



Treating lung cancer with a targeted therapy

Why am I getting a targeted therapy?

If you have been offered a targeted therapy as the **first type** of treatment you receive, it is because your lung cancer is inoperable and you have had a positive test for mutations which respond well to a targeted therapy. Research has shown that targeted therapies are likely to work well for you.

You may also have been offered a targeted therapy as the **second** or **third type** of treatment you receive if you have already had chemotherapy but your cancer continues to grow or spread. You may not need a mutation test for this. Targeted therapies are likely to work as well as chemotherapy for you and may have fewer side-effects.

Are there any alternative treatments available to me?

Yes, chemotherapy can also be used as a first or second treatment for lung cancer. Chemotherapy does not depend on the presence of mutations in the cancer tissue the way targeted therapies do. However, if you are mutation positive for an available targeted therapy, research shows that it is likely to work better for you as the first treatment you receive. Chemotherapy is also usually given through a vein rather than as a tablet, and involves more time in hospital. It may also have more side-effects than a targeted therapy. Please ask your cancer doctor or lung cancer nurse specialist for further information about other treatments that may work for you.

Which targeted therapies can be used to treat non-small cell lung cancer?

There are several types of targeted therapy licensed to treat lung cancer. Each drug has both a drug name and a brand or trade name. Drugs currently used to treat lung cancer in the UK are:

- gefitinib (brand name Iressa®)
- erlotinib (brand name Tarceva®)
- afatinib (brand name Giotrif®)
- crizotinib (brand name Xalkori®)

Afatinib, erlotinib and gefitinib all belong to a group of drugs called EGFR inhibitors. These drugs work by blocking the activity of EGFRs, which is a signal found on the surface of some cancer cells that tells cancer cells to grow, divide and spread. These can help to stop cancer from growing, multiplying and spreading through the body.

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Crizotinib belongs to a group of drugs called RTK inhibitors. It blocks the activity of ALK, which is a protein that tells cancer cells to grow, divide, spread and develop new blood vessels. This can help to stop cancer from growing, multiplying and spreading through the body.

Targeted therapy treatments for lung cancer are continually developing. There are many clinical trials underway around the UK, and internationally, looking at the best way to treat lung cancer using a target therapy. Other targeted therapy drugs currently being researched to treat lung cancer include: cetuximab (brand name Erbitux®) and bevacizumab (brand name Avastin®).

Will these drugs be available to me?

Not all targeted therapies licensed to treat non-small cell lung cancer are currently available as a standard treatment on the NHS. When a new drug gains a European license it is available to buy and use as a treatment in the UK. However, NHS doctors are only allowed to use drugs which have been approved by either National Institute for Health and Care Excellence (England, Wales and Northern Ireland) or Scottish Medicines Consortium (Scotland), or are included on the Cancer Drug Funds list (England). These organisations look at a combination of how well a drug works and the cost of using the drug. They then compare it to other available drugs used for the same health problem. Unfortunately this can lead to variations in the availability of these drugs on the NHS, depending on which country in the UK you live in and whether or not they have been approved for use on the NHS.

There is more information on clinical trials in our *Living with lung cancer* booklet. Visit www.roycastle.org/ayqpack or call our free helpline on **0333 323 7200 (option 2)**.

GIVING HELP AND HOPE

The charity has two aims:

Supporting people living with lung cancer - Working closely with lung cancer nurses, we provide information, run lung cancer support groups and offer telephone and online support. Our patient grants offer some financial help to people affected by lung cancer.

Saving lives - We fund lung cancer research, campaign for better treatment and care for people who have lung cancer, and raise awareness of the importance of early diagnosis. Our lung cancer prevention work helps people to quit smoking and encourages young people not to start smoking.

Call us on 0333 323 7200 (option 2)

This information has been taken from the following sources:

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