Evaluating Pulsed Radiation Therapy to Treat Glioblastoma

NRG ONCOLOGY

Advancing Research. Improving Lives.™

Visit the patient webpage for this study:

NRGOncology.org/CC017

ABOUT THE TRIAL

NRG-CC017 is a clinical study testing a new way of giving radiation treatment for people with a brain tumor known as glioblastoma. This study is for patients whose glioblastoma tumor has a specific gene pattern called unmethylated MGMT. The new treatment is named temporally modulated pulsed radiation therapy (TMPRT). It is being compared to the usual radiation therapy. Typically, patients with this type of cancer receive radiation therapy given over 12-15 minutes. TMPRT differs from usual radiation therapy by delivering the same amount of radiation dose, but in 10-13 "pulses" with 3-minute breaks between pulses. The radiation session will be about 30-40 minutes. A "pulse" is a smaller dose of radiation, and the technician will let you know when each pulse of radiation will occur.

This important research is being conducted because doctors want to find out if this pulsed form of radiation can help slow down problems with memory and thinking that can happen with the standard treatment. The study will also look at whether TMPRT helps people live longer and maintain a better quality of life.

By comparing these two treatments, doctors hope to learn whether TMPRT is a better option than the standard radiation treatment. To do this, they will check memory and thinking skills over time and compare results between the two groups.

Version Date: April 1, 2026
ClinicalTrials.gov Identifier: NCT07452458

ABOUT NRG ONCOLOGY

As one of the five research groups in the National Cancer Institute's (NCI) National Clinical Trials Network (NCTN), NRG Oncology carries out clinical trials on sex-specific malignancies, including gynecologic, breast, and prostate cancers, and on localized or locally advanced cancers of all types. NRG Oncology's extensive research organization includes investigators, medical oncologists, radiation oncologists, surgeons, physicists, pathologists, and statisticians. The NRG Oncology includes more than 1,300 research sites worldwide, primarily in the United States and Canada. NRG Oncology is a non-profit research organization, funded mainly through grants from the NCI. To contact NRG Oncology, call 267-519-6630 or email info@nrgoncology.org

Frequently Asked Questions

What is a clinical trial?
Clinical trials are research studies that look to find better ways to prevent, diagnose, or treat disease.

Who can join this study?
People who have a brain tumor called a glioblastoma with a possible biomarker change in the gene called the MGMT gene. However, not all patients will receive the study treatment. This is a randomized clinical trial by randomly assigning participants into an experimental group or a control group.

Am I required to be in this study?
No. Taking part in this study is voluntary. You are free to choose to participate or not to participate. If you choose to participate in this study, you are able to leave the study at any time. If you decide not to take part in this study, your doctor will discuss other treatment options with you.

What are the possible treatments?
As part of your usual treatment for your cancer, you will have surgery to remove your tumor. If you decide to take part in this study, your tumor will be tested to confirm the unmethylated MGMT biomarker. If you do not have this biomarker, you will not be eligible to participate. If you are eligible, you will either get standard radiation therapy plus temozolomide chemotherapy, or you will get pulsed radiation therapy plus the same temozolomide chemotherapy.

How long will I be in this study?
Both study groups will get radiation therapy with temozolomide for either 3 or 6 weeks (chosen by you and/or your doctors), followed by temozolomide for up to 6 months.

After you finish your treatment, your doctor and study team will watch you for side effects and your tumor status. They will check you one month after you finish radiation, then every 1 to 2 months for 9 months. The study team will then check you annually for up to 4 years.
All patients will be closely monitored by their doctor throughout the study period.

Are there side effects?
Patients are often anxious about radiation treatment. Beforehand, staff will introduce you to the room and equipment so you can become familiar with the environment. Your time on the radiation bed is intended to be comfortable and as relaxing as possible.Most importantly, radiation is not painful. You won't know it's occurring.

But there are some side effects that might occur after treatment. Some of the most common side effects that the study doctors know about are: tiredness, hair loss, nausea and vomiting, headaches, and issues with balance. There may be some risks that the study doctors do not yet know about. Your doctor will review all of the potential side effects with you.

MORE INFORMATION

Visit the National Cancer Institute website at https://www.cancer.gov for more information about studies or general information about cancer.
You may also call: 1-(800)-4-CANCER (1-800-422-6237).

Version Date: April 1, 2026