

Concurrent chemo-radiation with paclitaxel and carboplatin for non-small cell lung cancer

This leaflet is offered as a guide to you and your family. The possible benefits of treatment vary: for some people chemotherapy/radiotherapy may reduce the risk of the cancer coming back, for others chemotherapy may control the cancer and its symptoms. Your treatment will be fully explained by your doctor or nurse, who will be happy to answer any questions. You will find it useful to refer to the booklets 'Chemotherapy: a guide' and 'Radiotherapy: a guide', which give general information on treatment and side effects.

You have recently been diagnosed with non-small cell lung cancer and your specialist medical team have recommended chemotherapy and radiotherapy treatment. A way of combining the two treatments is to give radiotherapy on the same day as chemotherapy. This is known as 'concurrent' chemo-radiotherapy. The aim of the treatment is to shrink the tumour and stop the cancer from re-occurring although often in many cases the cancer will not be cured and will become active despite the treatment. Your doctors and nurses will then discuss with you the possibility of further treatment at this stage.

Your treatment

Your doctor or nurse clinician has prescribed a treatment for you which includes the 2 chemotherapy drugs paclitaxel and carboplatin. This part of your treatment will be given slowly into the vein through a 'drip' in your arm in hospital. The treatment will be given once a week for 6 weeks usually on the same day each week. Both chemotherapy and radiotherapy will start on the first day, known as Day 1.

The radiotherapy treatment will be given once a day Monday to Friday usually in a different department of the hospital. Treatment usually starts on a Monday. Radiotherapy is given for between 30 and 33 sessions and is once daily for approximately 6 - 7 weeks. The radiotherapy appointment will take approximately 30 minutes a day.

Paclitaxel is given via a drip lasting 1 hour

Carboplatin is given via a drip lasting 30 minutes

The treatment is repeated every week for a total of 6 cycles

You may then have 2 further sessions of chemotherapy with carboplatin and paclitaxel after radiotherapy at a higher dose level/infusion time (separated by 3 weeks) or receive a different treatment called durvalumab.

Rarely paclitaxel can cause an allergic reaction. To prevent this happening, we will give you pre-medication injections 30 minutes before starting the paclitaxel treatment.

Kidney function. It is important to monitor how your kidneys are working while you are having treatment. We do this with regular bloods tests, prior to each treatment and sometimes a 'GFR' test which assesses kidney function more accurately if required.

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.



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. A normal temperature is between 36°C and 37°C.

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.

Other medicines

Some medicines can be harmful to take when you are having chemotherapy. Let your doctor know about any medications you are taking, including non-prescribed medicines such as complementary therapies and herbal remedies.

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.

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. We are all different, so we may get different side effects with varying severity. 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.

Allergic reactions

A small number of patients can have an allergic reaction to **paclitaxel** and very rarely to **carboplatin**. Reactions can include breathlessness, a feeling of dizziness, skin rashes, itching, a high temperature, shivering, redness of the face, headache, anxiety, and a desire to pass urine. You will be monitored throughout your treatment for any signs of an allergic reaction but it is important to tell your nurse or doctor if you have any of these signs, or feel unwell in any way.

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.

Paclitaxel can cause pain where the injection is given, or along the vein. If you feel pain, tell your doctor or nurse as they can slow the drip to reduce the reaction.

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.

- **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 may also be given anti-sickness tablets to take at home. If you continue to feel or be sick, contact your GP or The Christie 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. The time scale varies from person to person. 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 **informationcentre@christie.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 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@maggiescentres.org**.

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

This is due to the effect of the chemotherapy on the nerves and is known as peripheral neuropathy. You may also notice that you have difficulty doing up buttons or similar tasks. Tell your doctor if you notice any numbness or tingling in your hands or feet. This usually improves a few months after treatment has finished although this may be permanent.

- **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.

- **Muscle and joint pain**

Sometimes you may experience pain in the muscles in your legs. A simple painkiller will help. Ask your doctor for advice on this.

- **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 will prescribe a mouthwash and liquid paracetamol for you to use during treatment. You can dilute the mouthwash 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.

- **Low blood pressure**

Your blood pressure will be checked during your treatment. Let the doctor know if you feel faint or dizzy.

Uncommon side effects (less than 1 in 10)

- **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.

- **Diarrhoea**

If this becomes a problem while you are having treatment, anti-diarrhoea tablets 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. **If you develop severe diarrhoea it is important to contact this hospital straight away as this may be a sign of a serious infection. Don't delay!**

- **Constipation**

Try to drink plenty of fluids. Report this to your hospital doctor or nurse who can advise you regarding diet and 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.

- **Hearing loss**

If you notice any hearing loss or changes to your hearing please inform your medical team at the hospital.

- **Changes in heart rate**

Paclitaxel can sometimes cause a temporary slowing of the heart rate known as bradycardia. This usually does not cause any harm.

- **Abdominal pain**

This may start a few days after finishing chemotherapy and may last for a few days. Please contact the hospital if this happens. Your doctor can prescribe painkillers if appropriate.

- **Nail changes and skin changes**

May cause nail changes and discolouration of nail bed. Some areas of skin may become dry or red. If these changes are causing any discomfort please inform your medical team. These changes should be temporary and the condition of your nails should improve when treatment finishes.

- **Loss of taste**

You may notice that your sense of taste is affected and food may taste different. Normal taste usually comes back after treatment finishes.

- **Loss of appetite**

If you experience a loss of appetite, please be sure to tell your doctor or nurse at your next hospital visit. We will provide you with some food supplement drinks to help you while you are receiving treatment.

- **Sore hands and feet**

Some people notice their hands and feet are sore and may notice some redness, swelling or pain on the palms of their hands or soles of their feet.

- **Rash**

Occasionally some patients may notice a rash on their arms, legs or trunk. Sometimes this is irritating and causes itching.

- **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 and fertility

Protecting your partner and contraception

We recommend that you or your partner always 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.

Loss of periods for women

Due to the effects 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 will result in hot flushes, sweats and vaginal dryness.

Possible radiotherapy side effects

Acute side effects are temporary and affect everyone having radiotherapy. They will vary depending on which area is being treated, and your general fitness. They usually develop 10 to 14 days after the first day of your treatment and can last for about two weeks after treatment is complete.

These side effects tend to build up during the radiotherapy treatment, and are at their worst in the last week of treatment' or in the first 2 weeks after the radiotherapy treatment has been completed. They then recover 3 - 6 weeks after treatment.

The early side effects of concurrent chemo-radiotherapy may include:

- **Persistent difficulty in swallowing**

Inflammation of the gullet (oesophagitis) can cause discomfort when swallowing (dysphagia). Your doctor can prescribe medicines to alleviate this symptom and the hospital dietician can advise about modifications to your diet and supplements. You should concentrate on maintaining a good fluid intake. You will be provided with liquid paracetamol and mouthwashes to help with pain when you start your treatment.

- **Tiredness**

Tiredness related to radiotherapy varies a lot from person to person. You should stay moderately active but avoid making yourself too tired.

- **Pain**

Some pain in the chest in the 24 hours after the first treatment. This is usually mild and settles down fairly quickly.

- **Cough**

Increase in your cough and sputum (spit) which may contain a little blood. Don't worry, this is quite normal. If you are having difficulties with this during treatment, let your doctor know. Coughs can sometimes worsen when treatment finishes.

- **Shortness of breath**

Inflammation of lung tissue (pneumonitis) can cause a cough and a degree of breathlessness during or shortly after radiotherapy. A variant of this side effect can cause troublesome breathlessness about six weeks after radiotherapy is completed.

In rare circumstances, this may need urgent assessment and could become life-threatening without any treatment. You should ring The Christie Hotline on **0161 446 3658** if you are concerned.

- **Skin rash**

Skin reaction can be caused by radiotherapy treatment, similar to sunburn. On rare occasions a cream may be needed.

Week number	Week day	Treatment day	Treatment due
1	Mon	1	Week 1 day 1 carboplatin/paclitaxel (Taxol) chemotherapy / plus day 1 radiotherapy
	Tues	2	Day 2 radiotherapy
	Wed	3	Day 3 Radiotherapy
	Thurs	4	Day 4 Radiotherapy
	Fri	5	Day 5 Radiotherapy
	Sat	6	Rest day
	Sun	7	Rest day
2	Mon	8	Week 2 carboplatin/paclitaxel chemotherapy plus Day 6 Radiotherapy
	Tues	9	Day 7 radiotherapy
	Wed	10	Day 8 radiotherapy
	Thurs	11	Day 9 radiotherapy
	Fri	12	Day 10 radiotherapy
	Sat	13	Rest day
	Sun	14	Rest day
3	Mon	15	Week 3 carboplatin/paclitaxel chemotherapy plus Day 11 radiotherapy
	Tues	16	Day 12 radiotherapy
	Wed	17	Day 13 radiotherapy
	Thurs	18	Day 14 radiotherapy
	Fri	19	Day 15 radiotherapy
	Sat	20	Rest day
	Sun	21	Rest day
4	Mon	22	Week 4 carboplatin/paclitaxel chemotherapy plus Day 16 radiotherapy
	Tues	23	Day 17 radiotherapy
	Wed	24	Day 18 radiotherapy
	Thurs	25	Day 19 radiotherapy
	Fri	26	Day 20 radiotherapy
	Sat	27	Rest day
	Sun	28	Rest day

5	Mon	29	Week 5 carboplatin/paclitaxel chemotherapy plus day 21 radiotherapy
	Tues	30	Day 22 radiotherapy
	Wed	31	Day 23 radiotherapy
	Thurs	32	Day 24 radiotherapy
	Fri	33	Day 25 radiotherapy
	Sat	34	Rest day
	Sun	35	Rest day
6	Mon	36	Week 6 carboplatin/paclitaxel chemotherapy plus day 26 radiotherapy
	Tues	37	Day 27 radiotherapy
	Wed	38	Day 28 radiotherapy
	Thurs	39	Day 29 radiotherapy
	Fri	40	Day 30 radiotherapy
	Sat	41	Rest day
	Sun	42	Rest day
7	Mon	43	Day 31 radiotherapy
	Tues	44	Day 32 radiotherapy
	Wed	45	Day 33 radiotherapy
Week 10	Mon	64	First additional cycle of carboplatin and paclitaxel (3 weekly treatment)
Week 13	Mon	85	Second additional cycle of carboplatin and paclitaxel (3 weekly treatment)
Finish Treatment			Radiotherapy dates may change due to Bank Holidays. Between 30 - 33 radiotherapy treatments are given, decided by your consultant.

Contacts

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

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

Your doctor's secretary		0161
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 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