

BRCA 1 and 2 Genetic Testing (Sequence Analysis/Rearrangement)

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Definitions

Close relative	1 st , 2 nd , or 3 rd degree relative (a parent, full sibling, half sibling, child, grandparent, great-grandparent, grandchild, aunt, great aunt, uncle, great uncle, nephew, niece or first cousin).
Limited family history	Fewer than two first- or second-degree female relatives or female relatives surviving beyond 45 years in either lineage (maternal and paternal).

Guideline

Members are eligible for coverage of BRCA 1 and 2 genetic testing (sequencing analysis, founder mutations) when results will directly impact surveillance or treatment.

A. BRCA 1 and 2 sequencing analysis — 1, 2, 3 or 4 must be met:

1. Unaffected/asymptomatic member with positive family history of hereditary breast and ovarian cancer (HBOC) syndrome
2. ≥ 3 close relatives on the same side of the family (including the member) have breast (either invasive or non-invasive) or ovarian cancer
3. < 3 close relatives on the same side of the family with breast or ovarian cancer, but any of the following are present:
 - a. Individual or close relative diagnosed with breast cancer at ≤ 45 years of age
 - b. Close relative identified with a detectable BRCA 1 or 2 mutation
 - c. Individual or a close relative diagnosed with breast cancer ≤ 50 years of age and any:
 - i. ≥ 1 close relative diagnosed with breast cancer at any age
 - ii. two primary breast cancers (including bilateral disease or two or more separate primary tumors in the same breast)
 - iii. there is an unknown or limited family history

- d. Individual diagnosed with breast cancer at any age and ≥ 1 close relative diagnosed with breast cancer ≤ 50 years of age
 - e. Individual or close relative diagnosed with 2 primary breast cancers (including bilateral disease or ≥ 2 more separate primary tumors in opposite breasts) and the first cancer was diagnosed at ≤ 50 years of age
 - f. Individual or close relative diagnosed with triple negative breast cancer at ≤ 60 years of age (Breast cancer that is negative for Estrogen receptor [ER], Progesterone receptor [PR] and HER2)
 - g. Individual was diagnosed with breast cancer ≤ 50 years of age and has a limited family history
 - h. Individual was diagnosed with breast cancer at any age and has ≥ 2 close blood relatives with pancreatic cancer or aggressive prostate cancer (Gleason score ≥ 7) at any age
 - i. Individual or close relative diagnosed with ovarian cancer at any age
 - j. Individual or close relative with breast cancer is male
 - k. Individual or close relative diagnosed with breast cancer at any age and at increased risk for specific mutation(s) secondary to ethnic background (e.g., Ashkenazi Jewish descent). (See [Limitations/Exclusions](#))
4. The member was diagnosed with pancreatic cancer **or** aggressive prostate cancer (Gleason score ≥ 7) at any age with ≥ 2 close relatives with breast and/or ovarian (including fallopian tube or primary peritoneal cancer) and/or pancreatic or aggressive prostate cancer (Gleason score ≥ 7) at any age.

B. Members are eligible for BRCA 1 and 2 rearrangement testing if the criteria for comprehensive sequence analysis are met and the analysis is negative.

Limitations/Exclusions

Authorization should initially be for the mutation(s) specific to the ethnic group in question (e.g., Multisite 3 BRCAAnalysis [or equivalent testing for founder mutations] for members of Ashkenazi descent). If multisite screening is negative, additional genetic testing (e.g., comprehensive sequence analysis) would be warranted if the member meets the remainder of the criteria above.

Requests that do not meet the testing criteria will be reviewed by a Medical Director.

Revision History

12/9/2016 — expanded coverage to unaffected/asymptomatic members with positive family history of HBOC Syndrome.

Applicable Procedure Codes

81162	BRCA1, BRCA2 (breast cancer 1 and 2) (eg, hereditary breast and ovarian cancer) gene analysis; full sequence analysis and full duplication/deletion analysis
81211	BRCA1, BRCA2 (breast cancer 1 and 2) (eg, hereditary breast and ovarian cancer) gene analysis; full sequence analysis and common duplication/deletion variants in BRCA1 (ie, exon 13 del 3.835kb, exon 13 dup 6kb, exon 14-20 del 26kb, exon 22 del 510 bp, exon 8-9 del 7.1kb)
81212	BRCA1, BRCA2 (breast cancer 1 and 2) (eg, hereditary breast and ovarian cancer) gene analysis; 185 delAG, 5385insC, 6174delT variants
81213	BRCA1, BRCA2 (breast cancer 1 and 2) (eg, hereditary breast and ovarian cancer) gene analysis; uncommon duplication/deletion variants
81214	BRCA1 (breast cancer 1) (eg, hereditary breast and ovarian cancer) gene analysis; full sequence analysis and common duplication/deletion variants (ie, exon 13 del 3.835kb, exon 13 dup 6kb, exon 14-20 del 26kb, exon 22 del 510 bp, exon 8-9 del 7.1kb)

81215	BRCA1 (breast cancer 1) (eg, hereditary breast and ovarian cancer) gene analysis; known familial variant
81216	BRCA2 (breast cancer 2) (eg, hereditary breast and ovarian cancer) gene analysis; full sequence analysis
81217	BRCA2 (breast cancer 2) (eg, hereditary breast and ovarian cancer) gene analysis; known familial variant

Applicable ICD-10 Diagnosis Codes

C50.011	Malignant neoplasm of nipple and areola, right female breast
C50.012	Malignant neoplasm of nipple and areola, left female breast
C50.019	Malignant neoplasm of nipple and areola, unspecified female breast
C50.021	Malignant neoplasm of nipple and areola, right male breast
C50.022	Malignant neoplasm of nipple and areola, left male breast
C50.029	Malignant neoplasm of nipple and areola, unspecified male breast
C50.111	Malignant neoplasm of central portion of right female breast
C50.112	Malignant neoplasm of central portion of left female breast
C50.119	Malignant neoplasm of central portion of unspecified female breast
C50.121	Malignant neoplasm of central portion of right male breast
C50.122	Malignant neoplasm of central portion of left male breast
C50.129	Malignant neoplasm of central portion of unspecified male breast
C50.211	Malignant neoplasm of upper-inner quadrant of right female breast
C50.212	Malignant neoplasm of upper-inner quadrant of left female breast
C50.219	Malignant neoplasm of upper-inner quadrant of unspecified female breast
C50.221	Malignant neoplasm of upper-inner quadrant of right male breast
C50.222	Malignant neoplasm of upper-inner quadrant of left male breast
C50.229	Malignant neoplasm of upper-inner quadrant of unspecified male breast
C50.311	Malignant neoplasm of lower-inner quadrant of right female breast
C50.312	Malignant neoplasm of lower-inner quadrant of left female breast
C50.319	Malignant neoplasm of lower-inner quadrant of unspecified female breast
C50.321	Malignant neoplasm of lower-inner quadrant of right male breast
C50.322	Malignant neoplasm of lower-inner quadrant of left male breast
C50.329	Malignant neoplasm of lower-inner quadrant of unspecified male breast
C50.411	Malignant neoplasm of upper-outer quadrant of right female breast
C50.412	Malignant neoplasm of upper-outer quadrant of left female breast
C50.419	Malignant neoplasm of upper-outer quadrant of unspecified female breast
C50.421	Malignant neoplasm of upper-outer quadrant of right male breast

C50.422	Malignant neoplasm of upper-outer quadrant of left male breast
C50.429	Malignant neoplasm of upper-outer quadrant of unspecified male breast
C50.511	Malignant neoplasm of lower-outer quadrant of right female breast
C50.512	Malignant neoplasm of lower-outer quadrant of left female breast
C50.519	Malignant neoplasm of lower-outer quadrant of unspecified female breast
C50.521	Malignant neoplasm of lower-outer quadrant of right male breast
C50.522	Malignant neoplasm of lower-outer quadrant of left male breast
C50.529	Malignant neoplasm of lower-outer quadrant of unspecified male breast
C50.611	Malignant neoplasm of axillary tail of right female breast
C50.612	Malignant neoplasm of axillary tail of left female breast
C50.619	Malignant neoplasm of axillary tail of unspecified female breast
C50.621	Malignant neoplasm of axillary tail of right male breast
C50.622	Malignant neoplasm of axillary tail of left male breast
C50.629	Malignant neoplasm of axillary tail of unspecified male breast
C50.811	Malignant neoplasm of overlapping sites of right female breast
C50.812	Malignant neoplasm of overlapping sites of left female breast
C50.819	Malignant neoplasm of overlapping sites of unspecified female breast
C50.821	Malignant neoplasm of overlapping sites of right male breast
C50.822	Malignant neoplasm of overlapping sites of left male breast
C50.829	Malignant neoplasm of overlapping sites of unspecified male breast
C50.911	Malignant neoplasm of unspecified site of right female breast
C50.912	Malignant neoplasm of unspecified site of left female breast
C50.919	Malignant neoplasm of unspecified site of unspecified female breast
C50.921	Malignant neoplasm of unspecified site of right male breast
C50.922	Malignant neoplasm of unspecified site of left male breast
C50.929	Malignant neoplasm of unspecified site of unspecified male breast
C56.1	Malignant neoplasm of right ovary
C56.2	Malignant neoplasm of left ovary
C56.9	Malignant neoplasm of unspecified ovary
D05.10	Intraductal carcinoma in situ of unspecified breast
D05.11	Intraductal carcinoma in situ of right breast
D05.12	Intraductal carcinoma in situ of left breast

D05.80	Other specified type of carcinoma in situ of unspecified breast
D05.81	Other specified type of carcinoma in situ of right breast
D05.82	Other specified type of carcinoma in situ of left breast
D05.90	Unspecified type of carcinoma in situ of unspecified breast
D05.91	Unspecified type of carcinoma in situ of right breast
D05.92	Unspecified type of carcinoma in situ of left breast
Z15.01	Genetic susceptibility to malignant neoplasm of breast
Z15.02	Genetic susceptibility to malignant neoplasm of ovary
Z80.3	Family history of malignant neoplasm of breast
Z80.41	Family history of malignant neoplasm of ovary
Z85.3	Personal history of malignant neoplasm of breast
Z85.43	Personal history of malignant neoplasm of ovary
Z86.000	Personal history of in-situ neoplasm of breast

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