# **DRAFT Medical Coverage Policy |** Serum Tumor Markers for Breast and Gastrointestinal Malignancies



**EFFECTIVE DATE:** 07 | 01 | 2025

POLICY LAST REVIEWED: 03 | 19 | 2024

#### **OVERVIEW**

This policy addresses the coverage for tumor markers only when utilized for the management of cancerous conditions. Tumor markers are substances produced in low quantities by tumor cells or other cells of the body in response to the presence of cancer or certain benign conditions.

## **MEDICAL CRITERIA**

Not applicable

# **PRIOR AUTHORIZATION**

Not applicable

**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

For the noted immunoassay tests for tumor antigens CA 15-3 (CA 27.29) or CA 19-9, refer to the Related Policies section for Medicare Advantage Plans National and Local Coverage Determinations.

Immunoassay test for tumor antigen, other antigen (e.g., CA 50, 72-4, 549) is considered not covered when filed with one of the diagnosis codes listed in the Coding section of this policy.

## **Commercial Products**

The noted immunoassay tests for tumor antigens CA 15-3 (CA 27.29) or CA 19-9 are covered when filed with one of the covered diagnosis codes listed in the Coding section of this policy.

Immunoassay test for tumor antigen, other antigen (e.g., CA 50, 72-4, 549) is considered not medically necessary when filed with one of the diagnosis codes listed in the Coding section of this policy.

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 or Subscriber Agreement for applicable not medically necessary/not covered benefits/coverage.

## **BACKGROUND**

Serum tumor markers are molecules or substances shed by a tumor into the circulation where they can be detected and quantitated. Noncirculating tumor markers include those that can be detected histochemically or cytogenetically on a tissue sample. Examples of the latter include the HER2 oncoprotein, detected by immunohistochemistry on a subset of breast cancers, and the Philadelphia chromosome, which is a cytogenetic marker for chronic myelogenous leukemia.

Serum tumor markers have been investigated in many malignancies, including most prominently myeloma (i.e.,  $\beta$ 2-microglobulin), germ cell tumors (i.e., alpha fetoprotein, human chorionic gonadotropin), and prostate cancer (i.e., PSA). The HER2 oncoprotein extracellular domain has been studied as a serum tumor marker in breast and other malignancies. Carcinoembryonic antigen (CEA) has also been widely investigated in gastrointestinal malignancies. This policy focuses on specific tumor markers for breast and gastrointestinal malignancies.

For breast cancer, the most extensively investigated serum tumor markers besides HER2 are those associated with the MUC-1 gene. For gastrointestinal cancer, including gastric, pancreatic, and colorectal cancer, the most extensively studied tumor markers, other than CEA, are those related to mucinous glycoproteins. The MUC-1 gene encodes a cell-associated mucin-like antigen, and different antibodies may be used to detect different epitopes. CA 15-3 and CA 27.29 are two related monoclonal antibodies that detect epitopes encoded by the MUC-1 gene. While much of the literature has focused on the use of CA 15-3, it has been largely replaced by CA 27.29, which is reportedly more sensitive. The mucinous glycoproteins of the gastrointestinal tract include CA 19-9, and CA 72-4, depending on which antibody is used.

Since serum tumor markers can also be detected in normal or benign lesions, significantly elevated circulating levels may occur with malignancy by one or more of the following mechanisms: (1) overexpression of the antigen by malignant cells; (2) a large tumor burden; and/or (3) slower clearance of the marker. For example, since most tumor markers are cleared by the liver, liver abnormalities (whether benign, malignant, or inflammatory) may elevate tumor marker concentrations due to impaired clearance. Because most tumor markers are not unique to malignancy, cut-off points must be established for normal versus abnormal marker levels. In contrast, serial monitoring of serum tumor markers in a setting of established malignancy may not require such cutoff points. Various clinical applications of serum tumor markers can be broadly divided into 2 categories, those involving a single measurement and those involving serial measurements.

## CODING

## Medicare Advantage Plans

See related policy for Medicare Advantage Plans National and Local Coverage Determinations for the noted immunoassay tests for tumor antigens CA 15-3 (CA 27.29) or CA 19-9:

**86300** Immunoassay for tumor antigen, quantitative; CA 15-3 (CA 27.29)

**86301** Immunoassay for tumor antigen, quantitative; CA 19-9

The following CPT code(s) are not covered when filed with one of the ICD-10-CM codes, listed below. Note: This CPT code can be used for testing for more indications than are referenced in this policy. Please see the Related Policies section.

86316 Immunoassay for tumor antigen, other antigen, quantitative (eg, CA 50, 72-4, 549), each

#### ICD-10-CM

C16.0-C16.9

C18.0-C18.9 C19 C20 C21.0-C21.8 C25.0-C25.9 C50.01-C50.929

## **Commercial Products**

The following immunoassay tests are covered when filed with one of the diagnosis codes in the attachments below:

86300 Immunoassay for tumor antigen, quantitative; CA 15-3 (CA 27.29)

## ICD-10 Codes 86300

**86301** Immunoassay for tumor antigen, quantitative; CA 19-9

## ICD-10 Codes 86301

The following CPT code(s) are not medically necessary when filed with one of the ICD-10-CM codes, listed below.

Note: This CPT code can be used for testing for more conditions/diagnoses than are referenced in this policy. Please see the Related Policies section for other not covered and not medically necessary conditions/diagnoses.

86316 Immunoassay for tumor antigen, other antigen, quantitative (eg, CA 50, 72-4, 549), each

## ICD-10-CM

C16.0-C16.9 C18.0-C18.9 C19 C20 C21.0-C21.8 C25.0-C25.9 C50.01-C50.929

## **RELATED POLICIES**

Biomarker Testing Mandate

Genetic Testing Services

Medicare Advantage Plans National and Local Coverage Determinations Policy Genetic and Protein Biomarkers for the Diagnosis and Cancer Risk Assessment of Prostate Cancer

Urinary Biomarkers for Cancer Screening, Diagnosis and Surveillance

## **PUBLISHED**

Provider Update, May 2025 Provider Update, October 2024 Provider Update, November 2023 Provider Update, October 2022 Provider Update, April 2021

## **REFERENCES**

- 1. Centers for Medicare and Medicaid Services. NCD for Tumor Antigen by Immunoassay CA 15-3/CA 27.29 (190.29). https://www.cms.gov/medicare-coverage-database/view/ncd.aspx?ncdid=134&ncdver=1&bc=0
- 2. Centers for Medicare and Medicaid Services. NCD for Tumor Antigen by IMMUNOASSAY CA 19-9 (190.30). https://www.cms.gov/medicare-coverage-database/view/ncd.aspx?ncdid=142&ncdver=1&bc=0
- 3. 1995 TEC Assessments; Tab 19: Serum tumor markers for the diagnosis and monitoring of breast cancer.

- 4. 1996 TEC Assessments; Tab 23: Serum tumor markers for the diagnosis and monitoring of gastrointestinal cancer.
- 5. 1996 TEC Assessments; Tab 24: Serum tumor markers (CA 15-3, CA 27.29 and CA 549) for the monitoring of breast cancer recurrence.
- 6. Locker GY, Hamilton S, Harris J et al. ASCO 2006 update of recommendations for the use of tumor markers in gastrointestinal cancer. J Clin Oncol 2006; 24(33):5313-27. 5.
- 7. Harris L, Fritsche H, Mennel R, et al. American Society of Clinical Oncology 2007 update of recommendations for the use of tumor markers in breast cancer. J Clin Oncol 2007; 25:5287-5312.
- 8. Rosselli Del Turco, M, Palli D, Cariddi A et al. Intensive diagnostic follow-up after treatment of primary breast cancer. A randomized trial. JAMA 1994; 271(20):1593-7.
- 9. The GIVIO Investigators. Impact of follow-up testing on survival and health-related quality of life in breast cancer patients. A multicenter randomized controlled trial. JAMA 1994; 271(20):1587-92.
- 10. Kokko R, Holli K, Hakama M. CA 15-3 in the follow-up of localised breast cancer; a prospective study. Eur J Cancer 2002; 38(9):1189-93.
- 11. Kurebayashi J, Yamamoto Y, Tanaka K et al. Significance of serum carcinoembryonic antigen and CA 15-3 in monitoring advanced breast cancer patients treated with systemic therapy: a large-scale retrospective study. Breast Cancer 2003; 10(1):38-44.
- 12. Ebeling FG, Stieber P, Untch M et al. Serum CEA and CA 15-3 as prognostic factors in primary breast cancer. Br J Cancer 2002; 86(8):1217-22.
- 13. Gion M, Boracchi P, Dittadi R et al. Prognostic role of serum CA 15.3 in 362 node-negative breast cancers. An old player for a new game. Eur J Cancer 2002; 38(9):1181-8.
- 14. Duffy MJ, Evoy D, McDermott EW. CA 15-3: Uses and limitation as a biomarker for breast cancer. Clin Chim Acta 2010; 411:1869-74.
- 15. Rocha Lima CM, Savarese D, Bruckner H et al. Irinotecan plus gemcitabine induces both radiographic and CA 19-9 tumor marker responses in patients with previously untreated advanced pancreatic cancer. J Clin Oncol 2002; 20(5):1182-91.
- 16. Micke O, Bruns F, Kurowski R, et al. Predictive value of carbohydrate antigen 19-9 in pancreatic cancer treated with radiochemotherapy. Int J Radiat Oncol Biol Phys 2003; 57(1):90-7.
- 17. Katz A, Hanlon A, Lanciano R et al. Prognostic value of CA 19-9 levels in patients with carcinoma of the pancreas treated with radiotherapy. Int J Radiat Oncol Biol Phys 1998; 41(2):393-6
- 18. Ohara K, Tatsuzaki H, Molotkova NG et al. Utility of serum CA 19-9 monitoring in preoperative radiotherapy for pancreatic cancer. Hepatogastroenterology 2001; 48(39):859-63.
- 19. Ziske C, Schlie C, Gorschluter M et al. Prognostic value of CA 19-9 levels in patients with inoperable adenocarcinoma of the pancreas treated with gemcitabine. Br J Cancer 2003; 89(8):1413-7.
- 20. Duffy MJ, Sturgeon C, Lamerz R, et al. Tumor markers in pancreatic cancer: a European Group on Tumor Markers (EGTM) status report. Ann Oncol 2010; 21:441-7.
- 21. Berger AC, Garcia Jr M, Hoffman JP, et al. Postresection CA 19-9 predicts overall survival in patients with pancreatic cancer treated with adjuvant chemoradiation: A prospective validation by RTOG 9704. J Clin Oncol 2008; 26:5918-22.
- 22. Hess V, Glimelius B, Grawe P, et al. CA 19-9 tumour-marker response to chemotherapy in patients with advanced pancreatic cancer enrolled in a randomized controlled trial. Lancet Oncol 2008; 9(2):132-8.

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