

Understanding MET exon 14 skipping in non-small cell lung cancer (NSCLC)

About lung cancer



Lung cancer is the **most common cancer worldwide**, accounting for **2.1 million new cases** and **1.8 million deaths** in 2018.¹

There are two main types of lung cancer: **small-cell lung cancer (SCLC)** and **non-small cell lung cancer (NSCLC)**.²

85% NSCLC accounts for approximately 85% of lung cancer diagnoses²

70% Nearly 70% of NSCLC patients have an identifiable **genomic mutation**, a change in the genes³

3%-4% MET exon 14 skipping (METex14) can occur in 3%-4% of newly diagnosed metastatic NSCLC cases - **approximately 4000-5,000 new cases a year in the US**^{4,5}

Mutations in non-small cell lung cancer

Lung cancer is the uncontrolled growth of abnormal cells in one or both lungs. Various mutations have been associated with driving the tumor development of certain types of NSCLC.⁶

In NSCLC, specific oncogenic mutations can cause METex14. METex14 can result in overstimulation of the MET pathway.⁷

Many patients with mutations that lead to METex14 are not diagnosed with NSCLC until their disease has progressed to later stages and often have a poor prognosis.^{8,9}

Molecular profiling

It's important to understand the molecular makeup of a tumor.





Genomic profiling involves looking at genetic material from the cells obtained from a biopsy to see if there are any genetic mutations or biomarkers linked to the type of cancer the patient has.⁶

Patients should speak with their doctor at the time of diagnosis to determine their mutation status.

References

1. Global Cancer Observatory. International Agency for Research on Cancer. World Health Organization. Lung cancer new cases, incidences, and deaths.pg1-2_Published March 2019. 2. American Cancer Society. About lung cancer. <https://www.cancer.org/cancer/non-small-cell-lung-cancer/about/what-is-non-small-cell-lung-cancer.html>. Accessed December 13, 2019. 3. Hirsch FR, Suda K, Wiens J. New and emerging targeted treatments in advanced non-small-cell lung cancer. *Lancet*. 2016;388:1012-1024. 4. Salgia R. MET in lung cancer: biomarker selection based on scientific rationale. *Molecular Cancer Therapeutics*. 2017;16(4):555-565. 5. Data on file. Kantar Health. CancerMPact: lung (non-small cell) stage IIIb and IV incidence and newly recurrent. Updated December 15, 2018. my.khapps.com. 6. Naidoo J, A Drilon. Molecular diagnostic testing in non-small cell lung cancer. *Am J Hematol*. 2014;10(4):4-12. 7. Reungwetwattana T, Ou SH. *Transl Lung Cancer*. 2015;4(6):820-824. 8. Cappuzzo F, Marchetti A, Rossi E. Increased MET gene copy number negatively affects survival of surgically resected non-small-cell lung cancer patients. *J Clin Oncol*. 2009;27:1667-1674. 9. Tong JH, Yeung SF, Chan AI. MET amplification and exon 14 splice site mutation define unique molecular subgroups of on-small cell lung carcinoma with poor prognosis. *Clin Cancer Res*. 2016;22:3048-3056.