

Bevacizumab

DESCRIPTION

Bevacizumab is a recombinant humanized monoclonal IgG1 antibody that binds to and inhibits the biologic activity of human vascular endothelial growth factor (VEGF). It prevents VEGF from stimulating blood vessel growth to the tumor.

Bevacizumab binds VEGF and prevents the interaction of VEGF to its receptors (Flt-1 and KDR) on the surface of endothelial cells. The interaction of VEGF with its receptors leads to endothelial cell proliferation and new blood vessel formation in vitro models of angiogenesis. Administration of bevacizumab results in reduction of microvascular growth and inhibition of metastatic disease progression.

An example of a preparation of bevacizumab is Avastin[®].

REFER TO DECISION SUPPORT TREE

POLICY

- Bevacizumab for the treatment of metastatic colorectal carcinoma is considered **medically necessary** if the medical appropriateness criteria are met. **(See Medical Appropriateness below.)**
- Bevacizumab for the treatment of renal cell carcinoma is considered **medically necessary**.
- Bevacizumab for the treatment of non-small cell lung cancer is considered **medically necessary** if the medical appropriateness criteria are met. **(See Medical Appropriateness below.)**
- Bevacizumab for the treatment of metastatic breast carcinoma is considered **medically necessary** if the medical appropriateness criteria are met. **(See Medical Appropriateness below.)**
- Bevacizumab for the treatment of gliomas is considered **medically necessary** if the medical appropriateness criteria are met. **(See Medical Appropriateness below.)**
- Bevacizumab for the treatment of other conditions/diseases, including, but not limited to, the following: mesothelioma, prostate cancer, melanoma, multiple myeloma, ovarian cancer, pancreatic cancer, and hepatocellular carcinoma is considered **investigational**.

MEDICAL APPROPRIATENESS

- Bevacizumab is considered **medically appropriate** for the treatment of **ANY ONE** of the following:
 - Metastatic colorectal carcinoma with **ALL** of the following:
 - The agent is being used as a first-or second-line treatment
 - The agent is being used in combination with intravenous 5-fluorouracil-based chemotherapy or in combination with oral capecitabine
 - Non-small cell lung cancer with **ALL** of the following:
 - The agent is being used as a first-line treatment in combination with carboplatin and paclitaxel
 - The individual has unresectable, locally advanced, recurrent or metastatic non-squamous, non-small cell lung cancer
 - Metastatic breast carcinoma with **ALL** of the following:
 - The agent is being used as first-line therapy in combination with paclitaxel

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- The individual has HER2-negative disease
- Gliomas with **ALL** of the following:
 - The individual has failed radiation therapy or is not a candidate for radiation therapy
 - The agent is being used for the treatment of gliomas with progressive disease following prior therapy

APPLICABLE TENNESSEE STATE MANDATE REQUIREMENTS

Tennessee State law requires coverage of off-label indications of Food and Drug Administration (FDA) approved drugs when the off-label use is relative to life-threatening illnesses, such as cancer, AIDS, and coronary heart disease and recognized in one of the standard reference compendia (As defined in the statute: The United States Pharmacopoeia Drug Information, The American Medical Association Drug Evaluations, & The American Hospital Formulary Service Drug Information) or in the medical literature. This law is applicable to all fully insured members. The law is not applicable to self-funded accounts, but coverage for off-label uses may be provided based on the contractual agreement.

- The NCCN Drugs & Biologics Compendium recognizes the use of bevacizumab for additional uses beyond the FDA-approved labeling in the treatment of the following conditions (Refer to the NCCN Drugs & Biologics Compendium or NCCN Clinical Practice Guidelines for detailed recommendations):
 - Breast cancer
 - Colon cancer
 - Ovarian cancer
 - Rectal cancer

ADDITIONAL INFORMATION

For appropriate dosage information, contraindications, precautions, warnings, and monitoring information, please refer to one of the standard reference compendia (e.g., The American Hospital Formulary Service Drug Information).

Well-designed, randomized, controlled trials with long-term follow-up are not available to determine long-term benefits of bevacizumab for the treatment of other conditions/diseases.

SOURCES

Bevacizumab (Avastin) for metastatic breast cancer. (2008, June). *The Medical Letter On Drugs and Therapeutics*, 50 (Issue 1287), 42- 43.

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BlueCross BlueShield
of Tennessee

Policy

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U. S. Food and Drug Administration. (2009, May). Center for Drug Evaluation and Research. *Avastin (bevacizumab)*. Retrieved June 24, 2009 from http://www.accessdata.fda.gov/drugsatfda_docs/label/2009/125085s0169lbl.pdf.

EFFECTIVE DATE 12/18/2009

ID_BT



Pharmaceutical Decision Support Tree

Bevacizumab (Avastin®)

1. Is the requested medication being used to treat mesothelioma, prostate cancer, melanoma, multiple myeloma, ovarian cancer, pancreatic cancer or hepatocellular carcinoma?

If yes, this does not meet medical necessity and/or medical appropriateness criteria

If no, go to question #2

2. Is bevacizumab being used for the treatment of metastatic colorectal carcinoma with **ALL** of the following?
 - The agent is being used as a first-or second-line treatment
 - The agent is being used in combination with intravenous 5-fluorouracil-based chemotherapy or in combination with oral capecitabine

If yes, this satisfies medical necessity and medical appropriateness criteria

If no, go to question #3

3. Is bevacizumab being used for the treatment of non-small cell lung cancer with **ALL** of the following?
 - The agent is being used as a first-line treatment in combination with carboplatin and paclitaxel
 - The individual has unresectable, locally advanced, recurrent or metastatic non-squamous, non-small cell lung cancer

If yes, this satisfies medical necessity and medical appropriateness criteria

If no, go to question #4

4. Is bevacizumab being used for the treatment of metastatic breast carcinoma with **ALL** of the following?
 - The agent is being used as first-line therapy in combination with paclitaxel
 - The individual has HER2-negative disease

If yes, this satisfies medical necessity and medical appropriateness criteria

If no, go to question #5

5. Is bevacizumab being used to treat gliomas when **ALL** of the following criteria are met?
 - The individual has failed radiation therapy or is not a candidate for radiation therapy
 - The agent is being used for the treatment of gliomas with progressive disease following prior therapy

If yes, this meets medical necessity and/or medical appropriateness criteria

If no, this does not meet medical necessity and/or medical appropriateness criteria