Clinical Study Results

Research Sponsor: AstraZeneca AB

Drug Studied: AZD9977

Study Title: A study to learn more about how different forms of AZD9977 act in the blood of healthy participants and if AZD9977 is safe to take

Thank you!

Thank you to the participants who took part in the clinical study for the study drug AZD9977. You and all of the participants helped researchers learn more about how different forms of AZD9977 act in the blood of healthy participants.

AstraZeneca AB sponsored this study and thinks it is important to share the results of the study with the participants and the public. An independent non-profit organization called CISCRP helped prepare this summary of the study results. We hope it helps the participants understand and feel proud of their important role in medical research.

If you participated in the study and have questions about the results, please speak with the doctor or staff at your study site.

What is happening with the study now?

The study started in March 2018 and ended in June 2018. The study included 13 participants in the United Kingdom.

The sponsor reviewed the data collected when the study ended and created a report of the results. This is a summary of that report.

Why was the research needed?

Researchers are looking for a better way to treat patients with heart failure. Before a drug can be approved for patients to take, researchers do clinical studies to find out if it works and how safe it is.

The study drug, AZD9977, is being developed to treat patients with heart failure. In this study, the researchers wanted to find out how different forms of AZD9977 acted in the blood of healthy male participants. They also wanted to find out if the participants had any medical problems during the study.

Heart failure is a condition in which the heart does not pump blood throughout the body as well as it should. This can lead to several medical problems, such as changes in the shape of the heart and how well it works, damage to the heart muscle, and fluid build-up in the lungs and legs. AZD9977 is being developed to treat these medical problems, which may help improve heart health.

In this study, the researchers wanted to learn more about how different forms of AZD9977 act in the body. This information could help future researchers learn which forms of AZD9977 might be most effective in treating patients with heart failure. To do this, the researchers compared 3 different AZD9977 pills to each other and to a liquid form of AZD9977.

The main questions the researchers wanted to answer in this study were:

- Were the AZD9977 levels in the blood similar when the participants took the different forms of the drug?
- Were the AZD9977 levels in the blood similar when the drug was taken with and without food?
- What medical problems happened during the study?

To answer the questions in this study, the researchers asked for the help of healthy men. The participants in this study were 22 to 47 years old.

What kind of study was this?

This was an “open-label” study. This means the researchers and the participants knew what the participants were taking. All of the participants took AZD9977.

In Part A, all of the participants took 4 different forms of AZD9977 by mouth without food. There was 1 liquid form and 3 pill forms:

- A liquid form that released AZD9977 into the blood right away
- Pill 1, which released AZD9977 into the blood right away
- Pill 2, which released AZD9977 into the blood slowly over time
- Pill 3, which released AZD9977 into the blood very slowly over time

All of the participants took each form of AZD9977, but in different orders. A computer program was used to randomly choose the order in which each participant took the different forms of AZD9977. This helps make sure the order of treatments for each participant is chosen fairly. Researchers do this so that comparing the results of each treatment is as accurate as possible.

In Part B, all of the participants took Pill 1 once after eating a meal.

What happened during the study?

Before treatment, the study doctors checked the participants' health to make sure they could join the study. Throughout the study, the doctors continued taking blood and urine samples from the participants and checking the participants' health.

In Part A, the participants stayed at their study site for 10 days. On different days, they took 1 of the 4 different AZD9977 forms. The participants did not eat food for at least 10 hours before they took AZD9977.

After Part A, the participants left their study site for 2 days. During this time, the participants were asked not to take certain medicines. This was done so that AZD9977 and any other medicines would completely leave their bodies before Part B.

In Part B, the participants stayed at their study site for 4 days. They took Pill 1 once after eating a meal.

After Part B, the participants visited their study site once more so the doctors could check their health and ask them how they were feeling.

What were the results of the study?

This is a summary of the main results from this study overall. The individual results each participant had might be different and are not in this summary. A full list of the questions the researchers wanted to answer can be found on the websites listed at the end of this summary. If a full report of the study results is available, it can also be found on these websites.

Researchers look at the results of many studies to decide which treatments work best and are safest. Other studies may provide new information or different results. Always talk to a doctor before making any treatment changes.

In this study, the researchers wanted to learn more about how different forms of AZD9977 act in the body. This information could help future researchers learn which forms of AZD9977 might be most effective in treating patients with heart failure.

The following results are for 11 of the 13 participants. This is because 2 participants chose to leave the study before the researchers could review all of the study results. The 2 participants left the study for personal reasons and not because of any medical problems.

Were the AZD9977 levels in the blood similar when the participants took the different forms of the drug?

No. Overall, the levels of AZD9977 in the participants' blood were different depending on which form they were taking.

To answer this question, the researchers measured the average and highest levels of AZD9977 in the blood throughout Part A. They compared the results from when the participants took the liquid form of AZD9977 with the results from when they took each of the pill forms of AZD9977.

The average and highest levels of AZD9977 in the blood were:

- highest when the participants took the liquid form
- lowest when the participants took Pill 3
- higher when the participants took Pill 1 compared to when they took Pill 2 or Pill 3

Because the researchers were focusing on learning more about the different AZD9977 pills, the researchers chose to use one of the pills to answer the next question in Part B. So, even though the AZD9977 levels were highest in the blood when the participants took the liquid form of the study drug, the researchers chose Pill 1 to answer the next question in Part B. The researchers chose Pill 1 over the other pills because the AZD9977 levels in the blood were highest when the participants took Pill 1 compared to when they took Pill 2 or Pill 3.

Were the AZD9977 levels in the blood similar when the drug was taken with and without food?

Overall, the average levels of AZD9977 in the blood were similar when the participants took AZD9977 with food compared to when they took it without food. But, the highest levels of AZD9977 in the blood were higher when the participants took AZD9977 with food compared to when they took it without food.

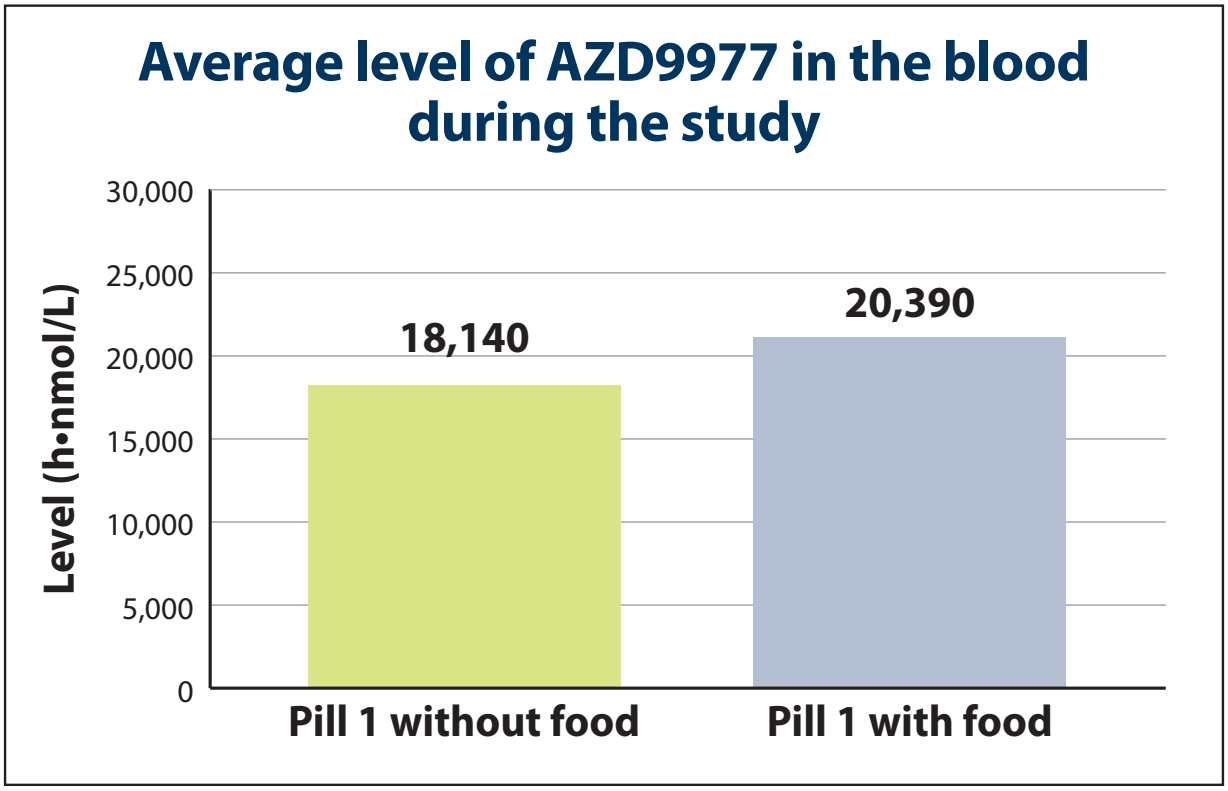
To answer this question, the researchers compared the average and highest levels of AZD9977 in the participants' blood after taking Pill 1 without food in Part A to those levels after taking Pill 1 with food in Part B.

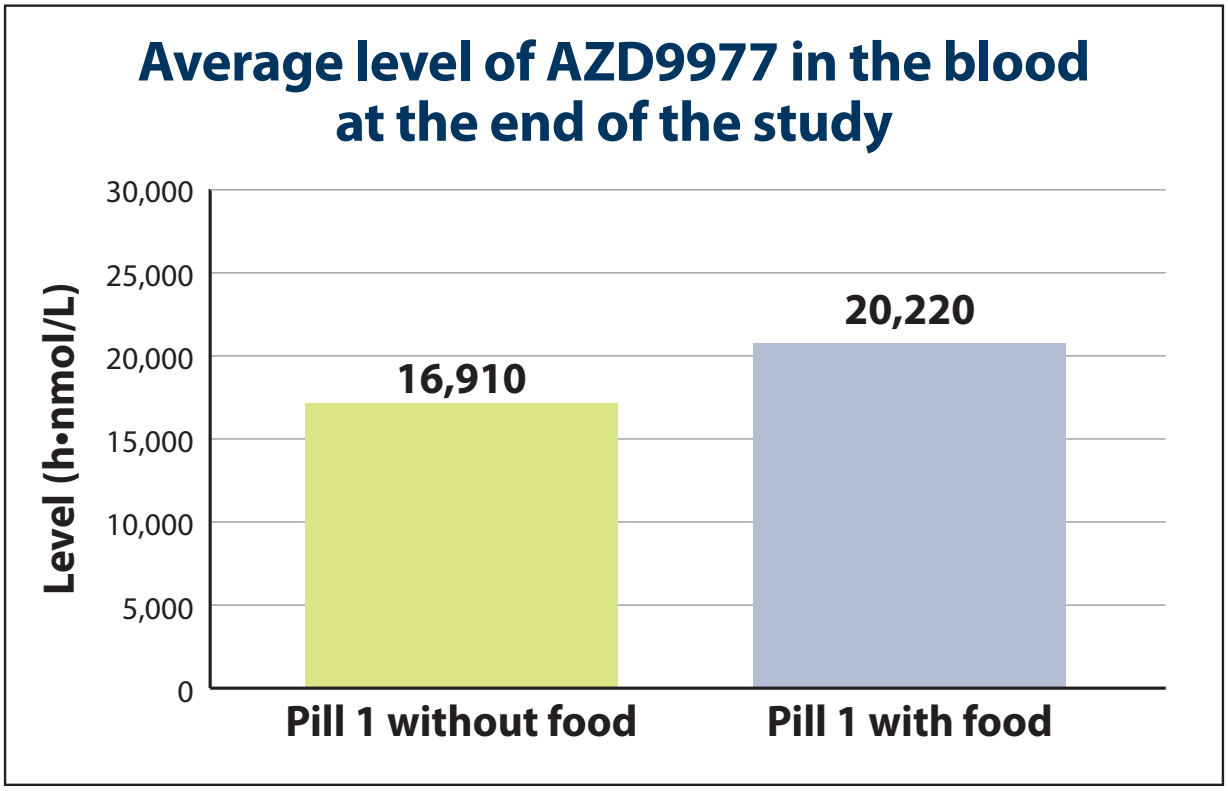
For Pill 1 in both parts of the study, the researchers measured:

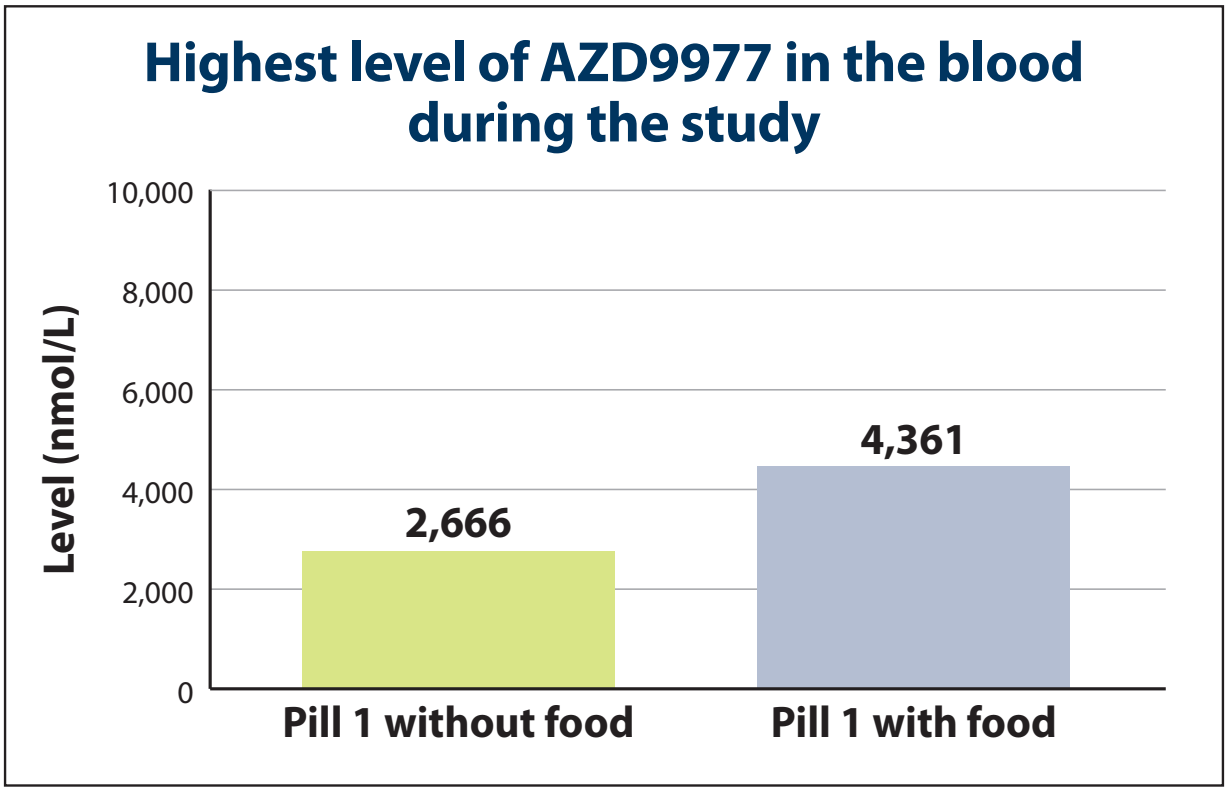
- the average levels of AZD9977 in the blood during the study
- the average levels of AZD9977 in the blood at the end of the study
- the highest levels of AZD9977 in the blood during the study

The average levels were measured in nanomole hours per liter, also called h•nmol/L. The highest levels were measured in nanomoles per liter, also called nmol/L.

The figures below and on the next page show the results.







What medical problems happened during the study?

This section is a summary of the medical problems that happened during the study that the study doctors thought might be related to the study drug.

These medical problems are called “adverse reactions”. An adverse reaction is considered “serious” when it is life-threatening, causes lasting problems, or requires hospital care.

These adverse reactions may or may not be caused by the study drug. A lot of research is needed to know whether a drug causes an adverse reaction.

The websites listed at the end of this summary may have other information about adverse reactions or other medical problems that happened during this study.

The following results are for 11 of the 13 participants. This is because 2 participants chose to leave the study before the researchers could review all of the study results. These 2 participants left the study for personal reasons and not because of any medical problems.

How many participants had serious adverse reactions?

None of the participants had serious adverse reactions during the study.

None of the participants died during the study.

How many participants had adverse reactions?

There were 16.7% of participants who had adverse reactions during the study. This was 2 out of 12 participants. All of these adverse reactions happened in Part 1 when the participants took Pill 1.

None of the participants stopped treatment because of adverse reactions they had during the study.

What adverse reactions did the participants have?

The 2 adverse reactions that happened during the study were hunger and low energy:

- Hunger happened in Part 1 in 8.3% of the participants when they took Pill 1. This was 1 out of 12 participants.
- Low energy happened in Part 1 in 8.3% of the participants when they took Pill 1. This was 1 out of 12 participants.

How has this study helped patients and researchers?

This study helped researchers learn more about how different forms of AZD9977 act in the blood of healthy participants and to find out if AZD9977 is safe to take.

Researchers look at the results of many studies to decide which treatments work best and are safest. This summary shows only the main results from this one study. Other studies may provide new information or different results.

Further clinical studies with AZD9977 are planned.

Where can I learn more about this study?

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

- www.clinicaltrials.gov. Once you are on the website, type "**NCT03450759**" into the search box and click "**Search**".
- www.clinicaltrialsregister.eu. Once you are on the website, click **"Home and Search"**, then type **"2017-004620-30"** in the search box and click **"Search"**.
- www.AstraZenecaClinicalTrials.com. Once you are on the website, type **"D6401C00002"** into the search box, and click **"Find a Study"**.

Full Trial Title: An Open-label, Randomized, Four-way Cross-over, Single Oral Dose Study Comparing the Pharmacokinetics of Four Different Formulations of AZD9977 (Part A) and Influence of Food (Part B) in Healthy Male Subjects

AstraZeneca Protocol Number: D6401C00002

AstraZeneca AB sponsored this study and has its headquarters in Södertälje, Sweden.

The phone number for the AstraZeneca Information Center is +1-877-240-9479.

Thank you!

Clinical study participants belong to a large community of people who take part in clinical research around the world. They help researchers answer important health questions and find medical treatments for participants.