Breast Density and Screening Mammograms

Information about BC’s recent announcement to report breast density results

Breast density notification in BC

• Starting October 15, 2018 the BC Cancer Breast Screening Program will provide breast density scores with screening mammogram results to both providers and screening program clients.
• The breast screening policy has not changed for women with dense breasts. The recommendations for screening mammography are exactly the same for women with dense breasts as for the rest of the eligible population. Women 40–74 years old with a family history should have annual screening mammograms. Women without a family history should have a screening mammogram every two years.
• Breast density is provided to facilitate discussion between providers and women of related breast cancer risk and mammography limitations, and overall breast cancer risk assessment.
• Mammography is still the best overall breast cancer screening test for asymptomatic women. It is able to detect many breast cancers before symptoms occur, even in women with the densest breasts.

Breast density assessment

• Breast density is graded by the radiologist during the reporting of the mammogram. In BC, breast density is measured using the Breast Imaging Reporting and Data System (BIRADS) which includes a four-point density scale (A, B, C and D). These categories are listed in order of increasing density, with a BIRADS A category being the least dense category (mostly fatty tissue) and a BIRADS D category being the most dense (highest proportion of non-fatty tissue).
• Breast density is common and breasts tend to become less dense as women age. Most women fall in the middle two density categories. A woman’s breast density score may change from screen to screen, because the amount of dense tissue may change and because the assessment is qualitative.
• The sensitivity of mammography is reduced as background breast density increases. Therefore it is important to investigate all breast changes, even if a mammogram is normal.
Risks associated with breast density

- Breast density is a risk factor for developing breast cancer, although having even the highest breast density does not mean that breast cancer is certain. The other risk is that breast density may make it more difficult to find signs of breast cancer on a screening mammogram, which is called "masking".

- Breast density is one of multiple risk factors. Increasing age, for example, is another risk factor and one that affects all women. It is very important to consider breast density in combination with this and other possible factors such as family history of breast cancer or identification of certain genes. The relationship between these factors is not completely understood and remains under investigation.

- A woman with the highest breast density (BIRADS D) is estimated to have 2.2 times the average risk of interval cancer if she is 50-74, and 1.8 times risk if 40-49. An interval cancer is one diagnosed after a negative screen, and before the next regularly scheduled screen.

- Program data demonstrate that dense breasts increase the risk of a "false positive" mammogram. This occurs when a screening mammogram is interpreted as positive when there is in fact no cancer present. It represents a downside to screening, but this downside also occurs for women with non-dense breasts.

Supplemental screening

- Screening annually is not recommended for women who are otherwise at average risk. Only women with a first degree relative (mother, sister, daughter) diagnosed with breast cancer are eligible for annual screening mammography.

- Supplemental screening (breast ultrasound, breast MRI) of women with dense breasts who are otherwise of average risk is currently not recommended. The review of the medical literature indicates that there is currently insufficient evidence to provide additional screening for dense breasts. At present, no provincial or national program offers this.

- Studies have shown an increase in cancer detection with supplemental screening, but also a significant rate of false positives resulting in unnecessary biopsies. Further evidence is required to fully understand the benefits and downsides of supplemental screening.

- Some women may want to pursue additional testing after a discussion of the risks, benefits and costs.

- The BC Medical Services Plan does not cover routine supplementary breast screening; however, MSP does cover diagnostic mammograms and ultrasounds when referred by a physician or nurse practitioner upon a clinical indication, and in accordance with the provincial clinical guidelines (https://www2.gov.bc.ca/gov/content/health/practitioner-professional-resources/bc-guidelines/breast-cancer-and-disease-diagnosis). Routine ultrasound screening referral by a physician would require an out-of-pocket expense for patients.