Guidelines for Medical Necessity Determination for Genetic Testing for BRCA-related Breast and/or Ovarian Cancer

These Guidelines for Medical Necessity Determination (Guidelines) identify the clinical information that MassHealth needs to determine medical necessity for genetic testing for hereditary breast and/or ovarian cancer, hereinafter referred to as "BRCA-related cancer." These Guidelines are based on generally accepted standards of practice, review of the medical literature, and federal and state policies and laws applicable to Medicaid programs.

Providers should consult MassHealth regulations at 130 CMR 401.000: *Independent Clinical Laboratory Services*, 130 CMR 433.000: *Physician Services*, 130 CMR 450.000: *Administrative and Billing Regulations*, Subchapter 6 *of the Independent Clinical Laboratory Manual* and Subchapter 6 *of the Physician Manual* for information about coverage, limitations, service conditions, and other prior authorization (PA) requirements.

Providers serving members enrolled in a MassHealth-contracted accountable care partnership plan (ACPP), managed care organization (MCO), One Care Organization, Senior Care Options (SCO), or Program of All-inclusive Care for the Elderly (PACE) should refer to the ACPP's, MCO's, One Care Organization's, SCO's, or PACE's medical policies, respectively, for covered services.

MassHealth requires PA for genetic testing for BRCA-related cancer. MassHealth reviews requests for PA on the basis of medical necessity. If MassHealth approves the request, payment is still subject to all general conditions of MassHealth, including member eligibility, other insurance, and program restrictions.

1 SECTION I. GENERAL INFORMATION

The genetic basis for BRCA-related cancer is a germline (inherited) pathogenic/likely pathogenic variant in either BRCA1 or BRCA2, which is inherited in an autosomal dominant pattern. PALB2 (Partner and Localizer of BRCA2) is another gene implicated in hereditary breast cancer.

Approximately 5% to 10% of breast cancers and 10% to 15% of ovarian cancers diagnosed annually in the United States are thought to be BRCA-related. Clinically significant or deleterious pathogenic/likely pathogenic variants in these genes have been linked to an increased risk of breast, ovarian, fallopian tube, and peritoneal cancer in women. BRCA pathogenic/likely pathogenic variants are also associated with male breast cancer and, to a lesser degree, pancreatic, testicular, and early-onset prostate cancer.

Published estimates of the lifetime risk of developing BRCA-related cancer are age dependent and vary widely. Genetic testing for BRCA-related cancer is not recommended for children because no risk-reduction strategies for children exist, and because their risk of developing a cancer associated with a BRCA1, BRCA2, or PALB2 pathogenic/likely pathogenic variant is extremely low.

Several tests are currently available to identify inherited pathogenic/likely pathogenic variants in BRCA1, BRCA2, and PALB2. Test selection is based on a combination of factors, including personal

and family history of BRCA-related cancer(s), ancestry, and whether a pathogenic/likely pathogenic variant has been previously identified in a family member. MassHealth considers approval for coverage of genetic testing for BRCA-related cancer on an individual, case-by-case basis, in accordance with 130 CMR 401.000, 130 CMR 433.000 and 130 CMR 450.204.

For the purposes of these Guidelines, the following terms are defined:

1. **Close blood relatives** — includes first-, second-, and third-degree relatives on same side of family.
   - First-degree relatives include parents, siblings, and children.
   - Second-degree relatives include half-brothers/sisters, aunts/uncles, grandparents, grandchildren, and nieces/nephews affected on the same side of the family.
   - Third-degree relatives include first cousins, great-aunts/uncles, great-grandchildren, and great-grandparents affected on same side of family.
2. **High-grade prostate cancer** — Gleason score ≥ 7.
3. **Breast Cancer** — For the purposes of this policy, breast cancer includes both invasive and ductal carcinoma in situ (DCIS).
4. **Ovarian Carcinoma** — Includes fallopian tube and primary peritoneal cancers. Ovarian cancers with epithelial, non-mucinous histology are associated with the BRCA gene.

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SECTION II. CLINICAL GUIDELINES

A. CLINICAL COVERAGE

MassHealth considers genetic testing for BRCA-related cancer medically necessary once per lifetime in any of the following categories of high-risk adults. MassHealth bases its determination of medical necessity for genetic testing for BRCA-related cancer on clinical data including, but not limited to, indicators that would affect the relative risks and benefits of genetic testing for BRCA-related cancer. These criteria include the following.

1. The member is 18 years of age or older; AND
2. The results of genetic testing will be clinically useful (i.e., will provide added value compared with not using the test) in the clinical management of the member; AND
3. The member has given prior written consent for genetic testing in accordance with Massachusetts General Laws Chapter 111, Section 70G; AND
4. The member's personal and/or family cancer history suggests that an inherited pathogenic/likely pathogenic variant in BRCA1, BRCA2, or PALB2 may exist by meeting criteria for one of the following categories of genetic test (I, II, III, or IV) for BRCA-related cancer:

   Category I. Family with a Known BRCA1/BRCA2/PALB2 Variant

   MassHealth covers BRCA1, BRCA2, and PALB2 genetic testing for susceptibility to breast or ovarian cancer in adults as medically necessary with single-site analysis for the known familial variant (Current Procedural Terminology [CPT]® codes 81215, 81217, 81307, 81308) for a biologically related individual from a family with a known BRCA1, BRCA2, or PALB2 pathogenic/likely pathogenic variant when a recommendation for testing is confirmed in accordance with the

criteria previously listed. Documentation of the known familial variant and relationship of the carrier(s) to the member is required.

Category II. Individuals with Active Cancer or a Personal History of Cancer

Genetic testing for BRCA1, BRCA2, and PALB2 variants (including large genomic rearrangement testing (i.e., BART) in cancer-affected individuals when the BRCA variant status is unknown may be considered medically necessary when there has been appropriate genetic counseling, and any of the following criteria (A.-G.) are met.

A. The member has a personal history of breast cancer AND one or more of the following.
    1. Diagnosed at age ≤ 45 years; OR
    2. Diagnosed at age 46–50 years with
        a. An additional breast cancer primary[1] (at any age); OR
        b. One or more close blood relatives with breast cancer at any age; OR
        c. One or more close blood relatives with high-grade prostate cancer; OR
        d. An unknown or limited family history, defined as having fewer than two known first-degree or second-degree female relatives or female relatives surviving beyond 45 years of age on either or both sides of the family (e.g., member who is adopted); OR
    3. Diagnosed at age ≤ 60 years with a triple negative breast cancer (ER-, PR-, HER2-); OR
    4. Diagnosed at any age with:
        a. One or more close blood relatives with any of the following: female breast (age ≤50 years), ovarian, pancreatic, metastatic prostate, or male breast cancer, OR
        b. Two or more additional diagnoses of breast cancer[1] at any age in patient and/or close blood relatives; OR
    5. Ashkenazi Jewish ancestry[2].
B. Personal history of high-grade prostate cancer diagnosed at any age with
    1. Ashkenazi Jewish ancestry; OR
    2. One or more close blood relatives with any of the following: ovarian, pancreatic, breast (age <50 years), or metastatic prostate cancer; OR
    3. Two or more close blood relatives with breast or prostate cancer (any grade) at any age.
C. Personal history of male breast cancer; OR
D. Personal history of ovarian carcinoma; OR
E. Personal history of pancreatic cancer; OR
F. Personal history of metastatic prostate cancer; OR
G. BRCA1 or 2, PALB2, pathogenic/likely pathogenic variant detected by tumor-profiling on any tumor type in the absence of germline pathogenic/likely pathogenic variant analysis.

[1]Two breast primaries include bilateral disease or two or more clearly separate ipsilateral primary tumors either synchronously or asynchronously.

[2]Testing for Ashkenazi Jewish Founder-specific pathogenic/likely pathogenic variant(s) should be performed first.

Category III. Individuals with No Personal History of the Following BRCA-Related Cancers: Breast, Ovarian, Pancreatic, or Prostate

Testing of an individual without a cancer diagnosis should be considered only when an appropriate family member is unavailable for testing. Genetic testing for BRCA1,B RCA2, and PALB2 variants (including large genomic rearrangement testing (i.e., BART) of cancer-unaffected individuals with unknown variant status) may be considered medically necessary when the treating provider has documented genetic counseling and a determination that the patient is high-risk for a BRCA/PALB2 variant through use of a validated quantitative risk assessment tool endorsed by the U.S. Preventive Services Task Force (USPSTF). The tool used and responses to the screening that compose the positive scoring must be specified. The thresholds for positive screens of the seven USPSTF-endorsed screening tools are listed below (if available).

- Ontario Family History Assessment Tool (FHAT): Score of ≥ 10
- Manchester Scoring System: Score of 10 in either column or combined score of 15 for both columns
- Referral Screening Tool (RST): Presence of ≥ 2 items
- Pedigree Assessment Tool (PAT): Score of ≥ 8
- Family History Screen 7 (FHS-7): ≥ 1 positive response
- International Breast Cancer Intervention Study Instrument (Tyrer-Cuzick): risk greater than 10%
- Brief versions of BRCAPRO

Category IV: Adults Considering Treatment with a PARP-Inhibitor

Please refer to the MassHealth Drug List website for PA criteria for PARP-inhibitors. Criteria is available for Lynparza (Olaparib), Rubraca (rucaparib), and Talzenna (talazoparib).

B. NONCOVERAGE

MassHealth considers BRCA and PALB2 testing experimental and investigational for all other indications, including testing in men for surveillance; screening for breast or epithelial ovarian cancers; and assessment of risk of other cancers, such as colon cancer; as effectiveness for these indications has not been established.

MassHealth does not consider genetic testing for BRCA-related cancer to be medically necessary under certain circumstances. Examples of such circumstances include, but are not limited to, the following:

1. Genetic testing is being performed primarily for the medical management of a family member;
2. The only indication for testing is family history, and clinical judgment indicates that the member does not have a reasonable likelihood of having a BRCA/PALB2-pathogenic/likely pathogenic variant, considering the member's current age and the age of female unaffected relatives who link the member with the affected relatives; or
3. The member has been previously tested.

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SECTION III. SUBMITTING CLINICAL DOCUMENTATION

Requests for PA for genetic testing for BRCA-related cancer must be accompanied by clinical documentation that supports the medical necessity of this procedure.

A. Documentation of medical necessity must include all of the following:

1. Clinical documentation by the provider (e.g., primary care provider, gynecologist, oncologist) of personal or family history, risk factors, and supporting rationale for the requested test(s).

    a. If member qualifies for coverage under Category III, the validated quantitative risk assessment tool used and responses to the screening that compose the positive scoring must be included. In addition, a three-generation pedigree with documentation of affected family members must be provided to MassHealth.

    b. If member qualifies for coverage under Category IV, the diagnosis and hormone receptor status, prior and current treatment, and rationale for testing to impact treatment must be included.

2. A description of how the genetic test results will guide clinical decisions that would not otherwise be made in the absence of testing.

3. A copy of the completed BRCA or PALB2 test request form, with the exact gene(s) and/or variants being tested, which has been signed and dated by the ordering physician. MassHealth does not have its own BRCA/PALB2 test request form.

Clinical information must be submitted by the clinical laboratory performing the genetic testing. Providers are strongly encouraged to submit requests electronically. Providers must submit the request for PA and all supporting documentation using the Provider Online Service Center (POSC), or by completing a MassHealth Prior Authorization Request form (using the PA-1 paper form found at www.mass.gov/masshealth) and attaching all supporting documentation. The PA-1 form and documentation should be mailed to the address on the back of the form. Questions about POSC access should be directed to the MassHealth Customer Service Center at (800) 841-2900.

Appendix

CPT Codes for BRCA testing

Code followed by Code Description

81162: BRCA1, BRCA2 (breast cancer 1 and 2) (e.g., hereditary breast and ovarian cancer) gene analysis; full sequence analysis and full duplication/deletion analysis

81163: BRCA1 (BRCA1, DNA repair associated), BRCA2 (BRCA2, DNA repair associated) (e.g., hereditary breast and ovarian cancer) gene analysis; full sequence analysis

81164: BRCA1 (BRCA1, DNA repair associated), BRCA2 (BRCA2, DNA repair associated) (e.g., hereditary breast and ovarian cancer) gene analysis; full duplication/deletion analysis (i.e., detection of large gene rearrangements

81165: BRCA1 (BRCA1, DNA repair associated) (e.g., hereditary breast and ovarian cancer) gene analysis; full sequence analysis

81166: BRCA1 (BRCA1, DNA repair associated) (e.g., hereditary breast and ovarian cancer) gene analysis; full duplication/deletion analysis (i.e., detection of large gene rearrangements)

81167: BRCA2 (BRCA2, DNA repair associated) (e.g., hereditary breast and ovarian cancer) gene analysis; full duplication/deletion analysis (i.e., detection of large gene rearrangements

81212: BRCA1, BRCA2 (breast cancer 1 and 2) (Askenazi Jewish descent, founder mutations) gene analysis; 185delAG, 5385insC, 6174delT variants

81215: BRCA1 (breast cancer 1) (e.g., hereditary breast and ovarian cancer) gene analysis; known familial variant

81216: BRCA2 (breast cancer 2) (e.g., hereditary breast and ovarian cancer) gene analysis; full sequence analysis

81217: BRCA2 (breast cancer 2) (e.g., hereditary breast and ovarian cancer) gene analysis; known familial variant

81307: PALB2 (partner and localizer of BRCA2) (e.g., breast and pancreatic cancer) gene analysis; full gene sequence

81308: PALB2 (partner and localizer of BRCA2) (e.g., breast and pancreatic cancer) gene analysis; known familial variant

81479: Unlisted Molecular Pathology

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These Guidelines are based on review of the medical literature and current practice in genetic testing for BRCA-related cancer. MassHealth reserves the right to review and update the contents of these Guidelines and cited references as new clinical evidence and medical technology emerge.

This document was prepared for medical professionals to assist them in submitting documentation supporting the medical necessity of the proposed treatment, products, or services. Some language used in this communication may be unfamiliar to other readers; in this case, such readers should contact their health care provider for guidance or explanation.

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Approved by: 

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