

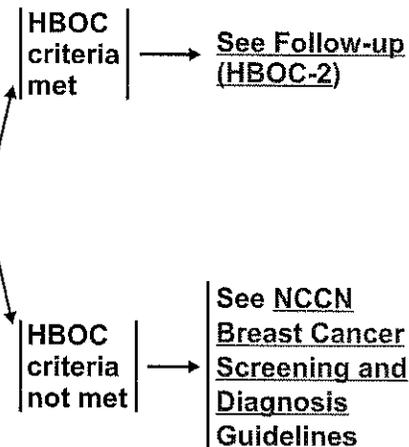


NCCN Guidelines Version 1.2012

Hereditary Breast and/or Ovarian Cancer Syndrome

HEREDITARY BREAST AND/OR OVARIAN CANCER SYNDROME TESTING CRITERIA^{a,b,c}

- Individual from a family with a known deleterious BRCA1/BRCA2 mutation
- Personal history of breast cancer^d + one or more of the following:
 - ▶ Diagnosed age ≤ 45 y
 - ▶ Diagnosed age ≤ 50 y with ≥ 1 close blood relative^e with breast cancer ≤ 50 y and/or ≥ 1 close blood relative^e with epithelial ovarian^f cancer at any age
 - ▶ Two breast primaries^g when first breast cancer diagnosis occurred ≤ age 50 y
 - ▶ Diagnosed age ≤ 60 y with a triple negative breast cancer
 - ▶ Diagnosed age ≤ 50 y with a limited family history^c
 - ▶ Diagnosed at any age, with ≥ 2 close blood relatives^e with breast and/or epithelial ovarian^f cancer at any age
 - ▶ Diagnosed at any age with ≥ 2 close blood relatives^e with pancreatic cancer at any age
 - ▶ Close male blood relative^e with breast cancer
 - ▶ For an individual of ethnicity associated with higher mutation frequency (eg, Ashkenazi Jewish) no additional family history may be required^h
- Personal history of epithelial ovarian^f cancer
- Personal history of male breast cancer
- Personal history of pancreatic cancer at any age with ≥ 2 close blood relatives^e with breast and/or ovarian^f and/or pancreatic cancer at any age
- Family history only (Testing of unaffected family members should only be considered when no affected family member is available and then the unaffected family member with the highest probability of mutation should be tested. Significant limitations of interpreting test results should be discussed.)
 - ▶ First- or second-degree blood relative meeting any of the above criteria
 - ▶ Third-degree blood relative with breast cancer^d and/or ovarian^f cancer with ≥ 2 close blood relatives^e with breast cancer (at least one with breast cancer ≤ 50 y) and/or ovarian^f cancer



^aOne or more of these criteria is suggestive of hereditary breast/ovarian cancer syndrome that warrants further personalized risk assessment, genetic counseling and management. The maternal and paternal sides should be considered independently. Other malignancies reported in some HBOC families include prostate and melanoma.

^bPatients who have received an allogeneic bone marrow transplant should not have molecular genetic testing via blood or buccal samples due to unreliable test results from contamination by donor DNA. If available, DNA should be extracted from a fibroblast culture. If this source of DNA is not possible, buccal samples can be considered, subject to the risk of donor DNA contamination.

^cIndividuals with limited family history, such as fewer than 2 first- or second-degree female relatives or female relatives surviving beyond 45 years in either lineage, may have an underestimated probability of a familial mutation.

^dFor the purposes of these guidelines, invasive and ductal carcinoma in situ breast cancers should be included.

^eClose blood relatives include first-, second-, and third-degree relatives. (See BR/OV-3)

^fFor the purposes of these guidelines, fallopian tube and primary peritoneal cancers are included. Ovarian/fallopian tube/primary peritoneal cancers are component tumors of hereditary non-polyposis colorectal cancer/ Lynch syndrome; be attentive for clinical evidence of this syndrome. See [NCCN Colorectal Cancer Screening Guidelines](#).

^gTwo breast primaries includes bilateral (contralateral) disease or two or more clearly separate ipsilateral primary tumors either synchronously or asynchronously.

^hTesting for Ashkenazi Jewish founder-specific mutation(s), should be performed first. Full sequencing may be considered if ancestry also includes non-Ashkenazi Jewish relatives or other HBOC criteria is met. Founder mutations exist in other populations.

Note: All recommendations are category 2A unless otherwise indicated.

Clinical Trials: NCCN believes that the best management of any cancer patient is in a clinical trial. Participation in clinical trials is especially encouraged.