Clinical Study Results

AstraZeneca

Research sponsor: AstraZeneca AB

Drug studied: Dapagliflozin, saxagliptin, and metformin

Short study title: A study to learn how dapagliflozin, saxagliptin, and metformin act in the body when taken as pills in different combinations

Thank you!

Thank you to the participants who took part in the clinical trial for the study drugs dapagliflozin, saxagliptin, and metformin. The study started in May 2017 and ended in July 2017.

AstraZeneca AB sponsored this study and thinks it is important to share the results of the study with you and the public. An independent non-profit organization called CISCRP prepared this summary of the study results for you. We hope it helps you understand and feel proud of your 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.

Why was the research needed?

Before a treatment can be approved for patients to take, researchers do clinical studies to find out how it works and how safe it is.

The researchers are looking for a better way to treat people with type 2 diabetes. The body does not use insulin normally in people with type 2 diabetes. Insulin is a substance produced by the body that controls glucose levels, also known as sugar levels, in the blood. The insulin in people with type 2 diabetes is not able to control blood sugar levels in the body. This can cause blood sugar levels to be too high.

This was a phase 1 study. In this type of study, the researchers want to find out if the participants had any medical problems during the study. The researchers in this study also wanted to learn how different combinations of dapagliflozin, saxagliptin, and metformin act in the body of healthy people when the drugs are taken with and without food. This information is important to know before other studies can be done to help find out if different combinations of these drugs improve the health of people with type 2 diabetes.

All 3 of the study drugs are already approved to treat type 2 diabetes. The researchers wanted to compare different combinations of these drugs to combinations that are already approved.

The main question the researchers wanted to answer in this study was:

- How did different combinations of the study drugs act in the body?

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.

There were 6 different treatments in the study. But, each participant only took 3 of the treatments once.

All of the treatments had metformin combined with dapagliflozin, saxagliptin, or both. One of the treatments had the approved form of saxagliptin. Another one of the treatments was an approved form of a drug that had both dapagliflozin and metformin.

- 3 treatments had a low dose of dapagliflozin, saxagliptin, or both
- 3 treatments had a high dose of dapagliflozin, saxagliptin, or both
- All 6 treatments had the same dose of metformin, but in different forms

A computer program was used to randomly choose the treatments each participant took and the order in which they took the treatments. Researchers do this so that comparing the results of each treatment is as accurate as possible.

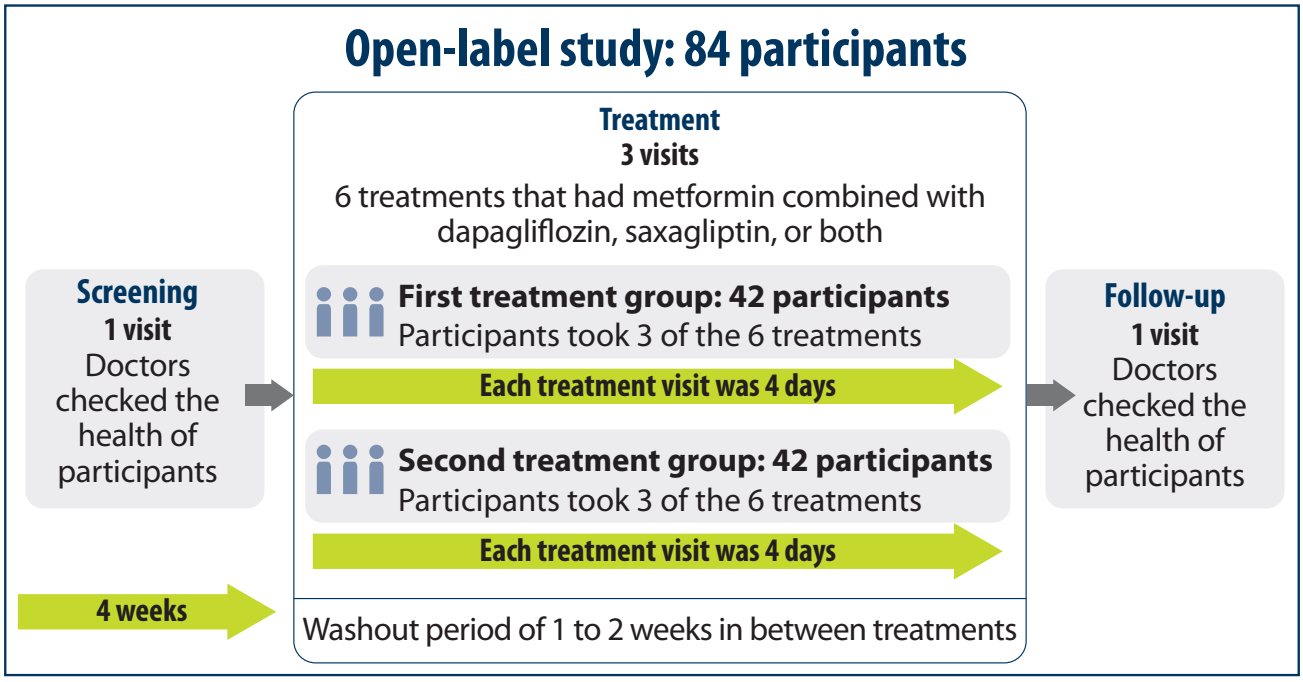
What happened during the study?

Before the study started, the doctors did a physical examination to make sure the participants could join the study. They also checked the heart health of participants using an electrocardiogram, also known as an ECG. The doctors also asked about the medical history of participants, how they were feeling, and what medicines they were taking.

There were 3 treatment visits during the study. Each participant took 1 treatment during each visit. Some of the treatments were taken with food and some were taken without food.

There was a "washout period" of 1 to 2 weeks in between these visits. During this time, the participants were not allowed to take certain medicines. This means that their bodies had processed all of the medicines in their blood, and the medicines had "washed out" of their bodies.

The figure below shows how the study was done.



What were the results of the study?

This is a summary of the main results from this study overall. The 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 website listed at the end of this summary. If a full report of the study results is available, it can also be found on the website.

How did different combinations of the study drugs act in the body?

The researchers wanted to learn how different combinations of dapagliflozin, saxagliptin, and metformin acted in the body when taken with and without food.

Four of the treatments were taken with food:

- 2 of the treatments had different doses of all 3 drugs combined together
- 2 of the treatments had either the approved form of saxagliptin or the approved form of a drug that had both dapagliflozin and metformin

Two of the treatments were taken without food:

- These 2 treatments also had different doses of all 3 drugs combined together

The researchers compared the average and highest amounts of the 3 drugs in the blood after the participants took each treatment. They found:

- When taken with food, the 3 drugs in the combined-dose treatments and the approved-dose treatments reached a similar average amount in the blood.
- The highest average amount of dapagliflozin in the blood was about 38% lower when the participants took the drug with food compared to when the participants took it without food.
- The highest average amounts of saxagliptin and metformin in the blood were similar when the participants took the drugs with food compared to when the participants took them without food.

What medical problems did the participants have during the study?

The medical problems participants have during clinical studies that the doctors think might be related to the study drug are called “adverse reactions”. An adverse reaction is considered “serious” when it is life-threatening, causes lasting problems, or requires hospital care.

The adverse reactions that happen in a study 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 adverse reactions that happened in this study are not in this summary. Because there was a very small number of participants, leaving this information out helps protect their identities. The website listed at the end of this summary may have other information about medical problems that happened in this study.

How has this study helped patients and researchers?

The results presented here are for a single study. These results helped the researchers learn how different combinations of dapagliflozin, saxagliptin, and metformin act in the body when taken with and without food, in patients with type 2 diabetes.

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.

Further clinical studies with dapagliflozin, saxagliptin, and metformin are planned.

Where can I learn more about this study?

You can find more information about this study on the website listed below. If a full report of the study results is available, it also can be found here.

- www.clinicaltrials.gov. Once you are on the website, type **"NCT03169959"** into the search box called **"Other Terms"**. Then, click **"Search"**.

The full title of your study is: A Randomized, 3-period, 3-treatment, Single-dose, Open-label, Single-center, Crossover Study to Assess the Fed-state Bioequivalence of a Triple Fixed-combination Drug Product of 2.5 mg Saxagliptin/5 mg Dapagliflozin/1000 mg Metformin XR and 5 mg Saxagliptin/10 mg Dapagliflozin/1000 mg Metformin XR Relative to Individual Components (ONGLYZA® and XIGDUO® XR) Co-administered to Healthy Subjects

The protocol number of your study is: D168AC00001

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.

CISCRP
THE CENTER FOR INFORMATION & STUDY ON CLINICAL RESEARCH PARTICIPATION

The Center for Information & Study on Clinical Research Participation (CISCRP) is a non-profit organization focused on educating and informing the public about clinical research participation. CISCRP is not involved in recruiting participants for clinical studies, nor is it involved in conducting clinical studies.

CISCRP
One Liberty Square, Suite 510 • Boston, MA 02109
1-877-MED-HERO • www.ciscrp.org