

Additional Chemotherapy Information

Bevacizumab

Bevacizumab, (brand name Avastin) belongs to a class of drugs called monoclonal antibodies - drugs designed to work with proteins found on the surface of tumor cells.

Bevacizumab appears to shrink tumors by stopping the formation of new blood vessels that feed and supply them with oxygen, a process known as angiogenesis. It does this by blocking the action of a protein called vascular endothelial growth factor (VEGF). VEGF is thought to play a role in slowing down the formation of new blood vessels that surround the tumor and bring it nutrients. Blocking VEGF may help stop, or control, tumor growth. Because the drug is purposefully designed to interact with this protein pathway, it is also referred to as a “targeted therapy.”

Bevacizumab is approved by the U.S. Food and Drug Administration (FDA) to treat patients with colorectal cancer and certain types of lung cancers. It is not currently FDA approved for the treatment of brain tumors; however it may be used in the “off-label” setting if your physician prescribes this treatment. “Off-label” means the use of an approved treatment for any purpose other than what is described in the treatment's FDA-approved labeling.

The effects of bevacizumab treatment, its effectiveness, and how it can best be used to treat brain tumors are still being studied. Some treatment plans use bevacizumab alone; other treatments combine bevacizumab with chemotherapy drugs and/or radiation in an effort to increase the effectiveness of each. In one recent study involving patients with recurrent glioblastoma, 36 percent of patients who received bevacizumab alone, and 51 percent of those treated with bevacizumab and chemotherapy, survived without tumor growth for at least six months. Researchers do not yet know if it is safe to use bevacizumab for children.

Where can I get more information about bevacizumab?

Search the National Library of Medicine PubMed website by visiting:
www.ncbi.nlm.nih.gov/sites/entrez?db=Pmc .

The PubMed page will load. Upon typing the search-words “**bevacizumab, brain tumor**” or “**bevacizumab, glioblastoma**” in the search box, you will be given a list summarizing peer-reviewed published medical articles using those keywords.

Polymer Wafers

Polymer wafer implants (brand name Gliadel) place chemotherapy directly into the cavity created during brain tumor removal. The wafers are designed to dissolve into the tumor site over time, releasing a standard chemotherapy drug called carmustine (known as BCNU). Implanting the chemotherapy at the tumor site minimizes the traditional side effects of chemotherapy drugs as they circulate through the body before traveling to the brain.

Polymer wafer implants are approved by the Food and Drug Administration (FDA) for treatment of newly-diagnosed high-grade malignant gliomas in addition to surgery and radiation, and for recurrent glioblastoma multiforme in addition to surgery. Researchers continue to explore the use of polymer wafers alone, in combination with other therapies, and in combination with therapies intended to interfere with genes thought to control tumor resistance to drug treatment.

Where can I get more information about polymer wafer implants and carmustine?

Medline Plus (the National Library of Medicine/National Institutes of Health) offers general information on the chemotherapy drug in Gliadel called carmustine at www.nlm.nih.gov/medlineplus/druginfo/medmaster/a682060.html

Temozolomide

Temozolomide, (brand name Temodar in the U.S. and Temodal in Europe) is an oral chemotherapy drug used to stop or slow tumor cell growth in certain types of brain tumors. It works by breaking strands of DNA - the genetic material - inside tumor cells. When DNA strands are broken, the cells can't reproduce as well, slowing tumor growth.

Temozolomide is used in patients with newly diagnosed glioblastoma multiforme in combination with radiation and as maintenance treatment. It is also used to treat patients with anaplastic astrocytoma whose tumors have regrown after being treated with other chemotherapies.

Temozolomide received FDA approval in 1999, making it one of the newest drugs to be approved as a brain tumor treatment. The effectiveness of temozolomide in other types of tumors, and in combination with other therapies, continues to be studied.

Where can I get more information about these chemotherapies?

Your doctor, nurse, or pharmacist can provide you with print information and instruction sheets for taking these drug, and tips for managing its side effects. Call your doctor's office and ask for the information if you do not receive it.

Medline Plus (the National Library of Medicine/National Institutes of Health) offers temozolomide information at <http://nlm.nih.gov/medlineplus/print/druginfo/medmaster/a601250.html>.

Are there resources available to help with the cost of my chemotherapy drugs?

American Brain Tumor Association social workers maintain a resource listing of financial assistance programs and provide support to brain tumor patients, their families and caregivers. They can be reached Monday through Friday, from 8:30 a.m. to 5 p.m. central standard time (CST), at 800-886-2282, or through the ABTA web site at www.abta.org. Questions can be e-mailed to ABTA at socialwork@abta.org.