

EUROPEAN PUBLIC ASSESSMENT REPORT (EPAR)

AVASTIN

EPAR summary for the public

This document is a summary of the European Public Assessment Report (EPAR). It explains how the Committee for Medicinal Products for Human Use (CHMP) assessed the studies performed, to reach their recommendations on how to use the medicine.
If you need more information about your medical condition or your treatment, read the Package Leaflet (also part of the EPAR) or contact your doctor or pharmacist. If you want more information on the basis of the CHMP recommendations, read the Scientific Discussion (also part of the EPAR).

What is Avastin?

Avastin is a concentrate for solution for infusion (drip into a vein). It contains the active substance bevacizumab.

What is Avastin used for?

Avastin is used with other anticancer medicines to treat:

- metastatic cancer of the colon (part of the large intestine) or rectum, in combination with chemotherapy (anticancer medicines) that includes a ‘fluoropyrimidine’ (such as 5-fluorouracil). ‘Metastatic’ means that the cancer has spread to other parts of the body;
- metastatic breast cancer in combination with paclitaxel;
- advanced, metastatic or recurrent non-small cell lung cancer that is unresectable (cannot be removed by surgery alone) in patients whose cancer cells are not of the ‘squamous’ type, in combination with chemotherapy that includes a ‘platinum-based’ medicine;
- advanced or metastatic kidney cancer, in combination with interferon alfa-2a.

The medicine can only be obtained with a prescription.

How is Avastin used?

Avastin treatment should be supervised by a doctor who has experience in the use of cancer treatments.

Avastin is given as an intravenous infusion. The treatment is continued until the disease progresses.

The first infusion should last 90 minutes, but subsequent infusions may be given over a shorter period if the first infusion has been well tolerated. The dose is between 5 and 15 mg per kilogram body weight every two or three weeks, depending on the type of cancer being treated.

See the Summary of Product Characteristics (also part of the EPAR) for more information.

How does Avastin work?

The active substance in Avastin, bevacizumab, is a monoclonal antibody. A monoclonal antibody is an antibody (a type of protein) that has been designed to recognise and bind to a specific structure (called an antigen) that is found on certain cells in the body or is circulating in the body. Bevacizumab has been designed to bind to vascular endothelial growth factor (VEGF). VEGF is a factor that circulates in the blood and makes blood vessels grow. By binding to VEGF, Avastin stops it having an effect. As

the result, the cancer cells cannot develop their own blood supply, they are starved of oxygen and nutrients and this helps to slow down the growth of tumours.

How has Avastin been studied?

In cancer of the colon or rectum, the effects of adding Avastin to combinations of anticancer medicines including a fluoropyrimidine have been studied in three main studies. The first two studies involved patients whose metastatic disease was being treated for the first time ('first-line' treatment): the first study (923 patients) compared chemotherapy with and without Avastin, and the second (1,401 patients) compared adding Avastin with adding placebo (a dummy treatment). The third study involved 829 patients who had failed previous treatment including a fluoropyrimidine and irinotecan (another anticancer medicine).

In breast cancer, Avastin has been studied in 722 patients. The study looked at the effectiveness of adding Avastin to treatment with paclitaxel.

In lung cancer, Avastin has been studied in 878 patients. The study compared the effectiveness of the combination of Avastin with platinum-based chemotherapy with that of chemotherapy alone.

In kidney cancer, Avastin has been studied in 649 patients with advanced or metastatic disease. The study compared Avastin with placebo, both taken in combination with interferon alfa-2a.

In all of the studies, the main measure of effectiveness was either overall survival time or progression-free survival time (the time taken for the disease to get worse or for the patient to die).

What benefit has Avastin shown during the studies?

In cancer of the colon or rectum, the addition of Avastin prolonged survival time and progression-free survival time when added to fluoropyrimidine-containing chemotherapy. In the first study of previously untreated patients, adding Avastin increased survival times from an average of 15.6 to 20.3 months. In the second study, progression-free survival was 8.0 months in patients receiving placebo and 9.4 months in those receiving Avastin. In previously-treated patients, adding Avastin increased survival time from 10.8 to 13.0 months.

In breast cancer, the progression-free survival time was increased from 6.7 to 13.3 months in the patients receiving Avastin and paclitaxel compared with those receiving only paclitaxel.

In lung cancer, patients taking Avastin with paclitaxel and carboplatin survived for an average of 12.3 months, compared with 10.3 months for those taking paclitaxel and carboplatin alone.

In kidney cancer, adding Avastin to interferon alfa-2a increased the progression-free survival time from 5.4 to 10.2 months.

What is the risk associated with Avastin?

The most common side effects in patients receiving Avastin with or without chemotherapy (seen in more than 1 patient in 10) are leucopenia (low levels of leucocytes, a type of white blood cell), thrombocytopenia (low levels of platelets in the blood), neutropenia (low levels of neutrophils, a type of white blood cell), peripheral sensory neuropathy (damage to nerves in the extremities, such as the hands and feet), hypertension (high blood pressure), diarrhoea, nausea (feeling sick), vomiting, asthenia (weakness), fatigue (tiredness), anorexia (loss of appetite), dysgeusia (taste disturbances), headache, eye disorders, dyspnoea (difficulty breathing), epistaxis (nosebleeds), rhinitis (blocked nose), constipation, stomatitis (inflammation of the lining of the mouth), rectal haemorrhage (bleeding from the rectum), exfoliative dermatitis (flaky skin), dry skin, skin discoloration, proteinuria (protein in the urine), pyrexia (fever) and pain. The most serious side effects are gastrointestinal perforations (holes in the gut), fistulae (abnormal tube-like connections between organs), haemorrhage (bleeding), and arterial thromboembolism (blood clots in the arteries). For the full list of all side effects reported with Avastin, see the Package Leaflet.

Avastin should not be used in people who may be hypersensitive (allergic) to bevacizumab or any of the other ingredients. Avastin should not be used in patients who are hypersensitive to Chinese hamster ovary cell products or other recombinant antibodies. It should also not be given to pregnant women or to anyone who has untreated central nervous system metastases (secondary cancers in the brain or spinal cord).

Why has Avastin been approved?

The Committee for Medicinal Products for Human Use (CHMP) decided that, in combination with other anticancer medicines, Avastin's benefits are greater than its risks for the treatment of metastatic

cancer of colon or rectum, and the first-line treatment of metastatic breast cancer, unresectable advanced, metastatic or recurrent non-small cell lung cancer with other than predominantly squamous cell histology, and advanced and/or metastatic renal cell cancer. The Committee recommended that Avastin be given marketing authorisation.

Other information about Avastin:

The European Commission granted a marketing authorisation valid throughout the European Union for Avastin to Roche Registration Limited on 12 January 2005.

The full EPAR for Avastin is available [here](#).

This summary was last updated in 01-2008.