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Finding Genetic Changes That Drive Advanced Lung Cancer Growth to Improve Treatment Choice [1]

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Researchers participating in the Lung Cancer Mutation Consortium (LCMC) program are looking at the genetic changes, called mutations, that drive lung cancer growth to help recommend treatment options. The LCMC program was designed to show that testing a patient's tumor for mutations at diagnosis is possible, and that doctors can use the results to recommend the most appropriate targeted therapy or clinical trial (research study involving patients). Targeted therapy is a treatment that targets the cancer's specific genes, proteins, or the tissue environment that contributes to cancer growth and survival.

Although this study is ongoing, researchers have already found at least one of the 10 known genetic mutations that drive cancer growth in two-thirds of patients with advanced lung cancer. As a result, these patients have received treatment that specifically targets the mutation found in their tumor or were offered treatment in clinical trials. These treatments targeted several different mutations and included the drugs erlotinib (Tarceva), trastuzumab (Herceptin), lapatinib (Tykerb), and crizotinib, a new drug that is being studied. This study represents another example of personalized medicine, an approach that uses treatments that specifically target a person's tumor.

What this means for patients

“Over the past decade, it's become clear that adenocarcinoma of the lung - the most common type of lung cancer - is defined by types of DNA damage in the tumor,” said lead author Mark G.

Kris, MD, Chief of the Thoracic Oncology Service and The William and Joy Ruane Chair in Thoracic Oncology at Memorial Sloan-Kettering Cancer Center in New York City. “The idea behind the consortium was to create a lasting process at each institution to routinely test for tumor mutations at diagnosis and use this information to choose the most appropriate therapy for each patient.”

Questions to ask your doctor

- What type of lung cancer do I have?
- Was my tumor tested for certain genetic mutations? What does this mean?
- What are my treatment options?
- Is targeted therapy an option?
- What clinical trials are open to me?

For More Information

[Guide to Lung Cancer](#) [2]

[Understanding Targeted Treatments](#) [3]

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[3] <http://www.cancer.net/patient/All+About+Cancer/Cancer.Net+Feature+Articles/Treatments%2C+Tests%2C+and+Procedures/Understanding+Targeted+Treatments>

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