

## Doxorubicin and ifosfamide

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 its effects.

### Your treatment

Your doctor has prescribed for you a treatment which includes doxorubicin (also called Adriamycin) and ifosfamide. This treatment will be given via a drip. Treatment is given every 3 weeks for 6 cycles. Your treatment consists of the following:

#### Day 1, 2 and 3:

Doxorubicin (red liquid) as an intravenous (IV) injection.

Fluids given via an IV infusion.

Ifosfamide and mesna given together via IV infusion over 5 hours.

Mesna via continuous IV infusions.

#### Day 4:

Ifosfamide and mesna given together via IV infusion over 5 hours.

Mesna via continuous IV infusions – this regimen is completed when the mesna infusion finishes.

You will have a routine blood test before the start of each cycle of 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 treatment begins, we will ask you to have heart and kidney function tests.

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.**



## 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.

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

- **Red urine**

Doxorubicin because of its red colour may discolour your urine red or pink for up to 24 to 48 hours following treatment. This is normal and nothing to worry about.

- **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.

- **Bruising or bleeding**

This treatment can reduce the production of platelets which help the blood clot. Tell your doctor 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)**

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

- **Hair loss**

Most people will lose all of their hair following this type of chemotherapy. 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.

The cancer information centre offers a coping with hair loss service to all patients where support, information and advice will be given. Drop in, contact **0161 446 8100** or email [the-christie.informationcentre@nhs.net](mailto:the-christie.informationcentre@nhs.net). Information about the wig service can also be found here and vouchers for wigs can also be obtained for eligible patients. The wig room provides a drop in service, please see The Christie leaflet 'The wig fitting service' for further information.

The Maggie's Centre can support you with hair loss by helping you consider the practicalities as well as the emotional impact. Maggie's provides expert care and support to everyone with cancer and those who love them. You can call into Maggie's Monday to Friday, 9:00am-5:00pm to speak with their professional team, their address is Maggie's Manchester at The Robert Parfett Building, 15 Kinnaird Road, Manchester, M20 4QL or you can call them on **0161 641 4848** or email [manchester@maggies.org](mailto:manchester@maggies.org)

- **Lethargy**

Some chemotherapy 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 and get help with household chores. If necessary, take time off work. Gentle exercise such as walking can be beneficial.

- **Irritation to the brain**

Ifosfamide can cause irritation to the brain. You may notice vivid dreams while you are on the drip (while the chemotherapy is actually being given). Sometimes people get very drowsy and sleepy or may have visual hallucinations. Please tell the nurse if you begin to feel any of these symptoms. These symptoms usually quickly go away if the drip is stopped and there are not any permanent effects. However, rarely, ifosfamide can cause a loss of consciousness which can last for several days. Your doctor or nurse can give you more information about this.

- **Sore mouth**

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.

- **Skin and nail changes**

**Skin changes:** The skin on your hands and feet may become very dry, red and sore with some cracking. Tell your doctor. Cream and tablets can be prescribed to help. Your chemotherapy dose may need to change. Try to keep your hands and feet cool and if possible, uncovered.

**Hyperpigmentation:** Your skin may appear darker in colour or lightly tanned, especially around the joints. This is known as hyperpigmentation. Asian and African-Caribbean people may develop noticeable light patches on their skin. The skin will return to normal when treatment is finished.

**Increased sensitivity to the sun:** Your skin will tan or burn in the sun more easily. Sit in the shade, avoid too much sun and use sunblock cream and wear a hat.

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

- **Bladder irritation**

Ifosfamide may cause a burning sensation or irritation on passing urine because the chemotherapy irritates the bladder wall. You will receive a drug called Mesna to prevent this side effect. Try to drink plenty of fluids throughout the treatment and pass urine as soon as the urge is felt. If you have a burning sensation or irritation on passing urine, please inform your doctor at The Christie.

- **Weakness of the heart**

Doxorubicin can affect your heart. It can weaken the heart muscle. This is uncommon and is associated with the total dose of the treatment. Your treatment will not exceed the maximum dose. If there is any concern about your heart, a scan of the heart will be done before the start of your treatment.

- **Extravasation**

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 straight away.

## **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.

- **Herbal medicine**

Some herbal medicine including St John's Wort can affect the chemotherapy. You should let your doctor or nurse know if you are taking any herbal medication, complementary or alternative medicines, including vitamins, minerals and medicines purchased over-the-counter.

## **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 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 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.

## 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.

## Contacts

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

Administrative enquiries	<b>0161 918 7606 / 7653</b>
Chemotherapy nurse	<b>0161 918 7171</b>
Clinical trials unit	<b>0161 918 7663</b>
Sarcoma clinical nurse specialist	<b>0161 446 3094</b>
Palatine treatment ward	<b>0161 918 7233/7234</b>

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

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, 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