

Findings of large clinical trial may have major implications for treatment of small-cell lung cancer

January 31 2023



Credit: Pixabay/CC0 Public Domain

A clinical trial led by Upstate Medical University radiation oncologist Dr. Jeffrey Bogart may have major implications for the treatment of small-cell lung cancer.

The study, "High-Dose Once-Daily Thoracic Radiotherapy in Limited-Stage Small-Cell Lung Cancer," was published Jan. 9 in the *Journal of Clinical Oncology*.

The Bogart-led clinical trial, which is the largest trial in limited stage [small cell lung cancer](#) ever performed, suggested similar outcomes and long-term survival in patients treated with twice-a-day versus once-a-day radiotherapy. Previously, the twice-a-day regime was recommended as standard, based on prior trials, but many patients were not able to receive twice-a-day [radiation](#) in part due to the challenge of coming in for appointments two times each day.

Bogart was the principal investigator of the trial, which included more than 700 patients throughout the United States from 2008 to 2019. About 30,000 people are diagnosed with small-cell lung [cancer](#) each year. That type of cancer, which is treated with chemotherapy and radiation, accounts for about 15 to 20 percent of all lung cancer patients, Bogart said.

Bogart said the study's publication in the *Journal of Clinical Oncology* has the capacity to change care.

The earlier trial showed that radiation administered twice a day for three

weeks was a more effective treatment than the same dose of radiation once a day for five weeks, Bogart said. Despite undergoing radiation for a shorter period of time—three weeks compared to five—receiving two doses of radiation in one day is difficult for many patients, he said. Twice daily radiation must be administered at least six hours apart, which means the patient has to be at the hospital twice in one day. That's a tiring regimen and can be difficult for those who don't live nearby.

And even though that was the recommended regimen, only 15 percent of patients nationwide opted for twice-daily radiation treatments.

Bogart's current trial showed that a higher dose of radiation given once a day over seven weeks showed no statistical difference in survival rates than the twice-a-day regimen. He said the technology today is so much more advanced than it was 30 years ago, including very focused treatment with image guidance that can produce targeted radiation, resulting in fewer side effects.

Bogart said the study results now allow for two equal options for patients.

"It allows patients a real choice, understanding that there may be some differences in side effects, or their ability to complete the longer therapy, but now they know both regimens can be associated with good outcomes," he said. "We still offer the twice-a-day for small cell but now we are more comfortable with the high dose once a day because of the results from this trial. That's been a big change and I think gives providers more comfort throughout the country. There are many centers throughout the country that participated in this trial."

Bogart said the next step in assessing the benefit of this treatment protocol is to look at subpopulations, for example, based on gender or age.

"The goal over time is to get away from the one-size-fits-all approach to now offer better, more personalized therapy," Bogart said. "The findings of this study move us in that direction. Our findings need to be confirmed in subsequent trials, but it can provide a lot of information to help design future trials as well.

The clinical trial was conducted with [patients](#) from across the United States, including at Upstate. The Alliance for Clinical Trials in Oncology, for which Bogart chairs the Radiation Oncology Committee, oversaw the trial. Bogart also said that another Upstate Cancer Center radiation oncologist, Michael Mix, MD, is in discussion to lead a new national initiative to study twice daily radiotherapy at a dose of 60 Gy in small cell lung cancer at another dose, and that trial will hopefully start later this year.

More information: Jeffrey Bogart et al, High-Dose Once-Daily Thoracic Radiotherapy in Limited-Stage Small-Cell Lung Cancer: CALGB 30610 (Alliance)/RTOG 0538, *Journal of Clinical Oncology* (2023). [DOI: 10.1200/JCO.22.01359](https://doi.org/10.1200/JCO.22.01359)

Provided by SUNY Upstate Medical University

Citation: Findings of large clinical trial may have major implications for treatment of small-cell lung cancer (2023, January 31) retrieved 23 February 2023 from <https://medicalxpress.com/news/2023-01-large-clinical-trial-major-implications.html>

<p>This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.</p>
--