NHS
The Christie
NHS Foundation Trust

Mitomycin C and Capecitabine

The possible benefits of this treatment vary; for some people it 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.They will be happy to answer any questions you have about your treatment. It is useful to refer to the booklet 'Chemotherapy, a guide' which gives general information on chemotherapy and side effects.

Your treatment

Your treatment includes the chemotherapy mitomycin C given as a bolus injection and chemotherapy tablets called capecitabine. Your dose is calculated according to your height and weight. You may have to take several tablets of each strength to make up the dose. The tablets come in two strengths: 150mg and 500mg. You may have two separate boxes, one for each strength. Your tablets will be supplied from Pharmacy clearly labelled with directions on how many tablets you need to take.

Day 1: Mitomycin C by bolus [short] injection followed by capecitabine tablets which can be started the next day.

Day 22: Blood tests and review followed by capecitabine tablets which can be started the next day.

Patients receive 12 weeks of treatment followed by a scan.

Instructions for taking capecitabine:

1. Take the tablets twice a day [morning and evening] 10 to 12hours apart.
2. Take the tablets every day for ____ days [including Saturday and Sunday]
3. This is followed by____ days rest when you do not take capecitabine tablets.
4. Take the tablets within 30 mins after food, eg, after breakfast and an evening meal. It doesn't have to be a large meal. It can be a snack such as a sandwich.
5. Take the tablets with water only. Some fruit juice can react with your medication.
6. Store the tablets in a cool dry place.
7. **If you miss a dose do not double up the next dose. Take your regular dose at the next scheduled time. Complete the course up to 14 days. Do not extend after 14 days. Bring back any remaining tablets to clinic.**

You will have a routine blood test before the start of each 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. Capecitabine will interact with warfarin [a blood thinning tablet]. Tell your doctor if you are taking warfarin so a different blood thinning agent can be prescribed. Capecitabine also interacts with phenytoin, allopurinol and other medications. Tell your doctor if you are taking these drugs. **You will also have a one-off blood test to check for DPD deficiency and it is safe for you to have this treatment. See page 2.**

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.

After Cycle 2 of treatment, 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.

Flu vaccinations

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 with you the best time to have this.

Testing for DPD deficiency

The body makes enzymes which break down chemotherapy drugs so that chemotherapy doesn't build up in the body and cause severe side-effects. A very small percentage of the population (approximately1 in 20), either don't produce or produce less of an enzyme called DPD which would normally break down the chemotherapy drugs 5FU and capecitabine. This is called DPD deficiency. Reduced production of DPD is not an issue in day-to-day life, but it might mean that some patients experience severe and sometimes life-threatening side effects after 5FU or Capecitabine chemotherapy is given. Patients with DPD deficiency are more likely to develop severe mouth ulcers and diarrhoea and very low bloods counts increasing vulnerability to life threatening infections.

In order to check that it is safe for you to have this treatment, your team will be arranging a one off blood test. This test checks for some of the commonest abnormalities which can cause DPD deficiency. Your medical team will discuss the test results with you and can confirm whether you will be able to go ahead with your planned chemotherapy, or whether any changes need to be discussed.

Although DPD testing identifies many patients who are at risk of severe side-effects from 5FU and capecitabine, it does not identify all at risk patients. Severe and sometimes life-threatening side-effects can occur in patients who have had a normal test result. Therefore it is important that patients receiving chemotherapy monitor their symptoms carefully and contact The Christie Hotline on **0161 446 3658** if they become unwell.

Increased risk of serious infection

You are vulnerable to infection while you are having chemotherapy. Minor infections can becomelife-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)

• Nausea and vomiting (sickness)

A common side effect of your treatment is sickness. If you are sick (vomiting) please tell your doctor or nurse at The Christie. They will be able to give you advice about controlling these symptoms. It is important to try and eat and drink regularly.

• Diarrhoea

Diarrhoea is a fairly common side effect of your treatment. If you have watery diarrhoea you should immediately take the anti-diarrhoea treatment that the doctor has prescribed for you. This is the loperamide dispensed by The Christie pharmacy. Follow the doctor's instructions **EXACTLY:**

Take 2 loperamide capsules or tablets as soon as the first liquid stool occurs. Then take one capsule or tablet with each liquid loose stool (the maximum dose of loperamide in a day is 8 capsules).

If you have an increase of more than 4 bowel movements each day compared to pre-treatment or any diarrhoea at night, please ring The Christie Hotline on **0161 446 365**8 for advice.

• 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.

• 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 Christie chemotherapy booklet. If you continue to have a sore mouth, please contact The Christie Hotline on **0161 446 3658**.

• Skin and nail changes

PPE (palmar-plantar erythema): 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: Less commonly, 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 a high factor sunblock cream and wear a hat.

Nail changes: You may have a blue tinge or darkening of the nails, flaking of the nails or pain and thickening of the area where the nail starts growing.

Uncommon side effects (less 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. 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.

• 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.

• 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.

• Watery eyes

We can give you eye drops for this, but it will improve in time.

• Allergic reaction

Ask the staff for help if you notice any of the following: fevers and chills: back pain, 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 straightaway. Your doctor may prescribe a drug that can help to reduce these side effects and, if necessary, we can give you this before your next treatment. Some people have hot flushes when the drug is being given.

Rare side effects (less than 1 in 100)

• Hair thinning

It is uncommon to lose hair with this treatment although it may thin a little. It is advisable to avoid perms, colours, use of hot brushes and vigorous, frequent washing that could increase hair loss. 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 **8107** or email **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 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@maggies.org.**

• Chest pain or stroke (Warning!)

A small number of patients receiving capecitabine can experience chest pain (angina) or rarely have a heart attack. Extremely rarely this may lead to death. Other complications such as stroke or mini-stroke can happen but are exceptionally rare. **If you develop any of these symptoms you should ring 999 and go immediately to your nearest Accident and Emergency department.** You may have an electrocardiograph (ECG) to check your heart before you start your chemotherapy. **Do not take any further capecitabine tablets until agreed by your team at The Christie.**

• Effects on the lungs (Warning!)

Lung changes can be an uncommon or rare side effect of mitomycin C, but can very rarely be severe or fatal, and you should seek urgent medical advice if you develop cough or breathing difficulties during treatment or following completion. In an emergency you should go to your local accident and emergency department.

• 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 (around 2 to 3 litres a day). Symptoms of a blood clot include breathlessness; chest pain; fainting; coughing up blood or pain; redness; swelling or warmth in an arm or leg. If you develop any of these symptoms, you should ring **999** or go immediately to your nearest accident or emergency.

• Increased risk of serious infection

As discussed earlier chemotherapy results in an increased risk of severe infections which can be life threatening.

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

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 request the booklet ‘Menopausal symptoms and breast cancer’ by Breast Cancer Now (either from your breast care nurse, the cancer information centre at The Christie or online).

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**

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.

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

September 2022 – Review September 2025
CHR/CT/583/26.08.10 Version 6