Medical Coverage Policy | Gene Expression Profiling for Cutaneous Melanoma

EFFECTIVE DATE: 07|01|2024
POLICY LAST REVIEWED: 07|17/2024

OVERVIEW

Laboratory tests have been developed that detect the expression of different genes in pigmented lesions or melanoma tumor tissue. Test results may help providers and patients decide whether to biopsy suspicious pigmented lesions, aid in diagnosis of lesions with indeterminate histopathologic findings or determine whether to perform sentinel lymph node biopsy in patients diagnosed with stage I or II cutaneous melanoma.

The following tests are addressed in this policy:

- DecisionDx-Melanoma (Castle Biosciences) CPT code 81529
- Pigmented Lesion Assay (DermTech) CPT code 0089U
- myPath Melanoma (Castle Biosciences) CPT code 0090U

MEDICAL CRITERIA

Medicare Advantage Plans and Commercial Products

DecisionDx Melanoma - 81529

DecisionDx Melanoma may be considered medically necessary when the following criteria are met:

- Patients diagnosed with cutaneous melanoma tumors with clinically negative sentinel node basins who are being considered for SLNB to determine eligibility for adjuvant therapy, and 1 or 2 below:
  1. Cutaneous melanoma ≥ 0.3 mm in Breslow thickness **without distant metastases** where additional information beyond anatomic and pathologic staging:
     - Will influence the decision to perform Sentinel Lymph Node Biopsy (T1-T2 only)
     - Will aid in the determination of appropriate adjuvant therapy
  2. Cutaneous melanoma < 0.3 mm in Breslow thickness being considered for sentinel lymph node biopsy:
     - in whom there is significant uncertainty about the adequacy of microstaging (positive deep margin), or
     - with other adverse features (e.g. very high mitotic index [≥2/mm2], lymphovascular invasion, or combination of these factors)

myPath Melanoma – 0090U

myPath Melanoma may be considered medically necessary when the following criteria are met:

- The test is ordered by a board-certified dermatopathologist and;
- The lesion is considered to be a non-metastatic, melanocytic lesion that has not been previously treated, and;
- Testing is an adjunct to histopathology, as a clear distinction between a benign or malignant lesion cannot be made using clinical characteristics and histopathological features alone, and;
- The patient may be subjected to additional intervention, such as re-excision and/or sentinel lymph node biopsy, as a result of the diagnostic uncertainty, and;
- The results of the gene expression testing will be used in conjunction with the clinical evaluation, histopathological features and other diagnostic procedures to determine and/or alter the treatment plan.

PRIOR AUTHORIZATION

Medicare Advantage Plans and Commercial Products

Prior authorization is required for the following tests:

- DecisionDx-Melanoma
- myPath Melanoma

Note: Laboratories are not allowed to obtain clinical authorization or participate in the authorization process on behalf of the ordering physician. Only the ordering physician shall be involved in the authorization, appeal or other administrative processes related to prior authorization/medical necessity.

In no circumstance shall a laboratory or a physician/provider use a representative of a laboratory or anyone with a relationship to a laboratory and/or a third party to obtain authorization on behalf of the ordering physician, to facilitate any portion of the authorization process or any subsequent appeal of a claim where the authorization process was not followed and/or a denial for clinical appropriateness was issued, including any element of the preparation of necessary documentation of clinical appropriateness. If a laboratory or a third party is found to be supporting any portion of the authorization process, BCBSRI will deem the action a violation of this policy and severe action will be taken up to and including termination from the BCBSRI provider network. If a laboratory provides a laboratory service that has not been authorized, the service will be denied as the financial liability of the participating laboratory and may not be billed to the member.

POLICY STATEMENT

Medicare Advantage Plans and Commercial Products

The following tests may be considered medically necessary when the medical criteria above are met:

- DecisionDx-Melanoma
- myPath Melanoma

The following test is covered:

- Pigmented Lesion Assay

Commercial Products

Some genetic testing services are not covered and a contract exclusion for any self-funded group that has excluded the expanded coverage of biomarker testing related to the state mandate, R.I.G.L. §27-19-81 described in the Biomarker Testing Mandate policy. For these groups, a list of which genetic testing services are covered with prior authorization, are not medically necessary or are not covered because they are a contract exclusion can be found in the Coding section of the Genetic Testing Services or Proprietary Laboratory Analyses policies. Please refer to the appropriate Benefit Booklet to determine whether the member's plan has customized benefit coverage. Please refer to the list of Related Policies for more information.

COVERAGE

Benefits may vary between groups and contracts. Please refer to the appropriate Benefit Booklet, Evidence of Coverage or Subscriber Agreement for applicable laboratory benefits/coverage.

BACKGROUND

Cutaneous Melanoma

Cutaneous melanoma accounts for more than 90% of cases of melanoma. For many decades, melanoma incidence was rapidly increasing in the United States. However, recent estimates have suggested the rise may be slowing. In 2018, more than 90,000 new cases of melanoma are expected to be diagnosed and more than 9,000 people are expected to die of melanoma.

Risk Factors

Exposure to solar ultraviolet radiation is a major risk factor for melanoma. Most melanomas occur on sun-exposed skin, particularly those areas most susceptible to sunburn. Likewise, features that are associated with

an individual's sensitivity to sunlight, such as light skin pigmentation, red or blond hair, blue or green eyes, freckling tendency, and poor tanning ability are well-known risk factors for melanoma. There is also a strong association between high total body nevus counts and melanoma.

Several genes appear to contribute to melanoma predisposition such as tumor suppressor gene CDKN2A, melanocortin-1 receptor (MC1R) gene, and BAP1 variants. Individuals with either familial or sporadic melanoma have a 2 to 3 times increased risk of developing a subsequent primary melanoma. Several occupational exposures and lifestyle factors, such as body mass index and smoking, have been evaluated as possible risk factors for melanoma.

Gene Expression Profiling (GEP)
GEP measures the activity of thousands of genes simultaneously and creates a snapshot of cellular function. Data for GEP are generated by several molecular technologies including DNA microarrays that measure activity relative to previously identified genes and RNA-Seq that directly sequences and quantifies RNA molecules. Clinical applications of GEP include disease diagnosis, disease classification, prediction of drug response and prognosis.

DecisionDx-Melanoma
The DecisionDx test measures expression of 31 genes using quantitative reverse-transcription polymerase chain reaction. The test includes 28 prognostic gene targets and 3 endogenous control genes. The test is performed on standard tissue sections from an existing formalin-fixed, paraffin-embedded biopsy or wide local excision specimen. Clinically negative sentinel node basins (clinically node negative is defined as no signs of lymph node metastases, consisting of a negative physical examination and preoperative ultrasound). The DecisionDx test report provides a 'class' which stratifies tumors as class 1 or class 2. According to the sample report available on the manufacturer website: "The DecisonDx-Melanoma algorithm generates a value between 0 and 1 with a crossover point of 0.5. Subclassification (A or B) is based on proximity of this value to the crossover point."

Pigmented Lesion Assay (PLA)
The Pigmented Lesion Assay test measures expression of 6 genes (PRAME, LINC00518, CMIP, B2M, ACTB, PPIA). The PRAME (PReferentially expressed Antigenin MElanoma) gene encodes an antigen that is preferentially expressed in human melanomas, and that is not expressed in normal tissues (except testis). LINC00518 (Long Intergenic Non-protein Coding RNA518) is a regulatory RNA molecule. The other 4 genes provide normalization values.

The test is performed on skin samples of lesions at least 5 mm in diameter obtained via noninvasive, proprietary adhesive patch biopsies of a stratum corneum specimen. The test does not work on the palms of hands, soles of feet, nails, or mucous membranes, and it should not be used on bleeding or ulcerated lesions.

The Pigmented Lesion Assay test report includes 2 results. The first result is called the PLA MAGE (Melanoma Associated Gene Expression), which indicates low-risk (neither PRAME nor LINC00518 expression was detected), moderate-risk (expression of either PRAME or LINC00518 was detected), or high-risk (expression of both PRAME andLINC00518 was detected). The second result is as an algorithmic Pigmented Lesion Assay score that ranges from 0 to100, with higher scores indicating higher suspicion of malignant disease.

myPath Melanoma
The myPath test measures expression of 23 genes using quantitative reverse-transcription polymerase chain reaction. Fourteen genes are involved in melanoma pathogenesis and are grouped into 3 components related to cell differentiation, cell signaling, and the immune response, and 9 housekeeper genes are also included. The test is performed on 5 standard tissue sections from an existing formalin-fixed, paraffin-embedded biopsy specimen.

The myPath test report includes an algorithmic myPath score ranging from -16.7 to 11.1, with higher, positive scores indicating higher suspicion of malignant disease. The myPath report also classifies these scores: -16.7 to -2.1 are "benign"; -2.0 to -0.1 are "indeterminate"; and 0.0 to +11.1 are "malignant". The myPath test is meant as an add-on test to standard histopathology.

CODING

Medicare Advantage Plans and Commercial Products

The following CPT code(s) are covered when medical criteria above are met:

This code can be used for DecisionDx-Melanoma:

81529 Oncology (cutaneous melanoma), mRNA, gene expression profiling by real-time RT-PCR of 31 genes (28 content and 3 housekeeping), utilizing formalin-fixed paraffin-embedded tissue, algorithm reported as recurrence risk, including likelihood of sentinel lymph node metastasis

This code can be used for myPath Melanoma:

0090U Oncology (cutaneous melanoma), mRNA gene expression profiling by RT-PCR of 23 genes (14 content and 9 housekeeping), utilizing formalin-fixed paraffin-embedded (FFPE) tissue, algorithm reported as a categorical result (ie, benign, intermediate, malignant)

The following CPT code(s) are covered without authorization:

This code can be used for Pigmented Lesion Assay (PLA):

0089U Oncology (melanoma), gene expression profiling by RTqPCR, PRAME and LINC00518, superficial collection using adhesive patch(es)

RELATED POLICIES

Biomarker Testing Mandate
Genetic Testing Services
Proprietary Laboratory Analyses (PLA)

PUBLISHED

Provider Update, June/September 2024
Provider Update, February/July/November 2023
Provider Update, October 2021
Provider Update, November 2020
Provider Update, April 2019

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