

Treatment options for EGFR-positive lung cancer

Published November 2021



There are many different treatment options for people with EGFR-positive lung cancer. It is very important to wait for the results of all biomarker testing before starting treatment, to guide the treatment that is best for your unique cancer. Here are the most common treatments:

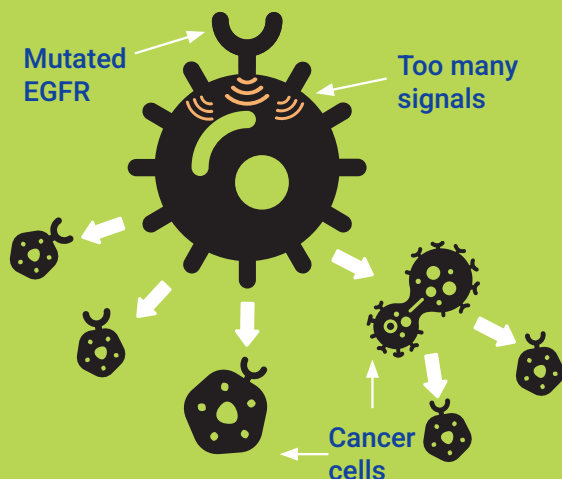
Targeted therapy

Targeted therapy is a type of cancer treatment that uses medicines to target the mutations (changes) in cells that cause cancer. Targeted treatments for EGFR-positive lung cancer are called EGFR inhibitors, or **tyrosine kinase inhibitors (TKIs)**, which target the EGFR mutation.

What are TKIs and how do they work?

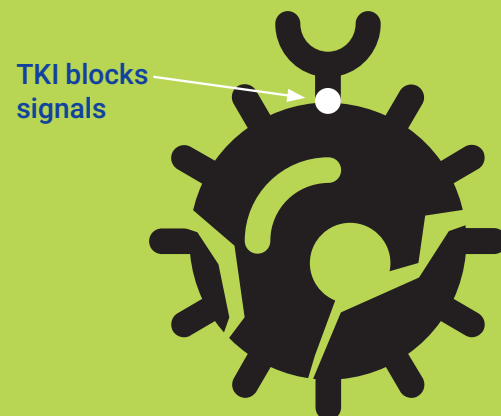
TKIs are a type of targeted therapy that bind to EGFR and turn it “off”. TKIs block (inhibit) EGFR signals that cause cancer cells to grow.

Mutated EGFR stays “on” and sends too many signals for cell growth



The EGFR mutation sends too many signals that tell cells to divide. 1 cancer cell divides into many cells and forms a tumor.

TKIs turn EGFR “off” so EGFR can’t send signals for cell growth



The targeted treatment TKIs block EGFR from sending signals to the cell. This means the cell can’t divide and will die.

Which TKIs are approved to treat EGFR mutations?

There are currently 5 TKIs approved by the FDA (U.S. Food and Drug Administration) to treat EGFR mutations. They are:

- Tarceva (erlotinib)
- Gilotrif (afatinib)
- Iressa (gefitinib)
- Tagrisso (osimertinib)
- Vizimpro (dacomitinib)

The TKIs above may not work as well to target cells with the EGFR exon 20 mutation or other less common types of EGFR mutations. There are 2 approved targeted therapies for cancer cells with an exon 20 mutation:

- Rybrevant (Amivantamab)
- Exkivity (Mobocertinib)

What are possible side effects of TKIs?

Like any medicine, TKIs may have side effects, such as:

- Itching or skin rash
- Loss of appetite
- Diarrhea
- Feeling weak and tired
- Mouth sores
- Cough

Talk to your doctor about any side effects you have – they may be able to help.

Chemotherapy

Chemotherapy is medicine to destroy cancer cells. It can also harm healthy cells. Some people have chemotherapy after treatment with a TKI.

Combination therapy

Combination therapy is when doctors treat your cancer with more than one type of treatment, such as immunotherapy and chemotherapy. Researchers are still learning more about using combination therapies to treat EGFR-positive lung cancer.

Clinical trials

Cancer clinical trials are research studies designed to learn how our bodies respond to medicines or other treatments. They help doctors find out if a trial drug (alone or with other treatments) is safe and if it can treat cancer. There are many clinical trials looking at combination therapy as a first treatment and trials looking at treatment after resistance.

Ask your doctor if there are clinical trials you could join.

TKIs may stop working over time

Unfortunately, some EGFR-positive lung cancers become resistant to TKIs over time, which means the treatment stops working and the cancer starts growing or spreading again. If this happens, you and your doctor will decide on other treatment options.

Surgery

Depending on the location of your tumor, doctors may do surgery to remove it. After surgery, you may take another treatment to prevent cancer from coming back.

Radiation therapy

Radiation therapy uses beams of high-energy like X-rays to destroy cancer cells and shrink tumors. Often, radiation comes from a machine outside the body and is aimed at your tumor to kill cancer cells in that area.

Immunotherapy

Immunotherapy is a type of treatment that helps your immune system find and attack cancer cells. Often you may hear that the higher the level (percent) of PD-L1, the more likely your cancer may respond to immunotherapy, but this has not been proven to be true for people with EGFR mutations. However, researchers are still learning more about immunotherapy as a treatment for EGFR-positive lung cancer.

Decide on a treatment with your doctor

Talk to your doctor about these treatments and decide together which ones may be right for you. This may depend on different factors, such as your:

- Other biomarkers (changes in a cancer cell that cause cancer to grow)
- Stage of cancer
- Location of cancer
- Overall health
- Health insurance coverage
- Treatment goals

To learn more, visit: egfrcancer.org

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