

## R-CHOP

The possible benefits of treatment vary; for some people this chemotherapy may reduce the risk of the cancer coming back, for others it may control the cancer and its symptoms. Your doctor will explain to you whether you will receive chemotherapy or another type of treatment, or a combination of both. 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 for you a course of treatment with rituximab, cyclophosphamide, vincristine, doxorubicin and prednisolone (steroid).

The treatment is given as an infusion (drip) and injection (bolus) into your vein and as tablets. The treatment consists of the following:

**Day 1** Vincristine by short infusion  
Doxorubicin by injection  
Cyclophosphamide by injection  
Rituximab by an infusion over between 60 minutes to a few hours

**Day 1 to 5** Prednisolone tablets

The treatment is given every 3 weeks for 3 to 6 cycles.

You will have a routine blood test and medical review before the start of each cycle of treatment. This is so your team can monitor and manage any side effects as well as assess your response to treatment. Occasionally we may not be able to go ahead with your treatment until your blood counts are back to a safe level. If this happens, your chemotherapy may be delayed a week.

- Before you have your treatment with **rituximab**, you will be given 2 paracetamol tablets and an anti-histamine tablet. This can help to prevent any immediate allergic reactions.
- Take your **prednisolone** tablets with food and not on an empty stomach as they may cause indigestion. They may also cause an increase in appetite. It is better to take them earlier in the day since they can make you feel more alert and prevent sleep.
- **If you are taking any other medicines:** It is important to tell the doctor if you are taking medicine for any other condition. Some medicines can react with your treatment, especially blood pressure medication. So always tell your doctor at every visit about any other medicines or tablets you are taking.

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.



## Possible side effects

Chemotherapy 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.

## Tumour lysis syndrome

This treatment may cause the rapid breakdown of lymphoma cells, which may lead to abnormalities in the blood. This problem is more likely if you have a lot of disease or if your kidneys do not work as well as they should do. Your doctor will tell you if you are at risk. You may be given a kidney-protective medicine called allopurinol for the first cycle of treatment, and your doctor may do additional blood tests to monitor this side effect. We sometimes admit patients for the first treatment to give intravenous fluids and kidney-protective medication and twice daily monitoring of blood tests for 48 hours.

## Common side effects (more than 1 in 10)

### • Increased risk of serious infection

You are vulnerable to infection while you are having chemotherapy as this treatment can cause low white blood cells and/or low antibody levels. 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 pharmacy.

**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.**

### • 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.

### • Infusion related reactions (Warning!)

The side effects of rituximab commonly occur while you are having the infusion including chills, fever and shivering. If you have any of these side effects please tell your nurse straightaway, however, your progress will be monitored regularly. Rarely, you may also develop chest pain, a skin rash, headache, tumour pain, sore throat, chest pain or sickness. If this happens or you notice any swelling around the eyes and face, feel dizzy or faint, or have any shortness of breath during 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. If you do not have any reactions to your first treatment, we may be able to give you subsequent infusions over a shorter period of time.

### • Hair loss

Hair loss is usually total. The hair falls out gradually 10 to 14 days following your first course of treatment. The time scale varies from person to person. Please remember that this is a temporary side effect and your hair will grow back when your treatment is completed. Very rarely, hair loss can be permanent. If you would like an appointment with the wig service, this can be arranged for you by visiting the cancer information centre, or call **0161 446 8100**. Ask the staff for a copy of the 'Wig fitting service'.

The Maggie's centre runs a Talking Heads hair loss support workshop for anyone who is anticipating or experiencing hair loss (both men and women). These sessions cover the practicalities of hair loss as well as offering support with its emotional impact. Contact Maggie's on **0161 641 4848** or email [manchester@maggiescentres.org](mailto:manchester@maggiescentres.org) to arrange an appointment.

### • **Lethargy**

Chemotherapy can often make you feel tired and lacking in energy, although this is not usually severe. It can be frustrating when you feel unable to cope with routine tasks. If you do feel tired, take rest and get help with household chores. If necessary, take time off work. Gentle exercise such as walking can be beneficial.

### • **Sore mouth and altered taste**

Your mouth may become sore or dry, or you may notice small mouth ulcers during this treatment. Drinking plenty of fluids and cleaning your teeth regularly and gently with a soft toothbrush can help to reduce the risk of this happening. We can prescribe a mouthwash for you to use during treatment. You can dilute this with water if your mouth is sore. Ask your doctor or nurse for further advice. There is also general mouth care information in the chemotherapy booklet. If you continue to have a sore mouth, please contact The Christie Hotline.

Occasionally during treatment you may have a strange taste (metallic or bitter). A strongly flavoured sweet or mint will help to disguise this. Normal taste will usually return after the treatment finishes.

### • **Constipation**

Vincristine and some anti-sickness tablets can cause constipation. Try to drink plenty of fluids and eat foods high in fibre. Report this to your hospital doctor who may prescribe a suitable laxative. Ask the staff for a copy of 'Eating - help yourself' which has useful ideas about diet when you are having treatment.

### • **Skin and nails**

Rituximab can sometimes cause a skin rash. This is usually mild and easily treated. Please tell your doctor on your next visit. Sometimes blisters develop on your skin. Inform your doctor if this occurs.

Sometimes as a result of the chemotherapy, your skin may appear **darker** in colour or lightly tanned, especially around the joints. This is known as hyperpigmentation. The skin will return to normal when treatment is finished. Some chemotherapy can make your skin more **sensitive to the sun** than usual. Sit in the shade, avoid too much sun and use a sunblock cream. Asian and African-Caribbean people may develop noticeable light patches on their skin.

Your nails may also discolour or become brittle during treatment. The skin and nails will usually return to normal when treatment is finished.

### • **Urine discolouration**

Doxorubicin because of its red colour may discolour your urine red or pink for up to 24 hours following treatment. This is perfectly normal and nothing to worry about.

## **Uncommon side effects (less than 1 in 10)**

### • **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.

### • **Nausea and vomiting (sickness)**

Nausea and vomiting may occur during treatment, the severity of this varies from person to person. Anti-sickness medication will be given along with your chemotherapy to prevent this. You will also be given anti-sickness tablets to take at home. If you continue to feel or be sick, contact your GP or The Christie, because your anti-sickness medication may need to be changed or increased.

### • Irritation of the bladder

Cyclophosphamide may cause a burning sensation or irritation on passing urine because the medicine irritates the bladder wall. When you have cyclophosphamide, try to drink plenty of fluids throughout the day and for 72 hours afterwards. Also, try to pass urine as soon as the urge is felt. Tell your doctor or nurse as soon as possible if you have this side effect.

### • Mood changes

Prednisolone tablets can affect your mood. This may result in mood swings and irritability. You may also have difficulty in sleeping. You may feel very energetic and have a good appetite when you take the tablets, and then lethargic and low in mood when you stop. If you experience this side effect and find it hard to tolerate you should discuss it with your doctor.

### • Blood sugar

Prednisolone may cause your blood sugar to rise. If you are diabetic then you may need to increase the dose of any diabetic medication you take (insulin or tablets). You should discuss this with your doctor before starting the chemotherapy. Prednisolone can also induce diabetes in people not known to have this disease. This is normally reversible although you may need to take some diabetic medication while you are having chemotherapy.

### • Tingling and numbness in the fingers or toes/muscle weakness

This is usually only mild and temporary. It can sometimes last for some time or become permanent. Sometimes you may also have difficulty controlling the muscles in your arms and legs or your balance. Please report these symptoms to your doctor on your next hospital visit.

### 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 risks of these side effects with you.

### Rare side effects (less than 1 in 100)

- Extravasation is when chemotherapy leaks outside the vein. If you develop redness, soreness or pain at the injection site at any time please let us know straightaway.

### 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.

### 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 such as cyclophosphamide there is also a small but definite risk of an increased chance 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.

**Changes to the heart:** Higher doses of doxorubicin may cause changes in the muscle of the heart. This can affect how the heart works. The effect on the heart depends on the dose given. It is very unusual for

the heart to be affected if you have standard doses. Tests to see how well your heart is working may sometimes be carried out before the chemotherapy is given.

## Contacts

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

Haematology day unit - **0161 446 3924**

Lymphoma clinical nurse specialists - **0161 446 8573**

Lymphoma secretaries -

**0161 446 3753** - Professor Radford/Dr Linton

**0161 446 8574** - Professor Illidge

**0161 446 3956** - Dr Smith

**0161 446 3332** - Professor Cowan

**0161 446 3302** - Dr Harris/Dr Chan

**0161 446 3869** - Dr Bloor

Palatine treatment ward - **0161 446 3960/3961**

General enquiries - **0161 446 3000**

Your consultant is: .....

Your hospital number is: .....

Your key worker is: .....

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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 **patient.information@christie.nhs.uk**

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