

Friday, Nov 18, 2011

FDA Commissioner Announces Final Decision on Avastin for Metastatic Breast Cancer

South San Francisco, Calif. -- November 18, 2011 --

- *U.S. Food and Drug Administration (FDA) Commissioner revokes approval of Avastin for treatment of metastatic breast cancer (mBC) in the United States*
- *This action concludes the FDA's review of Avastin's use for mBC*
- *This decision does not impact Avastin's approved uses for other cancer types in the United States or other countries*
- *This decision also does not impact the approval of Avastin for mBC in more than 80 other countries*
- *Roche will start a new trial of Avastin plus paclitaxel in mBC*

Genentech, a member of the Roche Group (SIX: RO, ROG; OTCQX: RHHBY), announced today that the FDA Commissioner is revoking the approval of Avastin® (bevacizumab) for the treatment of mBC in the United States.

"We are disappointed with the outcome. We remain committed to the many women with this incurable disease and will continue to provide help through our patient support programs to those who may be facing obstacles to receiving their treatment in the United States," said Hal Barron, M.D., chief medical officer and head, Global Product Development. "Despite today's action, we will start a new Phase III study of Avastin in combination with paclitaxel in previously untreated metastatic breast cancer and will evaluate a potential biomarker that may help identify which people might derive a more substantial benefit from Avastin."

Information for Doctors and Patients

- Genentech will issue a letter to healthcare providers and will also provide them with a letter to distribute to their patients. Both letters will be made available on Genentech's website.
- Patients with questions or concerns about insurance coverage or doctors with questions about reimbursement can call Genentech's Access Solutions Group at (866) 4 ACCESS, our team of specialists may be able to help.
- Doctors with questions about Avastin can call Genentech's Medical Communications group at (800) 821-8590.
- The FDA's action does not impact ongoing trials with Avastin in breast cancer. For more information, please call Genentech's Trial Information Support Line at (888) 662-6728 or visit clinicaltrials.gov.

About Avastin

Avastin is a prescription-only medicine that is a solution for intravenous infusion. It is a biologic antibody designed to specifically bind to a protein called VEGF that plays an important role throughout the lifecycle of the tumor to develop and maintain blood vessels, a process known as angiogenesis. Avastin is designed to interfere with the tumor blood supply by directly binding to the VEGF protein to prevent interactions with receptors on blood vessel cells. The tumor blood supply is thought to be critical to a tumor's ability to grow and spread in the body (metastasize). For more information about angiogenesis, visit <http://www.gene.com>.

Avastin is approved for first- and second-line treatment of metastatic colorectal cancer in combination with intravenous 5-FU-based chemotherapy, first-line treatment of unresectable, locally advanced, recurrent or metastatic, non-squamous, non-small cell lung cancer in combination with carboplatin and paclitaxel, and metastatic renal cell carcinoma in combination with interferon alfa.

BOXED WARNINGS and Additional Important Safety Information

People receiving Avastin may experience side effects. In clinical trials, some people treated with Avastin experienced serious and sometimes fatal side effects, including:

Gastrointestinal (GI) perforation: Treatment with Avastin can result in the development of a serious side effect called GI perforation, which is the development of a hole in the stomach, small intestine, or large intestine. In clinical trials, this event occurred in more people who received Avastin than in the comparison group (2.4 percent to 0.3 percent). In some cases, GI perforation resulted in fatality. Avastin therapy should be permanently stopped if GI perforation occurs.

Surgery and wound healing problems: Treatment with Avastin can lead to slow or incomplete wound healing (for example, when a surgical incision has trouble healing or staying closed). In some cases, this event resulted in fatality. Surgery and wound healing problems occurred more often in people who received Avastin than in the comparison group. In a controlled clinical trial, in patients with metastatic colorectal cancer who had surgery during the course of treatment, the incidence of wound healing complications,

including serious and fatal complications, was 15 percent for patients who received Avastin and four percent for patients who did not receive Avastin.

Avastin therapy should not be started for at least 28 days after surgery and until the surgical wound is fully healed. The length of time between stopping Avastin and having voluntary surgery without the risk of wound healing problems following surgery has not been determined. Treatment with Avastin should be stopped at least 28 days before voluntary surgery and in people with wound healing problems following surgery that require medical treatment. Treatment with Avastin should be stopped in patients with slow or incomplete wound healing.

Severe bleeding: Treatment with Avastin can result in serious or fatal bleeding, including coughing up blood, bleeding in the stomach, vomiting of blood, bleeding in the brain, nosebleeds and vaginal bleeding. These events occurred up to five times more often in people who received Avastin compared to patients who received only chemotherapy. Across cancer types, 1.2 percent to 4.6 percent of people who received Avastin experienced severe to fatal bleeding. People who have recently coughed up blood (greater than or equal to a half teaspoon of red blood) or have serious bleeding should not receive Avastin. Treatment with Avastin should be permanently stopped if serious bleeding occurs. In clinical trials for different cancer types, there were additional serious and sometimes fatal side effects that occurred in more people who received Avastin than in those in the comparison group. The formation of an abnormal passage from parts of the body to another part (non-GI fistula formation) was seen in 0.3 percent or less of people. Severe to life-threatening stroke or heart problems were seen in 2.4 percent of people. Too much protein in the urine that led to kidney problems was seen in less than one percent of people. Additional serious side effects that occurred in more people who received Avastin than those in the comparison group included severe to life-threatening high blood pressure, which was seen in five percent to 18 percent of people, and nervous system and vision disturbances (reversible posterior leukoencephalopathy syndrome), which was seen in less than 0.1 percent of people. Infusion reactions with the first dose of Avastin were uncommon and occurred in less than three percent of people, and severe reactions occurred in 0.2

percent of people. Avastin could cause a woman's ovaries to stop working and may impair her ability to have children.

Common side effects that occurred in more than 10 percent of people who received Avastin for different cancer types, and at least twice the rate of the comparison group, were nosebleeds, headache, high blood pressure, inflammation of the nose, too much protein in the urine, taste change, dry skin, rectal bleeding, tear production disorder, back pain, and inflammation of the skin (exfoliative dermatitis). Across all trials, treatment with Avastin was permanently stopped in 8.4 percent to 21 percent of people because of side effects.

Patients who are pregnant or thinking of becoming pregnant should talk with their doctor about the potential risk of loss of the pregnancy or the potential risk of Avastin to the fetus during and following Avastin therapy, and the need to continue an effective birth control method for at least six months following the last dose of Avastin.

Women should be advised to discontinue nursing or discontinue treatment with Avastin, taking into account the importance of Avastin to the mother.

First-line Metastatic Colorectal Cancer

In the first-line metastatic colorectal cancer trial, the most common severe to life-threatening side effects that increased by two percent or more in people who received Avastin plus IFL chemotherapy vs. IFL alone were weakness (10 percent vs. 7 percent), abdominal pain (8 percent vs. 5 percent), pain (8 percent vs. 5 percent), high blood pressure (12 percent vs. 2 percent), blood clots in the veins of the body (9 percent vs. 5 percent), blood clots inside the abdomen (3 percent vs. 1 percent), a brief loss of consciousness (3 percent vs. 1 percent), diarrhea (34 percent vs. 25 percent), constipation (4 percent vs. 2 percent), reduced white blood cell counts (37 percent vs. 31 percent), and reduced white blood cell counts that may increase the chance of infection (21 percent vs. 14 percent).

Second-line Metastatic Colorectal Cancer

In the second-line metastatic colorectal cancer trial, the most common severe to life-threatening and fatal side effects that increased by two percent or more in people who received Avastin plus FOLFOX4 chemotherapy vs. FOLFOX4 alone were diarrhea (18 percent vs. 13 percent), nausea (12 percent vs. 5 percent), vomiting (11 percent vs. 4

percent), dehydration (10 percent vs. 5 percent), blockage of the bowel (4 percent vs. 1 percent), numbness and tingling in fingers and toes (17 percent vs. 9 percent), nervous system disturbances (5 percent vs. 3 percent), tiredness (19 percent vs. 13 percent), abdominal pain (8 percent vs. 5 percent), headache (3 percent vs. 0 percent), high blood pressure (9 percent vs. 2 percent), and severe bleeding (5 percent vs. 1 percent).

First-line Advanced Non-Squamous Non-Small Cell Lung Cancer

In the non-small cell lung cancer trial, the most common life-threatening to fatal side effects that increased by two percent or more in people who received Avastin vs. those in the comparison group were reduced white blood cell counts (27 percent vs. 17 percent), tiredness (16 percent vs. 13 percent), high blood pressure (8 percent vs. 0.7 percent), infection without reduced white blood cell counts (7 percent vs. 3 percent), blood clots in the veins of the body (5 percent vs. 3 percent), fever with reduced white blood cell counts (5 percent vs. 2 percent), inflammation of the lungs (5 percent vs. 3 percent), infection with severe or life-threatening reduced white blood cell counts (4 percent vs. 2 percent), low sodium levels in the blood that could lead to seizure or coma (4 percent vs. 1 percent), headache (3 percent vs. 1 percent), and too much protein in the urine (3 percent vs. 0 percent).

Metastatic Kidney Cancer

In the metastatic kidney cancer trial, the most common severe to fatal side effects that increased by two percent or more in people who received Avastin vs. those in the comparison group included tiredness (13 percent vs. 8 percent), weakness (10 percent vs. 7 percent), too much protein in the urine (7 percent vs. 0 percent), high blood pressure (6 percent vs. 1 percent), and severe bleeding (3 percent vs. 0.3 percent). For full Prescribing Information and Boxed WARNINGS on Avastin please visit <http://www.avastin.com>.

About Genentech

Founded more than 30 years ago, Genentech is a leading biotechnology company that discovers, develops, manufactures and commercializes medicines to treat patients with serious or life-threatening medical conditions. The company, a member of the Roche Group, has headquarters in South San Francisco, California. For additional information about the company, please visit <http://www.gene.com>.

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