Clinical Trial Results

NOVARTIS

Research Sponsor:	Novartis
Location of Headquarters:	Basel, Switzerland
Treatment Studied:	LFX453
Protocol #:	CLFX453X2202
Full Trial Title:	A randomized, vehicle-controlled, active comparator, parallel group study to evaluate efficacy, safety, and tolerability of topical LFX453 formulations in patients with external genital warts (EGWs)
Full Scientific Summary:	www.novctrd.com
Trial Date:	May 2015 to May 2016

Thank you!

Thank you for taking part in the clinical trial for the treatment LFX453. You helped researchers learn how LFX453 works in people with external genital warts.

Novartis, the sponsor of this trial, thinks it is important for you to know the results of your trial. An independent non-profit organization called CISCRP prepared this summary of the trial results for you. We hope it helps you understand your important role in medical research.

If you have questions about the results, please speak with the doctor, research nurse, or other team member at your trial site.

CISCRP
THE CENTER FOR INFORMATION & STUDY ON CLINICAL RESEARCH PARTICIPATION

What has happened since the trial ended?

The whole trial took 1 year to complete. The trial included 88 patients from 12 trial sites in the United States.

When the trial ended, the sponsor reviewed the data and created a report of the results. This is a summary of that report.

Why was the research needed?

Researchers were looking for a better way to treat “external genital warts, also called EGWs. Most cases of EGWs are caused by a virus that is spread through sexual contact. One common way to treat EGWs is to remove the wart. But removing the wart does not stop the spread of the virus for some people and the EGWs can also come back.

In this trial, researchers wanted to learn if the trial treatment LFX453 can work with the body’s immune system to help clear EGWs from the skin. Researchers compared LFX453 with imiquimod and a placebo. Imiquimod, also known as Aldara™, is a treatment that is currently available to treat EGWs. A placebo looks like medicine but does not have any real medicine in it. Using a placebo helps researchers better understand the actual effect of a trial treatment.

In your trial, researchers wanted to know:

- What medical problems did patients have during the trial?
- Did LFX453 completely clear EGWs in more patients than imiquimod or the placebo?
- Did LFX453 clear 75% of EGWs in more patients than imiquimod or the placebo?

To answer these questions, researchers asked for the help of men like you. The patients in this trial were 19 to 58 years old and had EGWs.

What kind of trial was this?

Researchers tested about LFX453 in a “double-blind” manner. This means that none of the patients, trial doctors, trial staff, or sponsor staff knew if patients were taking LFX453 or the placebo.

Some trials are done this way because knowing what treatment each patient is getting can affect the results of the trial. Doing a trial this way helps make sure the results are looked at fairly.

There was also an “open-label” part of the trial. The patients in this part of the trial got imiquimod. “Open-label” means that the patients, some trial doctors, and sponsor staff knew which patients were getting imiquimod. But the trial staff that looked at the skin of each patient did not know which treatment the patient got. This helped make sure the results were looked at fairly.

What happened during the trial?

Before the trial started, the trial doctors did tests to check the overall health of the patients, including their heart health using an electrocardiogram or ECG. Trial doctors took blood and urine samples and checked the height, weight, blood pressure, temperature, and pulse rate of each patient. Trial doctors also counted the EGWs of each patient and examined the area of the skin affected by EGWs.

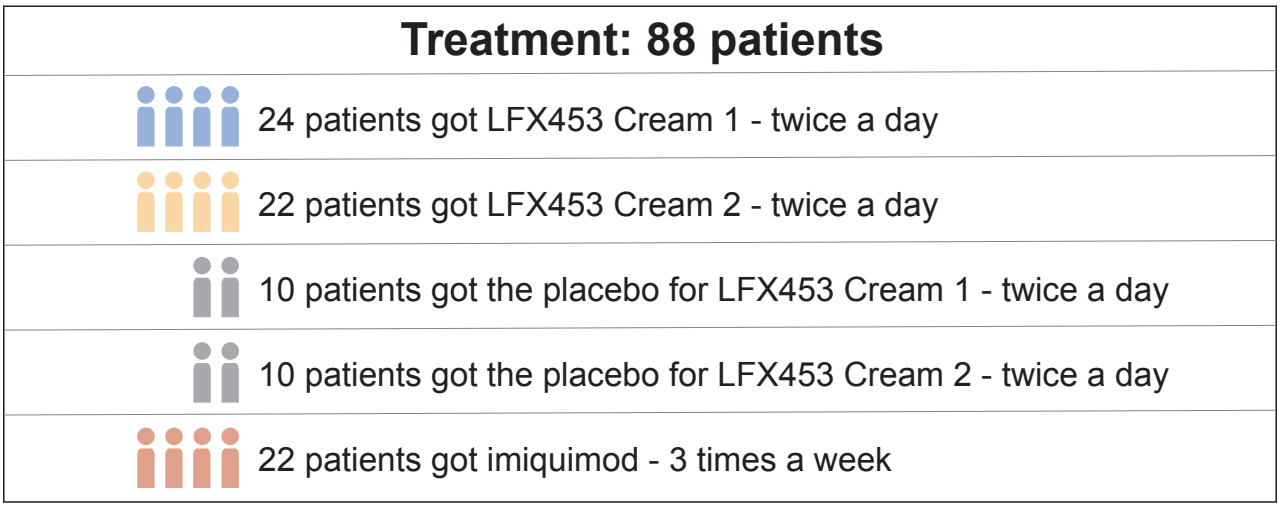
During the trial, treatment lasted up to 12 or 16 weeks. Patients were randomly assigned to 1 of the following treatments by a computer:

- LFX453 Cream 1
- LFX453 Cream 2
- A placebo that looked like LFX453 Cream 1
- A placebo that looked like LFX453 Cream 2
- Imiquimod

Patients who got LFX453 or the placebo used the cream twice a day for up to 12 weeks. Patients who got imiquimod used the cream 3 times a week for up to 16 weeks.

The trial doctors continued to check the skin condition of the patients. This included touching the skin, taking pictures of the EGWs, and potentially taking skin samples. Trial doctors also took blood and urine samples and checked the heart health of the patients.

The figure below shows how many patients got each treatment during the trial.

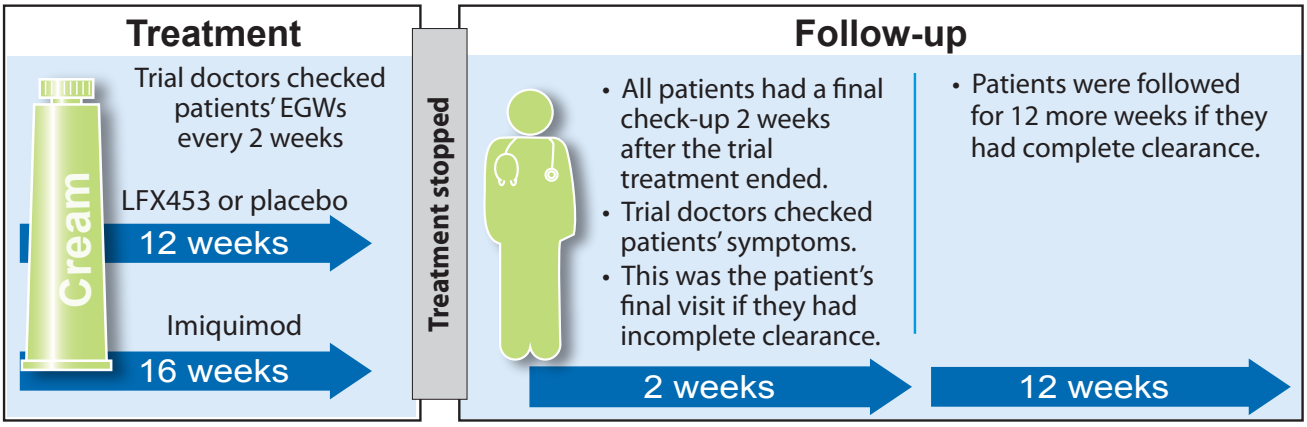


Not all of the patients finished their assigned treatment. Some patients left the trial early.

After treatment ended, all patients had a follow-up visit 2 weeks later. At this visit, the trial doctors asked patients how they were feeling and if they had any reactions to the skin creams. If patients did not have their EGWs completely cleared, this was their final trial visit.

If patients had complete clearance of EGWs in the 2-week follow-up period, they entered another follow-up period of 12 weeks. Complete clearance meant that patients had zero EGWs in the area of their skin where they applied trial treatment.

The chart below shows how the trial was done.



What were the results of the trial?

This is a summary of the overall results of your trial, not your individual results. The results presented here are for a single trial. Researchers look at the results of many trials to decide which treatments work best and are safest for patients. You should not make changes to your treatment based on the results of a single trial without first talking to your doctor.

What medical problems did patients have?

A lot of research is needed to know whether a treatment causes a medical problem. So when new treatments are being studied, researchers keep track of all medical problems that patients have. These medical problems are called "adverse events". An adverse event is any unwanted sign or symptom that may or may not be caused by the trial treatment.

How many patients had adverse events during the trial?

A total of 26.1% of patients, or 23 of the 88 patients, had adverse events during the trial. More patients in the imiquimod group had adverse events compared to the other treatment groups. None of the patients stopped taking treatment because of adverse events in the trial.

The table below shows how many patients had adverse events during the trial.

Adverse events in this trial

	LFX453 Cream 1 (Out of 24 patients)	LFX453 Cream 2 (Out of 22 patients)	Placebo for LFX453 Cream 1 (Out of 10 patients)	Placebo for LFX453 Cream 2 (Out of 10 patients)	Imiquimod (Out of 22 patients)
How many patients had adverse events?	12.5% (3)	22.7% (5)	30.0% (3)	20.0% (2)	45.5% (10)

Did any patients have serious adverse events?
An adverse event is considered "serious" when it is life-threatening, causes lasting problems, or leads to hospitalization. During a trial, all serious adverse events are reported and written down, whether or not they are caused by the trial treatment.

None of the patients in this trial had serious adverse events. None of the patients died during this trial.

What were the most common adverse events that were not serious?
The most common adverse event that was not serious was infection of the nose, throat, or airways.

The table below shows the most common non-serious adverse events that happened to at least 2% of all patients in the trial.

Most common non-serious adverse events in this trial

Most common adverse event	LFX453 Cream 1 (Out of 24 patients)	LFX453 Cream 2 (Out of 22 patients)	Placebo for LFX453 Cream 1 (Out of 10 patients)	Placebo for LFX453 Cream 2 (Out of 10 patients)	Imiquimod (Out of 22 patients)	Total (Out of 88 patients)
Infection of the nose, throat, or airways	8.3% (2)	4.5% (1)	10.0% (1)	0.0% (0)	0.0% (0)	4.5% (4)
Common cold	0.0% (0)	4.5% (1)	10.0% (1)	0.0% (0)	4.5% (1)	3.4% (3)
Redness at the site of applying cream	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	9.1% (2)	2.3% (2)
Genital rash	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	9.1% (2)	2.3% (2)
Redness of the scrotum	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	9.1% (2)	2.3% (2)

The adverse events that trial doctors thought could be related to trial treatment were experienced by patients in the imiquimod group. Six of these adverse events were related to having reactions where the cream was applied. The other adverse events included sleep disorder, night sweats, low white blood cell count, and high white blood cell count.

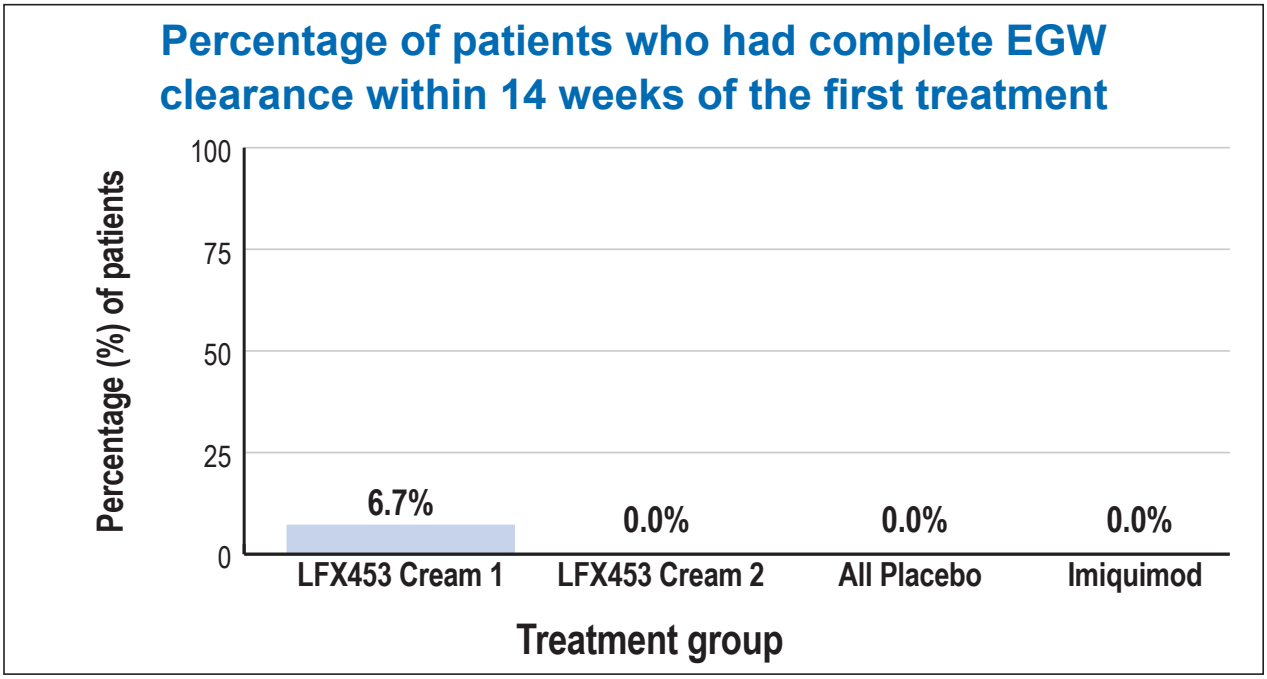
Did LFX453 completely clear EGWs in more patients than imiquimod or the placebo?
Only 1 patient had their EGWs completely clear during the trial. Some patients left the trial early. So, there were not enough patients taking LFX453 who had their EGWs completely clear for the researchers to know if LFX453 completely cleared EGWs more than imiquimod or a placebo.

Researchers found that within 14 weeks of the first treatment:

- None of the patients had their EGWs completely clear during the treatment period, no matter what treatment they got.
- 1 patient out of 15 taking LFX453 Cream 1 had their EGWs completely clear during the 2-week follow-up period.
- No other patients had their EGWs completely clear during the 2-week follow-up period.

The difference between the groups was too small for researchers to know if 1 treatment was able to clear EGWs more than the other. Any differences seen between the treatment groups could have been due to chance.

The chart below shows the number of patients who had complete clearance of EGWs from their skin within 14 weeks of the first treatment.



Did LFX453 clear 75% of EGWS in more patients than imiquimod or the placebo?
Some patients left the trial early. So, there were not enough patients taking LFX453 who had 75% of their EGWs clear. This means the researchers could not know if LFX453 cleared 75% of EGWs more than imiquimod or a placebo. The patient taking LFX453 who had his EGWs completely clear could have had this result by chance.

Researchers were interested in how many patients had at least 75% of their EGWs clear from their skin. Researchers found that at the end of the treatment period:

- 12.5% of patients in the LFX453 Cream 1 group had at least 75% of their EGWs clear from their skin after 12 weeks of treatment. This was 2 out of 16 patients.
- 10.0% of patients in the LFX Cream 2 group had at least 75% of their EGWs clear from their skin after 12 weeks of treatment. This was 1 out of 10 patients.
- No patients in the placebo groups had at least 75% of their EGWs clear from their skin after 12 weeks of treatment.
- 21.4% of patients in the imiquimod group had 75% of their EGWs clear from their skin after 14 weeks of treatment. This was 3 out of 14 patients.

Researchers had also planned to look at the time it took for the LFX453 treatment to get rid of EGWs and how quickly EGWs came back in patients who had complete clearance. But researchers could not answer these questions because only 1 patient had complete clearance of EGWs.

How has this trial helped patients and researchers?

The results presented here are for a single trial in men with EGWs. Researchers look at the results of many trials to decide which treatments work best and are safest for participants. It takes volunteers in many trials all around the world to advance medical science.

Where can I learn more about this trial and future trials?

More information about the results and the full list of adverse events that happened in this trial can be found in the scientific summary of the results available on the Novartis Clinical Trial Results website (www.novctrd.com).

Once on the site, click **"READ MORE"** under **"Clinical trial results"** at the bottom of the page. After agreeing to enter the Novartis website, type **CLFX453X2202** into the keyword search box and click **"Search"**. If you have questions about the results, please speak with the trial doctor or staff at your trial site.

This trial was registered on the following website:

- Clinical Trials.gov (https://clinicaltrials.gov/) - National Clinical Trial # NCT02482428

If more clinical trials are planned, they will be listed on 1 of the public websites below:
Search for **"LFX453"**

- www.clinicaltrials.gov
- www.clinicaltrialsregister.eu
- www.novartisclinicaltrials.com

Thank you

As a clinical trial patient, you belong to a large community of patients around the world. You helped researchers answer important health questions and test new medical treatments.

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 patients for clinical trials, nor is it involved in conducting clinical trials.

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