

Summary of Clinical Trial Results

A study to look at how much zosurabalpin gets to the lungs of healthy people and how the body changes and gets rid of it

See the end of the summary for the full title of the study.

About this summary

This is a summary of the results of a clinical trial (called a 'study' in this document) – written for:

- members of the public and
- people who took part in the study.

This summary is based on information known at the time of writing.

The study started in March 2022 and finished in July 2022. This summary was written after the study had ended.

No single study can tell us everything about the risks and benefits of a medicine. It takes lots of people in many studies to find out everything we need to know. The results from this study may be different from other studies with the same medicine.

- **This means that you should not make decisions based on this one summary – always speak to your doctor before making any decisions about your treatment.**

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Thank you to the people who took part in this study

The people who took part have helped researchers to answer important questions about the development of zosurabalpin for treating infections such as pneumonia caused by bacteria that are resistant to current antibiotics.

Key information about this study

- In this study, people were given the medicine being studied (called 'zosurabalpin').
- Zosurabalpin is a new experimental antibiotic. Antibiotics are medicines used to treat infection caused by bacteria. It may work well against a type of bacteria called '*Acinetobacter baumannii*'.
- *Acinetobacter baumannii* is a major cause of infections in hospital patients. This includes lung infections that can cause cough, fever, and difficulty breathing (pneumonia).
- This study was done to look at how much zosurabalpin gets to the lungs of healthy people to be able to treat a possible infection.
- This study included 39 people in Arizona, United States of America.
- The main finding was that zosurabalpin could get to the lungs. Up to 6% of the total zosurabalpin in the blood reached the fluid around the lungs and about 23% reached the alveolar macrophages.
- The amount of zosurabalpin in the lungs was higher than the amount known to stop 90% of *A. baumannii* and other *Acinetobacter* bacteria from growing
- No person taking zosurabalpin had serious unwanted effects.

1. General information about this study

Why was this study done?

Antibiotics are medicines that treat infections caused by bacteria. But bacteria can become antibiotic resistant – a type of bacteria that survives treatment with antibiotics.

'*Acinetobacter baumannii*' is a type of bacteria that is resistant to most antibiotics:

- You say this as 'a-sin-ee-to-bac-ter bau-man-eye'
- The name is shortened to '*A. baumannii*'

Antibiotic resistant-*A. baumannii* causes infections. This includes pneumonia – a lung infection that can cause cough, fever, and difficulty breathing. The lungs are covered in a fluid called 'epithelial lining fluid'.

A. baumannii infections are a problem in hospitals and for people with weakened immune systems. The immune system is the body's natural defence, which protects the body from foreign or harmful substances such as bacteria and viruses. People with weakened immune systems include the elderly and very young children. It also includes people with certain conditions or infections and people receiving treatments that weaken the immune system.

Therefore, new treatments for *A. baumannii* infections are needed.

What was the medicine being studied?

A medicine called 'zosurabalpin' was the focus of this study.

- Zosurabalpin kills *A. baumannii* bacteria in a different way to currently available antibiotics.
- This may mean that zosurabalpin can be used to treat people with *A. baumannii* infections that are resistant to other antibiotics.

What did researchers want to find out?

- Researchers did this study to see how zosurabalpin gets around the body and if enough reaches the lungs to treat infections (see section 4 “What were the results of the study?”).
- They also wanted to find out how safe the medicine was – by checking how many people had unwanted effects and seeing how serious they were (see section 5 “What were the unwanted effects?”).

The main question that researchers wanted to answer was:

1. How much zosurabalpin gets into the lungs?

Another question that researchers wanted to answer was:

2. How does the body change zosurabalpin and get rid of it?

What kind of study was this?

This study was a ‘Phase 1’ study, which means that this was one of the first studies for zosurabalpin. A small number of healthy people took zosurabalpin and the researchers did medical tests to find out more about zosurabalpin.

The study was ‘open label’. This means everyone involved, including the people in the study and the study doctor, knew the study treatment a person had been given.

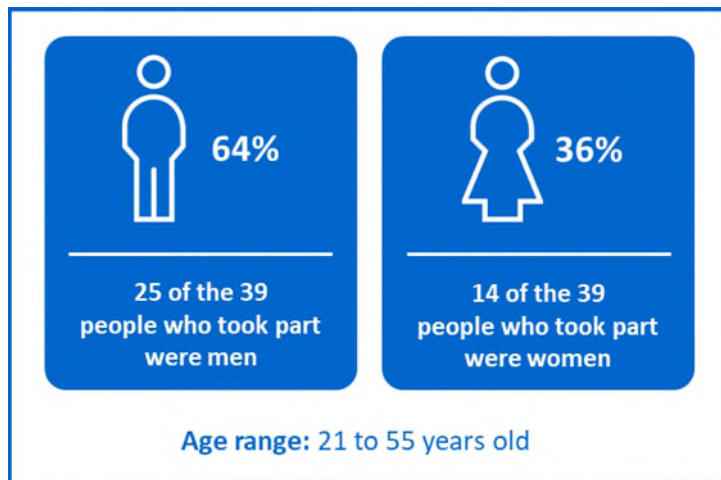
When and where did the study take place?

The study started in March 2022 and finished in July 2022. This summary was written after the study had ended.

The study took place at 1 study centre in Arizona, United States of America.

2. Who took part in this study?

In this study, 39 healthy people took part. They were between 21 and 55 years of age. 25 of the 39 people (64%) were men and 14 of the 39 people (36%) were women.



People could take part in the study if they:

- Were between 18 to 55 years old
- Were healthy and their lungs worked as expected
- Weighed at least 50kg and had a body mass index (BMI) of 18 to 32kg/m²

People could not take part in the study if they had:

- A history of certain medical conditions, including cancer, heart, lung, liver or kidney problems
- Recently received certain treatments
- A high or low blood pressure or a high or low heart rate

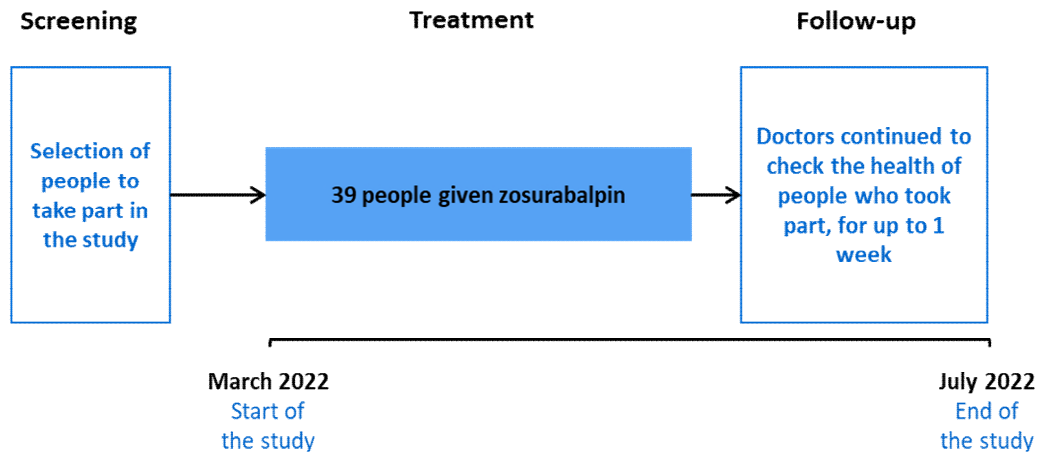
3. What happened during the study?

During the study, all the people who took part were given the same dose of zosurabalpin (the medicine being studied) as a drip into a vein on Day 1 only.

The amount of zosurabalpin that reached their lungs was measured. This was done using a bronchoalveolar lavage (or BAL) procedure. A BAL procedure involves putting a flexible tube in the mouth and down into one lung. Then a small amount of fluid is sprayed into the lung from the tube and sucked back up.

The amount of zosurabalpin in blood was also measured.

People in the study stayed in a hospital for 3 nights after having study treatment – to check their overall health. When the study finished, the people who took part were asked to go back to their study centre for more visits – to check their overall health. Look below to see more information about what happened in the study.

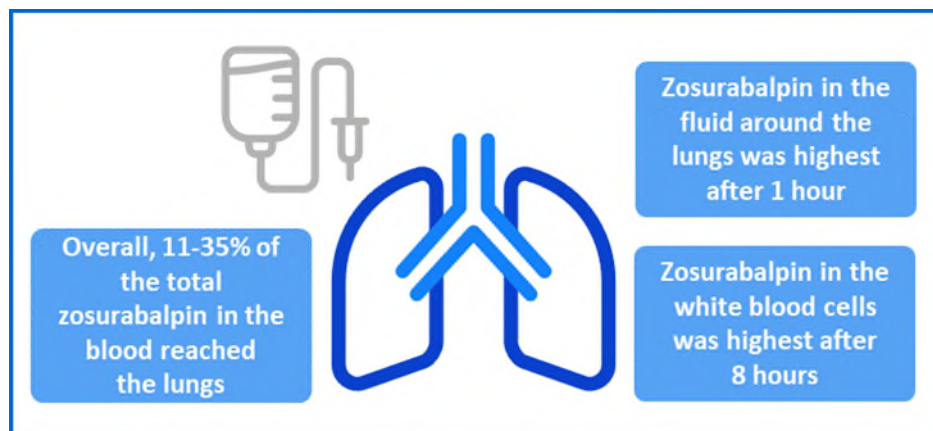


4. What were the results of the study?

Question 1: How much zosurabalpin got into the lungs?

Researchers looked at whether zosurabalpin could reach the lungs at a level that could treat infection. The amount was measured in 2 places in the lungs, using the BAL procedure:

- White blood cells in the lungs called 'alveolar macrophages', and
- The fluid around the lungs, called 'epithelial lining fluid' or ELF



The highest amount of zosurabalpin in the alveolar macrophages was about 23% of the total zosurabalpin in the blood. Overall, the amount of zosurabalpin in the alveolar macrophages over a period of time was about 35% of the total zosurabalpin in the blood.

The highest amount of zosurabalpin in ELF was about 6% of the total zosurabalpin in the blood. Overall, the amount of zosurabalpin in ELF over a period of time was about 11% of the total zosurabalpin in the blood.

The amount of zosurabalpin in the lungs was higher than the amount known to stop 90% of *A. baumannii* and other Acinetobacter bacteria from growing. The level needed was found using laboratory tests.

Question 2: How does the body change zosurabalpin and get rid of it?

Researchers also looked at the amount of zosurabalpin in blood.

- Zosurabalpin in the blood reached its highest amount 1 hour after treatment was given.
- It took an average of 9 and a half hours for half of zosurabalpin to be removed from blood.
- The highest amount of zosurabalpin people had in their blood and the length of time their body took to remove it, was similar across all the people in this study.

This section only shows the key results from this study. You can find information about all other results on the websites at the end of this summary (see section 8).

5. What were the unwanted effects?

Unwanted effects are medical problems (such as feeling dizzy) that happen during the study.

- They are described in this summary because the study doctor believes the unwanted effects were related to the treatment in the study.
- Not all of the people in this study had all of the unwanted effects.
- Unwanted effects may be mild to very serious and can be different from person to person.
- It is important to be aware that the unwanted effects reported here are from this single study. Therefore, the unwanted effects shown here may be different from those seen in other studies, or those that appear in the informed consent form.
- Serious and common unwanted effects are listed in the following sections.

Serious unwanted effects

An unwanted effect is considered 'serious' if it is life-threatening, needs hospital care, or causes lasting problems.

During this study, no person had a serious unwanted effect.

None of the people in the study died due to unwanted effects that may have been related to one of the study medicines.

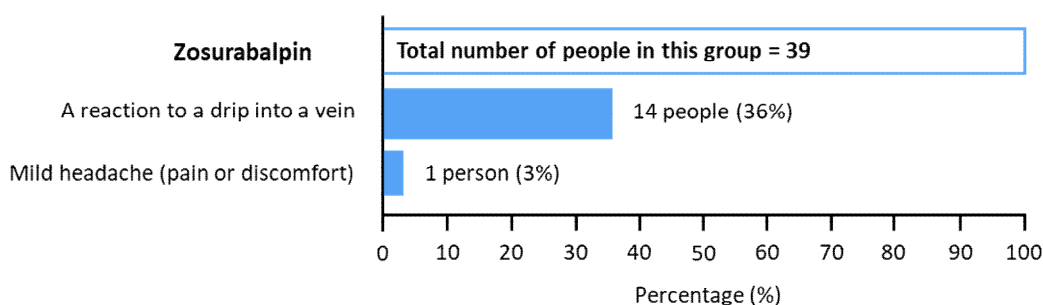
During the study, 1 person decided to stop taking their medicine because of an unwanted effect that was related to the study treatment. This was a reaction to the drip into a vein.

Most common unwanted effects

During this study, 14 out of 39 people (36%) had an unwanted effect that was not considered serious. These unwanted effects were mild or moderate. None were severe or life-threatening.

The unwanted effects are shown in the following picture. Some people had more than one unwanted effect – this means that they are included in more than one row in the picture.

How many people had unwanted effects related to zosurabalpin?



Other unwanted effects

You can find information about other unwanted effects (not shown in the sections above) on the websites listed at the end of this summary – see section 8.

6. How has this study helped research?

The information presented here is from a single study of 39 healthy people. These results helped researchers learn more about zosurabalpin.

No single study can tell us everything about the risks and benefits of a medicine. It takes lots of people in many studies to find out everything we need to know. The results from this study may be different from other studies with the same medicine.

- **This means that you should not make decisions based on this one summary – always speak to your doctor before making any decisions about your treatment.**

7. Are there plans for other studies?

Studies with zosurabalpin are still happening, and further studies are planned.

8. Where can I find more information?

You can find more information about this study on the websites listed below:

- <https://forpatients.roche.com/en/trials/healthy-volunteers/a-non-randomized--open-label--single-dose-study-to-investigate-t.ht>

If you would like to find out more about the results of this study, the full title of the relevant scientific paper is: “Intrapulmonary penetration of zosurabalpin following intravenous administration in healthy participants”. The authors of the scientific paper are: Andreas Günther, Katie Patel, Rik Deurloo, Andreas Gloge, Laurie Millar, Amanda Messer, Michael Lobritz, Mylène Giraudon, Mark Gotfried.

Who can I contact if I have questions about this study?

If you have any further questions after reading this summary:

- Visit the ForPatients platform and fill out the contact form – <https://forpatients.roche.com/en/trials/healthy-volunteers/a-non-randomized--open-label--single-dose-study-to-investigate-t.ht>
- Contact a representative at your local Roche office.

If you took part in this study and have any questions about the results:

- Speak with the study doctor or staff at the study hospital or clinic.

If you have questions about your own treatment:

- Speak to the doctor in charge of your treatment.

Who organised and paid for this study?

This study was organised and paid for by F. Hoffmann-La Roche Ltd who have their headquarters in Basel, Switzerland.

Full title of the study and other identifying information

The full title of this study is: “A non-randomized, open-label, single-dose study to investigate the intrapulmonary penetration of RO7223280 following intravenous administration in healthy participants”.

- The protocol number for this study is: BP43629.