Medical Necessity Guidelines: Genetic Testing: BRCA-Related Breast and/or Ovarian Cancer Syndrome

Effective: January 1, 2017

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Applies to:
- ✒ Tufts Health Plan Commercial Plans products; Fax: 617.972.9409
- ✒ Tufts Health Public Plans products
  - ☒ Tufts Health Direct – Health Connector; Fax: 888.415.9055
  - ☒ Tufts Health Together – A MassHealth Plan; Fax: 888.415.9055
  - ☐ Tufts Health Unify – OneCare Plan; Fax: 781.393.2607
  - ☒ Tufts Health RITogether – A Rhode Island Medicaid Plan; Fax: 857.304.6404
- ✒ Tufts Health Freedom Plan products; Fax: 617.972.9409

Note: While you may not be the provider responsible for obtaining prior authorization, as a condition of payment you will need to make sure that prior authorization has been obtained.

OVERVIEW

Predisposition to breast cancer and ovarian cancer has been related to mutations found in the BRCA1 (Breast Cancer 1, early onset) and BRCA2 (Breast Cancer 2, early onset) genes. The risk of developing cancer associated with these mutations is not known and appears to be variable even within families of similar ethnic background with the same mutation. Ashkenazi descent refers to Jews of Eastern European descent. The majority of BRCA mutations in people of Ashkenazi descent occur in one of three sites along the BRCA1 and BRCA2 genes, therefore Multi-site BRCA3 testing, which looks for these common mutations, is usually completed before BRCA1 or BRCA2 testing.

For the purposes of genetic testing, the following definitions\(^1\) are used:
- First-Degree Relatives: An individual’s parents, siblings, and children.
- Second-Degree Relatives: An individual’s grandparents, aunts, uncles, half-siblings, nieces, nephews, and grandchildren.
- Third-Degree Relatives: An individual’s great grandparents, great aunts, great uncles, great-grandchildren and first cousins.

Also for the purposes of genetic testing, these relatives are on the same side of the family.

The Genetic and Molecular Diagnostics Testing Authorization Request Form must be completed and faxed to the appropriate fax number listed above according to Plan. Include all relevant clinical information as applicable.

COVERAGE GUIDELINES

Tufts Health Plan may authorize coverage for BRCA1 & BRCA2, Multi-site BRCA3, or single-site BRCA1 or BRCA2 testing for Members at high risk for breast cancer.

Tufts Health Plan may authorize coverage of this testing when both A and B are met. In addition, the Member must meet one of the criteria listed under C, D, or E.

A. The results of the genetic test will significantly alter the medical management of the Member (documentation required).

B. The recommendation for testing is based on a review of risk factors, clinical presentation and family history, and is supported by consultation with a healthcare provider with expertise in genetic counseling (documentation required).

C. Multi-site 3 BRCA Genetic Testing For Female Members of Ashkenazi Descent with or without a Personal History of Breast Cancer:
   Tufts Health Plan may authorize for female Members with ONE of the following risks:

\(^1\) From The National Health Services National Genetics and Genomics Education Centre, available at geneticseducation.nhs.uk/
1. Personal history of a primary breast cancer, ovarian cancer, or pancreatic cancer at any age.

2. No personal history of breast or ovarian cancer and **ONE** of the following risks:
   a. Family history of breast or ovarian cancer, diagnosed at any age, in any first-degree relative.
   b. Family history of breast or ovarian cancer, diagnosed at any age, in at least two second-degree relatives, on the same side of the family.
   c. Personal history of pancreatic cancer.
   d. A first-degree relative with a known BRCA1 or BRCA2 mutation.

D. **Full Panel BRCA1 & BRCA2 Genetic Testing for Female Members not of Ashkenazi Descent with a Personal History of Breast Cancer:**
   Tufts Health Plan may authorize for female Members with a personal history of breast cancer and **ONE** of the following risks:
   1. Diagnosis at or before age 45
   2. Diagnosis after age 45 and at or before age 50 and **ONE** of the following risks:
      a. Family history of breast cancer, diagnosed at any age, in one or more first, second or third-degree relatives, on the same side of the family.
      b. A limited family history. A limited family history is defined as an individual with fewer than two first or second degree relatives having lived beyond age 45 in either lineage.
      c. Family history of one or more first, second, or third-degree relatives with pancreatic cancer.
      d. Family history of one or more first, second, or third-degree relatives with aggressive prostate cancer (defined as having a Gleason score of 7 or greater).
   3. Diagnosed at any age AND one or more first, second or third-degree relative with breast cancer diagnosed at or before age 50.
   4. Diagnosed at any age AND two or more first, second or third-degree relatives with breast cancer at any age.
   5. Personal history of epithelial ovarian/fallopian tube/primary peritoneal cancer, diagnosed at any age.
   6. Personal history of two primary breast cancers, when the first breast cancer was diagnosed at or before age 50.
   7. Personal history of triple negative breast cancer diagnosed at or before age 60. Triple negative breast cancer is defined as breast cancer when the tumor does not have receptors for any of the following: estrogen, progesterone or human epidermal growth factor receptor 2 (HER2).
   8. Personal history of pancreatic cancer or prostate cancer at any age AND two or more first, second or third-degree relatives with breast cancer and/or ovarian/fallopian tube/primary peritoneal cancer and/or pancreatic or prostate cancer.
   9. Family history of one or more first, second or third-degree relatives with the diagnosis of epithelial ovarian/fallopian tube/primary peritoneal cancer.
   10. Family history of two or more first, second or third-degree relatives with pancreatic or aggressive prostate cancer diagnosed at any age. Aggressive prostate cancer is defined as having a Gleason score of 7 or greater.
   11. A male first, second or third-degree relative with breast cancer.

E. **Full Panel BRCA1 & BRCA2 Genetic Testing for Female Members not of Ashkenazi Descent without a Personal History of Breast Cancer:**
   Tufts Health Plan may authorize the genetic tests for female Members **WITHOUT** a personal history of breast cancer and a family history that includes **ONE** of the following risks:
   1. Personal history of epithelial ovarian/fallopian tube/primary peritoneal ovarian cancer.
   2. A known family mutation in a cancer susceptibility gene within the family (if known mutation is BRCA1 or BRCA2, see "Type of BRCA Testing Ordered")
   3. A personal history of pancreatic cancer at any age with one or more first, second, or third degree relative with epithelial ovarian/fallopian tube/primary peritoneal cancer at any age or breast cancer diagnosed at age 50 or younger; or with two or more first, second, or third degree relatives with breast, pancreatic, or prostate cancer (Gleason score of 7 or higher) at any age.
   4. Two first-degree relatives with breast cancer, one of whom received the diagnosis at age 50 years or younger.
   5. A combination of three or more first or second-degree relatives with breast cancer regardless of age at diagnosis.
6. A first-degree relative with bilateral breast cancer
7. A first or second-degree relative with epithelial ovarian/fallopian tube/primary peritoneal cancer regardless of age at diagnosis
8. A male first or second-degree relative with breast cancer
9. Third degree blood relative who has breast cancer and/or ovarian/fallopian tube/primary peritoneal cancer AND who has two or more first, second or third-degree relatives with breast cancer (one or more at or before age 50) and/or ovarian/fallopian tube/primary peritoneal cancer.

F. For Male Members:
Tufts Health Plan may authorize the full panel BRCA 1& BRCA2 genetic for male Members who are NOT of Ashkenazi descent or Multi-site BRCA3 test, for male Members of Ashkenazi descent, with ONE of the following risks:
1. Personal history of breast cancer at any age.
2. A first-degree relative with a known BRCA1or BRCA2 mutation.
3. Personal history of prostate cancer (Gleason score of 7 or greater) or pancreatic cancer at any age with one or more first, second, or third degree relatives with breast cancer (diagnosed at age 50 or younger) and/or epithelial ovarian/fallopian tube/primary peritoneal cancer at any age; or with two or more first, second, or third-degree relatives with breast, pancreatic, or prostate cancer (Gleason score of 7 or higher) at any age.

Type of BRCA Testing Ordered
- Tufts Health Plan may authorize single site analysis only for Members who have a relative with a known BRCA1or BRCA2 mutation, regardless of personal history or descent.
- For Members who are of Ashkenazic descent who meet the criteria for Multi-site BRCA3 testing and who have a negative Multi-site BRCA3 test, Tufts Health Plan may authorize full panel BRCA1 & BRCA2 genetic testing (reflex testing).
- For Members who are of a partial Ashkenazic or non-Ashkenazic descent if the Member meets the Ashkenazic criteria above and the family history of breast and/or ovarian cancer occurred predominantly in non-Ashkenazic relatives, Tufts Health Plan may authorize full panel BRCA1 & BRCA2 genetic testing.
- All testing must be performed at a contracting laboratory facility when available.

myRISK™ Hereditary Cancer Test
If specifically requested, Tufts Health Plan may authorize coverage of the myRISK™ Hereditary Cancer Test or the myRISK™ Update Test if the criteria for full panel BRCA1/BRCA2 testing outlined in this Medical Necessity Guideline are met, or if the guidelines outlined in the InterQual® Clinical Evidence Summary for Lynch Syndrome are met (refer to Genetic and Molecular Diagnostic Testing MNG).

LIMITATIONS
None

CODES
The following CPT codes for BRCA testing require prior authorization:

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<thead>
<tr>
<th>Code</th>
<th>Description</th>
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<tbody>
<tr>
<td>81162</td>
<td>BRCA1, BRCA2 (breast cancer 1 and 2) (e.g., hereditary breast and ovarian cancer) gene analysis; full sequence analysis and full duplication/deletion analysis</td>
</tr>
<tr>
<td>81211</td>
<td>BRCA1, BRCA2 (breast cancer 1 and 2) (e.g., hereditary breast and ovarian cancer) gene analysis; full sequence analysis and common duplication/deletion variants in BRCA1 (i.e., exon 13 del 3.835kb, exon 13 dup 6kb, exon 14-20 del 26kb, exon 22 del 510bp, exon 8-9 del 7.1kb)</td>
</tr>
<tr>
<td>81212</td>
<td>BRCA1, BRCA2 (breast cancer 1 and 2) (e.g., hereditary breast and ovarian cancer) gene analysis; 185delAG, 5385insC, 6174delT variants</td>
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<tr>
<td>81213</td>
<td>BRCA1, BRCA2 (breast cancer 1 and 2) (e.g., hereditary breast and ovarian cancer) gene analysis; uncommon duplication/deletion variants</td>
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<tr>
<td>81214</td>
<td>BRCA1 (breast cancer 1) (e.g., hereditary breast and ovarian cancer) gene analysis; full sequence analysis and common duplication/deletion variants (i.e., exon 13 del 3.835kb, exon 13 dup 6kb, exon 14-20 del 26kb, exon 22 del 510bp, exon 8-9 del 7.1kb)</td>
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Genetic Testing: BRCA-Related Breast and/or Ovarian Cancer Syndrome

### Code Description

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<tr>
<td>81215</td>
<td>BRCA1 (breast cancer 1) (e.g., hereditary breast and ovarian cancer) gene analysis; known familial variant</td>
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<tr>
<td>81216</td>
<td>BRCA2 (breast cancer 2) (e.g., hereditary breast and ovarian cancer) gene analysis; full sequence analysis</td>
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<tr>
<td>81217</td>
<td>BRCA2 (breast cancer 2) (e.g., hereditary breast and ovarian cancer) gene analysis; known familial variant</td>
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For myRISK™ Hereditary Cancer Test or myRisk Update Test, the following CPT codes require prior authorization:

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<tr>
<td>81406</td>
<td>Molecular pathology procedure, Level 7 (eg, analysis of 11-25 exons by DNA sequence analysis, mutation scanning or duplication/deletion variants of 26-50 exons, cytogenomic array analysis for neoplasia) (when used for myRISK™ Update Test)</td>
</tr>
<tr>
<td>81479</td>
<td>Unlisted molecular pathology procedure (when used for myRISK™ Hereditary Cancer Test)</td>
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### REFERENCES

11. National Health Services Genetics and Genomics Education Centre, Accessed on April 17, 2014 at geneticseducation.nhs.uk/​
Genetic Testing: BRCA-Related Breast and/or Ovarian Cancer Syndrome


APPROVAL HISTORY

January 23, 2004: Reviewed by the Clinical Coverage Criteria Committee

Subsequent endorsement date(s) and changes made:

- February 27, 2004: Criteria for the authorization of multi-site BRCA3 test for female Members of Ashkenazi descent changed from requiring personal history of two primary breast cancers, each diagnosed before age 50, to personal history of a single primary breast cancer diagnosed before age 50.
- April 1, 2004: D. 6. a. Criteria for authorization of full panel BRCA 1 & BRCA 2 genetic test for female Members who are not of Ashkenazi descent and have the following risk factor was changed to reflect that both relatives need to be on the same side of the family to receive authorization for testing with no personal history of breast or ovarian cancer.
- April 15, 2005: Criteria expanded to cover single site BRCA1 and BRCA 2 testing for Members who have a 1st degree relative with a known mutation in BRCA1 or BRCA2, coverage for testing when a male relative has been diagnosed with breast cancer at any age, and the addition of criteria to cover Large Rearrangement Panel testing for Members who meet the criteria for testing, tested negative and were tested prior to August 12, 2004.
- March 10, 2006: Several clarifications and additions were made: Definition of high risk as greater than ten percent risk of a positive test result added, use of the BRCAPRO and MYRIAD Models in determining Member’s risk added, diagnosis of ductal cancer in situ as synonymous with a breast cancer diagnosis explained. Change D.6.b.: to include non-Ashkenazic Members with two or more 1st or 2nd degree relatives with a diagnosis of ovarian cancer at any age.
- January 1, 2007: Several clarifications were made to coverage for Members of Ashkenazi descent, BART testing was added to Limitations.
- November 13, 2007: Criteria for coverage clarified in cases where Members have 1st degree relatives with known BRCA1 or BRCA2 mutation.
- January 30, 2008: Criteria for coverage of BRCA testing for females, not of Ashkenazi descent, changed: Personal of history of primary breast cancer changed from before age 40 to before age 50. Definitions of first and second degree relatives added to Overview.
- February 11, 2009: For consideration, BRCAPRO calculation must be submitted by the requesting provider which shows that the calculated risk of the Member having the mutation is greater than ten percent.
- October 7, 2009 for an effective date of November 1, 2009: Coverage guidelines for BART™ testing added to the guideline.
- December 2009: Limitations moved: placed within the body of the criteria.
- February 1, 2010: Reviewed by Medical Specialty Policy Advisory Committee (MSPAC), no content changes. Administrative process changed.
- May 2011: Reviewed by MSPAC. BRCAPRO risk clarified to read; “≥ (greater than or equal to).”
- April 1, 2012: Coding update, HCPCS codes deleted by CMS.
- May 9, 2012: Added coverage of testing when the Member has a tumor which is triple negative.
- November 25, 2013: Reviewed by the Integrated Medical Policy Advisory Committee (IMPAC), no changes
- January 1, 2014: Coding update
• January 8, 2014: Reviewed by IMPAC, requirements for coverage for Ashkenazi and non-Ashkenazi Members was expanded to include additional combinations of 1st and 2nd degree relatives.
• April 9, 2014: Reviewed by IMPAC for a July 1, 2014 effective date. Changes were made to more closely align with the National Comprehensive Cancer Network’s Version 4.2013 guidelines for Hereditary Breast and/or Ovarian Cancer while ensuring continued alignment with the USPSTF guidelines for women without a personal history of breast cancer. As a result, the age of diagnosis for personal history, with no other risk factors, for women not of Ashkenazi descent, was changed from age 50 or younger to age 45 or younger.
• November 19, 2014: Updates to align with the National Comprehensive Cancer Network Inc.’s version 1.2014: NCCN Guidelines 1.2014 Hereditary Breast and/or Ovarian Cancer Syndrome. As a result, additional changes were made to more closely align with these guidelines. Relatives were expanded to include third degree relatives, where indicated by NCCN. Also first, second and third-degree relatives are specified as on the same side of the family. References to ovarian cancer expanded to include fallopian tube and primary peritoneal cancers. Personal history expanded to include history of pancreatic or prostate cancer. Diagnosis age corrected in section D 2. Added criteria points D 3 and 4 and E 8 to be consistent with NCCN. Effective April 1, 2015.
• July 23, 2015: Reviewed at IMPAC. Additional criteria points, personal history of invasive ovarian cancer and known family mutation in a cancer susceptibility gene, added to section E.
• September 2015: Branding and template change to distinguish Tufts Health Plan products in "Applies to" section. Added Tufts Health Freedom Plan products, effective January 1, 2016.
• November 16, 2015: Reviewed by IMPAC, Criteria sections C.2, E, and F updated to be consistent with NCCN guidelines.
• December 31, 2015: Coding updated. Per AMA CPT®, effective January 1, 2016 the following code(s) added: 81162.
• February 5, 2016: Link to Myriad BART resource guide removed.
• March 9, 2016: reviewed at IMPAC. Separate criteria for BART testing removed and name of guideline updated (formerly “Genetic Testing: Multisite BRCA3, Single Site BRCA1 or BRCA2, & BART”), effective on April 11, 2016 (date of posting). Effective July 1, 2016, language added for myRISK Hereditary Cancer Test.
• September 14, 2016: Reviewed by IMPAC, Criteria sections C.1, D.2, E.3, and F.3 updated to be consistent with NCCN guidelines, effective January 1, 2017.
• November 9, 2016: Reviewed by IMPAC, renewed without changes
• December 14, 2016: Reviewed by IMPAC, renewed without changes
• April 2017: Added RITogether Plan product to template. For MNGs applicable to RITogether, effective date is August 1, 2017

BACKGROUND, PRODUCT AND DISCLAIMER INFORMATION
Medical Necessity Guidelines are developed to determine coverage for benefits, and are published to provide a better understanding of the basis upon which coverage decisions are made. We make coverage decisions using these guidelines, along with the Member’s benefit document, and in coordination with the Member’s physician(s) on a case-by-case basis considering the individual Member’s health care needs.

Medical Necessity Guidelines are developed for selected therapeutic or diagnostic services found to be safe and proven effective in a limited, defined population of patients or clinical circumstances. They include concise clinical coverage criteria based on current literature review, consultation with practicing physicians in the our service area who are medical experts in the particular field, FDA and other government agency policies, and standards adopted by national accreditation organizations. We revise and update Medical Necessity Guidelines annually, or more frequently if new evidence becomes available that suggests needed revisions.

Medical Necessity Guidelines apply to the fully insured Commercial and Medicaid products when Tufts Health Plan conducts utilization review unless otherwise noted in this guideline or in the Member’s benefit document, and may apply to Tufts Health Unify to the same extent as Tufts Health Together. This guideline does not apply to Tufts Medicare Preferred HMO, Tufts Health Plan Senior Care Options or to certain delegated service arrangements. For self-insured plans, coverage may vary depending on the terms of the benefit document. If a discrepancy exists between a Medical Necessity Guideline and a self-insured Member’s benefit document, the provisions of the benefit document will govern.
Applicable state or federal mandates or other requirements will take precedence. For CareLink℠ Members, Cigna conducts utilization review so Cigna’s medical necessity guidelines, rather than these guidelines, will apply.

Treating providers are solely responsible for the medical advice and treatment of Members. The use of this guideline is not a guarantee of payment or a final prediction of how specific claim(s) will be adjudicated. Claims payment is subject to eligibility and benefits on the date of service, coordination of benefits, referral/authorization, utilization management guidelines when applicable, and adherence to plan policies, plan procedures, and claims editing logic.