

CTFPHC Recommendation for Screening for Breast Cancer with Mammography

Population	Women aged 40-74 without personal or family history of breast cancer, known BRCA1 or 2 mutation, or prior chest wall radiation		
Burden of illness	There were approximately 22,700 new cases of breast cancer and 5,400 deaths from breast cancer in Canada during 2009. Incidence and case-fatality rates increase with age.		
Intervention	Mammography (film or digital)		
Recommendation	For women aged 40-49 we recommend <u>not routinely screening</u> . (Weak recommendation; moderate quality evidence)	For women aged 50-69 we recommend <u>routinely screening every 2 to 3 years</u> . (Weak recommendation; moderate quality evidence)	For women aged 70-74 we recommend <u>routinely screening every 2 to 3 years</u> . (Weak recommendation; low quality evidence)
Basis of Recommendation	<p>The likelihood of breast cancer is lower and the likelihood of false positive results on mammography is greater in younger women.</p> <p>This recommendation places a relatively low value on a very small absolute decrease in breast cancer mortality and reflects concerns with unnecessary diagnostic testing and overdiagnosis (diagnosis of breast cancer that will not affect length or quality of life).</p> <p>Women who place a higher value on a small reduction in breast cancer mortality and are less concerned about the potential harms may choose screening.</p> <p>About 470 women aged 40-49 die of breast cancer in Canada each year.</p>	<p>Women who do not place a high value on a small reduction in breast cancer mortality and are concerned about false positive results of mammography and overdiagnosis may decline screening</p> <p>About 900 women aged 50-69 die of breast cancer in Canada each year.</p>	<p>Women who do not place a high value on a small reduction in breast cancer mortality and are concerned about false positive results of mammography and overdiagnosis may decline screening</p> <p>About 480 women aged 70-74 die of breast cancer in Canada each year.</p>
To save one life from breast cancer over about 11 years in this age group	<ul style="list-style-type: none"> - about 2100 women would need to be screened every 2 to 3 years - 75 women would have an unnecessary breast biopsy - about 690 women will have a false positive mammogram leading to unnecessary anxiety and follow-up testing 	<ul style="list-style-type: none"> - about 720 women would need to be screened every 2 to 3 years - 26 women would have an unnecessary breast biopsy - about 204 women will have a false positive mammogram leading to unnecessary anxiety and follow-up testing 	<ul style="list-style-type: none"> - about 450 women would need to be screened every 2 to 3 years - 11 women would have an unnecessary breast biopsy - about 96 women will have a false positive mammogram leading to unnecessary anxiety and follow-up testing
For every 1,000 women screened for about 11 years	- about 5 women will unnecessarily undergo surgery for breast cancer		
Details of recommended service	<p>For women aged 50-74 we suggest screening every 2 to 3 years, which appears to preserve nearly all of the benefit of annual screening but reduces adverse effects, inconvenience to women and cost.</p> <p>No data from our review address the benefits of screening in women younger than 40 or older than 74 but benefit is likely lower than in women aged 50-74.</p> <p>Either digital or film mammography is acceptable. Screening with magnetic resonance imaging is not recommended.</p>		

Considerations for implementation	<p>Consider providing your patients who are aged 40 to 79 with the Decision Aid for Breast Cancer Screening in Canada: http://www.phac-aspc.gc.ca/cd-mc/mammography-mammographie-eng.php#chap2</p> <p>Consider using your electronic health record to flag a screening reminder for patients aged 50 to 74 every 3 years; this can be particularly useful if you don't have a local screening program that generates automated reminders to patients</p>
Special considerations	<p>Certain ethnic groups may have higher (e.g. Ashkenazi Jews) or lower (East Asians) risk of breast cancer, which may increase or reduce the absolute benefit of screening, respectively. Rates of screening are low in Aboriginal populations, and further work is needed to determine how this can be improved.</p> <p>Given the small absolute benefit of screening, benefit is uncertain in people whose life expectancy is substantially reduced by comorbid conditions. For people with comorbidity but normal or near-normal life expectancy, potential determinants of risk and benefit should be discussed.</p> <p>Provincial and regional decision-makers should consider whether access to high quality screening facilities is adequate for people residing outside major centers.</p>