

Doxorubicin and cyclophosphamide

This leaflet is offered as a guide to you and your family. The possible benefits of treatment vary; for some people 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 a course of treatment with doxorubicin and cyclophosphamide:

Each drug is given into the vein through a fine tube (cannula) as bolus injections, via a fast flowing drip over approximately 30-40 minutes.

The treatment is repeated every 3 weeks for between 3 and 6 cycles.

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 put back (deferred) a week.

Immediate effects: Cyclophosphamide can cause a feeling of giddiness or dizziness, a metallic taste in the mouth, a feeling of numbness or pressure in the sinuses and a cold sensation along the course of the vein. This can last for an hour or so following treatment. Please tell your nurse if this happens.

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.



Common side effects (more than 1 in 100)

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

• **Diarrhoea (Warning!)**

If this becomes a problem while you are having treatment, contact the Christie Hotline for advice. If you develop severe diarrhoea it is important to contact this hospital straightaway as this may be a sign of a serious infection. Don't delay!

• **Constipation**

This can be a problem at any time during your treatment but especially while you are taking anti-sickness medication in the days just following your treatment. Your GP can prescribe tablets or medicine to relieve this. You can help by drinking plenty of water (2 litres per day) and by taking extra fibre in your diet. Please ask for a copy of 'Eating: help yourself.'

• **Sore mouth (Warning!)**

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. To prevent infection you should use an antibacterial mouthwash (Chlorhexidine – dilute this with water if your mouth is sore). Ask your doctor or nurse for advice. The chemotherapy booklet also has general mouthcare advice.

• **Heartburn**

Chemotherapy treatment can cause indigestion or reflux. If you experience this please contact The Christie Hotline. Heartburn can be treated with medication from your GP.

• **Urine discolouration**

Due to its red colour, doxorubicin may discolour your urine red or pink for up to 24 to 48 hours following treatment.

• **Change in nails**

The nails may become brittle and their texture or colour may change. This change grows out over several months once the treatment has finished. Pain in the nail bed (at the base of the nail) may occur, but this is rare.

• **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.

• **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 will 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**

Hair loss is usually total. The hair falls out gradually 10 to 14 days following your first course of treatment. It is not unusual for the scalp to feel tender at this time. Body hair and facial hair may also fall out. Hair does grow back when treatment has been completed. Very rarely, hair loss may be permanent.

If you would like an appointment with the wig service, this can be arranged for you by visiting the cancer information centre. It is a good idea to get your wig before you lose a lot of hair which you can then match to your natural colour. Ask the staff for a copy of the 'Wig fitting service at The Christie'.

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.

- **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. You may benefit from additional support during your treatment. If necessary, take time off work. Gentle exercise, such as walking, can however be beneficial.

- **Strange taste**

Chemotherapy can often leave a strange, metallic taste in your mouth. It can also make food seem tasteless and bland. Normal taste will usually come back after the treatment finishes. Ask the staff for dietary booklets which you may find helpful.

- **Bladder irritation**

Cyclophosphamide may irritate your bladder. It is important to drink as much fluid as you can (up to two litres a day) on the days you have the cyclophosphamide to help prevent this. Also, try to pass urine as soon as the urge is felt. If you have any discomfort or burning sensation when you pass urine, contact the hospital straight away

- **Anaemia**

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. 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.

- **Skin changes**

Doxorubicin can cause a rash which may be itchy. Your doctor can prescribe medication to help with this. Areas which have previously been treated with radiotherapy may become red and sore. Tell your doctor if this happens. The skin over the vein used for the injection may become discoloured. Your skin may darken due to the excess production of pigment. The darkening usually returns to normal a few months after treatment has finished. Asian and African-Caribbean people may develop noticeable light patches on their skin. Your skin can also be more sensitive to sunlight. You can still go out in the sun but remember to avoid direct sunlight and use a higher factor sunblock cream.

Uncommon side effects (less than 1 in 10)

- **Blood clots (Warning!)**

During chemotherapy 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.

- **Chest pain and palpitations (Warning!)**

Doxorubicin can affect the heart muscle. Go straight to your nearest Accident and Emergency department if you have chest pain during or in between treatments.

- **Cardiotoxicity (damage to the heart) (Warning!)**

Rarely this chemotherapy can cause damage to the heart leading to heart failure. This can sometimes occur some months after the treatment has finished. The function of your heart may be checked with an echocardiogram/MUGA scan before you start treatment and the dose of chemotherapy you receive is carefully monitored.

Rare side effects (less than 1 in 100)

- **Extravasation (Warning!)**

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.

Sex, contraception & 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 you should not try to become pregnant whilst you are having chemotherapy. Using a condom will also protect your partner from any chemotherapy drugs that may be present in the semen or 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.

Contacts

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

- Administration enquiries - **0161 918 7606/7610**
- Chemotherapy nurse - **0161 918 7171**
- Clinical trials unit - **0161 918 7663**
- Breast care nurses - **0161 446 3996**

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

Your consultant is:

Your hospital number is:

Your key worker is:

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.

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We try to ensure that all our information given to patients is accurate, balanced and based on the most up-to-date scientific evidence. 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

