p> <ul style="list-style-type: none"> • Statistics on abnormal call rate, cancer detection rate, positive predictive value, sensitivity and specificity for each radiologist screener are compiled and distributed by the program annually. • Radiologists are encouraged to perform retrospective reviews of abnormal cases quarterly • All radiologist screeners are expected to maintain the following performance benchmarks for breast screening exams interpreted within the last five years: <p>Performance Indicator Benchmark</p> <table border="1"> <tbody> <tr> <td>Cancer detection rate standardized for age and previous screening history</td><td>> 0.5</td></tr> <tr> <td>Proportion of early stage cancers (DCIS and invasive cancers ≤15 mm)</td><td>> 60%</td></tr> <tr> <td>Abnormal call rate standardized for age and previous screening history</td><td>< 2.0</td></tr> </tbody> </table>	Cancer detection rate standardized for age and previous screening history	> 0.5	Proportion of early stage cancers (DCIS and invasive cancers ≤15 mm)	> 60%	Abnormal call rate standardized for age and previous screening history	< 2.0
Cancer detection rate standardized for age and previous screening history	> 0.5						
Proportion of early stage cancers (DCIS and invasive cancers ≤15 mm)	> 60%						
Abnormal call rate standardized for age and previous screening history	< 2.0						
Report turnaround time	<ul style="list-style-type: none"> • The program target is for ≥ 90% of screening mammograms to be reported within 7 days. (P90 <7days) 						

3.4 Professional Standards for Physicists

An organized approach to high quality screening mammography is reliant upon adoption of best practices for all aspects of the Breast Screening Program.

The physicist's knowledge will include the physics of mammography, systems components and performance, safety procedures, acceptance testing, quality control and CAR-MAP Accreditation Program requirements.

The physicist is responsible for the initial equipment acceptance testing, conducting/overseeing annual quality control testing and performing any required physics testing for component changes or replacement (firmware upgrade, detectors, tubes, etc.) of

the mammography system used at the breast screening facilities for screening mammography operation. The physicist will also provide consultation to any issues related to image quality, dose and radiation safety concerns raised by the breast screening program facilities for screening mammography operation.

The Breast Screening Program has established the following professional standards for the Physicist imaging professionals involved in the program.

3.5 Mammography Equipment Requirements

All new, used, and refurbished mammographic equipment utilized for the purposes of breast screening must:

- ✓ Have Health Canada Medical Device licensure,
- ✓ Conform to the requirements of the Canadian Association of Radiologists Mammography Accreditation Program (CAR-MAP), and
- ✓ Pass BC Cancer Breast Screening Program acceptance testing.

The Program has developed the following guidelines for breast imaging acquisition and reporting:

Mammography unit	<ul style="list-style-type: none"> • The standard of care is a two-view 2D breast screening mammogram. • Centre operators will obtain written approval by the program prior to the use of any new technology/procedures in connection with the services.
Mammography Report Workstations	<ul style="list-style-type: none"> • The monitor(s) used for review workstations shall be a Health Canada or FDA mammography approved single large 10 MP or a pair of 5 MP (or higher) gray scale monochromatic (colour functionality optional) LCD monitors. • Hanging protocols must be designed so that every image will be viewed at 1:1 (pixel to pixel) or full resolution¹ at some point during the reporting process. • Hanging protocols should be specific to mammography with proper orientation and labeling of images. • Comparison should be made with previous images when available. If previous images are hard copy film, comparison can be made with either the hard copy films or digitized previous images. • The screener must maintain best practices of screening, such as appropriate reporting environment and batch reporting. • The Program must be notified regarding all software upgrades or changes for all digital mammography equipment 30 days prior to installation.

Mammography Report Software

- All screening mammograms utilize the program standard structured report software for inputting patient clinical history and report management.
- All screening reporting centres are integrated with the BC Cancer CASCADE information system that is utilized for patient management and results reporting.

3.6 Quality Assurance

Adherence to the Canadian Association of Radiologists Mammography Accreditation Program (CAR-MAP) minimum required Mammography Exam and Image Quality Review process. Daily, weekly, monthly, semi-annual and annual quality control (QC) procedures are established to ensure the attainment of intended image quality. An annual equipment assessment including radiation dose is performed by a program physicist.

Any deficiencies should be addressed by the site biomedical department as soon as possible.

4. Breast Screen Reporting and Patient Management

Screen reporting occurs at designated sites by program approved radiologists utilizing program approved structured report software. Radiologists are trained to report following BC standardized reporting format.

4.1 Radiology Reporting Guidelines

Workflow Step	#	Workflow Step
Reporting Time Frame	1.	The program target is for 90% of screening mammograms to be reported within 7 days.
Resulting	2.	Indicate if the mammogram has a normal result (i.e. 'Add Negative') or an abnormal result (i.e. 'Add Finding').
Availability of the Participant's Previous Breast Imaging	3.	<ul style="list-style-type: none"> • Preceding the screener's interpretation of a screening mammogram, the participant's previous screening or diagnostic breast imaging shall be obtained (when available) for the purpose of comparison. • If the participant's previous breast imaging cannot be obtained after 3 attempts over 12 working days, report the current mammogram. • The radiologist will indicate the availability of a participant's previous breast imaging for purpose of comparison.

Reporting Breast Density	<p>4. Indicate breast density in accordance with 2013 BI-RADS Atlas (5th Ed)</p> <ul style="list-style-type: none"> <input type="checkbox"/> Almost entirely fatty <input type="checkbox"/> Scattered areas of fibroglandular density <input type="checkbox"/> Heterogeneously dense, which may obscure small masses <input type="checkbox"/> Extremely dense, which lowers the sensitivity of mammography
Abnormal Results	<p>5. Indicate the level of suspicion of the finding</p> <ul style="list-style-type: none"> <input type="checkbox"/> Low suspicion finding <input type="checkbox"/> Moderate suspicion finding <input type="checkbox"/> High suspicion finding (consider image guided biopsy) <p>For each finding, the primary macro type of abnormality (i.e. Mass, Architectural Distortion, Asymmetry or Calcification), and the abnormality location must be indicated.</p> <p>Each finding should be identified separately, up to a maximum of three (3) findings, in order of decreasing suspicion, and clearly annotated on the images. There should be a recommended work-up action (i.e. additional mammographic views, ultrasound) for each finding.</p>

4.2 Management of Incidental Symptoms reported at the time of screening

During the exam, the patient may inform the technologist of any new breast symptoms that they are aware of. This information is included in the report to the provider and the patient is encouraged to follow up with their provider to discuss if any additional testing is warranted, even if the mammogram is negative. It is the responsibility of the primary care provider to provide management of all incidental symptoms.

4.3 Diagnostic Investigation

BC Cancer will communicate abnormal screening mammogram results and follow-up recommendations with the provider and patient, and facilitate diagnostic referral to the designated diagnostic imaging clinics. This process is called “Fast Track”. On average, approximately 9% of individuals who attend screening will require additional diagnostic testing. Recognizing the importance of timely follow up, the Fast Track Referral System was established in 1999.

The Fast Track target⁷ (diagnostic interval) is for:

- ≥ 90% of patients who do not require a biopsy to have a definitive result within 5 weeks
- ≥ 90% of patients who do require a biopsy to have a definitive result within 7 weeks

Fast Track Overview

- At the time of screening, individuals are informed that if further tests are required, they will be called directly by a diagnostic facility to book their appointment.
- If further testing is required (i.e. additional mammographic views or breast ultrasound), the individual is booked at the Fast Track diagnostic clinic closest to the screening site, usually at the same location.
- The Breast Screening Program images and results are transferred to the diagnostic office prior to the appointment.
- Breast Screening Program notifies the individual's primary care provider where their patient has been referred for additional testing.
- The diagnostic facility makes every effort to provide an appointment within one (1) week of receiving the referral.
- Standardization of the Fast Track referral system ensures that all individuals benefit from the shortened time between an initial abnormal screening result and the first appointment for diagnostic assessment.

4.4 Communication of Results

Screen reporting centres share screen result data with BC Cancer Screening through a program/HA CASCADE interface, so that BC Cancer can manage the distribution of provider and patient notifications.

Separate standardized letters for the primary care providers and the patients will be used. All patients and their primary care providers will receive consistent messaging of screening results and recommendations following the management protocols in section 5.1. Letters to patients will not include details of abnormal findings; this will be explained by their provider or from the diagnostic imaging visit report.

4.5 Return to screening after a normal or benign screening mammogram

In general, individuals who have normal screening results are invited back at regular intervals for subsequent screening through a reminder notice letter. The screening interval is outlined in section 2.1 of this report. Reminder notices for re-screening are sent directly to the participant when they are due for their next screen. They may either call the program or use the unique booking ID enclosed with their reminder to book online at the Program's booking portal.

Individuals are reminded to contact their primary care provider if they become symptomatic prior to their next scheduled screening visit.

5. Participant Support

Participants may contact the Breast Screening Program client services centre or their primary care provider directly for further information, clarification of results or advice regarding their next steps.

6. Program Monitoring and Evaluation

Evaluation of the screening program and outcomes occur on a regular basis. These analyses may include percentage of eligible individuals screened, screening appropriateness, quality assurance measures (e.g. false positive and false negative rates), adherence to quality management recommendations, return to regular screening, and cancer detection rates.

7. References

1. [Breast Cancer Update \(2018\) – Canadian Task Force on Preventive Health Care](#)
2. [lps-update-report-2022.pdf \(gov.bc.ca\)](#)
3. [Information for physicians discussing breast cancer screening with patients | British Columbia Medical Journal \(bcmj.org\)](#)
4. [Breast_20200616_BreastScreeningTransgender Provider Guide_V04_FINAL \(bccancer.bc.ca\)](#)
5. [MAP - CAR - Canadian Association of Radiologists](#)
6. Canada, H. (2021, July 8). Government of Canada. Radiation Protection and Quality Standards in Mammography - Safety Procedures for the Installation, Use and Control of Mammographic X-ray Equipment: Safety Code 36. Retrieved August 18, 2022, from <https://www.canada.ca/en/health-canada/services/environmental-workplace-health/reports-publications/radiation/radiation-protection-quality-standards-mammography-safety-procedures-installation-use-control-mammographic-equipment-safety-code-36-health-canada-2013.html#a1.4>
7. [Report from the Evaluation Indicators Working Group: Guidelines for Monitoring Breast Cancer Screening Program Performance \(pcdn.co\)](#)