

Raltitrexed (Tomudex) and Oxaliplatin

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 team will be happy to answer any questions 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 doctor has prescribed a course of treatment with Oxaliplatin and Raltitrexed. The treatment consists of the following:

Day 1 Oxaliplatin by drip over 2 hours followed by Raltitrexed infusion over 15 minutes.

This treatment is repeated every 3 or 4 weeks for cycles.

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

Situations where Raltitrexed is used:

Raltitrexed is an option for patients when the alternative chemotherapy drugs 5FU or Capecitabine cannot be used, or their use is felt to have a high-risk of complications.

There are three patient groups where Raltitrexed is used:

1. Patients with mutations in the DPYD gene (see below) which prevent the use of 5FU or Capecitabine.
2. Patients who have had heart problems (e.g. angina or heart attack) after receiving 5FU or Capecitabine.
3. Patients who have a significant past history of ischaemic heart disease in whom the use of 5FU or Capecitabine may have a have a high-risk of exacerbating on-going angina or causing a heart attack. Although the risk of exacerbating underlying heart problems is low with Raltitrexed any patient experiencing significant chest pain whilst on this treatment should go immediately to your nearest accident and emergency department.

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.

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

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.

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)

• Mild nausea and vomiting (sickness)

You may have mild nausea and vomiting. The severity of this varies from person to person. You will 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.

• Diarrhoea

Diarrhoea is a 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 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 or tablets).

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 for advice.

• 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.

- **Taste change**

Raltitrexed may cause a strange taste in your mouth or you may find food tastes different. This should go away when your treatment finishes. To give food more flavour try to use herbs and spices or strong flavoured sauces. Sucking boiled sweets can sometimes help get rid of a bitter or metallic taste.

- **Numbness in the fingers and toes**

Oxaliplatin can increase the sensitivity of nerve endings. You may develop pins and needles, tingling or numbness, or pains like small 'electric shocks' and may have difficulty in carrying out delicate tasks such as buttoning clothes (this may sometimes occur in association with cramps) which may last for a few days. These symptoms are often triggered by exposure to cold. Take care with extreme drops of temperatures, for example, opening fridge/freezers. Avoid drinking iced drinks and eating very cold food for 24 hours before the treatment and for 24 hours afterwards. The chance of these symptoms occurring increases as you receive more oxaliplatin and will improve over time once you stop treatment. Rarely, the numbness can be permanent. It may be necessary to interrupt or stop the oxaliplatin if numbness and tingling are causing you problems. Take care when using hot water as you may burn yourself. Use protective gloves when cooking and gardening. **(See Appendix for further information).**

- **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. 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.

- **Infusion reactions**

Sometimes you may experience unpleasant feelings in the throat, particularly when swallowing which can give the sensation of shortness of breath. However, you will be able to breathe normally. These sensations usually occur while you are having oxaliplatin and may be dealt with by slowing the infusion of oxaliplatin from 2 - 6 hours. Also taking a warm (not hot) drink can help if cold air is causing you swallowing difficulties. Rarely patients can experience jaw pain.

- **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.

- **Hair thinning**

Hair loss is very unusual with this treatment. In rare cases 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 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 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.

- **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.

- **Kidney function**

Your kidneys play an important role in dealing with many drugs. It is important to monitor how well your kidneys are working while you are having treatment. We do this by a blood test. If there are concerns about your kidney function a more accurate assessment can be made by an X-ray test.

- **Liver function**

Raltitrexed can also cause changes in your liver function. This will go back to normal once your treatment has finished. You will have regular blood tests to monitor this.

Rare side effects (less than 1 in 100)

- **Allergic reactions**

Whilst receiving the oxaliplatin patients rarely can feel hot, faint, breathless, sick, or develop an itchy rash. These can be symptoms of an allergic reaction. If an allergic reaction is suspected the oxaliplatin drip will be stopped and medications can be given to settle the allergic reaction. Allergic reactions are more likely to occur after several months of treatment, or when the treatment is being re-started after a treatment break. If treatment is being re-started after a break, additional drugs are given to reduce the risk of an allergic reaction occurring. If you have an allergic reaction to Oxaliplatin your doctor will discuss with you what treatment options are available.

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.

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

Your consultant is:

Your hospital number is:

Your key worker is:

Appendix

Oxaliplatin-induced peripheral neuropathy

Oxaliplatin is a commonly prescribed drug used in the treatment of gastrointestinal cancers. It has been used for many years, and the safety profile and side-effects are well known. Peripheral neuropathy (nerve damage) is a common side effect due to the effects of oxaliplatin on the nerves. Almost all patients experience temporary symptoms of pins and needles exacerbated by exposure to the cold. However, repeated treatment can cause persistent numbness to develop in more than 30% of patients treated with oxaliplatin, which can be long lasting, troublesome and permanent in up to 10% of patients.

It is important that patients and their carers are alert to the signs and symptoms of peripheral neuropathy. The symptoms should improve slowly after the treatment has finished, but in some people they may never go away and have potential to affect their quality of life forever. Sometimes the effects of the nerve damage become apparent, or even worsen after the discontinuation of the chemotherapy.

Oxaliplatin, in combination with 5-fluorouracil (5FU) or capecitabine-based chemotherapy, is proven to help improve the treatment of patients with bowel cancer in a number of different situations. However, the benefit is relatively modest, compared with 5FU or capecitabine-based chemotherapy used alone. Please do not worry if you are advised to stop oxaliplatin if you develop signs and symptoms of peripheral neuropathy. It is much safer to stop sooner rather than later, and you can still continue to receive and benefit from 5FU or capecitabine-based chemotherapy.

Signs and symptoms of peripheral neuropathy:

For most individuals, tingling in hands will be triggered by anything cold, such as iced drinks and cold air. If you notice that your symptoms are related to the cold, you should avoid cold food and drinks and wrap up warmly (wear gloves, socks and a scarf to cover your nose and mouth) in the cold weather. Use gloves when taking things out of the freezer or fridge. These symptoms are generally short lived and expected with the use of oxaliplatin. If however you have these symptoms all the time, you do need to inform the cancer specialist and the nurse treating you.

The symptoms of peripheral neuropathy are known to worsen in terms of severity and duration with successive treatments. This is known as a cumulative effect. These symptoms can include numbness, tingling and cramping of the hands and feet. You may also find it hard to fasten buttons or to do other fiddly tasks such as tying shoelaces. In more severe or established cases one can experience difficulties writing, using a computer keyboard or difficulties in day to day walking (unable to feel the ground). In severe cases, these symptoms can mean that it is no longer safe for a patient to drive. This is why we want to emphasise the need to stop the drug in a timely manner, rather than carry on too long, causing more difficulties.

The medical team would want to review and adjust the dose of the oxaliplatin drug to account for this and reduce the risk of more severe permanent nerve damage. Therefore every time you attend for a chemotherapy review you should be asked whether you have had any numbness, cramping or tingling of the hands or feet and whether they are worsening.

If persistent symptoms are present, the oxaliplatin drug will be stopped. There is no proven treatment to help reverse existing nerve damage, although symptoms often improve slowly over time. If you have pain associated with the numbness additional medications may be suggested to try to help reduce the pain. If a clinical trial is available your medical team will discuss this with you.

- Whilst receiving and after treatment with oxaliplatin, avoid cold temperatures and objects. For example, cold drinks, ice cream, washing in cold water. Many patients wear gloves when using the fridge or freezer.
- Cover yourself with a blanket while you are receiving your oxaliplatin infusion.
- In winter, after receiving your treatment, take care when leaving the chemotherapy unit as the cold air outdoors can cause you to feel like you can't get your breath. Put on a scarf, gloves and warm coat before going outdoors.
- During the summer, avoid direct contact with air conditioning.
- If persistent symptoms occur mention this at your next hospital visit to the medical or nursing teams so that we can discuss what to do next.

If your tingling or numbness symptoms are persisting or worsening all the time (i.e. no full recovery before next dose), you should certainly inform your cancer specialist and chemotherapy nurse when you attend for a review.

The *earlier* the medical and nursing team are made aware of any signs of nerve damage, the sooner your treatment plan can be adjusted to reduce the risk of you developing any long-term nerve damage.

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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