GECKO
Genetics Education Canada: Knowledge Organization
Centre d'éducation en génétique canadien: Connaissances organisées
POINT OF CARE TOOL

Hereditary Breast & Ovarian Cancer: Family history clinical decision support tool for risk assessment and management

Average risk screening with mammography is recommended for all women between the ages of 40 and 74, every 2-3 years, following a discussion of benefits and harms, as part of shared decision making. [Canadian Taskforce for Preventative Health Care, 2024(*draft*)]

Those with additional breast cancer risk factors (e.g. extremely dense breast tissue (ACR D), family history of breast/ovarian cancer) could be considered for modified breast cancer screening e.g. supplemental ultrasound, MRI, or mammography beginning at a younger age or arranged more frequently. Check your local breast cancer screening program for more.

For those in Ontario, find the high-risk Ontario Breast Screening Program requisition here.

Individuals who meet one or more of the criteria below may be eligible for high-risk breast cancer screening with MRI, genetic counselling and/or genetic testing. The eligibility for high-risk screening and/or genetic testing is determined following a genetic assessment.

Risk assessment:

Consider referral for a genetics assessment if your patient has a personal and/or family history of at least one of the following:

- ☐ Breast cancer at a young age (≤ 45 years)
- ☐ Breast cancer ≤ 50 years **and** a limited family structure (*e.g. adoption, few close relatives)*
- ☐ Breast cancer ≤ 50 years of age **and** a second primary breast cancer
- ☐ Triple negative breast cancer diagnosed ≤ 60 years of age
- ☐ Male breast cancer at any age
- ☐ Ovarian cancer at any age (*excluding borderline, pure clear cell, mucinous and low malignant potential tumours)*
- ☐ Multiple primaries in the same individual e.g. breast and ovarian cancer
- ☐ Breast **or** ovarian cancer at any age **AND** ≥ 1 close relative(s)* diagnosed with a related cancer, including breast (one diagnosis should be < 50y), ovarian, pancreatic or high-risk prostate cancer+

  **Closely related individuals typically refers to first- and second-degree blood relatives on the same side of the family (e.g. parent, sibling, offspring, grandparent, aunt/uncle)*

  +Confirmed with evidence of one or more of the following features: T3 (or higher) staging, Grade Group 4 or 5 (Gleason Score 8 to 10), lymph node involvement, PSA ≥ 20
- ☐ Breast **or** ovarian cancer at any age **AND** ≥ 2 close relatives diagnosed with breast cancer or prostate cancer at any age
- ☐ Ashkenazi Jewish ancestry **AND:**
  - ☐ Personal history of breast cancer, colorectal cancer and/or GI polyposis at any age
  - ☐ Family history *on the Ashkenazi Jewish side*, that includes ≥ 1 first- or second-degree relative(s) with breast cancer, ovarian cancer, gastrointestinal polyposis at any age, or colorectal cancer diagnosed < 60 years
- ☐ A blood relative with a known pathogenic/likely pathogenic genetic variant in a cancer susceptibility gene
  Report or documentation containing specific gene and variant should ideally be sent with referral.
- ☐ An established risk model calculating a ≥ 5**%** chance to carry a *pathogenic/likely pathogenic* variant in a gene associated with HBOC (e.g. *BRCA1, BRCA2, CHEK2, PALB2, ATM*) using family and personal history

Resources

GECKO point of care tool for Hereditary Breast and Ovarian cancer

Provincial breast cancer screening programs

Find the contact information for your local Genetics Centre here

More on breast density at Dense Breast Canada.org