

Gemcitabine and carboplatin (lung)

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 has prescribed for you a treatment which includes the chemotherapy gemcitabine and carboplatin.

Day 1: Gemcitabine is given via a drip over 30 minutes followed by carboplatin via a drip over 1 hour

Day 8: Gemcitabine via a drip over 30 minutes

Day 15: Clinic visit. No treatment

The treatment is repeated every 3 weeks usually up to a maximum 4 cycles.

After cycle 2, if clinically possible you will have your treatment at a location closer to home. The Christie is committed to providing treatment closer to home as part of the Outreach and Christie at Home service.

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.

We strongly advise current smokers **to stop smoking while having this treatment**. If you would like help with stopping smoking, please let your doctor or nurse know and they can arrange support for you.

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.

- **Kidney function** It is important to monitor how your kidneys are working while you are having treatment. We will do this through routine blood tests, or a GFR test (the most accurate test of kidney function). It is important to drink plenty of fluids (at least 2 litres) the day before and for a few days after chemotherapy.



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. You may be given injections or antibiotics to help reduce the risk of having a serious infection.

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.

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 two 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 this with you the best time to have this.

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)

• Kidney function

Carboplatin occasionally will cause problems with your kidney function. Blood tests will be taken to check your kidney function and this will be closely monitored at each clinic visit.

It is important to monitor how your kidneys are working while you are having treatment. We will 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.

• 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 (Warning!)

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)

Nausea and vomiting are commonly associated with chemotherapy but 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.

• Skin rash

You may develop a skin rash. This is usually mild and easily treated. Please tell your doctor on your next visit.

- **Hair thinning (common)**

You will not usually lose your hair with this chemotherapy but some people do have some thinning of their hair. Please remember that this is a temporary side effect and your hair will grow back normally 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.uk**.

Information about the wig service can also be found here and vouchers for wigs can also be obtained for eligible patients. The wig room also 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**

- **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 a daily walk can be beneficial.

- **Flu-like symptoms and headaches**

Some chemotherapy may cause flu-like symptoms such as fever, aches and pains and shivering about 3 to 5 hours after it is given. These symptoms are temporary and should go within 12 to 24 hours. Paracetamol will help. If your symptoms are particularly severe, tell your doctor on your next visit.

- **Fluid build-up (oedema)**

Sometimes fluid can build up in your legs and ankles which can cause mild swelling. This is oedema. Tell your doctor or nurse if fluid builds up. If your ankles or legs swell it can help to put your legs up on a footstool or cushion. The swelling usually gets better after your treatment ends.

Uncommon side effects (less than 1 in 10)

- **Strange taste**

Occasionally during treatment you may experience a strange taste, sometimes described as metallic or bitter. A strongly flavoured sweet or mint will help to disguise this.

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

This is uncommon and it is usually only mild and temporary. On rare occasions, this may be permanent. You should report these symptoms to your doctor on your next hospital visit.

- **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 on **0161 446 3658**.

- **Upset bowels**

You may get upset bowels with this chemotherapy:

Diarrhoea If this becomes a problem while you are having treatment, anti-diarrhoea medication can be bought from a pharmacy or prescribed by your GP for a temporary period until this is resolved. If the problem persists contact The Christie. Ask the staff for a copy of 'Eating: help yourself' which has useful ideas about diet when you are having treatment.

Constipation Try to drink plenty of fluids and eat foods high in fibre. Tell your 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.

- **Tinnitus and high frequency hearing loss**

You may develop tinnitus (ringing in the ears), this sensation should subside when your treatment finishes. High frequency hearing loss can also occur with this chemotherapy, which may be permanent.

- **Drowsiness**

Gemcitabine may cause drowsiness. Take care if you are driving or operating machinery following the treatment.

- **Liver changes**

You may have liver changes that are usually mild and return to normal following treatment. You will have regular blood tests to check for any changes in your liver.

Less commonly the liver changes may be more serious. Contact your team if you develop right upper stomach pain, loss of appetite, nausea, light-colored stool, dark yellow or brown urine, yellowing skin or eyes, unusual weakness or fatigue.

Rare side effects (less than 1 in 100)

- **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.

- **Pulmonary toxicity**

Very rarely, this type of chemotherapy can make your breathing worse (this is usually temporary) or cause inflammation of the lungs which may need treatment. If you notice persistent and worsening shortness of breath, please tell your doctor or nurse straight away.

- **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.

- **Immediate allergic reaction**

Allergic reactions to carboplatin are uncommon. Please ask the staff for help *immediately* if you notice any of the following: fevers and chills, back pain and shortness of breath. Headaches and swelling of the face may occur *during* the time the drug is being given. If this happens please tell the staff straight away. Your doctor may prescribe further medication that can help to reduce these side effects.

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.

Other medicines:

Please ask your doctor at The Christie for advice about any other medication you are taking, including non-prescribed medicines, complementary therapies and herbal medicines.

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.

For female patients only

Loss of periods: Due to the effect of chemotherapy on the ovaries, you may find that your periods become irregular or stop. This is more likely in women over the age of 40 when most women will notice some change in their periods. It is less common in women under the age of 40 but does still happen and can result in significant menopausal symptoms (see section below). Even if your periods stop completely during chemotherapy your periods may come back several years later. This means that you may be able to become pregnant even many years after chemotherapy. It is very important to use contraception if you don't want to get pregnant.

Menopausal symptoms: When the ovaries stop working due to chemotherapy or during a natural menopause most women experience symptoms such as hot flushes, sweats (night and day) and vaginal dryness. These hormonal changes can make the vagina feel as though it has shrunk and become less easy to stretch. This is called vaginal atrophy and can result in discomfort, pain on sexual intercourse, itching and recurrent urine infections. If your ovaries don't start to work again the vaginal symptoms can be permanent, although the flushes and sweats tend to reduce and stop over a small number of years. Some women who have already gone through menopause may notice their symptoms worsening for a time after chemotherapy.

The vaginal symptoms can start early and the longer they are left the harder they can be to treat. Please contact your specialist nurse either in clinic or by phone when the symptoms first develop if you would like help. Symptoms can be managed in several ways including gels, essential oil pessaries and sometimes local oestrogen replacement. You may also find it helpful to visit the page 'Managing menopausal symptoms and cancer treatment' on the Macmillan Cancer Support website:

www.macmillan.org.uk

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:

Administration enquiries - **0161 918 7606/7610**

Chemotherapy nurse - **0161 918 7171**

Clinical trials unit - **0161 918 7663**

Lung cancer nurse team - **0161 918 2595**

Your doctor's secretary..... **0161**

Your consultant is:

Your hospital number is:

Your key worker:

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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