

Alemtuzumab

The possible benefits of treatment vary; for some people this systemic anti-cancer treatment may reduce the risk of the cancer coming back, for others it may control the cancer and its symptoms. Your doctor or nurse will be happy to answer any questions you have about your treatment. You will find it useful to refer to the booklet 'Chemotherapy, a guide' which gives general information on chemotherapy and side effects.

Your treatment

Your doctor or nurse clinician has prescribed a treatment called alemtuzumab. This is a type of cancer medication known as a monoclonal antibody. Monoclonal antibodies are used to try to destroy some types of cancer cells while causing minimal harm to normal cells. Monoclonal antibodies are sometimes called targeted therapies. This is because they are designed to recognise certain proteins on the surface of some cancer cells. Alemtuzumab locks on to this protein called CD52 on the surface of certain white blood cells (lymphocytes), including those affected by the leukaemia. Alemtuzumab attacks both cancerous and normal lymphocytes (white cells). However, the body quickly replaces any normal white blood cells that are damaged, so the risk of side effects from the treatment is small.

Alemtuzumab can be given in 2 ways:

- as an infusion (drip) into a vein which takes about 2 hours.
- as a subcutaneous (just under the skin) injection. This way is quicker but some people get a local allergic reaction where the injection is given. This can be a little uncomfortable and itchy for a few days.

Both methods are effective ways of giving the treatment, but your doctor or nurse will discuss with you the most suitable way for you to receive treatment.

We may ask you to stay at The Christie for a few hours after the treatment, or possibly overnight, to be monitored. The dose of alemtuzumab is usually increased over a few days until the recommended dose is achieved. This usually takes 3 to 7 days. Once the recommended dose is achieved the treatment is given three times a week (for example, on Monday, Wednesday and Friday). Most people have treatment for 4 to 12 weeks.

Before you have your treatment with alemtuzumab, you will have pre-medication: an intravenous (into a vein) injection of the anti-histamine (chlorphenamine) and 2 paracetamol tablets. This can help to prevent any immediate allergic reactions.

This treatment can have serious 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.

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)

• Infusion related reaction

This may occur while you are having the infusion or within 2 hours of receiving it. The symptoms include chills, fever and shivering. If this occurs tell your nurse and they can give you medication to help relieve these symptoms. Rarely, you can also develop a skin rash, headache, sore throat or sickness. If this happens or you notice any swelling around the eyes and face, feel dizzy or faint, have any shortness of breath during or after the chemotherapy, please tell the nurse or doctor immediately. This may be an allergic reaction and they may need to slow down or stop the drip. You will be monitored closely during and after your treatment, but it is very important to tell your nurse or doctor if you have any of these effects.

• Bruising or bleeding

This treatment can reduce the production of platelets which help the blood clot. Let your doctor know if you have any unexplained bruising or bleeding, such as nosebleeds, bloodspots or rashes on the skin, and bleeding gums. You may need a platelet transfusion.

• Anaemia (low number of red blood cells)

While having this treatment you may become anaemic. This may make you feel tired and breathless. Let your doctor or nurse know if these symptoms are a problem. You may need a blood transfusion.

You will have a routine blood test every day while you are in hospital to monitor the effects of the treatment, but please tell your nurse if you experience any of the symptoms listed above.

• Cytomegalovirus (CMV)

This is the name of a virus that lots of people have been exposed to already. The virus can be present in the blood stream but remains dormant (does not have any symptoms). You might already have been exposed to CMV (CMV positive) or be exposed to it without knowing. You will be monitored regularly for CMV levels because it can become active (cause symptoms) while you are having treatment with alemtuzumab.

• Low blood pressure

If you receive the infusion, you may develop low blood pressure for a period of time during and afterwards. This will be monitored by your nurse.

Uncommon side effects (less than 1 in 10)

- **Tumour lysis syndrome**

The drugs used to treat cancer can cause side effects when the cancer cells are destroyed too quickly (called tumour lysis syndrome or TLS). To prevent this you will be given a drug called allopurinol and you should also drink plenty of fluids, particularly with your first cycle of treatment.

- **Nausea and vomiting (sickness)**

The severity of this varies from person to person. Anti-sickness medication may be given along with your treatment to prevent this. If you continue to feel or be sick, tell your nurse because your anti-sickness medication may need to be changed or increased.

- **Flu-like symptoms**

These can include a high temperature, chills, weakness, sweating, muscle aches, tiredness, dizziness and headache. These effects generally occur after the infusion. If necessary your doctor can give you medication to help these symptoms.

- **Lethargy**

Some treatment may make you feel tired and lacking in energy. It can be frustrating when you feel unable to cope with routine tasks. If you do feel tired, take rest when necessary. Gentle exercise such as walking can be beneficial.

- **Low blood pressure**

This may happen during or for a period of time after the infusion. Your blood pressure will be monitored during the infusion and for a while afterwards

Rare side effects (less than 1 in 100)

- **Heart problems**

Alemtuzumab may worsen heart problems in people who already have them. For this reason it will be used with caution if you have had heart disease.

- **Transfusion-Associated graft-versus-host disease (TA-GvHD)**

This treatment can cause a deficiency in the immune system, so when you have a transfusion of blood products you are at higher risk of developing TA-GvHD. This is a rare complication caused by the white blood cells in the transfused blood product. These white cells recognise you as 'foreign' and cause a severe rejection reaction. We can prevent this by giving you irradiated blood products. We will give you more information about TA-GvHD and irradiated blood products in a separate leaflet. Also, we will give you a card to keep with you that informs staff you need irradiated blood and platelets. Never be afraid to check when you are having a transfusion that it has been irradiated.

Serious and potentially life threatening side effects

In a small proportion of patients this treatment 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 barrier form of contraception during sexual intercourse while you are having 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.

Late side effects

Long term possible side effects of treatment with alemtuzumab are not yet known. Talk to your doctor if you wish to discuss this further.

Contacts

If you have any general questions or concerns about your treatment, please contact the haematology and transplant unit.

Haematology nurse specialists **0161 918 7962**

Haematology and transplant day unit **0161 446 3924**

General enquiries **0161 446 3000**

For urgent advice ring The Christie Hotline **0161 446 3658** (24 hours a day, 7 days a week).

Your consultant is:

Your hospital number is:

Your key worker is:

Flu vaccinations

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 2 vaccinations. However, if you're thinking of having any other vaccinations, do check with your Christie doctor first, because some vaccines should be avoided.

COVID-19 vaccinations

We advise that all patients receive a COVID-19 vaccination when this is offered. Your doctor will discuss with you the best time to have this.

Notes:

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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, Salford or Macclesfield. 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