

More Options, and Optimism, for People with Early Lung Cancer after Surgery

Immunotherapy is transforming early-stage NSCLC treatment

October 25, 2023 By Genentech

When Dr. Girish Kunapareddy began his oncology career 5 years ago at Union Hospital-Terre Haute, IN, the typical treatment for patients with early non-small cell lung cancer (NSCLC) who were eligible for surgery was to remove as much of the cancer as possible and then consider chemotherapy to treat any remaining cancer cells. In some cases, this was sufficient to cure the disease. But for about half of early NSCLC patients, small bits of the cancer could persist even after chemotherapy and lead to recurrence.^{1,2}

“In my experience, the only thing people with cancer fear more than their initial diagnosis is the chance that their cancer could come back,” says Dr. Kunapareddy. “So reducing the risk of recurrence may have a real impact not only clinically but also on patients’ emotional well-being and hope for the future.”

Immunotherapy is transforming early-stage NSCLC treatment

One major area of advancement in recent years is the use of immunotherapy in early-stage NSCLC, when the cancer can be removed surgically and patients have the greatest chances of cure.^{3,4} Immunotherapy is designed to find and attack residual cancer cells and, when used after surgery, reduce the risk of recurrence, though it can also harm healthy cells.⁵ With more people getting diagnosed at earlier stages of the disease, due in part to increases in screening,⁵ this shift in treatment is particularly exciting.

In 2021, when the FDA approved Tecentriq® (atezolizumab) for use after surgery and platinum-based chemotherapy (in the “adjuvant” setting),⁷ it became the first immunotherapy approved in early-stage NSCLC. Clinical study results showed that when used in this setting, Tecentriq significantly reduced the risk of cancer coming back in adult patients with early (Stage II-III A) NSCLC whose tumors have a biomarker called PD-L1, compared with best supportive care. In the study, the safety of Tecentriq treatment was consistent with previous studies and no new safety

problems were identified.⁸ Fatal and serious adverse reactions can occur in patients receiving Tecentriq.⁷

Tecentriq's approval for post-surgery treatment was the first major advancement for early NSCLC in more than a decade, and it remains the only immunotherapy with observed 4-year survival data in these patients; the long-term survival analysis was exploratory and the data are considered descriptive, so no formal conclusion may be drawn.⁹ Dr. Kunapareddy underscores the impact of having treatment options like this available. "Even when surgery to remove the cancer is successful," he says, "the extra step of post-surgery immunotherapy to help eradicate microscopic cancer cells that wouldn't be visible on a scan may help patients and their families feel more optimistic about the future."

Biomarker testing is a critical step in guiding treatment decisions

As the early-stage NSCLC treatment landscape has evolved in recent years, biomarker testing has become an increasingly important step in the treatment journey. Biomarker results may unlock information about a patient's specific type of lung cancer, which can help a patient and their doctor make more informed treatment decisions as biomarker testing identifies genetic "drivers" that cause a patient's cancer to grow and spread.

Dr. Kunapareddy says that being able to offer more personalized care in more stages of disease has led to a tangible change in the tone of his interactions with patients and their families. "We have more opportunities than ever before to individualize treatment based on the specific profile of a patient's cancer," he says. "As a result, conversations with my early NSCLC patients have become more hopeful because we now have options that may target a particular driver of their cancer and may help prevent their cancer from returning."

"By partnering with their care team to learn about all the options available, early NSCLC patients and their families can feel more confident that they are taking every step to help minimize the risk of their disease returning."

Learn how Genentech is committed to supporting patients at every step of the lung cancer journey by visiting [here](#).

Indication and Important Safety Information

TECENTRIQ is a medicine that may be used alone to treat adults with a type of lung cancer called non-small cell lung cancer (NSCLC), to help prevent their lung cancer from coming back after their tumor has been removed by surgery and they have received platinum-based chemotherapy, when they have stage 2 to 3A NSCLC, and also when their cancer tests positive for "PD-L1".

It is not known if Tecentriq is safe and effective when used in children for the treatment of NSCLC.

What is the most important information about Tecentriq?

Tecentriq can cause the immune system to attack normal organs and tissues in any area of the body and can affect the way they work. These problems can sometimes become severe or life threatening and can lead to death. Patients can have more than one of these problems at the same time. These problems may happen anytime during their treatment or even after their treatment has ended.

Patients should call or see their healthcare provider right away if they develop any new or worse signs or symptoms, including:

Lung problems

- cough
- shortness of breath
- chest pain

Intestinal problems

- diarrhea (loose stools) or more frequent bowel movements than usual
- stools that are black, tarry, sticky, or have blood or mucus
- severe stomach-area (abdomen) pain or tenderness

Liver problems

- yellowing of the skin or the whites of the eyes
- severe nausea or vomiting
- pain on the right side of their stomach area (abdomen)
- dark urine (tea colored)
- bleeding or bruising more easily than normal

Hormone gland problems

- headaches that will not go away or unusual headaches
- eye sensitivity to light
- eye problems
- rapid heartbeat
- increased sweating

- extreme tiredness
- weight gain or weight loss
- feeling more hungry or thirsty than usual
- urinating more often than usual
- hair loss
- feeling cold
- constipation
- their voice gets deeper
- dizziness or fainting
- changes in mood or behavior, such as decreased sex drive, irritability, or forgetfulness

Kidney problems

- decrease in their amount of urine
- blood in their urine
- swelling of their ankles
- loss of appetite

Skin problems

- rash
- itching
- skin blistering or peeling
- painful sores or ulcers in mouth or nose, throat, or genital area
- fever or flu-like symptoms
- swollen lymph nodes

Problems can also happen in other organs.

These are not all of the signs and symptoms of immune system problems that can happen with Tecentriq. Patients should call or see their healthcare provider right away for any new or worse signs or symptoms, including:

- Chest pain, irregular heartbeat, shortness of breath, or swelling of ankles
- Confusion, sleepiness, memory problems, changes in mood or behavior, stiff neck, balance problems, tingling or numbness of the arms or legs
- Double vision, blurry vision, sensitivity to light, eye pain, changes in eyesight
- Persistent or severe muscle pain or weakness, muscle cramps
- Low red blood cells, bruising

Infusion reactions that can sometimes be severe or life-threatening. Signs and symptoms of infusion reactions may include:

- chills or shaking
- itching or rash
- flushing
- shortness of breath or wheezing
- dizziness
- feeling like passing out
- fever
- back or neck pain

Complications, including graft-versus-host disease (GVHD), in people who have received a bone marrow (stem cell) transplant that uses donor stem cells (allogeneic). These complications can be serious and can lead to death. These complications may happen if patients undergo transplantation either before or after being treated with Tecentriq. A healthcare provider will monitor for these complications.

Getting medical treatment right away may help keep these problems from becoming more serious. A healthcare provider will check patients for these problems during their treatment with Tecentriq. A healthcare provider may treat patients with corticosteroid or hormone replacement medicines. A healthcare provider may also need to delay or completely stop treatment with Tecentriq if patients have severe side effects.

Before receiving Tecentriq, patients should tell their healthcare provider about all of their medical conditions, including if they:

- have immune system problems such as Crohn's disease, ulcerative colitis, or lupus

- have received an organ transplant
- have received or plan to receive a stem cell transplant that uses donor stem cells (allogeneic)
- have received radiation treatment to their chest area
- have a condition that affects their nervous system, such as myasthenia gravis or Guillain-Barré syndrome
- are pregnant or plan to become pregnant. Tecentriq can harm an unborn baby. Patients should tell their healthcare provider right away if they become pregnant or think they may be pregnant during treatment with Tecentriq. Females who are able to become pregnant:
 - A healthcare provider should do a pregnancy test before they start treatment with Tecentriq
 - They should use an effective method of birth control during their treatment and for at least 5 months after the last dose of Tecentriq
- are breastfeeding or plan to breastfeed. It is not known if Tecentriq passes into the breast milk. Patients should not breastfeed during treatment and for at least 5 months after the last dose of Tecentriq

Patients should tell their healthcare provider about all the medicines they take, including prescription and over-the-counter medicines, vitamins, and herbal supplements.

The most common side effects of Tecentriq when used alone include:

- feeling tired or weak
- decreased appetite
- nausea
- cough
- shortness of breath

Tecentriq may cause fertility problems in females, which may affect the ability to have children. Patients should talk to their healthcare provider if they have concerns about fertility.

These are not all the possible side effects of Tecentriq. Patients should ask their healthcare provider or pharmacist for more information about the benefits and side effects of Tecentriq.

Report side effects to the FDA at 1-800-FDA-1088 or <http://www.fda.gov/medwatch>.

Report side effects to Genentech at 1-888-835-2555.

Please see full [Prescribing Information](#) for additional Safety Information.

References:

1. Yano T, Okamoto T, Fukuyama S, Maehara Y. Therapeutic strategy for postoperative recurrence in patients with non-small cell lung cancer. *World J Clin Oncol*. 2014;5(5):1048-1054. doi:10.5306/wjco.v5.i5.1048.
2. Nagasaka M, Gadgeel SM. Role of chemotherapy and targeted therapy in early-stage non-small cell lung cancer. *Expert Rev Anticancer Ther*. 2018 Jan;18(1):63-70. doi: 10.1080/14737140.2018.1409624. Epub 2017 Nov 26. PMID: 29168933; PMCID: PMC6863145.
3. National Cancer Institute. Non-Small Cell Lung Cancer Treatment (PDQ®)-Health Professional Version. Available online at: <https://www.cancer.gov/types/lung/hp/non-small-cell-lung-treatment-pdq>
4. National Cancer Institute. Advances in Lung Cancer Research. Available online at: [https://www.cancer.gov/types/lung/research#:~:text=Two%20immunotherapy%20drugs%2C%20atezolizumab%20\(Tecentriq,patients%20with%20early%2Dstage%20NSCLC](https://www.cancer.gov/types/lung/research#:~:text=Two%20immunotherapy%20drugs%2C%20atezolizumab%20(Tecentriq,patients%20with%20early%2Dstage%20NSCLC)
5. American Cancer Society. Treating Non-Small Cell Lung Cancer. Available online at <https://www.cancer.org/cancer/lung-cancer/treating-non-small-cell/immunotherapy.html>
6. American Cancer Society. Cancer Facts & Figures 2022. <https://www.cancer.org/content/dam/cancer-org/research/cancer-facts-and-statistics/annual-cancer-facts-and-figures/2022/2022-cancer-facts-and-figures.pdf>
7. US Tecentriq Prescribing Information
8. American Society of Clinical Oncology. IMpower010: Primary results of a phase III global study of atezolizumab versus best supportive care after adjuvant chemotherapy in resected stage IB-IIIa non-small cell lung cancer (NSCLC). 2021 Annual Meeting Abstract. Available online at: https://ascopubs.org/doi/10.1200/JCO.2021.39.15_suppl.8500
9. International Association for the Study of Lung Cancer. Overall Survival Interim Analysis of a Phase III Study of Atezolizumab vs Best Supportive Care in Resected NSCLC. 2022 Annual Meeting Abstract. Available online at: <https://www.iaslc.org/iaslc-news/press-release/overall-survival-interim-analysis-phase-iii-study-atezolizumab-vs-best>