



Information for GPs BreastScreen WA family history guidelines

Genetics and breast cancer

Breast cancer is one of the most common cancers among Australian women, affecting about 1 in 8 women up to the age of 85 years.

In the mid 1990's the two breast cancer genes, BRCA1 and BRCA2, located on chromosomes 13 and 17 respectively, were identified. Approximately 1 in 1,000 women have an inherited mutation in the BRCA1 and BRCA2 genes. This increases the lifetime risk to between 40% and 80%.

However, most breast cancers occur sporadically, with less than 5% attributable to the inheritance of a dominant cancer predisposing gene.

A family history of breast cancer

Whilst being a woman and getting older are the biggest risk factors for developing breast cancer, a family history is also an important risk factor.

Factors indicative of a familial inheritance of a breast cancer predisposing gene and therefore a potentially higher risk of developing breast cancer include: several relatives on the same side of the family who have been diagnosed with breast cancer, especially with age of onset under 50 years; a case of bilateral or male breast cancer in a close family member; or cases of both breast and ovarian cancer in close relatives on the same side of the family.

The guide *Advice About Familial Aspects of Breast Cancer and Epithelial Ovarian Cancer – A Guide for Health Professionals* produced by the National Breast and Ovarian Cancer Centre is a tool you can use to determine a woman's risk of breast cancer according to her family history. A woman's risk is assessed against three categories of risk: 'at or slightly above average', 'moderately increased' or 'potentially high' risk. For further details please refer to the back of this Fact Sheet or visit the website www.nbocc.org.au.

Who is eligible for a screening mammogram with BreastScreen WA?

BreastScreen WA provides free screening mammograms to asymptomatic women aged 40 years or over every two years, however, specifically targeting women aged 50 to 69 years, as research indicates that women in this age group will benefit most from screening mammography.

From March 2006, BreastScreen WA will invite women aged 40 years or over for an annual screening mammogram who have one or more of the following criteria:

- A first-degree relative (mother/sister/daughter, father/brother/son) with breast cancer diagnosed before the age of 50
- A first-degree relative with cancer in both breasts (diagnosed at any age)
- Two or more first-degree relatives with breast cancer (diagnosed at any age)

Family history of breast cancer

Referral and management summary for general practice

The purpose of the referral and management summary is to assist GPs to determine a woman's risk of developing breast cancer according to her family history and whether she may therefore benefit from referral for genetic counselling. This information sheet details the BreastScreen WA guidelines for screening women with a family history of breast cancer and makes reference to the categories of risk as outlined in the guide *Advice about familial aspects of breast and epithelial ovarian cancer – A guide for health professionals* produced by the National Breast Cancer Centre, 2006. For a copy of the guide visit the website www.nbocc.org.au

A family history of breast cancer

Breast cancer is the most common cancer among Australian women, affecting 1 in 8 women to age 85. Most breast cancers occur sporadically, with less than 5% attributable to the inheritance of a dominant cancer predisposing gene. Factors indicative of an inherited gene fault and therefore a potentially higher risk of developing breast cancer include: several relatives on the same side of the family who have the disease, especially with age of onset under 50; a case of bilateral or male breast cancer in a close family member; or cases of both breast and ovarian cancer in close relatives on the same side of the family.

BreastScreen WA family history guidelines

BreastScreen WA (BSWA) collects family history information at the time of screening in respect to first degree relatives.* From March 2006, an invitation for ANNUAL screening will only be sent to women under the age of 70 who have:

- Two or more 1° relatives with breast cancer (diagnosed at any age);
- At least one 1° relative with breast cancer diagnosed before the age of 50;
- A 1° relative with bilateral breast cancer (diagnosed at any age).

* BSWA can not collect a family history of 2° degree relatives.

RISK CATEGORIES	MANAGEMENT
<p>Population</p> <ul style="list-style-type: none"> ■ One 1° relative from either side of the family diagnosed with breast cancer over the age of 50 ■ One 2° relative diagnosed with breast cancer at any age ■ Two close relatives* diagnosed with breast cancer, at age 50 or older, but on different sides of the family 	<ul style="list-style-type: none"> ■ Reassure ■ Advise on breast awareness ■ Advise to report any persistent symptoms of breast disease or a change in family history promptly to your doctor ■ Annual clinical breast examination ■ Encourage women from age 50 to attend BSWA for 2 yearly screening mammograms
<p>Moderate</p> <ul style="list-style-type: none"> ■ One or two 1° relatives diagnosed with breast cancer under the age of 50 ■ Two close relatives* on the same side of the family diagnosed with breast or ovarian cancer 	<ul style="list-style-type: none"> ■ Advise on breast awareness ■ Advise to report any persistent symptoms of breast disease or a change in family history promptly to your doctor ■ Annual clinical breast examination ■ Refer women for annual screening mammograms with BSWA if aged 40 or older ■ If the woman wants a more detailed risk assessment refer to Genetics/Breast Clinic¹
<p>High</p> <ul style="list-style-type: none"> ■ Two close relatives* on the same side of the family diagnosed with breast or ovarian cancer and an additional risk factor on the same side of the family: <ul style="list-style-type: none"> ■ an additional relative with breast or ovarian cancer ■ breast cancer diagnosed before the age of 40 ■ ovarian cancer diagnosed before the age of 50 ■ bilateral breast cancer ■ breast and ovarian cancer in the same woman ■ male breast cancer ■ Ashkenazi Jewish ancestry 	<ul style="list-style-type: none"> ■ Advise on breast awareness ■ Advise to report any persistent symptoms of breast disease or a change in family history promptly to your doctor ■ Refer to Genetics/breast Clinic¹ for a detailed risk assessment and discussion of management options: <ul style="list-style-type: none"> ■ clinical examination every 6 months ■ annual breast imaging ■ genetic testing ■ prophylactic surgery ■ participation in approved clinical research trials

*Please Note: Close relative means a parent, sibling, child, grandparent, aunt, uncle, niece or nephew

¹ In the public system there are two referral pathways for high risk women: 1) General Practitioners can refer patients directly to King Edward Memorial Hospital, Genetic Services of WA for a genetic assessment first, and then if appropriate the patient will be referred on to the RPH Breast Cancer Risk Assessment Clinic. or 2) GPs can refer the patient directly to RPH Breast Cancer Risk Assessment Clinic if they want their patient seen by a Breast Surgeon or Medical Oncologist. Suitable high risk women are subsequently seen by a Genetic Counsellor and Clinical Geneticist.

www.breastscreen.health.wa.gov.au
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RPH Breast Cancer Risk Assessment Clinic Ph: 9224 2723 Fax: 9224 1684

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