AstraZeneca

Clinical Study Results

Research Sponsor: Acerta Pharma B.V., a member of the AstraZeneca group of companies

Drug Studied: Acalabrutinib

Study Purpose: This study was done to learn about the safety of acalabrutinib in participants with a type of B-cell lymphoma

Protocol Number: ACE-LY-002

Thank you

Thank you to the participants who took part in the clinical study for the study drug acalabrutinib, also called ACP-196.

Acerta Pharma B.V., a member of the AstraZeneca group of companies, sponsored this study and believes it is important to share the results. An independent non-profit organization called CISCRP helped prepare this summary of the study results for you.

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

Who took part in this study?

The researchers asked for the help of male and female participants with a specific type of cancer called "diffuse large B-cell lymphoma", also known as DLBCL. The participants in this study were 32 to 84 years old when they joined. The participants:

- had a specific type of DLBCL called "activated B-cell"
- had cancer that hadn't improved with earlier treatment **or** their cancer had come back again after treatment
- had at least 1 swollen lymph node, bigger than 2 centimeters in length
- could carry out some of their daily tasks

The study included 21 participants in the United Kingdom and the United States.

Why was the research needed?

Researchers are looking for a better way to treat DLBCL in adults. Before a drug can be approved for people to take, researchers do clinical studies to find out how safe it is and how it works.

DLBCL is a type of blood cancer that affects a type of white blood cells called "B lymphocytes". White blood cells are part of the immune system and help fight infections. DLBCL starts in the lymphatic system, which is a part of the body's immune system that helps transport white blood cells across the body. In people who have DLBCL, B lymphocytes grow abnormally and build up in the lymphatic system and around the body. This can cause swollen lymph nodes, pain, and fatigue.

The study drug, acalabrutinib, is used to treat certain types of blood cancers involving B lymphocytes. It works by stopping the cancer cells from growing out of control.

In this study, researchers wanted to find out about the safety of acalabrutinib for participants with a specific type of DLBCL called "activated B-cell".

What was the purpose of this study?

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

- What signs and symptoms did the participants have during the study?
- What medical problems did the participants have during the study?

The answers to these questions are important to know before other studies can be done to find out if acalabrutinib helps improve the health of people who have a specific type of DLBCL.

What treatments did the participants take?

In this study, all of the participants took acalabrutinib.

This was an "open-label" study. This means the participants, researchers, study doctors, and other study staff knew what each participant was taking.

The chart below shows the treatments the researchers planned to study.

	21 participants
	Acalabrutinib as a tablet by mouth
	Acalabrutinib twice a day
	For up to 1 year

Participants could stay in the study for more than 1 year, for as long as the study doctors thought treatment was helping them, or until the participant's cancer got worse.

What happened during this study?

The study started in August 2014 and data collection ended in June 2020. The results shown in this summary were collected during this time, but the study is still continuing.

Before the participants took study treatment, they visited their study site once. This part of the study lasted for up to 3 weeks. At this visit, the study doctors made sure the participants could join the study. They also:

- did physical exams and asked about the participants' medications and any medical problems they were having
- took blood, urine, and bone marrow samples
- checked the participants' heart health with an electrocardiogram, also called an "ECG"
- took images of the participants' swollen lymph nodes using CT or PET scans
- used a questionnaire to learn about the effect DLBCL was having on the participants' daily life and well-being

The study doctors also did some of these tests and measurements throughout the study.

While the participants took study treatment, they visited their study site at least 11 times. This part of the study lasted for 1 year. The participants could stay in the study after this, but the length of time was different between people. The participants stayed in the study until they decided to leave, their cancer got worse, or for as long as their study doctors thought the study treatment was helping their cancer.

After the participants took study treatment, they visited their study site once. This part of the study lasted for up to 1 month. At this visit, the study doctors checked the health of the participants.

What were the results of this 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.

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.

The websites listed at the end of this summary may have more information about the study results.

What signs and symptoms did the participants have during the study?

To answer this question, the study doctors did tests and measurements before and after the participants took acalabrutinib.

The doctors did physical exams and tested the participants' blood and urine samples to check their overall health. They also did ECGs to check the participants' heart health. Overall, the researchers found that there were some small changes in the results of these tests and measurements. But, the researchers did not consider these changes to be meaningful.

The study doctors also kept track of the "adverse events" that the participants had.

An adverse event is any sign or symptom that participants have during a study. Doctors keep track of all the adverse events that happen in studies, even if they do not think the adverse events might be related to the study treatment.

Later in this document, there will be a summary of the adverse events that the study doctors thought might be related to the study treatment. This section is a summary of all the adverse events, whether they might be related to the study treatment or not. An adverse event is considered "serious" when it is life-threatening, causes lasting problems, or the participant needs hospital care.

Adverse events may or may not be caused by the treatments in the study. A lot of research is needed to know whether a treatment causes an adverse event.

	Acalabrutinib (out of 21 participants)
How many participants had adverse events?	95.2% (20)
How many participants had serious adverse events?	42.9% (9)
How many participants stopped taking study treatment due to adverse events?	9.5% (2)

The most common serious adverse events were:

- Abdominal pain
- Fever
- Lung failure

The most common adverse events were:

- Constipation
- Cough
- Decreased appetite
- Dehydration
- Diarrhea
- Difficulty breathing
- Dizziness
- Fatigue
- Fever
- Headache
- Low levels of potassium in the blood
- Joint pain
- Low levels of red blood cells
- Nausea
- Swelling of ankles

What medical problems happened during this study?

This section is a summary of the medical problems the participants had 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. These adverse reactions have been, and will continue to be, reviewed together with all of the available data for acalabrutinib.

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.

Did any adverse reactions happen during this study?

	Acalabrutinib (out of 21 participants)
How many participants had adverse reactions?	76.2% (16)
How many participants had serious adverse reactions?	9.5% (2)
How many participants stopped taking study treatment due to adverse reactions?	9.5% (2)

What serious adverse reactions happened during this study?

The serious adverse reactions in this study were a fever and flu infection. These happened in 1 participant each.

What adverse reactions happened during this study?

The most common adverse reaction was dizziness.

The table below shows the adverse reactions that happened in 2 or more participants during the study. There were other adverse reactions, but these happened in fewer participants.

Most common adverse reactions

Adverse reaction	**Acalabrutinib** (out of 21 participants)
Dizziness	23.8% (5)
Diarrhea	19.0% (4)
Fatigue	19.0% (4)
Cough	14.3% (3)
Fever	14.3% (3)
Low levels of red blood cells	14.3% (3)
Headache	9.5% (2)
Nausea	9.5% (2)
Rash	9.5% (2)
Swelling of ankles and feet	9.5% (2)
Tiny blood spots under the skin	9.5% (2)

How has this study helped patients and researchers?

This study helped researchers learn more about the safety of acalabrutinib in participants with a specific type of DLBCL.

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 acalabrutinib are planned.

Where can I learn more about this study?

You can find more information about this study on the websites listed below. If more information about the study results is available, it can also be found here.

- www.clinicaltrials.gov. Once you are on the website, type **"NCT02112526"** into the search box and click **"Search"**.
- www.clinicaltrialsregister.eu. Once you are on the website, click **"Home and Search"**, then type **"2014-001341-25"** in the search box and click **"Search"**.
- www.AstraZenecaClinicalTrials.com. Once you are on the website, type **"ACE-LY-002"** into the search box and click **"Find a Study"**.

Full Study Title: An Open-label, Phase 1b Study of ACP-196 in Subjects with Relapsed or Refractory de Novo Activated B-cell (ABC) Subtype of Diffuse Large B-Cell Lymphoma

Acerta Pharma Protocol Number: ACE-LY-002

National Clinical Trials Number: NCT02112526

EudraCT Number: 2014-001341-25

Acerta Pharma B.V., a member of the AstraZeneca group of companies, sponsored this study and has its headquarters in Oss, the Netherlands.

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 patients.

CISCRP

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.

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