

Policy #: 055

**Original policy date: 8/1/2008
Updated: 10/2/09**

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Title

Assays of Genetic Expression in Tumor Tissue: Technique to Determine Prognosis of Breast Cancer

Description

The goal of assays of genetic expression in breast tumor tissue, such as Oncotype Dx, is to assess the risk of a recurrence of breast cancer after initial treatment, in order to guide the decision to undergo further chemotherapy to reduce that risk.

The risk of recurrence of breast cancer after treatment is greater when the stage at which the cancer is diagnosed and treated is more advanced. Even in patients diagnosed and treated for very early stage tumors (i.e., small tumors that have not spread to nearby lymph nodes) there is still a risk for recurrence of breast cancer after treatment (up to 15%). Most patients in this situation receive chemotherapy following surgery to reduce the risk. Since chemotherapy has potentially toxic side effects and complications, targeting those patients with early stage breast cancer who are at higher risk for recurrence could permit low risk patients to forgo chemotherapy.

Genetic expression assays can stratify patients with early stage breast cancer into high, medium and low risk groups. The activity of certain genes in breast cancer cells determines the likelihood of the cancer being resistant to initial chemotherapy, spreading to other sites in the body, and/or recurring in the future. OncotypeDx is used to stratify these patients based on risk of recurrence. Certain patterns of gene activity are correlated with a low risk of later recurrence of breast cancer while other patterns are correlated with a higher risk of later recurrence. The OncotypeDx test uses a 21-gene reverse-transcriptase polymerase chain reaction to determine recurrence risk; it is sometimes referred to as a 21 gene RT PCR (RT-PCR) assay.

The advent of genetic expression assays permits an early-stage breast cancer patient who is determined to be at low risk for a recurrence to decide, with her physician, whether forgoing adjuvant chemotherapy is the right treatment option.

Women who are at increased risk for a late recurrence of breast cancer based on conventional risk factors, such as more advanced stage at initial diagnosis, are not appropriate candidates for the use of assays of genetic expression. The use of this technology should be restricted to those with early-stage tumors who are expected to be relatively low risk based on conventional risk factors.

When services are covered for all Products, (including Medicare HMO Blue, Medicare PPO Blue and Blue Medicare PFFS Plus Rx)

We cover the 21-genes RT- pcr assay (Oncotype DX™) to determine recurrence risk in women with breast cancer for deciding whether or not to undergo adjuvant chemotherapy for women who meet all of the following criteria ^{1,2} (For medically necessary diagnoses for all Products see footnote 2)

- unilateral, non-fixed tumor;
- hormone receptor positive (that is ER-positive or PR-positive);
- HER2-negative;
- tumor size 0.6-1 cm with moderate/poor differentiation or unfavorable features OR tumor size >1cm;

- node negative (lymph nodes with micrometastases (less than 2 mm in size) are considered node negative for this policy statement);
- the patient who will be treated with adjuvant endocrine therapy, e.g., tamoxifen or aromatase inhibitors; AND
- when the test result will aid the patient in making the decision regarding chemotherapy (i.e., when chemotherapy is a therapeutic option).

When services are not covered for all Products, (including Medicare HMOB, Medicare PPO Blue, and Blue Medicare PFFS Plus Rx)

- All other indications for 21-gene RT PCR (Oncotype DX™) assay not noted above are non-covered since they are considered investigational¹ and do not meet BCBSMA Medical Technology Assessment Guidelines, #350.
- The use of other gene expression assays (including but not limited to MammaPrint®, Mammostrat™, the Molecular Grade Index (Aviara MGISM) or Breast Cancer Gene Expression Ratio (Aviara H/ISM) are non-covered since they are considered investigational¹ and do not meet BCBSMA Medical Technology Assessment Guidelines, #350.

Individual consideration

All our medical policies are written for the majority of people with a given condition. Each policy is based on medical science. For many of our medical policies, each individual's unique clinical circumstances may be considered in light of current scientific literature. For consideration of an individual patient, physicians may send relevant clinical information to:

For services already billed

Blue Cross Blue Shield of Massachusetts
 Provider Appeals
 PO Box 986065
 Boston, MA 02298

Prior to performance of service

Blue Cross Blue Shield of Massachusetts
 Case Creation/Medical Policy
 One Enterprise Drive
 Quincy, MA 02171
 Tel: 1-800-327-6716
 Fax: 1-888-641-5330

Managed care guidelines

- Authorizations are not required

Indemnity and PPO guidelines

- Authorizations are not required

Coding information

Procedure codes are from current CPT, HCPCS Level II, Revenue Code, and/or ICD-9-CM manuals, as recommended by the American Medical Association, Centers for Medicare and Medicaid Services and American Hospital Associations. Blue Cross Blue Shield Association national codes may be developed when appropriate.

The following code is included below for informational purposes. Inclusion or exclusion of a code does not constitute or imply member coverage or provider reimbursement. Please refer to the member's contract benefits in effect at the time of service to determine coverage or non-coverage as it applies to an individual member.

- HCPCS Level II code S3854, gene expression profiling panel for use in the management of breast cancer treatment

Note: The above code will deny, leaving no patient balance if submitted with a diagnosis other than the covered condition noted in this document. See footnote 2 for medically necessary diagnoses for all Products.

Policy update history

Policy issued 8/2008; (test originally addressed on medical policy document(s) #365, Genetic Counseling, and #400 Medical Technology Assessment Guidelines Non-covered list.) Reviewed 10/08 MPG – Hematology/Oncology, no changes in coverage were made. 1/09 Comparison of the BCBSA National medical policy *Assays of Genetic Expression in Tumor Tissue as a Technique to Determine Prognosis in Patients with Breast Cancer*, policy coverage language unchanged except for clarification made to statement noting use in making decisions about chemotherapy, and addition of newer assays that are considered investigational; edited footnote to include references 13, 16, 23 and 30; BCBSMA continues to benchmark the BCBSA coverage policy. Reviewed 9/2009 MPG-Hematology and Oncology, no changes in coverage were made.

Footnotes

¹ Based on Blue Cross Blue Shield Association medical policy *Assays of Genetic Expression in Tumor Tissue: Technique to Determine Prognosis of Breast Cancer*, #2.04.36

² Blue Cross Blue Shield of Massachusetts' related covered diagnoses, effective 8/2008
174.0-174.9: malignant neoplasm of the breast
198.81: secondary malignant neoplasm of other specified sites, breast
233.0: carcinoma in situ of the breast
238.3: neoplasm of uncertain behavior of other and other unspecified sites, breast
239.3: neoplasms of unspecified nature, breast

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References for Footnote 1

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