

Chemotherapy Combination Boosts Overall Survival in Patients With EGFR-Mutated Non-Small-Cell Lung Cancer

FLAURA2 study underscores benefits of adding chemotherapy to existing standard first-line treatment with Tagrisso.

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Treatment with osimertinib [Tagrisso] plus a platinum-pemetrexed chemotherapy combination resulted in statistically significant and clinically meaningful improvement in overall survival in patients with newly diagnosed EGFR-mutated advanced non-small cell lung cancer (NSCLC) compared to osimertinib alone.

The finding is based on an analysis of the complete data from the Phase 3 global FLAURA2 study, co-led by researchers from Dana-Farber Cancer Institute and Gustave Roussy (Grand Paris, Villejuif, France). Median overall survival was 47.5 months in the osimertinib plus platinum-pemetrexed group versus 37.6 months in the osimertinib monotherapy group.

The results of the FLAURA2 trial were presented [October 17] today at the [European Society for Medical Oncology \(ESMO\) Congress 2025](#) in Berlin, Germany, and published simultaneously in the [New England Journal of Medicine](#).

“This is the longest overall survival in this patient population that we’ve seen in any clinical trial to date. It shows that combination therapies can lead to improvements over a single agent. This data helps establish osimertinib plus chemotherapy as standard of care first-line therapy,” says ESMO presenter and co-principal investigator, director of the [Lowe Center for Thoracic Oncology at Dana-Farber](#).

Jänne presented data showing that the combination could benefit subgroups of patients with poor prognoses. For example, the group of patients with central nervous system metastases who received osimertinib plus platinum-pemetrexed had median overall survival of 40.9 months compared to 29.7 months for those who received osimertinib alone.

About 10% to 15% of patients in the US and 50% of patients in Asia with NSCLC harbor epidermal growth factor receptor (EGFR) mutations in their tumors. The mutation fuels the growth of the cancer.

The FLAURA2 trial tested adding platinum-pemetrexed up-front in combination with osimertinib to stave off recurrence observed with osimertinib monotherapy. Osimertinib is a third generation EGFR-tyrosine kinase inhibitor (EGFR-TKI).

The combination was approved by the U.S. Food and Drug Administration (FDA) in February 2024 based on FLAURA2 results showing the combination lengthened progression free survival compared to osimertinib alone. This final report of extended overall survival with the combination underscores the benefit of the combination for patients, including patients with a poor prognosis.

“This is a very exciting development,” says Jänne. “These results show the benefits of a combination when started from the very beginning of treatment. I think there’s opportunity to use this as a platform to develop additional combination therapies that enhance efficacy from the start of treatment.”

Patients receiving the combination experience additional adverse events associated with the added chemotherapy. Side effects include nausea, vomiting, fatigue, and bone marrow toxicities and are most pronounced during the first few months of treatment that includes platinum chemotherapy but lessen during maintenance therapy with osimertinib and pemetrexed.

“There are now multiple options for patients with newly diagnosed EGFR-mutant non-small cell lung cancer, including combination therapies and monotherapies, which is a wonderful thing,” says Jänne. “Patients have choices, and shared decision-making with patients will be essential to balance the greatest survival benefit against potential side effects.”

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