NOVARTIS

Clinical Trial Results Summary

A clinical trial to learn about the effects and safety of LTP001 in people with pulmonary arterial hypertension (PAH)

Thank you!

Thank you to the participants who took part in the clinical trial for **PAH**. Every participant helped the researchers learn more about the trial drug **LTP001**.

Novartis sponsored this trial and believes it is important to share what was learned from the results of this trial with the participants and the public. We hope this helps the participants understand their important role in medical research.

Trial information

Trial number: CLTP001A12201

Novartis drug studied: LTP001

Sponsor: Novartis

If you were a participant and have any questions about the results, please talk to the doctor or staff at the trial site.

This summary only shows the results of a single clinical trial. Other clinical trials may have different results.

What was the main purpose of this trial?

The purpose of this trial was to learn about the effects and safety of **LTP001** in people with pulmonary arterial hypertension.

Pulmonary arterial hypertension, also called **PAH**, is a rare condition that causes high blood pressure in the lungs. In PAH, small blood vessels that carry blood from the heart to the lungs become thicker and narrow. As blood pressure rises, the heart must work harder to pump blood to the lungs.

Symptoms of PAH include:

- Feeling tired
- Trouble breathing
- Feeling dizzy
- Feeling light-headed or fainting

Symptoms of PAH often get worse over time and can be life-threatening.

There is no cure for PAH. Standard treatments for PAH may help treat the symptoms.

LTP001 is a trial drug designed to block a protein that may play a role in PAH. Researchers think blocking this protein could stop the blood vessels from getting thicker and lower blood pressure in the lungs.

The trial's purpose was to answer these main questions:

- Did LTP001 lower blood pressure in the lungs?
- What medical problems, also called adverse events, happened during this trial?
  - ↳ An **adverse event** is any sign or symptom that participants have during a trial. Adverse events **may** or **may not** be caused by treatments in the trial.

How long was this trial?

The trial began in June 2022 and ended in April 2024.

In March 2024, the sponsor decided to end the trial early. The sponsor reviewed the available data and concluded that the **LTP001** dose level in this trial did not have an effect in people with PAH. The decision to end the trial was not related to the safety of **LTP001**.

Who was in this trial?

47 participants with PAH received treatment in this trial – 8 men and 39 women. Participants' ages ranged from 21 to 72 years. Their average age was 45 years.

The number of participants by race is shown below.

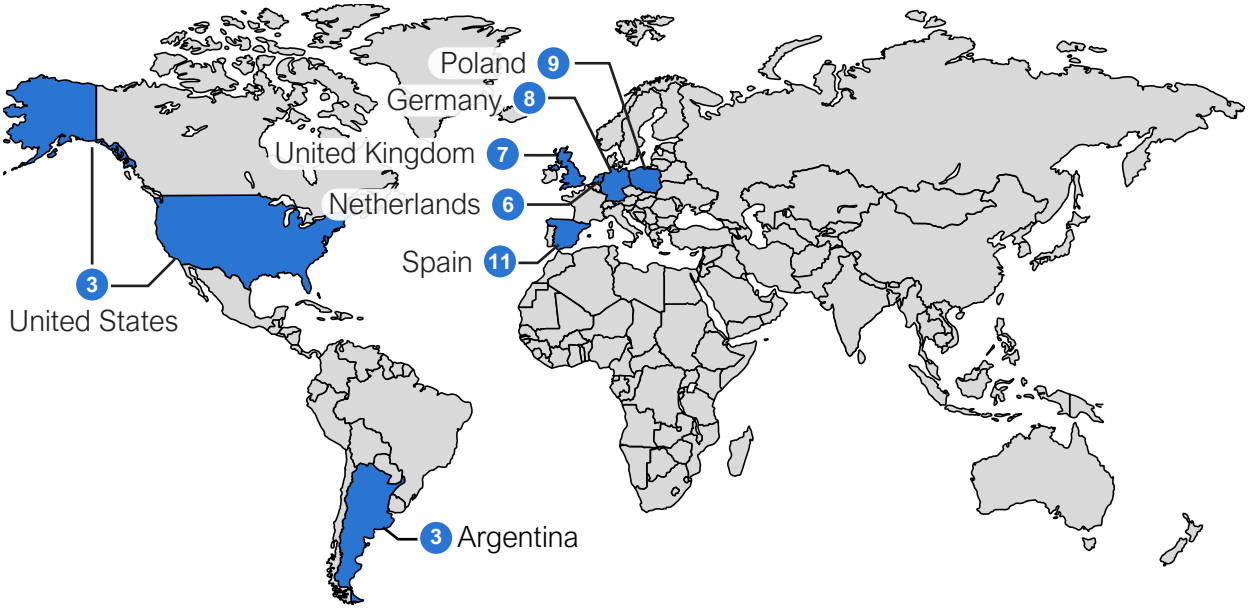
Race

2	American Indian or Alaska Native
2	Asian
43	White

The participants could take part in this trial if they:

- Were taking certain, standard treatments for PAH and had not changed them within 6 weeks before joining the trial
- Could walk within a certain distance in 6 minutes
- Did not have certain other heart or lung problems

47 participants from 7 countries received treatment.



What treatments did the participants receive?

The treatments in this trial were:

LTP001 – 6 milligrams (mg) taken by mouth as capsules once a day.

Placebo – taken by mouth as capsules once a day. It looks like the trial drug but does not have any drug in it. Using a **placebo** helps researchers better understand the effect of a trial drug.

All participants continued taking certain, standard medicines for PAH during the trial.

Researchers used a computer to randomly assign participants to their treatment.

The participants, researchers, and trial staff did not know what treatment the participants were receiving. Some trials are done this way because knowing what treatment the participants receive can affect the results of the trial. Doing a trial this way helps to make sure that the results are looked at with fairness across all treatments.

What happened during this trial?

Before treatment

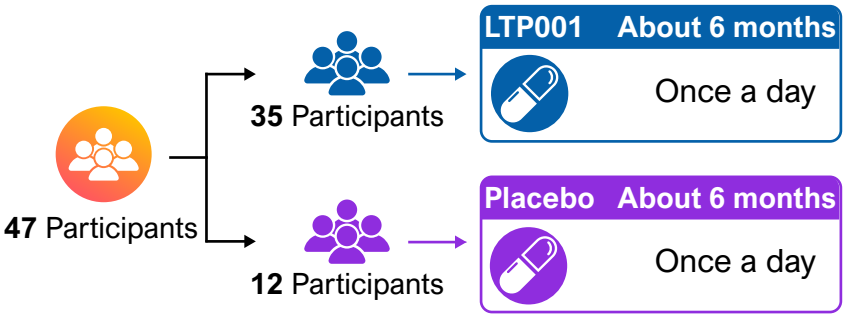
About 2 months

The trial staff checked to make sure the participants could be in this trial.

During treatment

About 6 months

The graphic below shows how many participants were assigned each treatment.



After treatment

About 1 month

Trial staff checked participants for any medical problems about 1 month after participants' last dose of treatment.

The participants had the option to join another related clinical trial after completing this trial.

Trial staff checked the participants' general health throughout the trial.

What were the main results of this trial?

Did LTP001 lower blood pressure in the lungs?

LTP001 did not lower blood pressure in the lungs more than **placebo** after about 6 months of treatment. Overall, the researchers concluded that the change in lung blood pressure in participants who took **LTP001** compared to those who took **placebo** was not meaningful.

To learn this, researchers compared the blood pressure in participants' lungs before and after about 6 months of treatment. They measured participants' blood pressure in the lungs using right heart catheterization.

Right heart catheterization, or **RHC**, is a test in which doctors guide a thin, flexible tube through a blood vessel and into the heart to measure blood pressure in the heart and lungs.

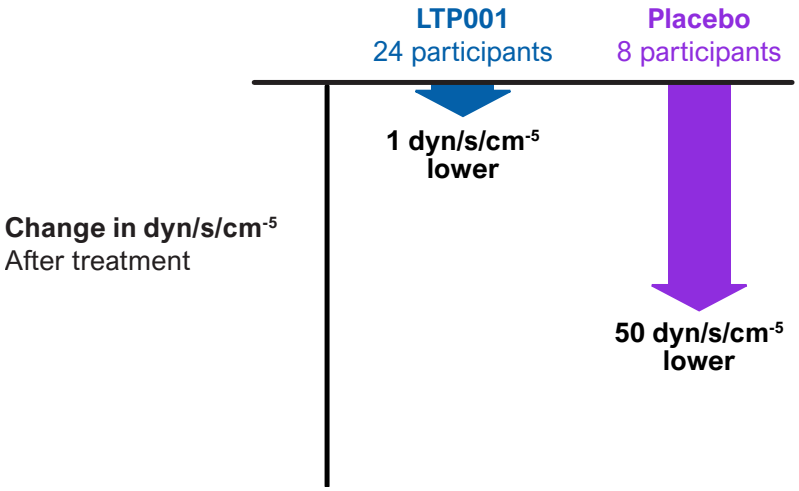
The researchers compared the change in blood pressure of the participants who took **LTP001** to those who took **placebo**.

How are RHC blood pressure results measured?

RHC blood pressure results are given as dyne seconds per centimeter to the negative fifth, or **dyn/s/cm^{-5}**. This measure adjusts for the difference in blood pressure between the lungs and the heart.

Change in blood pressure in the lungs after about 6 months of treatment

This graph shows the change in blood pressure **in the lungs** from before and after about 6 months of treatment. **Lower** blood pressure means it's **easier** for the heart to pump blood to the lungs. These results only include participants who had their blood pressure measured before and after treatment.



Based on past research, the researchers decided that a difference of at least 100 dyn/s/cm^{-5} lower between the participants who took **LTP001** and those who took **placebo** would be meaningful. After about 6 months, participants who took **LTP001** did not have a difference that was at least 100 dyn/s/cm^{-5} lower compared to **placebo**.

The researchers concluded that **LTP001** or **placebo** did not meaningfully change blood pressure.

What were the other results of this trial?

Did LTP001 affect other measures of PAH?

Overall, the researchers concluded that **LTP001** did not affect other measures of PAH when compared to **placebo**.

To learn this, researchers looked at these other measures of PAH before and after starting treatment:

- 6-minute walk distance, or 6MWD, which measures how far the participants could walk in 6 minutes
- Certain measures of blood pressure and flow in the heart and lungs
- Heart ultrasounds, also called **echocardiography**, which is an imaging test that checks how well the heart works to pump blood to the lungs
- Participants' answers to questions about their PAH symptoms and quality of life
- Blood tests to show a sign of heart stress or damage

Did LTP001 affect how long it took for participants' PAH to get worse?

Overall, the researchers concluded that **LTP001** did not affect how long it took for participants' PAH to get worse when compared to **placebo**.

To learn this, researchers kept track of the length of time from when a participant joined the trial until:

- They had a hospital stay that lasted more than a day or they received certain surgeries or treatments because PAH got worse
- They walked at least 15% shorter distance in 6 minutes
- They died

What medical problems, also called adverse events, happened during this trial?

Trial doctors keep track of all medical problems, also called **adverse events**, that happen in trials. They track adverse events even if they think the adverse events are not related to the trial treatments.

Many trials are needed to know if a drug or treatment causes an adverse event.

This section is a summary of the adverse events that happened from the start of treatment until 1 month after the last dose of treatment.

An **adverse event** is:

- Any **sign or symptom** that the participants have during a trial
- Considered **serious** when it is life-threatening, causes lasting problems, the participant needs hospital care, or results in death

Adverse events **may** or **may not** be caused by treatments in the trial.

Most of the participants (31 of 47) had adverse events. 7 participants had adverse events that were considered serious. No participants died. 2 participants left the trial due to an adverse event. The researchers concluded there were no new safety concerns for **LTP001** in this trial.

How many participants had adverse events?

	LTP001 35 participants	Placebo 12 participants
Had **any adverse event**	**23 of 35** 66%	**8 of 12** 67%
Had at least 1 **serious adverse event**	**5 of 35** 14%	**2 of 12** 17%
Had at least 1 **other adverse event**	**20 of 35** 57%	**7 of 12** 58%
Left the trial due to an adverse event	**2 of 35** 6%	**0 of 12** 0%
Died	**0 of 35** 0%	**0 of 12** 0%

What serious adverse events did the participants have?

7 participants had serious adverse events. No participants died.

The most common type of serious adverse event that happened were infections by bacteria or viruses. These occurred in **3 participants** as shown in the table below. Other types of serious adverse events happened in fewer participants.

	LTP001 35 participants	Placebo 12 participants
COVID-19	**1 of 35** 3%	**0 of 12** 0%
Skin infection where catheter was placed Catheter site cellulitis	**0 of 35** 0%	**1 of 12** 8%
Infection in the airways or lungs Lower respiratory tract infection	**1 of 35** 3%	**0 of 12** 0%

What other adverse events did the participants have?

27 participants had other adverse events.

The table below shows the other adverse events that happened in **4 or more** participants. Additional adverse events happened in fewer participants.

	LTP001 35 participants	Placebo 12 participants
Headache	6 of 35 17%	0 of 12 0%
Feeling sick to the stomach Nausea	4 of 35 11%	1 of 12 8%
Fast, irregular, or pounding heartbeat Palpitations	3 of 35 9%	1 of 12 8%

What was learned from this trial?

Researchers learned about the effects and safety of **LTP001** in people with pulmonary arterial hypertension, also called PAH. The sponsor ended this trial early because the **LTP001** dose level did not have an effect in people with PAH. The decision to end the trial was not related to the safety of **LTP001**.

The researchers concluded that, compared to those who took the **placebo**, participants who took **LTP001** did not have a meaningful difference in:

- Blood pressure in the lungs
- Other measures of PAH
- How long it took for PAH to get worse

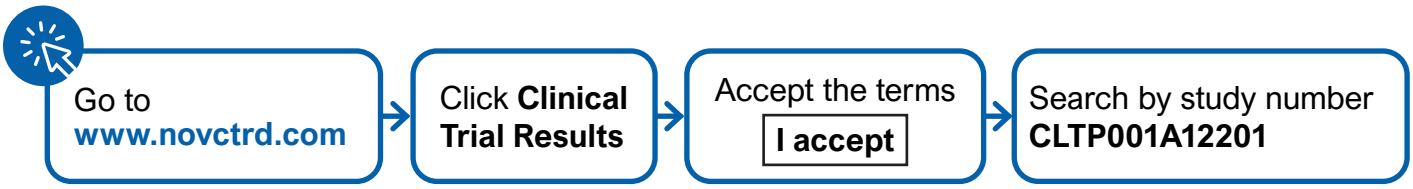
The researchers also concluded there were no new safety concerns for **LTP001** in this trial.

When this summary was written, another trial of **LTP001** was ongoing for people with PAH.

Where can I learn more about this trial?

More information about the results and adverse events in this trial can be found in the scientific summary of the results available on the Novartis Clinical Trial Results website **www.novctrd.com**

Follow these steps to find the scientific summary:



For more information about this trial, go to any of these websites:

- **clinicaltrials.gov** – search using the number **NCT05135000**
- **clinicaltrialsregister.eu** – search using the number **2021-000670-28**

Other trials of **LTP001** may appear on the public websites above. When there, search for **LTP001**.

Full clinical trial title: A randomized, participant- and investigator-blinded, placebo-controlled study to investigate efficacy, safety and tolerability of LTP001 in participants with pulmonary arterial hypertension

NOVARTIS

Novartis is a global healthcare company based in Switzerland that provides solutions to address the evolving needs of patients worldwide.

1-888-669-6682 (US) | +41-61-324 1111 (EU)

www.novartis.com/clinicaltrials