Assays of Genetic Expression in Tumor Tissue as a Technique to Determine Prognosis in Patients with Breast Cancer
Corporate Medical Policy

File Name:  Assays of Genetic Expression in Tumor Tissue as a Technique to Determine Prognosis in Patients with Breast Cancer
File Code:  UM.GEN.03
Origination:  03/2019
Last Review:  03/2019
Next Review:  03/2020
Effective Date:  07/01/2019

Description/Summary

The use of the 21-gene reverse transcriptase polymerase chain reaction (RT-PCR) assay (ie, Oncotype DX) to determine recurrence risk for deciding whether to undergo adjuvant chemotherapy in women with primary, invasive breast cancer.

Policy

Coding Information

There is a specific CPT® multianalyte assay with algorithmic analysis (MAAA) code for Oncotype DX:

81519:  [Oncology (breast), mRNA, gene expression profiling by real-time RT-PCR of 21 genes, utilizing formalin-fixed paraffin-embedded tissue, algorithm reported as recurrence score.]

There is a CPT® Code specific to Prosigna test:

81520  [Oncology (breast), mRNA gene expression profiling by hybrid capture of 58 genes (50 content and 8 housekeeping), utilizing formalin-fixed paraffin-embedded tissue, algorithm reported as a recurrence risk score]

There is a HCPCS code for this testing:

S3854:  [Gene expression profiling panel for use in the management of breast cancer treatment. The other tests mentioned in the previous section would be reported with an unlisted CPT® code such as:

81599  [Unlisted multianalyte assay with algorithmic analysis.]
When a service may be considered medically necessary

The use of the 21-gene reverse transcriptase polymerase chain reaction (RT-PCR) assay (ie, Oncotype DX) to determine recurrence risk for deciding whether to undergo adjuvant chemotherapy may be considered **medically necessary** in women with primary, invasive breast cancer meeting all of the following characteristics:

- Unilateral or bilateral tumor;
- hormone receptor-positive (ie, estrogen receptor-positive or progesterone receptor-positive);
- human epidermal growth factor receptor 2-negative;
- tumor size 0.6 to 1 cm with moderate or poor differentiation or unfavorable features OR tumor size larger than 1 cm;
- node-negative (lymph nodes with micrometastases [≤2 mm in size] are considered node-negative for this policy statement);
- who will be treated with adjuvant endocrine therapy (eg, tamoxifen, aromatase inhibitors);
- when the test result aids the patient in deciding on chemotherapy (ie, when chemotherapy is a therapeutic option); AND
- when ordered within 6 months after diagnosis, because the value of the test for making decisions regarding delayed chemotherapy is unknown.

The 21-gene RT-PCR assay Oncotype DX should only be ordered on a tissue specimen obtained during surgical removal of the tumor and after subsequent pathology examination of the tumor has been completed and determined to meet the above criteria (ie, the test should not be ordered on a preliminary core biopsy). The test should be ordered in the context of a physician-patient discussion regarding risk preferences when the test result will aid in making decisions regarding chemotherapy.

For patients who otherwise meet the above characteristics but who have multiple ipsilateral primary tumors, a specimen from the tumor with the most aggressive histologic characteristics should be submitted for testing. It is not necessary to test each tumor; treatment is based on the most aggressive lesion.

Use of EndoPredict, the Breast Cancer Index, MammaPrint, and Prosigna to determine recurrence risk for deciding whether to undergo adjuvant chemotherapy may be considered **medically necessary** in women with primary, invasive breast cancer with the same characteristics as considered medically necessary for Oncotype DX.

When a service is considered investigational

All other indications for the 21-gene RT-PCR assay (ie, Oncotype DX), EndoPredict, the Breast Cancer Index, MammaPrint, and Prosigna, including determination of recurrence risk in invasive breast cancer patients with positive lymph nodes, patients with bilateral disease, or to consider the length of treatment with tamoxifen, are considered **investigational**.
Use of a subset of genes from the 21-gene RT-PCR assay for predicting recurrence risk in patients with noninvasive ductal carcinoma in situ (ie, Oncotype DX® Breast DCIS Score) to inform treatment planning after excisional surgery is considered investigational.

The use of BluePrint in conjunction with MammaPrint or alone is considered investigational.

Use of gene expression assays in men with breast cancer is considered investigational.

Reference Resources


positive, her2neu-negative breast cancer patients randomised within the prospective ABCSG 8 trial. Br J Cancer. Apr 14 2015; 112 (8):1405-1410. PMID 25867274


Document Precedence

Blue Cross and Blue Shield of Vermont (BCBSVT) Medical Policies are developed to provide clinical guidance and are based on research of current medical literature and review of common medical practices in the treatment and diagnosis of disease. The applicable group/individual contract and member certificate language, or employer’s benefit plan if an ASO group, determines benefits that are in effect at the time of service. Since medical practices and knowledge are constantly evolving, BCBSVT reserves the right to review and revise its medical policies periodically. To the extent that there may be any conflict between medical policy and contract/employer benefit plan language, the member’s contract/employer benefit plan language takes precedence.

Audit Information

BCBSVT reserves the right to conduct audits on any provider and/or facility to ensure compliance with the guidelines stated in the medical policy. If an audit identifies instances of non-compliance with this medical policy, BCBSVT reserves the right to recoup all non-compliant payments.

Administrative and Contractual Guidance

Benefit Determination Guidance
Prior approval is required and benefits are subject to all terms, limitations and conditions of the subscriber contract.

Incomplete authorization requests may result in a delay of decision pending submission of missing information. To be considered compete, see policy guidelines above.

NEHP/ABNE members may have different benefits for services listed in this policy. To confirm benefits, please contact the customer service department at the member’s health plan.

Federal Employee Program (FEP): Members may have different benefits that apply. For further information please contact FEP customer service or refer to the FEP Service Benefit Plan Brochure. It is important to verify the member’s benefits prior to providing the service to determine if benefits are available or if there is a specific exclusion in the member’s benefit.

Coverage varies according to the member’s group or individual contract. Not all groups are required to follow the Vermont legislative mandates. Member Contract language takes precedence over medical policy when there is a conflict.

If the member receives benefits through an Administrative Services Only (ASO) group, benefits may vary or not apply. To verify benefit information, please refer to the member’s employer benefit plan documents or contact the customer service department. Language in the employer benefit plan documents takes precedence over medical policy when there is a conflict.

**Policy Implementation/Update information**


**Eligible providers**

Qualified healthcare professionals practicing within the scope of their license(s).

Approved by BCBSVT Medical Directors

Joshua Plavin, MD, MPH, MBA
Chief Medical Officer

Kate McIntosh, MD, FAAP
Senior Medical Director

Attachment I
CPT® Coding Table & Instructions
<table>
<thead>
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<th>Code</th>
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