

## Patient information factsheet

# Neoadjuvant treatment for non-small cell lung cancer

We have given you this factsheet because you have been diagnosed with lung cancer that is suitable for surgery. The cancer is called non-small cell lung cancer. We would like to offer you an additional treatment called 'neoadjuvant treatment' before surgery to remove the cancer. This factsheet explains what neoadjuvant treatment is and what it involves. We hope it will help you to decide whether this treatment option is right for you. If you have any further questions or concerns, please contact a member of your healthcare team using the details at the end of this factsheet.

### What is non-small cell lung cancer?

Cancer that starts in the lungs is called primary lung cancer. There are two main types of primary lung cancer:

- non-small cell lung cancer (NSCLC)
- small cell lung cancer (SCLC)

NSCLC is the most common type of lung cancer.

### What is neoadjuvant treatment?

Studies have shown that if certain types of lung cancer, including NSCLC, are confined to one area of the lung, then an operation to remove it offers the best chance of a cure (although this is not a guarantee).

In addition to surgery, new evidence suggests that having neoadjuvant treatment before this type of surgery further improves the chance of a cure. Neoadjuvant treatment is treatment that is given before surgery to help reduce the size of a tumour or destroy cancer cells that may have spread in the body.

### What does neoadjuvant treatment for NSCLC involve?

Neoadjuvant treatment for NSCLC involves having a combination of chemotherapy and immunotherapy before having surgery to remove the lung cancer.

### Chemotherapy

Chemotherapy is a treatment for cancer that kills all rapidly dividing cells in the body. By stopping cancer cells from reproducing, this treatment slows down or sometimes stops cancer from growing or spreading in the body.

Chemotherapy can be given as an injection or as an intravenous (IV) infusion or 'drip' (when medicines or fluids are given directly into your veins).

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For more information about chemotherapy, please read our 'Chemotherapy' factsheet: [www.uhs.nhs.uk/Media/UHS-website-2019/Patientinformation/Cancercare/Chemotherapy-2214-PIL.pdf](http://www.uhs.nhs.uk/Media/UHS-website-2019/Patientinformation/Cancercare/Chemotherapy-2214-PIL.pdf)

## Immunotherapy

Immunotherapy is a drug treatment for some types of cancer. Immunotherapy uses your own immune system to fight cancer. It works by helping your immune system to recognise and attack cancer cells.

Immunotherapy can be given as an injection or as an intravenous (IV) infusion or 'drip'.

For more information about immunotherapy, please read our 'Immunotherapy' factsheet: [www.uhs.nhs.uk/Media/UHS-website-2019/Patientinformation/Cancercare/Immunotherapy-2698-PIL.pdf](http://www.uhs.nhs.uk/Media/UHS-website-2019/Patientinformation/Cancercare/Immunotherapy-2698-PIL.pdf)

## What are the benefits of neoadjuvant treatment?

A research project showed that 358 people with NSCLC benefitted from having neoadjuvant treatment before having surgery, increasing their chance of survival from 70% (without neoadjuvant treatment) to 82%. The results also showed that 24% of the people who received neoadjuvant treatment had no cancer in their lungs by the time of their surgery.

This treatment was approved by The National Institute for Health and Care Excellence (NICE) in March 2023.

## What will happen if I agree to have neoadjuvant treatment?

You will have an appointment with a thoracic (chest) surgeon who will discuss the surgical part of your treatment and what it involves.

If you and the surgeon both agree that neoadjuvant treatment is the right treatment for you, the surgeon will refer you to a medical oncologist (a doctor who specialises in giving immunotherapy and chemotherapy).

The medical oncologist will then send you an appointment for a meeting to discuss your treatment options. At this appointment, the medical oncologist will discuss with you:

- your personal preferences
- what the treatment involves
- how the treatment works
- the benefits of the treatment
- the course of treatment and how long it will take
- the potential side effects and risks of the treatment
- your suitability for the treatment and alternative treatments (if necessary)

After your discussion, you will need to make a decision as to whether or not to go ahead with the neoadjuvant treatment.

If you wish to proceed with the neoadjuvant treatment, the medical oncologist will ask you to sign a consent form before you start treatment.

## How will the neoadjuvant treatment be given?

Chemotherapy and immunotherapy are given in cycles. A cycle is the time between one round of treatment and the next. After each round of treatment, you will have a break to allow your body to recover before the next treatment.

You will have one treatment (also known as one cycle) every three weeks for nine weeks (three cycles of treatment in total).

For each cycle of treatment, you will also have:

- a blood test
- a check-up appointment
- an IV infusion (drip or injection) the day after your treatment (you will be able to go home the same day and won't need to stay in hospital overnight)

## What are the potential side effects of neoadjuvant treatment?

### Infection

Chemotherapy and immunotherapy can reduce your body's ability to fight infection. This makes you more likely to pick up infections that could make you seriously ill.

### Tiredness

Chemotherapy and immunotherapy can make you feel tired or unwell for a few days after each cycle.

### Hair loss

Hair loss is a common side effect of chemotherapy and a less common side effect of immunotherapy and is almost always temporary. Only some treatments will make you lose your hair or cause thinning.

Your medical oncologist will discuss all the potential risks and side effects (including those that may be severe enough to stop treatment) with you in more detail during your appointment. This is a good opportunity for you to ask any questions you may have.

## What will happen after the neoadjuvant treatment?

After you complete your neoadjuvant treatment, the medical oncologist will arrange for you to have a CT scan to reassess the cancer and make sure surgery is still a suitable treatment option for you. The medical oncologist will usually contact you within a couple of weeks to discuss your results. If you have not heard from them after two weeks, please contact your lung cancer nurse specialist.

If surgery is still a suitable treatment option for you, you will then have a follow-up appointment with your thoracic (chest) surgeon to discuss the surgery. Your surgeon will arrange for you to have surgery approximately six weeks after you finish having your immunotherapy and chemotherapy treatment.

## What if I decide I don't want to have this treatment?

There are other treatment options available to you. A member of your healthcare team (this may be your respiratory doctor, medical oncologist or surgeon) will be able to discuss these alternative treatment options with you in more detail.

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## Contact us

If you have any questions or concerns about having neoadjuvant treatment, contact your lung cancer nurse specialist.

Lung cancer nurse specialist

Telephone: **023 8120 8660** (Monday to Friday, 9am to 4pm)

If you have any questions or concerns about having surgery, contact your thoracic nurse specialist.

Thoracic nurse specialist

Telephone: **023 8120 8457** (Monday to Friday, 8am to 4pm and Saturday, 8am to 1pm)

## Useful links



[www.macmillan.org.uk/cancer-information-and-support/lung-cancer/non-small-cell-lung-cancer](http://www.macmillan.org.uk/cancer-information-and-support/lung-cancer/non-small-cell-lung-cancer)



[www.nhs.uk/conditions/lung-cancer](http://www.nhs.uk/conditions/lung-cancer)



[www.cancerresearchuk.org/about-cancer/lung-cancer/stages-types-grades/types](http://www.cancerresearchuk.org/about-cancer/lung-cancer/stages-types-grades/types)



[www.nice.org.uk](http://www.nice.org.uk)



[www.uhs.nhs.uk/for-patients/my-medical-record](http://www.uhs.nhs.uk/for-patients/my-medical-record)

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