Summary of Clinical Trial Results

A study to look at the effects of a new medicine (astegolimab) in comparison to placebo – in patients with eczema (atopic dermatitis)

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).

This summary is written for:

- Members of the public
- Patients who took part in the study

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

The study started in February 2019 and finished in May 2020. 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 many people in several 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 answer important questions about a certain type of rash (atopic dermatitis) and the study medicine called "astegolimab" (also known as MSTT1041A).

Key information about this study

- This study was done to find out if astegolimab – a new medicine – was effective for treating patients with a certain type of eczema (atopic dermatitis).
- In this study, patients were given either astegolimab (the study medicine) or placebo (treatment that did not contain an active medicine). It was decided by chance which treatment each person was given.
- This study included 65 patients in 3 countries.
- No one in this study experienced a serious side effect thought to be caused by the study treatment.
- The main finding was that astegolimab was not effective for patients with atopic dermatitis. The study sponsor decided not to continue the development of astegolimab for patients with atopic dermatitis.

1. General information about this study

Why was this study done?

Atopic dermatitis, or "**AD**" for short, is a type of rash that affects 15–20% of children and 1–3% adults. AD is also known as "atopic eczema".

AD is long-lasting (**chronic**). The rash keeps coming back (**relapsing**). There is reddening and soreness (**inflammation**).

The rash causes very itchy skin that cracks and oozes, and scabs and peels. The rash can lead to skin infections. This disease causes distress to patients who suffer from loss of sleep and poor quality of life.

For many patients, treatment with an ointment – topical corticosteroids or "TCS" for short – provides some relief.

For patients with severe AD that does not respond to TCS treatment, several stronger medicines are available. While the stronger medicines are effective, patients stop using them because of side effects.

There is a need for newer medicines with fewer side effects – that are effective for patients with severe AD.

Researchers believe that new medicines that control inflammation might be helpful. In this study, researchers wanted to test a new medicine for inflammation, called "astegolimab", for patients with severe AD.

What was the study medicine?

Astegolimab, also known as **MSTT1041A**, is a medicine that has been given to people in other studies and found to be safe for humans. Here is how the medicine works:

- **IL-33** is a molecule that is released by the body in response to inflammation.
- IL-33 binds to **ST2 receptors** present in the body.
- Astegolimab is a type of medicine known as an "**antibody**" that also binds to ST2 receptors.
- When astegolimab is bound to ST2 receptors, it interferes with IL-33 trying to bind to the same receptors. By preventing IL-33 from binding to ST2 receptors, patients may see improvements in their AD disease.

Astegolimab was compared to a "**placebo**".

- In this study, some patients got astegolimab while others got a placebo.
- The placebo looked the same as astegolimab but did not contain any real medicine.

What did researchers want to find out?

Researchers did this study to compare astegolimab with placebo – to see how well astegolimab worked (see section 4 "What were the results of the study?").

The main question that researchers wanted to answer was:

1. Is astegolimab effective in comparison to placebo?

What kind of study was this?

There are several ways to describe this study.

- **Phase 2 study**
  Phase 2 studies are carried out to find out if a study medicine is effective for patients. This study was carried out following phase 1 studies that looked at which medicine doses were safe for healthy people.
- **Randomized study**
  A computer randomly decided which patient joined the medicine group and which patient joined the placebo group. Researchers and patients had no control over this.
- **Double-blind study**
  The researchers and patients did not know which patient was getting the study medicine and which patient was getting the placebo. That made this a double-blind study.
- **Placebo-controlled study**
  Some patients got astegolimab while others got a placebo. This was done so that all patients got a treatment, and the real effect of the medicine could be compared against the placebo.

When and where did the study take place?

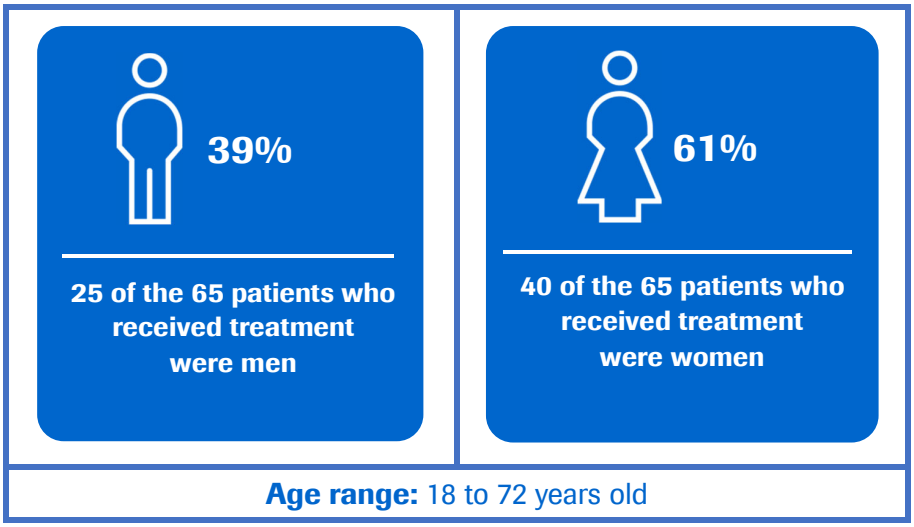
The study started in February 2019 and finished in May 2020. This summary was written after the study had ended.

The study took place at 21 study centers in 3 countries:

- USA (15 study centers)
- Poland (5 study centers)
- Germany (1 study center)

2. Who took part in this study?

There were 65 patients with moderate to severe AD who enrolled in the study.



People could take part in the study if they met all of the following conditions:

- Be between 18 and 75 years of age.
- Have a body mass index of 18 to 40 kg/m^2 and weigh up to 40 kg.
- Be able to understand and answer study-related questions.
- Meet certain scores on disease questionnaires.
- Have a history of not responding to current medicines for AD.
- Must apply a skin moisturizer twice daily for at least 7 days prior to study start.
- Must practice family planning methods.

People could not take part in the study if they met any one of the following conditions:

- People who had previously been treated with astegolimab.
- Women who were breastfeeding, pregnant, or thinking about getting pregnant.
- People who had a history of using certain medicines.
- People who had infections that needed treatment 1-2 weeks before study start.
- People with a history of certain diseases.

3. What happened during the study?

The "**treatment**" was either the study medicine or the placebo. Patients did not know what they were getting.

The treatment groups were:

- Astegolimab – 490 mg
- Placebo – no medicine

How and when were treatments administered?

Each treatment included 4 injections to the stomach area (subcutaneous abdominal injections). Treatments (4 injections) were given on Day 1 and once every 4 weeks – at Week 4, 8, and 12. In addition, two injections were given at Week 1.

What happened after treatment started?

Patients received treatment up to Week 16. The study ended at Week 24.

Patients came in to the clinic to get their treatment and also visited at the end of the study. During the visit, patients gave blood samples and underwent other tests for the study. Patients answered questions so researchers could learn about other effects of the treatments. Doctors provided treatment for any side effects.

4. What were the results of the study?

At the end of the study, results were analyzed for:

- 34 patients who received astegolimab.
- 31 patients who received placebo.

Of all sixty-five patients, forty-eight patients received all 5 doses of the study treatment.

Question 1: Is astegolimab effective in comparison to placebo?

Researchers found out that patients who received astegolimab did not feel any better after 16 weeks of treatment – which was similar to patients who received placebo.

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 side effects?

Side 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 side effects were related to the treatments in the study.
- Not all patients in this study had all of the side effects.
- Side effects may be mild to very serious and can be different from person to person.
- It is important to be aware that the side effects reported here are from this single study. Therefore, the side effects shown here may be different from those seen in other studies, or those that appear on the medicine leaflet.
- Serious and common side effects are listed in the following sections.

Serious side effects

A side effect is considered "serious" if it is life-threatening, needs hospital care, or causes lasting problems.

There were no serious side effects thought to be related to the treatments in this study.

There were no deaths in this study.

Most common side effects

In this study, there was no "**trend**" seen in the number of side effects. That means that patients did not report fewer side effects with placebo and more with the study medicine.

Side effects that were thought to be caused by the treatments in this study were reported in 5 patients (16%) who received placebo and 2 patients (6%) who received astegolimab.

Side effects from astegolimab treatment (2 patients)	**Side effects from placebo treatment (5 patients)**
Rash and AD	AD and bacterial superinfection
Kidney stones (nephrolithiasis) and high count for white blood cells (neutrophilia)	Infection in the mouth (oral herpes)
	Injection site pain
	Running stomach (gastroenteritis viral)
	Inflammation in the eye (keratitis)

None of the patients stopped treatment due to any side effect caused by the study treatment.

Other side effects

You can find information about other side 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 65 patients. These results helped researchers learn more about AD and astegolimab.

Researchers found that while astegolimab might be useful for blocking IL-33, this medicine was not useful for patients with AD.

Researchers also learned that the study medicine was as safe as the placebo in patients with AD.

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7. Are there plans for other studies?

At the time of writing this summary, no more studies are planned for astegolimab for AD disease, although the medicine may be developed for other diseases.

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/NCT03747575
- https://forpatients.roche.com/en/trials/autoimmune-disorder/a-study-to-assess-the-efficacy-and-safety-of-mstt1041a--54098.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/About.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 organized and paid for this study?

This study was organized and paid for by Genentech, Inc., South San Francisco, CA, USA. Genentech is part of F. Hoffmann-La Roche Ltd., with headquarters in Basel, Switzerland.

Full title of the study and other identifying information

The full title of this study is:

> "A Phase II, Randomized, Double-blind, Placebo-Controlled Multicenter Study to Assess the Efficacy and Safety of MSTT1041A in Patients with Moderate to Severe Atopic Dermatitis".

- The study is known as "**ZARNIE**".
- The protocol number for this study is **GS40965**.
- The ClinicalTrials.gov identifier for this study is **NCT03747575**.
- The EudraCT number for this study is **2018-003429-27**.