Summary of Clinical Trial Results

A study looking at how well baloxavir marboxil reduces the spread of the flu virus within households, compared with a placebo

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 October 2019 and finished in May 2024. 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.

Contents of the summary

Thank you to the people who took part in this study

The people who took part have helped researchers to answer important questions about influenza (the flu) and the medicine studied (baloxavir marboxil), which could have benefits for the general public.

Key information about this study

- This study was done to see how well a drug called baloxavir marboxil can reduce the spread of the flu virus between people living in the same household.
- This study included 4,138 people in 15 countries. Of these, 1,457 people had the flu, and 2,681 people lived with them in the same households.
- People with the flu were placed into 1 of 2 groups and given either the medicine being studied (called 'baloxavir marboxil') or a placebo (non-active medicine) – it was decided by chance which treatment each person was given. Researchers then looked at how many people in the same households caught the flu virus.
- The main finding was that baloxavir marboxil reduced spread of the flu virus.
    - For every 10 people who caught the flu virus when living with a person in the placebo group, about 7 people caught the flu virus when living with a person in the baloxavir marboxil group
    - This means the risk of catching the flu virus was about 30% lower for people living with someone with the flu who was in the baloxavir marboxil group, compared with the placebo group
    - Because of the study's design and the large number of participants, researchers are confident that the effect of baloxavir marboxil to reduce the spread of the flu virus between people living in the same household compared to placebo was not due to chance
- Only 1 person taking baloxavir marboxil (0.1% - around 1 out of 1,000 people) had a serious unwanted effect that was thought to be related to the study treatment.
    - This person had a positive pregnancy test shortly after completing the study and the unwanted effect was pregnancy loss (miscarriage)
- No serious unwanted effects were reported in the placebo group.

1. General information about this study

Why was this study done?

Influenza, also called the flu, is a common disease caused by infection with the flu virus. Common symptoms include fever, cough, sore throat, body aches and fatigue.

Most people recover from the flu within a week without needing to see a doctor. Sometimes, flu can lead to more serious illnesses (complications) such as swelling/inflammation of the lungs (pneumonia) or blood poisoning (sepsis). Some people are more likely to have flu complications. This includes children under the age

of 2 years, adults over 65 years, and people with existing health problems like lung or heart disease, diabetes or a weak immune system (the body's natural defence).

There are many over-the-counter medications to treat the symptoms of flu, but these do not affect the flu virus directly. Antiviral treatments, like baloxavir marboxil, attack the flu virus - the cause of the flu. These can be prescribed by a doctor or pharmacist. Each year, millions of people worldwide need treatment for the flu.

Baloxavir marboxil is an antiviral treatment for the flu that works differently to other antivirals. It has been shown to be effective for treating the flu in adults and children. This study looked at how well baloxavir marboxil worked to prevent the spread of the flu virus between people living in the same household.

What was the medicine being studied?

A medicine called 'baloxavir marboxil' was the focus of this study

- You say this as 'ba-lox-av-ear mar-box-il'.
- Baloxavir marboxil works by stopping the flu virus from making copies of itself in the body.
- This may mean that baloxavir marboxil may prevent people from passing on the flu virus to other people.

Baloxavir marboxil was compared to a 'placebo'.

- You say this as 'plah – see – bo'.
- The placebo looked the same as baloxavir marboxil but did not contain any real medicine. This means it had no medicine-related effect on the body.
- Researchers compared baloxavir marboxil to a placebo so they could show which benefits or unwanted effects are actually caused by the medicine.

What did researchers want to find out?

The main question that researchers wanted to answer was :
How well does baloxavir marboxil work to reduce the spread of the flu virus?

What kind of study was this?

This study was a 'Phase 3' study. This means that baloxavir marboxil had been tested in a number of people with the flu before this study. This study was done after baloxavir marboxil had been approved for doctors to give to patients to treat flu. In this study, a larger number of people with the flu either took baloxavir marboxil or a placebo – this

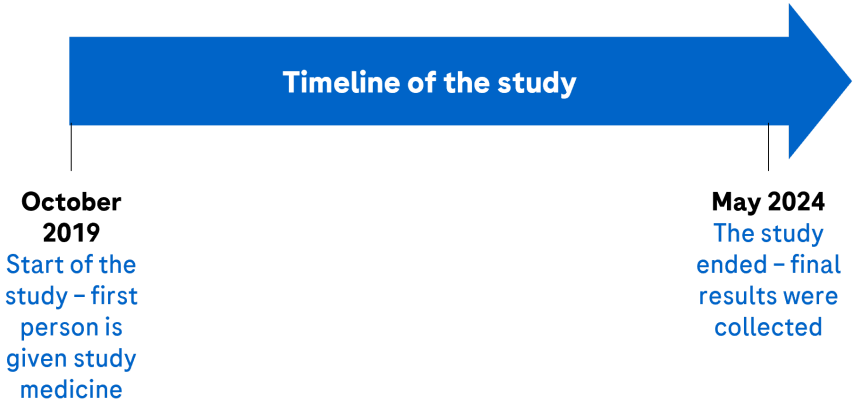
was to find out if baloxavir marboxil worked to reduce spread of the flu virus between people that live together.

This was a 'double-blind study'. This means that nobody knew which treatment was being given – neither the people in the study nor the team running it. This is done to make sure that the results of the treatment are not affected by what people expected from the received treatment. After the study finished, the people in the study could find out which treatment they got.

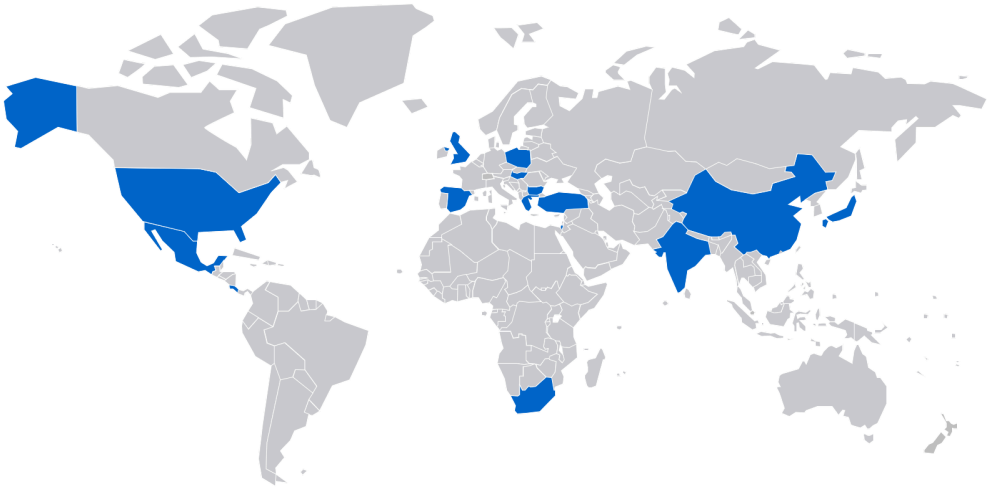
The study was 'randomised'. This means that it was decided by chance which of the medicines people in the study would have – like tossing a coin. Randomly choosing which medicine people take, makes it more likely that the types of people in both groups (for example, age, race) will be a similar mix. Apart from the exact medicines being tested in each group, all other aspects of care were the same between the groups.

When and where did the study take place?

The study started in October 2019 and finished in May 2024. This summary was written after the study had ended.



The study took place with 142 study investigators – in 15 countries across the world. The following map shows the countries where this study took place.



- Bulgaria
- China
- Costa Rica
- Greece
- Hungary
- India
- Israel
- Japan
- Mexico
- Poland
- South Africa
- Spain
- Turkey
- United Kingdom
- United States of America

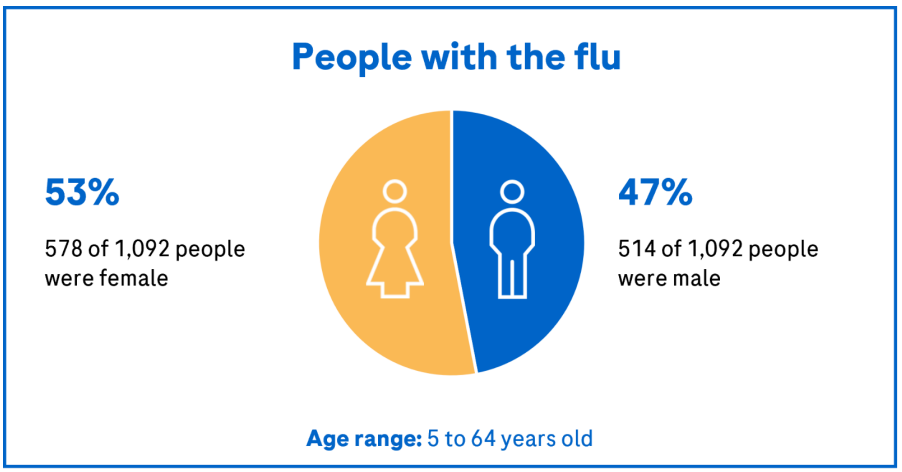
2. Who took part in this study?

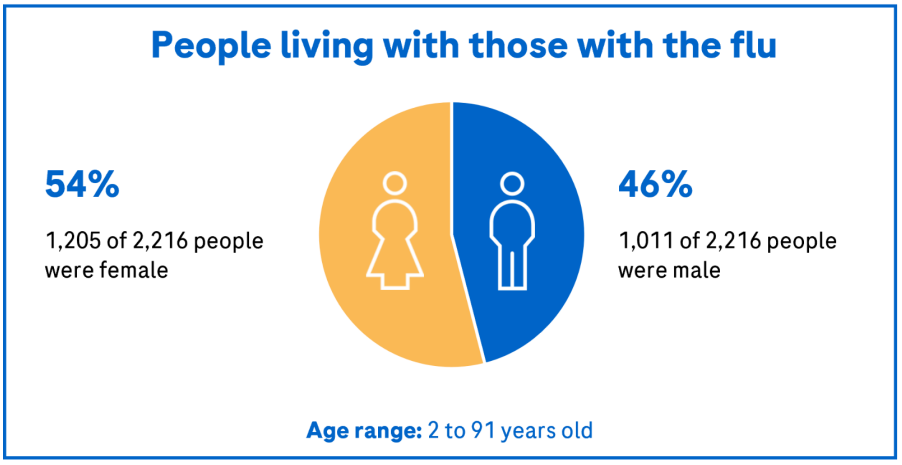
In this study, 4,138 people took part - 1,457 people had the flu, and 2,681 people who lived with them in the same households.

Of these, the following numbers of people met the criteria required for researchers to look at how spread of the flu virus was affected by the study medicine:

- 1,092 people with the flu were treated with either baloxavir marboxil or placebo.
- 2,216 people lived with them in the same households.

More information on the people who took part, is given below.





People with the flu could take part in the study if:

- They were between 5 and 64 years old.
- They had a test confirming they had the flu virus with a swab from their nose.
- Their flu symptoms started no more than 2 days before they joined the study.
- Everyone that they lived with agreed to have swabs taken from their noses.
- At least 1 person that they lived with had not been given a flu vaccine.

People with the flu could not take part in the study if:

- They had received antiviral treatment for the flu in the past month or had other ongoing infections that required treatment.
- They were pregnant or had a health condition that put them at higher risk of getting very sick from the flu (such as heart disease).
- Anyone in their household was 2 years old or younger, had a weak immune system or had been diagnosed with the flu or COVID-19 in the past month.

Some households did not fit these or additional research criteria. Information from these households was not used to look at how spread of the flu virus was affected by the study medicine, even though a person living there was given baloxavir marboxil or placebo.

Information from everyone who was given study medicine was used to look at how safe baloxavir marboxil was compared with placebo.

These numbers are shown in detail in the next section.

3. What happened during the study?

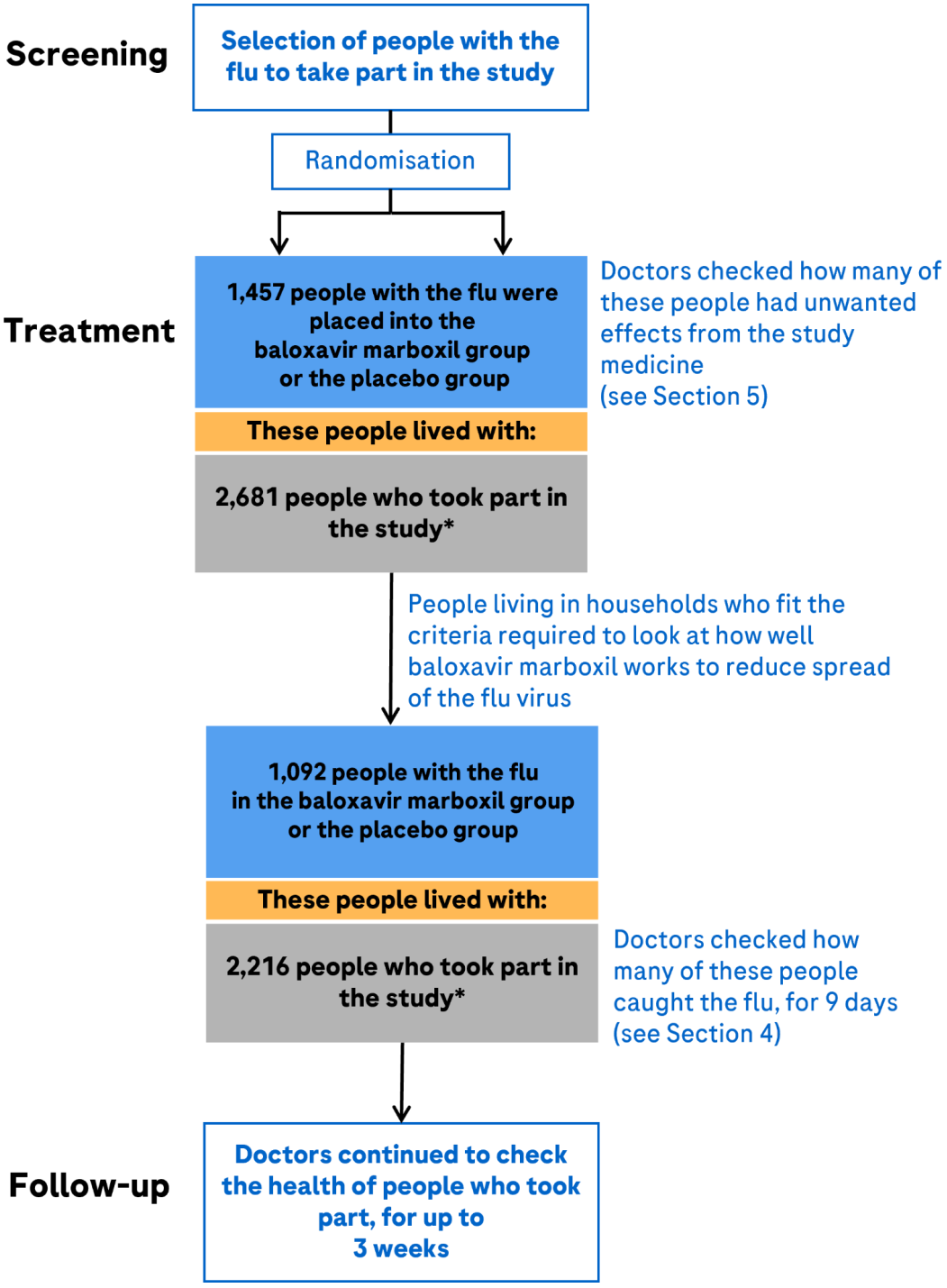
During the study, people with the flu were selected by chance to get 1 of 2 treatments. The treatments were selected at random – by a computer.

The treatment groups were:

- Baloxavir marboxil (the medicine being studied) – given as a tablet to swallow once (children under the age of 12 years were given baloxavir as a liquid)
- Placebo – given as a tablet to swallow once (children under the age of 12 years were given placebo as a liquid)

After people with the flu were given a single dose of baloxavir marboxil or placebo, the people living with them in the same households were tested for the flu virus over the next 9 days.

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.



*without the flu at the start of the study.

4. What were the results of the study?

Question 1: How well does baloxavir marboxil work to reduce the spread of the flu virus?

Researchers took nose swabs from people who lived with participants that had the flu. They looked at the number of people who tested positive for the flu virus.

The number of people who caught the flu virus was compared between those living with a person in the baloxavir marboxil group and those living with a person in the placebo group.

By Day 5, fewer people who lived with participants in the baloxavir marboxil group tested positive for the flu virus than people who lived with those in the placebo group.

- For every 10 people who caught the flu virus when living with a person in the placebo group, about 7 people caught the flu virus when living with a person in the baloxavir marboxil group.
- This means the risk of catching the flu virus was about 30% lower for people living with someone with the flu who was in the baloxavir marboxil group, compared with the placebo group.

Because of the study's design and the large number of participants, researchers are confident that the effect of baloxavir marboxil to reduce the spread of the flu virus between people living in the same household compared to placebo was not due to chance.

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 treatments 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.
- Serious and common unwanted effects are listed in the following sections.

Of the 1,457 people with the flu who first took part in this study, 8 people left the study before receiving treatment. The 1,449 people who were given either baloxavir marboxil or placebo are included in the safety results shown here.

Serious unwanted effects

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

During this study, serious unwanted effects related to the study medicine were very rare:

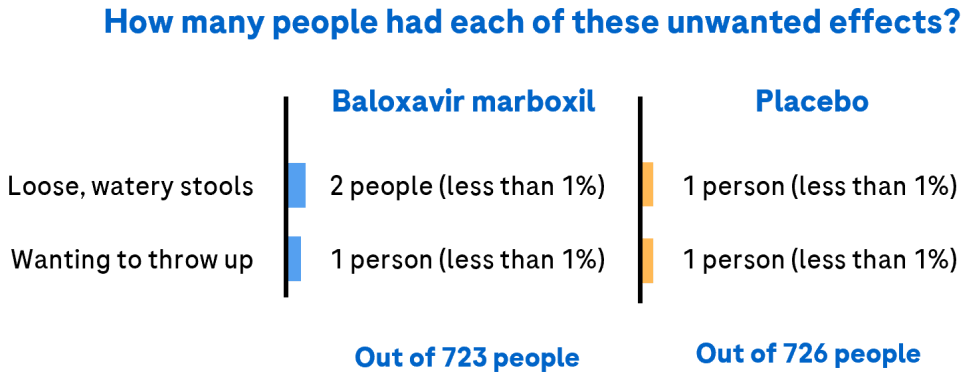
- 1 person taking baloxavir marboxil had a serious unwanted effect.
- This person had a positive pregnancy test shortly after completing the study and the unwanted effect was pregnancy loss (miscarriage).
- No one taking a placebo had a serious unwanted effect.

No one in the study died due to unwanted effects that may have been related to one of the study medicines.

Most common unwanted effects

During this study, less than 1 out of every 100 people (less than 1%) had an unwanted effect that was not considered serious and was related to the study medicine.

The most common unwanted effects (that were seen in at least 2 people) are shown in the following picture.



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 4,138 people with the flu or living with someone with the flu. These results helped researchers learn more about the effect of baloxavir marboxil on the spread of the flu virus.

- Compared to placebo, baloxavir marboxil reduced the spread of the flu virus between people living in the same household.
- Because of the study's design and the large number of participants, researchers are confident that the effect of baloxavir marboxil was not due to chance.

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?

At the time of writing this summary, further studies with baloxavir marboxil are ongoing.

8. Where can I find more information?

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

- https://clinicaltrials.gov/ct2/show/results/NCT03969212
- https://www.clinicaltrialsregister.eu/ctr-search/trial/2018-004056-37/results
- https://forpatients.roche.com/en/trials/infectious-diseases/influenza/study-to-assess-the-efficacy-of-baloxavir-marboxil-vers-02272.html

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/infectious-diseases/influenza/study-to-assess-the-efficacy-of-baloxavir-marboxil-vers-02272.html
- 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 phase IIIb, multicenter, randomized, double-blind, placebo-controlled, clinical efficacy study of baloxavir marboxil for the reduction of direct transmission of influenza from otherwise healthy patients to household contacts'.

The study is known as 'Centerstone'.

- The protocol number for this study is: MV40618.
- The ClinicalTrials.gov identifier for this study is: NCT03969212.
- The EudraCT number for this study is: 2018-004056-37.