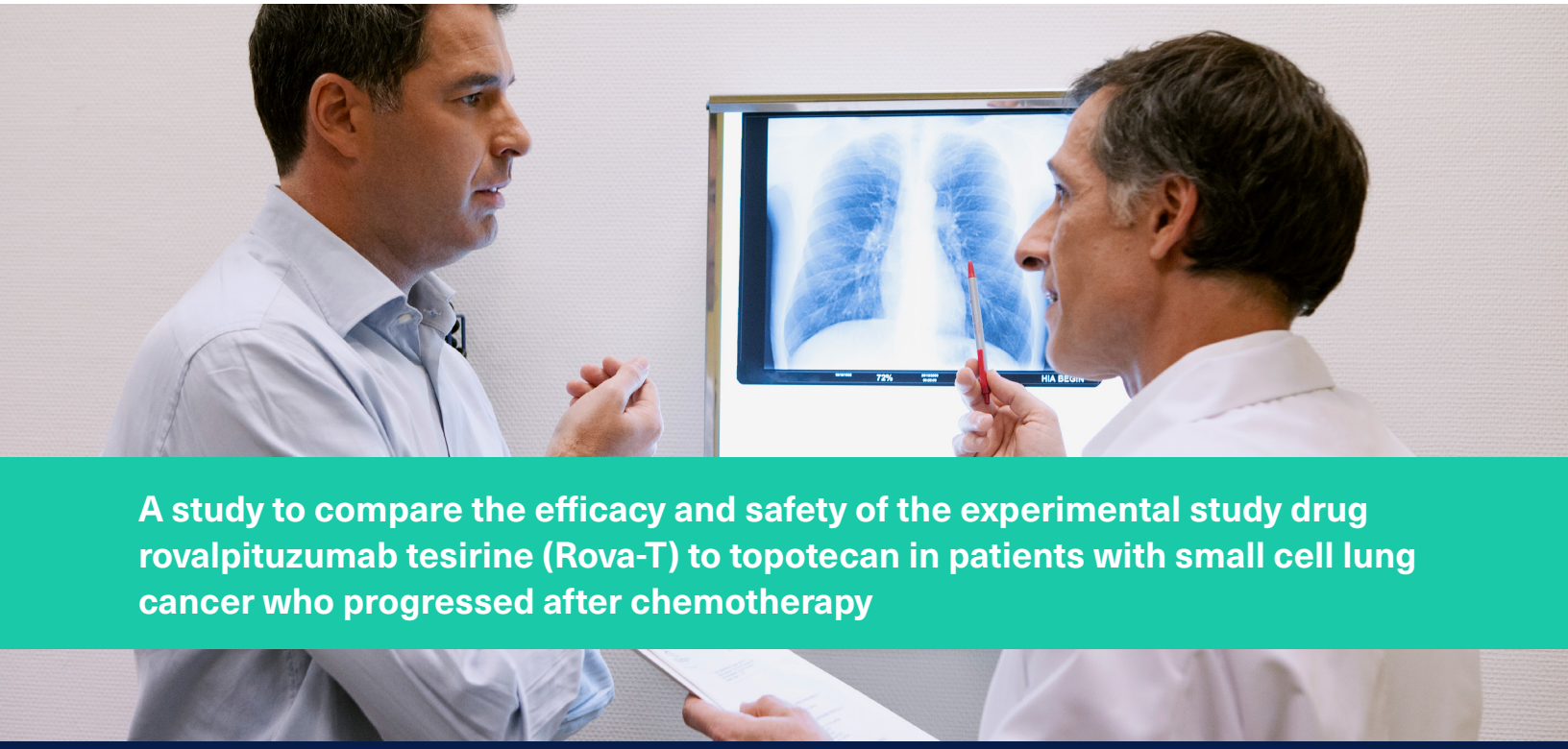
abbvie

Summary of Clinical Trial Results

For Laypersons



A study to compare the efficacy and safety of the experimental study drug rovalpituzumab tesirine (Rova-T) to topotecan in patients with small cell lung cancer who progressed after chemotherapy

Overall Summary

- Small cell lung cancer (SCLC) is an aggressive, difficult-to-treat form of cancer. Treatment options are limited and have not changed much over the years.
- In this study, study doctors (investigators) compared a new medicine called rovalpituzumab tesirine (Rova-T) with topotecan in patients with SCLC who had disease progression after chemotherapy.
- The aim of the study was to see if overall survival was better in patients who received Rova-T or topotecan.
- This study took place from April 2017 to February 2020 in 33 countries.
- A total of 416 adult patients with small cell lung cancer took part in this study.
- Patients were placed into two groups by a computer program. One group received Rova-T and the other group received topotecan.
- The results of this study showed that patients who received Rova-T had a shorter survival compared to the survival for patients who received topotecan.
- As no survival benefit was found among patients who received Rova-T compared to topotecan, the study was ended early.
- The results of this study may be used in other studies with similar patient populations.
- If you participated in this study and have questions about your individual care, contact the doctor or staff at your study site.

1. General information about the study

1.1. What was the main objective of this study?

Researchers are looking for a better way to treat small cell lung cancer. Small cell lung cancer is the most aggressive form of lung cancer which accounts for 15 – 20% of all types of lung cancer.

Although many patients' cancer improves with their first treatment, the cancer often comes back quickly. Because of this, researchers in this study wanted to know whether a drug called rovalpituzumab tesirine (Rova-T) could help patients with small cell lung cancer who have had cancer worsen or come back after first treatment with chemotherapy.

Rova-T is a type of drug called an antibody drug conjugate (ADC). ADCs work to target cancer cells while leaving healthy cells alone.

The doctors in this study treated adult patients who were diagnosed with advanced or metastatic (spread to other areas of the body) small cell lung cancer who already finished treatment with chemotherapy and have worsening of their disease.

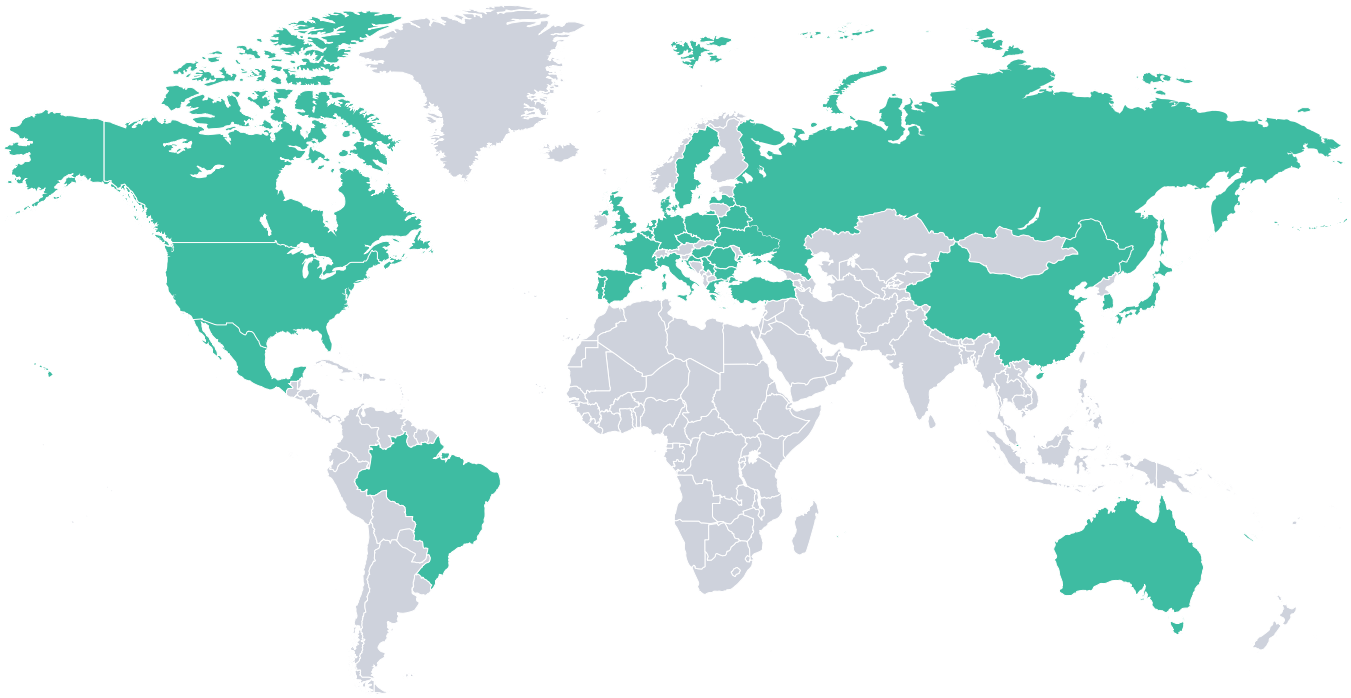
Researchers planned this as a Phase 3, open-label, randomized study:

- **Phase 3** studies test potential new treatments in a large number of patients with a condition or disease. In this Phase 3 study, the study doctors looked at the benefits of Rova-T versus a type of chemotherapy drug called topotecan in patients.
- This study was **"open-label",** which means that both patients and the study doctors knew which treatment was given to patients.
- A computer program was used to randomly (by chance) put the patients into 1 of 2 groups. This process is called **"randomization"** which helps make the groups equal and reduces the differences between the groups.

The main aim of the study was to find out whether treatment with Rova-T extended the length of time patients lived with SCLC compared to topotecan. The study doctors also looked for any side effects patients might have had after treatment with the study drugs. This summary only includes the results of this study, which may be different from the results of other studies.

1.2. When and where was the study done?

This study took place from April 2017 to February 2020 in the following countries: Australia, Belgium, Bulgaria, Brazil, Belarus, Canada, China, Czech Republic, Germany, Denmark, Spain, France, United Kingdom, Greece, Croatia, Hungary, Italy, Japan, South Korea, Latvia, Mexico, the Netherlands, Poland, Portugal, Romania, Serbia, Russian Federation, Sweden, Singapore, Turkey, Taiwan, Ukraine, and the United States.



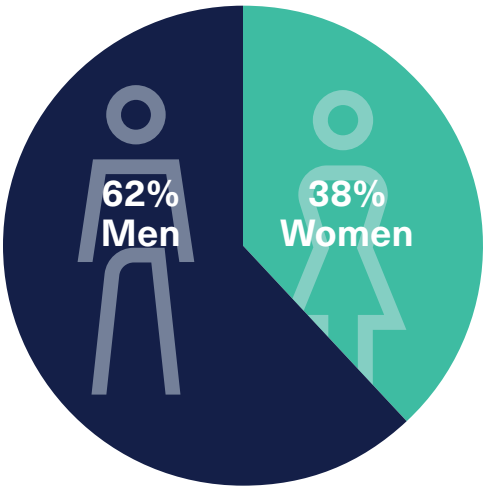
2. What patients were included in this study?

A total of 444 adult patients took part in the study. 416 of those patients took at least one dose of Rova-T or topotecan. All patients left the study, mostly due to death (83.6%) or because the study sponsor ended the study early (8.8%).

There were more men (62%) than women (38%) in the study and patient age ranged from 32 to 85 years of age.

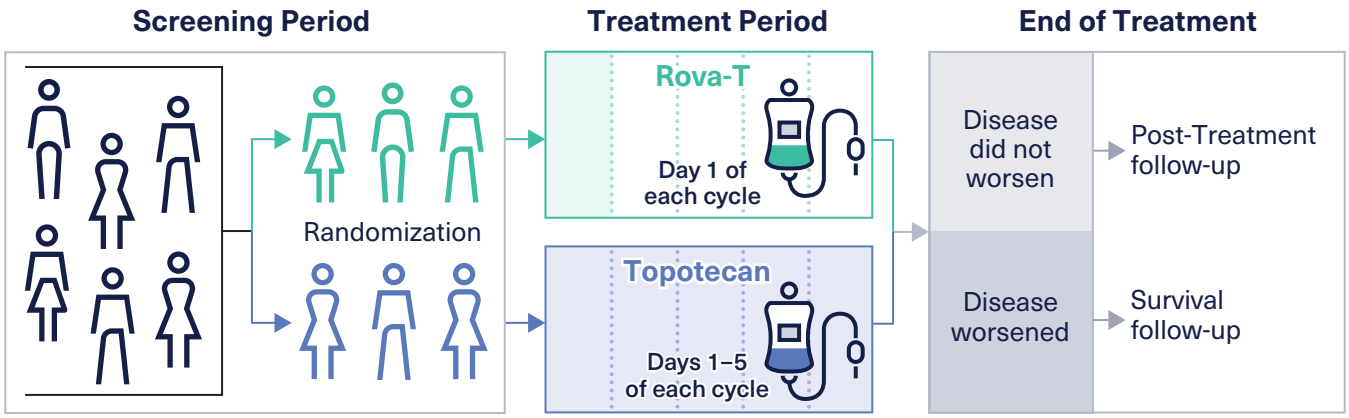
The majority of patients were past smokers (66.0%) or current smokers (27.5%) which is typical for this type of lung cancer.

Patients must have had advanced or metastatic (spread to other areas of the body) small cell lung cancer and had a worsening of their disease during or following chemotherapy.



3. Which medicines were studied?

The medicine in this study was Rova-T or topotecan. The diagram below shows how the study was organized.



The study was divided into separate parts:

- **Screening Period** – Before the study started, the Screening Period took place to check if patients met the entry criteria so they could join the study. Once patients were screened, they were randomly (by chance) assigned to treatment groups (Rova-T or topotecan).
- **Treatment Period** – In the Treatment Period, Rova-T or topotecan was given to patients as an injection into a vein over time (infusion). The Rova-T cycle length was 42 days while the topotecan cycle length was 21 days. Patients had visits with study doctors throughout each treatment cycle and regular phone checks of their overall health and to monitor changes in their cancer.
- **End of Treatment** – Patients continued to receive treatment until their cancer worsened or they chose to stop treatment. Patients who discontinued treatment without worsening of their cancer were followed by study doctors every 6 weeks until the study ended, the patient withdrew from the study, or the patient died (post-treatment follow-up). Patients who discontinued treatment because their cancer worsened were called by study doctors once every 6 weeks (to measure how long each patient lived) until their death (survival follow-up).

4. What were the side effects?

Side effects are unwanted medical events that happen during a study. They may or may not be caused by the treatment in the study.

A side effect is serious if it leads to death, is life-threatening, puts a patient in the hospital, keeps a patient in the hospital for a long time, or causes a disability that lasts a long time.

Related side effects are side effects that were considered by the study doctor to be at least possibly related to study treatment with Rova-T or topotecan.

- 55.7% of patients (160 patients) treated with Rova-T had serious side effects during the study compared to 57.4% of patients (74 patients) treated with topotecan.
- The total number of patients that had serious side effects considered possibly related to the study drug was 17.4% of patients (50 patients) treated with Rova-T and 30.2% of patients (39 patients) treated with topotecan.
- 18.8% of patients (54 patients) treated with Rova-T stopped taking the study drug because of side effects during the study compared 20.9% of patients (27 patients) treated with topotecan.
- The total number of patients that stopped taking the study drug because of side effects considered possibly related to the study drug was 7.7% of patients (22 patients) treated with Rova-T and 14.7% of patients (19 patients) treated with topotecan.

64 patients (22.3% of patients) treated with Rova-T died as a result of a side effect during the study. 5 patients (1.7% of patients) died due to a side effect considered by the study doctors to be related to Rova-T. 1 patient died from interstitial lung disease (scarring of the lungs), 1 patient died from atypical pneumonia (infection in lower respiratory tract), 2 patients died from pneumonia, and 1 patient died from pancreatitis (inflammation of the pancreas).

28 patients (21.7% of patients) treated with topotecan died as a result of a side effect during the study. None of the deaths were considered by the study doctor to be related to topotecan.

The table below shows information about the related serious side effects patients had in the study, as well as related side effects patients had that led to the patient stopping the study drug, and related side effects leading to death.

Overall Study		
	Topotecan (129 Patients)	Rova-T (287 Patients)
Number of patients with related serious side effects	39 (30.2% of patients)	50 (17.4% of patients)
Related serious side effects in 4 or more patients in either group		
• Pleural effusion (buildup of fluid on the lungs)	0 (0.0% of patients)	13 (4.5% of patients)
• Thrombocytopenia (low level of platelets in the blood)	10 (7.8% of patients)	4 (1.4% of patients)
• Febrile neutropenia (fever in patients with neutropenia)	10 (7.8% of patients)	0 (0.0% of patients)
• Dyspnea (difficulty breathing)	0 (0.0% of patients)	5 (1.7% of patients)
• Anemia (low red blood cells)	4 (3.1% of patients)	1 (0.3% of patients)
• Neutropenia (low number of neutrophils – a type of white blood cell)	6 (4.7% of patients)	0 (0.0% of patients)
• Arrhythmia (irregular heartbeat)	0 (0.0% of patients)	1 (0.3% of patients)
• Fatigue (tiredness)	0 (0.0% of patients)	4 (1.4% of patients)
Number of patients who stopped taking study drug because of related side effects	19 (14.7% of patients)	22 (7.7% of patients)
	Anemia (low red blood cells), decreased appetite, ejection fraction decreased (heart not pumping blood well), fatigue (tiredness), febrile neutropenia (fever in patients with neutropenia), gastrointestinal bleeding, hematotoxicity (destruction of red blood cells), hypersensitivity (allergic response), hypotension (low blood pressure), kidney failure, mental status changes, nausea, nervous system disorder, neutropenia (low number of neutrophils – a type of white blood cell), neutropenic sepsis (infection in the blood of patient with neutropenia), platelet count decreased, thrombocytopenia (low level of platelets in the blood), vomiting	Abnormal liver function, alkaline phosphate increased (may show sign of liver disease), anemia (low red blood cells), ascites (fluid in the lining of the abdomen), atypical pneumonia (infection in lower respiratory tract), cardiac tamponade (blood or fluid around the heart preventing expansion of ventricles), difficulty breathing, fatigue (tiredness), lip blister, malaise (general feeling of unease), pericardial effusion (buildup of fluid around the heart), pleural effusion (buildup of fluid on the lungs), pneumonia, polyserositis (inflammation of membranes in the body), scarring of the lungs, skin exfoliation, skin darkening, skin toxicity (such as rash, itching, or redness, swelling, swelling of the hands and legs, thrombocytopenia (low level of platelets in the blood), worsening of disease
Number of related side effects leading to death	0 (0.0% of patients)	5 (1.7% of patients)

About 95.1% of patients (273 patients) treated with Rova-T and 96.9% of patients (125 patients) treated with topotecan had side effects during the study.

The total number of patients that had side effects considered possibly related to the study drug was 75.6% of patients (217 patients) treated with Rova-T and 86.8% of patients (112 patients) treated with topotecan.

The table below shows information about the common related side effects in this study. The most common related side effects were anemia (low red blood cell count), thrombocytopenia (low platelet count), and fatigue (tiredness).

Overall Study		
	Topotecan (129 Patients)	Rova-T (287 Patients)
Number of patients with at least one related side effect	112 (86.8% of patients)	217 (75.6% of patients)
Common Related Side Effects Side effects occurring in at least 20 patients in either group		
• Anemia (low red blood cells)	73 (56.6% of patients)	18 (6.3% of patients)
• Thrombocytopenia (low platelet count)	51 (39.5% of patients)	35 (12.2% of patients)
• Fatigue (tiredness)	34 (26.4% of patients)	49 (17.1% of patients)
• Pleural effusion (buildup of fluid on the lungs)	1 (0.8% of patients)	68 (23.7% of patients)
• Neutropenia (low number of neutrophils – a type of white blood cell – in the blood)	52 (40.3% of patients)	10 (3.5% of patients)
• Nausea	32 (24.8% of patients)	28 (9.8% of patients)
• Decreased appetite	23 (17.8% of patients)	34 (11.8% of patients)
• Pericardial effusion (buildup of fluid around the heart)	0 (0.0% of patients)	48 (16.7% of patients)
• Photosensitivity reaction (redness or inflammation on skin when exposed to sunlight)	0 (0.0% of patients)	45 (15.7% of patients)
• Swelling of lower legs or hands	1 (0.8% of patients)	37 (12.9% of patients)
• Asthenia (abnormal weakness or loss of energy)	15 (11.6% of patients)	20 (7.0% of patients)
• Leukopenia (low white blood cell count)	26 (20.2% of patients)	1 (0.3% of patients)
• Rash	1 (0.8% of patients)	22 (7.7% of patients)

Across the whole study, patients who took Rova-T did not necessarily suffer from more side effects than patients who took topotecan.

5. What were the overall results of the study?

The study enrollment ended early because patients treated with Rova-T had shorter overall survival than patients treated with topotecan.

Because the study enrollment was stopped early, study doctors may not know answers to many of the questions being studied. While the study was running, study doctors learned the number and frequency of side effects were as expected but treatment with Rova-T was not more effective than the current approved treatment with topotecan.

6. How has the study helped patients and researchers?

This study found no survival benefit for patients treated with Rova-T. The results of this study showed that patients treated with Rova-T had a shorter overall survival than patients treated with topotecan. Findings from this study may be used in other studies in this patient population.

This summary only shows the results from this study, which may be different from the results of other studies.

7. Are there any plans for future studies?

There are no plans for future studies with Rova-T at AbbVie.

8. Who sponsored this study?

This study was sponsored by AbbVie. This summary was reviewed for readability by a patient advocacy group.

9. Where can I find out more information about this study?

Title of Study	A Randomized, Open-label, Multicenter, Phase 3 Study of Rovalpituzumab Tesirine Compared With Topotecan for High DLL3 Expressing Small Cell Lung Cancer (SCLC) Subjects With First Relapse/Recurrence Following Front-Line Platinum-Based Chemotherapy (TAHOE)
Protocol Number	M16-289
Clinicaltrials.gov	NCT03061812 https://clinicaltrials.gov/ct2/show/NCT03061812?term=NCT03061812&draw=2&rank=1
EudraCT	2016-003726-17 https://www.clinicaltrialsregister.eu/ctr-search/search?query=2016-003726-17
Study Sponsor	AbbVie, Inc. Phone: +1 800-633-9110 Email: abbvieclinicaltrials@abbvie.com

Thank You

AbbVie wants to thank all the participants for their time and effort that went into making this study possible.

Clinical study participants help advance science!