

## FC (fludarabine and cyclophosphamide)

The possible benefits of this 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 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 treatment with a chemotherapy with fludarabine and cyclophosphamide. This treatment is given as tablets daily for 5 days.

The treatment is given every 28 days for 6 cycles.

You will have a routine blood test before the start of each cycle of treatment.

Your doctor will also prescribe other tablet medication to take while you are having chemotherapy to prevent certain infections. Your doctor will discuss this with you. If you need a **blood transfusion** (during treatment or anytime afterwards) because you are having fludarabine chemotherapy, the blood transfusion laboratory will select a special blood for you - called '**irradiated**' blood. We will give you more information about this when you start the chemotherapy.

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 Christie doctor or nurse about any side effects so they can be monitored and, where possible, treated.

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

### • 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 along with chemotherapy will be given 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. Your anti-sickness medication may be changed or increased.

### • Kidney function

It is important to monitor how your kidneys are working while you are having treatment. We do this through routine blood tests, or GFR test (most accurate test of kidney function). It is important to drink plenty of fluids (at least 8 cups) the day before and for a few days after chemotherapy.

### • Lethargy

Chemotherapy often makes 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.

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

### • Cystitis

Cyclophosphamide may cause a burning sensation or irritation on passing urine because it irritates the bladder wall. Try to drink plenty of fluids throughout the course 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.

### • 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 drink plenty of fluids, particularly with your first cycle of treatment.

### • Skin and nails

Sometimes as a result of chemotherapy, your skin may appear darker in colour or lightly tanned, especially around the joints. This is known as hyperpigmentation. Dark-skinned 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.

- **Sore eyes**

You may get a dry, gritty feeling in your eyes following treatment. If this happens, using hypromellose eye-drops will help to ease the discomfort. If the problem persists contact The Christie. Your eyes may also water. This will improve in time and needs no specific treatment.

- **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. To prevent infection you should use an antibacterial mouthwash (chlorhexidine - dilute this with water if your mouth is sore), Ask a doctor or nurse for advice. The chemotherapy booklet also has general mouthcare advice. 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 treatment finishes.

- **Tingling and numbness in fingers or toes**

This is usually mild and temporary but may last for some time or become permanent. Please report these symptoms to your doctor on your next Christie visit as your chemotherapy dose may need to be adjusted.

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

- **Hair loss**

Some hair loss may occur during treatment. It is advisable to avoid perms, colours, use of hot brushes and vigorous, frequent washing that could increase your hair loss. Please remember that it 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, phone **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, 9am-5pm to speak with their professional team, their address is Maggie's Manchester at The Robert Parfett Building, 15 Kinnauld Road, Manchester, M20 4QL or you can call them on **0161 641 4848** or email [manchester@maggies.org](mailto:manchester@maggies.org).

- **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 a higher risk of developing TA-GvHD. TA-GvHD is a 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.

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 has been irradiated.

## Serious and potentially life threatening side effects

In a small proportion of patients chemotherapy can result in very severe side effects which may 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 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 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 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 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 on **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.

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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