# Clinical Study Results

This summary reports the results of only one study. Researchers must look at the results of many types of studies to understand if a study medication works, how it works, and if it is safe to prescribe to study participants. The results of this study might be different than the results of other studies that the researchers review.

**Sponsor:** Pfizer, Inc.

**Medicine(s) Studied:** Crisaborole (PF-06930164)

**Protocol Number:** C3291037

**Dates of Study:** 14 May 2018 to 11 December 2020

**Title of this Study:** Study Comparing Use of Crisaborole Ointment with Vehicle Ointment (No Crisaborole), Corticosteroid Cream, and Calcineurin Inhibitor Cream in Children and Adults with Mild to Moderate Atopic Dermatitis [A Phase 3b/4, Multicenter, Randomized, Assessor Blinded, Vehicle and Active (Topical Corticosteroid and Calcineurin Inhibitor) Controlled, Parallel Group Study of the Efficacy, Safety, and Local Tolerability of Crisaborole Ointment, 2% in Pediatric and Adult Subjects (Ages 2 Years and Older) With Mild to Moderate Atopic Dermatitis]

**Date(s) of this Report:** 25 May 2021

## – Thank You –

If you or your child participated in this study, Pfizer, the Sponsor, would like to thank you or your child for your participation.

This summary will describe the study results. If you or your child have any questions about the study or the results, please contact the doctor or staff at your study site.

# Why was this study done?

## What is atopic dermatitis?

Atopic dermatitis is a common skin condition that can cause many symptoms, such as itching, redness, and a rash that is scaling or oozing. The symptoms can look different on different people. Atopic dermatitis is also known as eczema. There is no known cure for this condition. People with atopic dermatitis often have this condition for many years, and may have "flare ups", when their symptoms worsen for a time.

## What is crisaborole?

Crisaborole is a medicine that is used to treat atopic dermatitis. It is applied to the skin as an ointment twice a day. Crisaborole may improve symptoms of atopic dermatitis by decreasing inflammation in the skin. Inflammation is the body's immune system response, which can lead to symptoms such as redness.

## What was the purpose of this study?

The purpose of the study was to see if the symptoms of mild to moderate atopic dermatitis were reduced when crisaborole ointment was applied twice a day to the affected area compared to when a vehicle ointment was used. The vehicle ointment does not have any medicine in it, but it looks and feels just like the crisaborole ointment. Some participants in the study were given hydrocortisone butyrate cream (a topical corticosteroid) and others used pimecrolimus cream (a topical calcineurin inhibitor) rather than the crisaborole ointment or vehicle ointment. Topical means a treatment that is used on the skin. Corticosteroid and calcineurin inhibitor creams are commonly used to treat atopic dermatitis. The researchers also included treatment with these 2 creams in the study because they also wanted to see what happened when hydrocortisone butyrate cream and pimecrolimus cream were used instead of crisaborole or vehicle ointment.

**Researchers wanted to know:**

**Did symptoms of atopic dermatitis improve in areas of skin treated with crisaborole, compared to areas of skin treated with vehicle ointment or the comparator creams?**

# What happened during the study?

## How was the study done?

Researchers tested crisaborole ointment on a group of study participants to find out if study participants treated with crisaborole had fewer symptoms of mild to moderate atopic dermatitis than participants who used a vehicle ointment. Researchers also wanted to see what would happen when hydrocortisone butyrate cream or pimecrolimus cream were used by participants instead of crisaborole ointment or vehicle ointment.

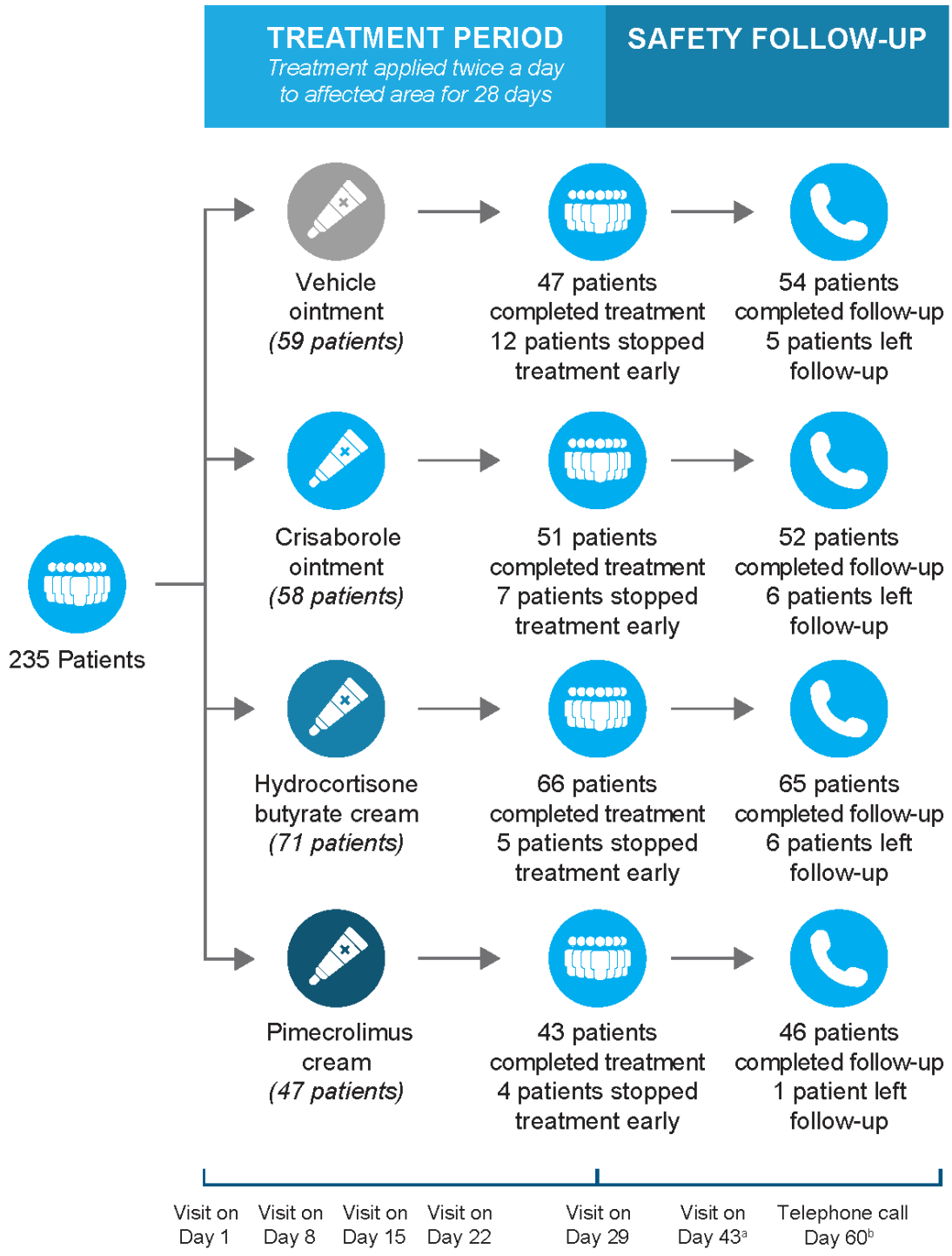
Participants went to the study center to be screened by the study doctor to make sure they were able to join the study. This was known as the "screening period" and this lasted up to 35 days. Participants then entered the treatment period, which started on Day 1 and lasted 28 days. During the treatment period, participants (or their parents or caregivers if the participant was a child) were to apply the ointment or cream twice a day to an area or areas of skin affected by the atopic dermatitis.

The study participants and researchers did not know who used the crisaborole ointment and who used the vehicle ointment. Study participants would have been able to tell if they were given an ointment instead of one of the "comparator" creams as the treatment would have felt different. A comparator treatment is usually a treatment that is commonly given to participants with the disease being investigated. In this study, hydrocortisone butyrate cream and pimecrolimus cream were the

comparator creams. The study doctors who looked at the participant's skin to assess how the treatment was working did not know what treatment each participant had been given. This is known as an "assessor blinded" study. Study participants were assigned to treatment with crisaborole ointment, vehicle ointment, or the comparator treatment by chance alone. This was done to make sure that the study results were not influenced in any way.

Each participant visited the study center on Day 1, Day 8, Day 15, Day 22, and Day 29 for the study doctors to assess their atopic dermatitis and their general health. Participants were not treated on or after Day 29 but were to remain in the study until Day 60. The participants visited the study center on Day 43 for the final study assessments. If the participant stopped treatment early, these final study assessments were done 14 days after they last used the treatment. Participants then received a follow-up telephone call on Day 60 (or a month after their last treatment if the participant stopped treatment early). This telephone call was to check for any medical problems. This was considered the end of the study.

The following figure shows what happened during this study.




[a] *Or 14 days after last treatment if the patient stopped treatment early*
[b] *Or 28 days after last treatment if the patient stopped treatment early*

## Where did this study take place?

The Sponsor ran this study at 26 locations in 7 countries in Europe and in the US.

## When did this study take place?

It began on 14 May 2018 and ended on 11 December 2020.

## Who participated in this study?

The study included participants who were 2 years or older and who had mild or moderate atopic dermatitis.

- A total of 30 men and 66 boys participated
- A total of 61 women and 78 girls participated
- All participants were between the ages of 2 and 78 years.

Participants were to be treated for 28 days. Of the 235 participants who started the study, 207 completed the treatment period, and 217 finished the study.

There were 28 participants who did not finish the treatment period because of:

- Medical problems (11 participants)
- Not wanting to continue with treatment (13 participants)
- Not thinking the treatment was working (3 participants), or
- Other reasons (1 participant)

There were 18 participants who left before the study was over by their choice or a doctor decided it was best for a participant to stop being in the study.

## How long did the study last?

Study participants were in the study for 60 days or approximately 2 months. The entire study took around 2 years and 7 months to complete.

Pfizer stopped this study before the planned end due to a business decision and not because of any concerns about how well crisaborole ointment worked in clinical

studies or due to safety problems. As not all the planned participants were able to join the study because it was stopped early, the researchers did not have enough data for their analyses. This meant the researchers were not able to compare the different treatments used in this study.

When the study ended in December 2020, the Sponsor began reviewing the information collected. The Sponsor then created a report of the results. This is a summary of that report.

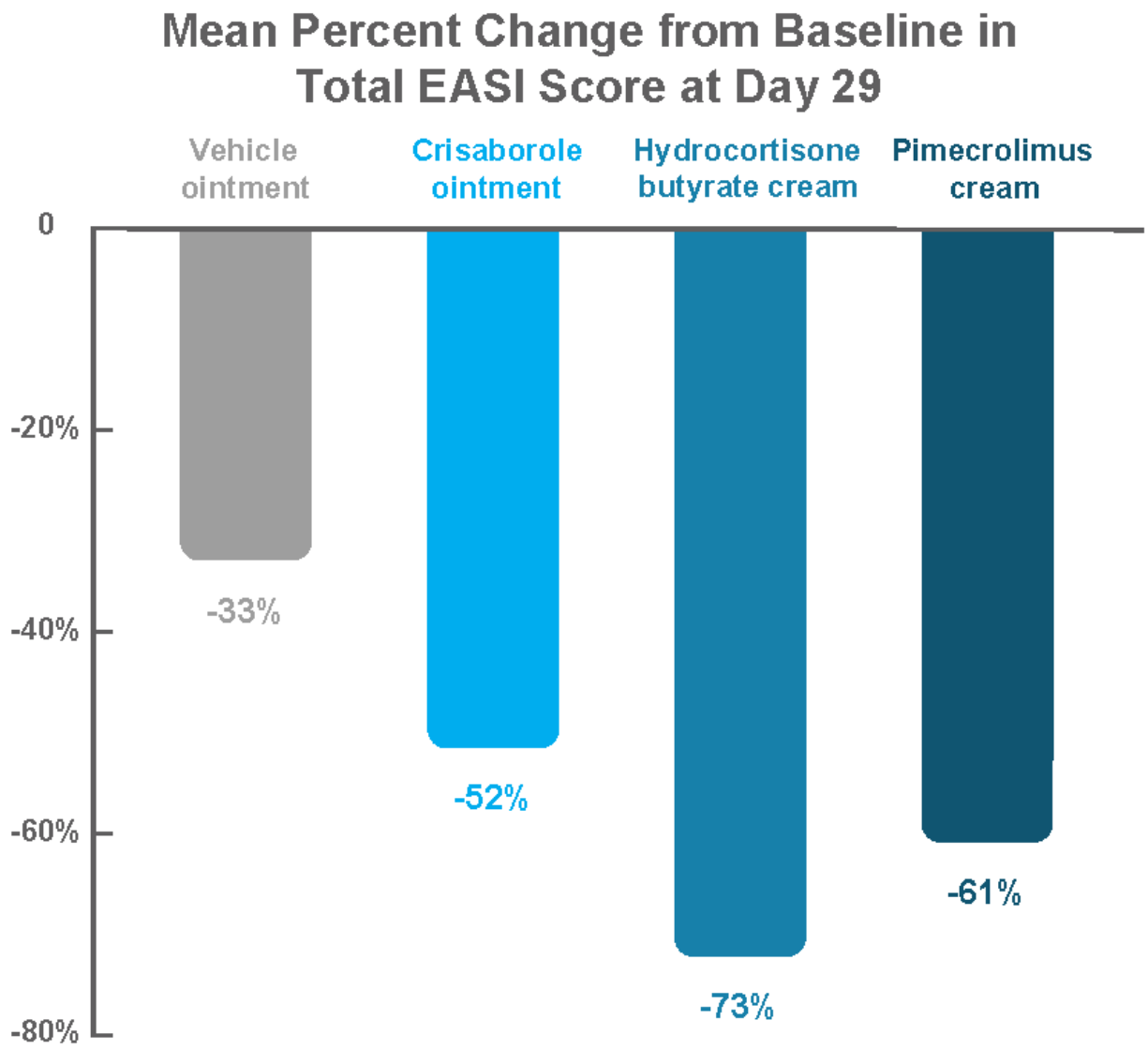
# What were the results of the study?

## Did symptoms of atopic dermatitis improve in areas of skin treated with crisaborole, compared to areas of skin treated with vehicle ointment or the comparator creams?

To answer this question, the researchers used a clinical tool to rate the severity of symptoms of atopic dermatitis. This tool is called the Eczema Area and Severity Index or EASI. The researchers compared the severity of symptoms from before participants started treatment to Day 29. This gave the researchers the "mean" percent change in EASI score from Baseline to Day 29. The mean is sometimes called the average. It is worked out by adding the percent change in EASI scores together for all participants in each group and then dividing this by the number of participants in that group. The mean percent change in EASI score from Baseline to Day 29 tells the researchers how the participant's atopic dermatitis had changed after 28 days of treatment in this study.

Improvements in the skin affected by atopic dermatitis were shown by a decrease in the percent change from baseline in total EASI score at Day 29. After 28 days of treatment, the mean percent change in total EASI score with crisaborole ointment was down 52% and the mean percent change in total EASI score with vehicle ointment was down 33%.

There were not enough participants in this study for the researchers to be able to say if these findings were due to chance or if there was a difference between the treatments.



### Did crisaborole improve the symptoms of atopic dermatitis compared to vehicle ointment or one of the comparator creams?

On average, participants who used crisaborole had a mean percent change from baseline in total EASI score at Day 29 of 52% compared to 33% in participants who used the vehicle ointment. In comparison, participants who used the hydrocortisone butyrate cream had a mean percent change from baseline in total EASI score of 73% and participants who used the pimecrolimus cream had a mean percent change from baseline in total EASI score of 61%.

Due to the low number of participants in the study, the researchers were not able to say if the results are likely the result of chance.

This does not mean that everyone in this study had these results. These are just some of the main findings of this study. Other studies may have different results.

## What medical problems did participants have during the study?

The researchers recorded any medical problems the participants had during the study. Participants could have had medical problems for reasons not related to the study (for example, caused by an underlying disease or by chance). Or, medical problems could also have been caused by a study treatment or by another medicine the participant was taking. Sometimes the cause of a medical problem is unknown. By comparing medical problems across many treatment groups in many studies, doctors try to understand what effects a study medication might have on a participant.

A total of 79 out of 235 (34%) participants in this study had at least 1 medical problem. There were 3 participants who were treated with crisaborole ointment that left the study because of medical problems. There were 6 participants stopped using the vehicle ointment and 2 participants who stopped using the pimecrolimus cream because of medical problems but these participants continued in the study. The most

common medical problems—those reported by 5% or more participants—are described below.

As this study was stopped early, there were not enough participants enrolled in the study to allow the researchers to be able to compare the safety of the treatments used in this study. Overall, the treatments administered in this study were safe and well-tolerated by the study participants. No new medical problems were identified.

Below are instructions on how to read Table 1.

**Instructions for Understanding Table 1.**

- The **1st** column of Table 1 lists medical problems that were commonly reported during the study. All medical problems reported by 5% or more participants are listed.
- The **2nd** column tells how many of the 59 participants using vehicle ointment reported each medical problem. Next to this number is the percentage of the 59 participants using vehicle ointment who reported the medical problem.
- The **3rd** column tells how many of the 58 participants using crisaborole ointment reported each medical problem. Next to this number is the percentage of the 58 participants using crisaborole ointment who reported the medical problem.
- The **4th** column tells how many of the 71 participants using hydrocortisone butyrate cream reported each medical problem. Next to this number is the percentage of the 71 participants using hydrocortisone butyrate cream who reported the medical problem.
- The **5th** column tells how many of the 47 participants using pimecrolimus cream reported each medical problem. Next to this number is the percentage of the 47 participants using pimecrolimus cream who reported the medical problem.
- Using these instructions, you can see that 8 out of the 58 (14%) participants using crisaborole ointment reported pain where the treatment was applied. A total of 1 out of the 59 (2%) participants using vehicle ointment reported pain where the treatment was applied compared to no participants using hydrocortisone butyrate and 2 (4%) participants using pimecrolimus cream.

## Table 1. Commonly reported medical problems by study participants

| Medical Problem | Vehicle Ointment (59 Participants) | Crisaborole Ointment (58 Participants) | Hydro-Cortisone Butyrate Cream (71 Participants) | Pimecrolimus Cream (47 Participants) |
|---|---|---|---|---|
| **Any medical problem** | 18 out of 59 participants (31%) | 25 out of 58 participants (43%) | 12 out of 71 participants (17%) | 24 out of 47 participants (51%) |
| **Pain where the treatment was applied** | 1 out of 59 participants (2%) | 8 out of 58 participants (14%) | 0 out of 71 participants | 2 out of 47 participants (4%) |
| **Common cold (nasopharyngitis)** | 2 out of 59 participants (3%) | 3 out of 58 participants (5%) | 0 out of 71 participants | 3 out of 47 participants (6%) |
| **Runny, stuffy and/or blocked nose (rhinitis)** | 0 out of 59 participants | 2 out of 58 participants (3%) | 1 out of 71 participants (1%) | 3 out of 47 participants (6%) |
| **Headache** | 1 out of 59 participants (2%) | 3 out of 58 participants (5%) | 2 out of 71 participants (3%) | 2 out of 47 participants (4%) |
| **Atopic dermatitis** | 7 out of 59 participants (12%) | 4 out of 58 participants (7%) | 2 out of 71 participants (3%) | 7 out of 47 participants (15%) |
| **Eczema** | 0 out of 59 participants | 3 out of 58 participants (5%) | 0 out of 71 participants | 1 out of 47 participants (2%) |

## Did study participants have any serious medical problems?

A medical problem is considered "serious" when it is life-threatening, needs hospital care, or causes lasting problems.

No participants had serious medical problems during this study. No participants died during this study.

## Where can I learn more about this study?

If you or your child have questions about the results of the study, please speak with the doctor or staff at you or your child's study site.

For more details on your study protocol, please visit:

The full scientific report of this study is available online at:

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|---|---|
| www.clinicaltrials.gov | Use the study identifier **NCT03539601** |
| www.clinicaltrialsregister.eu | Use the study identifier **2018-001043-31** |
| www.pfizer.com/research/research_clinical_trials/trial_results | Use the protocol number **C3291037** |

Please remember that researchers look at the results of many studies to find out which medicines can work and are safe for study participants.

Again, if you or your child participated in this study, **thank you** for volunteering. We do research to try to find the best ways to help study participants, and you helped us to do that!