

Bevacizumab (Avastin®)

Bevacizumab (Avastin®) is a monoclonal antibody/targeted therapy. Bevacizumab (Avastin®) targets a protein called vascular endothelial growth factor (VEGF). This is a protein that helps tumour cells develop a new blood supply. Bevacizumab (Avastin®) blocks the protein and stops the tumour from developing new blood vessels. This reduces the supply of oxygen and nutrients so the tumour shrinks or stops growing.

Your treatment

Your doctor or nurse clinician has prescribed for you a treatment which includes the monoclonal antibody bevacizumab.

Day 1

Bevacizumab is given by an infusion (into a vein) over 90 minutes. Subsequent infusions may be given over 60 or 30 minutes depending on how well treatment has been tolerated.

Treatment is repeated every 2 to 4 weeks. How long treatment continues for varies from person to person and depends on how your disease is responding and how you are coping with treatment. Your doctor will discuss this with you.

You will have a routine blood test, blood pressure measurement and urine sample analysis before the start of each cycle of treatment.

This treatment can have serious or possibly life-threatening side effects. It is very important that you report side effects straight away. Don't delay, if you feel unwell, please ring The Christie Hotline on **0161 446 3658**. The lines are open 24 hours a day.

Increased risk of serious infection

You are vulnerable to infection while you are having chemotherapy. Minor infections can become life-threatening in a matter of hours if left untreated. Symptoms of infection include fever, shivering, sweats, sore throat, diarrhoea, discomfort when you pass urine, cough or breathlessness. We recommend that you use a digital thermometer so you can check your temperature. You can buy one from your local chemist.

If you feel unwell, you have symptoms of an infection or your temperature is 37.5°C or above, or below 36°C contact The Christie Hotline straight away.



Is it alright for me to have a flu jab during the time I'm having chemotherapy?

It's safe to have a flu jab, but depending on the sort of chemotherapy you have had, it may not give quite as much protection against infection as usual. Some patients may need two vaccinations. However, if you're thinking of having any other vaccinations, do check with your Christie doctor first, because some vaccines should be avoided.

Possible side effects

This treatment can cause many different side effects. Some are more likely to occur than others. Everyone is different and not everyone gets all the side effects. Most side effects are usually temporary, but in some rare cases they can be life-threatening. It is important to tell your hospital doctor or nurse about any side effects so they can be monitored and, where possible, treated.

Common side-effects (more than 1 in 10)

• High blood pressure

You will need to have your blood pressure checked throughout your treatment as some patients experience a rise in their blood pressure measurements. Most patients don't experience any problems but you may need to start taking, or increase tablets to control your blood pressure. These medications can usually be stopped once bevacizumab treatment has stopped. Doses of bevacizumab may need to be missed until your blood pressure is under control.

• Protein in the urine

This can occur due to effects of bevacizumab on the kidneys. It doesn't normally cause symptoms but requires careful monitoring. Before each dose of treatment you will have your urine tested for protein. If protein is identified you may need a further urine analysis and blood tests to assess how well your kidneys are working. Bevacizumab may be stopped until the protein found in the urine has resolved.

Uncommon side-effects (less than 1 in 10)

• Blood clots (Warning!)

During this treatment you are more at risk of blood clots in the legs (DVT) or lungs (PE). Occasionally these clots can be life-threatening. To help prevent clots, keep mobile and drink plenty of non-alcoholic fluids (around 2 to 3 litres per day). Symptoms of a blood clot include breathlessness; chest pain; fainting; coughing up blood or pain; redness; swelling or warmth in an arm or leg. If you develop any of these symptoms you should ring **999** and go immediately to your nearest accident and emergency department.

• Bowel perforation

A small hole can sometimes develop in the wall of the bowel (perforation). You'll be closely monitored when you come for treatment but if you develop persistent abdominal pain or an abdominal swelling contact The Christie Hotline number on **0161 446 3658** for advice immediately. It is not advisable to have any surgical procedures such as endoscopy whilst actively on bevacizumab – please consult your clinical team.

• Slow wound healing

Bevacizumab can slow the healing of wounds. You should not have bevacizumab treatment within 28 days of an operation (either before or after an operation or other invasive procedure). Your doctor will discuss this with you, but please make sure that you tell your doctor about any planned operations or other treatments, as you may need to have a break in your bevacizumab treatment. Particular attention needs to be paid to dental treatments – see page 3).

• Increased risk of bruising or bleeding

Minor nose bleeds are commonly seen in patients receiving chemotherapy. However, if you develop unusual bruising or bleeding, contact The Hotline number for advice immediately. Due to the increased risk of bleeding you should not take high-dose aspirin (more than 325mg daily) although low-dose aspirin (75mg daily) can be continued.

- **Allergic reaction**

Occasionally allergic reactions can occur whilst you are receiving the bevacizumab drip in hospital. This can result in symptoms of a rash, sickness, dizziness, wheeze or shortness of breath. Before receiving bevacizumab all patients are given treatment to reduce the risk of a reaction occurring. If you develop an allergic reaction the drip will be stopped and treatment will be given to help the reaction settle.

- **Change in voice (hoarseness)**

You may notice some voice changes or hoarseness. Talk to your doctor if you are worried about this.

Rare side effects (less than 1 in 100)

- **Very high blood pressure (Warning!)**

If your blood pressure becomes very high it can cause symptoms such as headaches, sleepiness, sickness, confusion and fits. If you experience these symptoms you should attend the nearest Accident and Emergency department for assessment.

Before carrying out any dental work you are strongly advised to consult your oncology team. Although very rare, there is a risk of developing complications of the jaw bone including breakdown of the jaw bone and non-healing following dental treatment such as extraction. This risk is greater when having this treatment with other drugs such as bisphosphonates, and this type of dental treatment should be avoided wherever possible.

Serious and potentially life threatening side effects

In a small proportion of patients chemotherapy can result in very severe side effects which may rarely result in death. The team caring for you will discuss the risk of these side effects with you.

Sex, contraception and fertility

Protecting your partner and contraception We recommend that you or your partner use a condom during sexual intercourse while you are having the course of chemotherapy. Chemotherapy is dangerous to unborn babies and this will also protect you and your partner from any chemotherapy drugs that may be present in semen and in the vagina. If you suspect that you may be pregnant please tell your doctor immediately.

Fertility This chemotherapy may affect your ability to have children. Your doctor or nurse should have discussed this with you. If not, please ask them before you start treatment.

Loss of periods Due to the effect of chemotherapy on the ovaries, you may find that your periods become irregular or may eventually stop. In younger women this may be temporary, but if you are closer to your menopause it may be permanent. This can result in hot flushes, sweats and vaginal dryness. Please contact your specialist nurse if you would like advice about managing these symptoms.

Late side effects

Some side effects may become evident only after a number of years. In reaching any decision with you about treatment, the potential benefit you receive from treatment will be weighed against the risks of serious long term side effects to the heart, lungs, kidneys and bone marrow. With some drugs there is also a small but definite risk of developing another cancer. If any of these problems specifically applies to you, the doctor will discuss these with you and note this on your consent form.

Contacts

If you have any general questions or concerns about your treatment, please ring the area where you are having treatment:

Your clinical nurse specialist:

Administration enquiries - **0161 918 7606/7610**
Chemotherapy nurse - **0161 918 7171**

Your consultant's secretary:

Dr McBain - **0161 918 7008**

Dr Borst /Dr Milanovic - **0161 446 3362**

Dr Colaco/Dr Whitfield/Dr Kennedy - **0161 918 7197**

For urgent advice ring The Christie Hotline on **0161 446 3658** (24 hours)

Your consultant is:

Your hospital number is:

Your key worker is:

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If you need information in a different format, such as easy read, large print, BSL, braille, email, SMS text or other communication support, please tell your ward or clinic nurse.

The Christie is committed to producing high quality, evidence based information for patients. Our patient information adheres to the principles and quality statements of the Information Standard. If you would like to have details about the sources used please contact **the-christie.patient.information@nhs.net**

For information and advice visit the cancer information centres at Withington, Oldham or Salford. Opening times can vary, please check before making a special journey.



Contact The Christie Hotline for
urgent support and specialist advice
The Christie Hotline: 0161 446 3658
Open 24 hours a day, 7 days a week