## Pembrolizumab Increases Survival of Lung Cancer Patients, Compared with Standard Chemo, Update Shows

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Keytruda (pembrolizumab) reduced the risk of non-small cell lung cancer patients dying by 37 percent, compared with standard chemotherapy, according to updated information from a Phase 3 clinical trial.

Sixty-one percent of the patients who received Keytruda were still alive after 18 months, versus 43 percent in the standard chemo group.

The therapy also halved the risk that the disease would progress after a patient started a second line of treatment, the update indicated.

Merck said the findings from the KEYNOTE-024 trial demonstrated Keytruda's superiority over standard chemo as a first-line treatment for patients with advanced non-small cell lung cancer (NSCLC) whose tumors express high levels of the PD-L1 protein. Expression is the process by which information from a gene is used to create a functional product like a protein.

The company presented the findings at the American Society of Clinical Oncology annual meeting in Chicago, June 2-6. The title of the presentation was "Progression after the next line of therapy (PFS2) and updated OS among patients (pts) with advanced NSCLC and PD-L1 tumor proportion score (TPS)  $\geq$ 50% enrolled in KEYNOTE-024."

Keytruda is an anti-PD-1 antibody designed to rev up a patient's immune response against cancer. The U.S. Food and Drug Administration approved it as a first-line of therapy for NSCLC patients.in October 2016, and the European Medicines Agency in February 2017.

"From the start of the Keytruda program in non-small cell lung cancer, one of our goals has been to demonstrate the value of Keytruda monotherapy in appropriate patient populations," Dr. Roger Dansey, senior vice president of Merck Research Laboratories, said in a press release.

"With updated data from KEYNOTE-024, as well as from other studies in our clinical development program, we are establishing the role of Keytruda in the treatment of advanced non-small cell lung cancer," he added.

Preliminary results from the KEYNOTE-024 (NCT02142738) trial supported the regulatory agencies' approvals of the drug. The additional results came from eight months of follow-up on Keytruda's effectiveness.

The trial covered 305 patients with squamous and non-squamous NSCLC with no EGFR or ALK genomic tumor aberrations. Patients were randomized to receive either Keytruda or a standard of care platinum-based chemotherapy.

Keytruda reduced the risk of a patient dying by 37 percent, compared with chemo. It also lowered by 52 percent the risk of the disease progressing after a patient started a second line of treatment — again, compared with standard chemotherapy.

Sixty-one percent of the patients who received Keytruda were alive after 18 months, versus 43 percent in the chemotherapy group.

The follow-up results, including improved overall survival, "give us further confidence in Keytruda as a first-line treatment for patients with non-small cell lung cancer whose tumors express high levels of PD-L1," said Professor Martin Reck, head of the department of thoracic oncology at LungenClinic Grosshansdorf in Germany.