GENE EXPRESSION PROFILING FOR THE MANAGEMENT OF BREAST CANCER TREATMENT

Description: Gene expression profiling of breast tumor tissue has been proposed as a method for identifying patients with early-stage, invasive breast cancer who are at low risk of cancer recurrence and who would not benefit from chemotherapy, thus potentially helping patients avoid the adverse effects of chemotherapy. Gene expression profiling has also been proposed as a method to improve the selection of beneficial chemotherapy regimens. Several gene expression profiling assays for breast cancer have been developed and are commercially available in the U.S. These include: Oncotype DX™, MammaPrint®, Mammastrat™ Breast Cancer Test, Breast Cancer IndexSM, BreastOncPx™, NexCourse® Breast IHC4, and the PAM50 Breast Cancer Intrinsic Classifier.

Oncotype DX is a 21-gene reverse transcriptase-polymerase chain reaction (RT-PCR) assay. Using a slightly different algorithm based on a subset of 12 genes to calculate results, Oncotype DX is also marketed for patients with noninvasive ductal carcinoma in situ (DCIS) to predict the 10-year risk of local recurrence (DCIS or invasive carcinoma). The stated purpose is to help guide treatment decision making in women with DCIS treated by local excision, with or without adjuvant tamoxifen therapy.

All tests except MammaPrint are provided as laboratory developed tests in Clinical Laboratory Improvement Act (CLIA)-licensed laboratories operated by each company. MammaPrint has received 510(k) clearance for marketing by the FDA.

Policy: I. Use of the 21-gene RT-PCR assay (i.e., Oncotype DX™) to determine recurrence risk for deciding whether or not to initiate adjuvant chemotherapy may be considered MEDICALLY NECESSARY in patients with primary, invasive breast cancer who meet ALL the following criteria:
A. Unilateral, non-fixed tumor; and
B. Estrogen receptor positive or progesterone receptor positive; and
C. Human epidermal growth factor receptor 2 (HER2) negative; and
D. Tumor size 0.6 – 1 cm with moderate/poor differentiation or unfavorable features OR tumor size larger than 1 cm; and
E. Node negative OR no lymph nodes with micrometastases greater than 2 mm; and
F. Patient will be treated with adjuvant endocrine therapy (e.g., tamoxifen or aromatase inhibitors).

II. For patients with multiple ipsilateral primary tumors who otherwise meet the above criteria, use of the 21-gene RT-PCR assay (i.e., Oncotype DX™) may be considered MEDICALLY NECESSARY for the one tumor with the most aggressive histological characteristics because treatment is based on the most aggressive lesion.

III. All other uses of breast cancer gene expression assays are considered INVESTIGATIVE due to a lack of evidence supporting use for any other indication. This includes, but is not limited to:
A. Use of the 21-gene RT-PCR assay (i.e., Oncotype DX) for predicting recurrence risk in patients with positive lymph nodes or bilateral breast tumors.
B. Use of a subset of genes from the 21-gene RT-PCR assay (i.e., Oncotype DX DCIS) for predicting recurrence risk in patients with noninvasive ductal carcinoma in situ.
C. Use of other gene expression assays (e.g., MammaPrint®, MammoStrat™ Breast Cancer Test, Breast Cancer Index℠, BreastOncPx™, NexCourse® Breast IHC4, and the PAM50 Breast Cancer Intrinsic Classifier) for any indication.

Coverage: Blue Cross and Blue Shield of Minnesota medical policies apply generally to all Blue Cross and Blue Plus plans and products. Benefit plans vary in coverage and some plans may not provide coverage for certain services addressed in the medical policies.

Medicaid products and some self-insured plans may have additional policies and prior authorization requirements. Receipt of benefits is subject to all terms and conditions of the member’s summary plan description (SPD). As applicable, review the provisions relating to a specific coverage determination, including exclusions and limitations. Blue Cross reserves the right to revise, update and/or add to its medical policies at any time without notice.

For Medicare NCD and/or Medicare LCD, please consult CMS or National Government Services websites.

Refer to the Pre-Certification/Pre-Authorization section of the Medical Behavioral Health Policy Manual for the full list of services,
procedures, prescription drugs, and medical devices that require Pre-certification/Pre-Authorization. Note that services with specific coverage criteria may be reviewed retrospectively to determine if criteria are being met. Retrospective denial of claims may result if criteria are not met.

**Coding:**

The following codes are included below for informational purposes only, and are subject to change without notice. Inclusion or exclusion of a code does not constitute or imply member coverage or provider reimbursement.

**CPT:**

0008M Oncology (breast), mRNA analysis of 58 genes using hybrid capture, on formalin-fixed paraffin-embedded (FFPE) tissue, prognostic algorithm reported as a risk score
84999 Unlisted chemistry procedure

**HCPCS:**

S3854 Gene expression profiling panel for use in the management of breast cancer treatment

**Policy History:**

Developed April 12, 2006

Most recent history:
Revised October 13, 2010
Revised October 12, 2011
Reviewed October 10, 2012
Revised October 9, 2013

**Cross Reference:**

Detection of Circulating Tumor Cells in the Management of Patients with Cancer, VI-25

CurrentProceduralTerminology(CPT®)iscopyright2013AmericanMedicalAssociation.AllRightsReserved.Nofee schedules,basicunits,relativevalues,or related listings are included in CPT. The AMA assumes no liability for the data contained herein. Applicable FARS/DFARS restrictions apply to government use.

Copyright 2014 Blue Cross Blue Shield of Minnesota.