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Specifically Matching Targeted Therapy to Patients' Tumors Shows Benefit, Even in Early Studies [1]

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A new program at The University of Texas M.D. Anderson Cancer Center showed that specifically matching targeted therapy to genetic changes in the tumors of patients with advanced cancer, an approach called personalized medicine, better controlled tumor growth and increased survival. Targeted therapy is a treatment that targets the cancer's specific genes, proteins, or the tissue environment that contributes to cancer growth and survival. Not all cancers have the same targets, and targeted therapy is often chosen based on the genes, proteins, and other factors involved in a person's cancer.

In this study, researchers looked at the tumors from 1,144 patients with advanced cancer to find specific changes to the tumor's genes, called mutations. The tumors from 460 patients had one or more genetic mutations. Each of these patients received a targeted therapy drug that targets the specific genetic mutation found in their tumor.

Researchers found that when patients were matched with the drugs that target one of their tumor's genetic mutations, they lived around four months longer than patients who were not matched with a specific treatment. In addition, 27% of patients with a mutation who received a matched treatment had their cancer slow or stop growing, compared with 5% of patients who did not receive the matched treatment. It also took longer for the matched treatments to stop working when compared to both the unmatched treatments and previous treatments.

What this means for patients

“The ability to look at tumor genetics and the development of targeted therapies has led to an increasing interest in a personalized medicine approach,” said lead author Apostolia-Maria Tsimberidou, MD, PhD, Associate Professor in the Department of Investigational Cancer Therapeutics at The University of Texas M.D. Anderson Cancer Center in Houston. “This treatment strategy should eventually be used for every patient with cancer.” Researchers have not yet found specific genetic mutations for all types of cancers, so this treatment method may only be available for some patients. Use the questions below as a starting point to talk with your

doctor about whether targeted therapy is appropriate for you.

Questions to ask your doctor?

- What type of cancer do I have? What is the stage?
- 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

[Cancer.Net Guides to Cancer](#) [2]

[Understanding Targeted Treatments](#) [3]

[Facts About Personalized Cancer Medicine](#) [4]

Links:

[1] <http://www.cancer.net/specifically-matching-targeted-therapy-patients-tumors-shows-benefit-even-early-studies>

[2] <http://www.cancer.net/patient/Cancer+Types>

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

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