

Immunotherapy before and after lung cancer surgery reduces death risk and disease recurrence, research finds

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People with operable non-small cell lung cancers may fare better over the next few years by receiving immunotherapy treatments before and

after surgery instead of only before surgery, according to a new analysis by Johns Hopkins Kimmel Cancer Center investigators.

For the study, researchers compared health outcomes among 147 participants in the CheckMate 816 study—in which patients received three cycles of the immunotherapy nivolumab plus chemotherapy before surgery (neoadjuvant)—with results of 139 participants in the CheckMate 77T trial, in which patients received up to four cycles of nivolumab plus chemotherapy before surgery and up to 13 cycles of nivolumab after surgery. They followed participants for up to four years following surgery.

They observed a 40% reduction in the risk of disease recurrence or death after surgery in patients who received at least one dose of nivolumab following immunotherapy/chemotherapy and surgery. A similar benefit was seen regardless of patients' baseline cancer stage.

Reductions in [disease recurrence](#) and death were also seen more in people who had less than 1% tumor expression of the protein PD-L1 (which allows cells to escape an attack by the [immune system](#)) compared with a 1% or greater expression. Immunotherapy before and after surgery was observed to be beneficial in patients who did not achieve a complete pathological response (absence of cancer cells) from pre-surgical treatment and surgery.

These results are to be presented on Sunday, September 8, at the IASLC (International Association for the Study of Lung Cancer) [2024 World Conference on Lung Cancer](#) in San Diego.

"There's been a big migration in lung [cancer](#) and in melanoma treatment in the last few years from doing surgery upfront and giving postoperative immunotherapy, to giving immunotherapy prior to surgery," explains Patrick Forde, M.B.B.Ch., an adjunct professor of oncology at the Johns

Hopkins University School of Medicine. "But our analysis in individual patients in these two trials suggests that there is likely a further benefit from receiving additional [immunotherapy](#) treatment after [surgery](#)."

The abstract title is "Perioperative vs. Neoadjuvant Nivolumab for Resectable NSCLC: Patient-Level Data Analysis of CheckMate 77T vs. CheckMate 816" (presentation #3589). The studies referenced in the abstract were sponsored by Bristol-Myers Squibb, manufacturer of [nivolumab](#), and conducted at Johns Hopkins and other clinical sites.

Provided by Johns Hopkins University School of Medicine

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