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: Ritlecitinib (PF-06651600), Brepocitinib (PF-06700841)

Protocol Number: B7981019

Dates of Study: 26 November 2018 to 05 February 2021

Title of this Study: A Phase 2b Study To Evaluate The Efficacy And Safety Profile Of PF-06651600 And PF-06700841 In Active Non-segmental Vitiligo Subjects

[A Phase 2b Randomized, Double-Blind, Placebo-Controlled, Multicenter, Dose-Ranging Study to Evaluate the Efficacy and Safety Profile of PF-06651600 With a Partially Blinded Extension Period to Evaluate the Efficacy and Safety of PF-06651600 and PF-06700841 in Subjects With Active Non-Segmental Vitiligo]

Date(s) of this Report: 11 April 2022

– Thank You –

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

This summary will describe the study results. If you 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 vitiligo?

Vitiligo is a chronic skin disorder that causes a patchy loss of skin color. This loss of skin color could be focused in one area of the body for some people (called "segmental vitiligo") or could be located over various areas of the body for other people (called "non-segmental vitiligo"). Melanin is the name for a pigment that is found in the skin and is responsible for skin color. Melanin is made by certain types of cells in the body called melanocytes. In people with vitiligo, the skin loses these melanocytes, resulting in the patchy loss of skin color.

What are ritlecitinib and brepocitinib?

Ritlecitinib and brepocitinib are investigational treatments that are being studied for active, non-segmental vitiligo. An investigational treatment is one that is still being studied and is not approved for use outside of research studies. Ritlecitinib and brepocitinib may block the activity of certain cells and molecules that are responsible for the loss of melanocytes in the skin.

What was the purpose of this study?

The purpose of this study was to learn about the safety and effects of ritlecitinib and brepocitinib in people with active, non-segmental vitiligo.

Researchers wanted to know:

During Part 1, did participants have an improvement in facial vitiligo after taking study treatment for 24 weeks?

What happened during the study?

How was the study done?

Researchers studied different doses of ritlecitinib and placebo in a group of study participants. A placebo does not have any medicine in it, but it looks just like the study treatment. Researchers also studied a dose regimen of brepocitinib in a group of study participants during an extension period.

The study participants and researchers did not know who took which study treatment/dose, and who took the placebo. This is known as a "blinded" study. The study treatments were given as tablets. Study participants were assigned to each group by chance alone.

Participants were screened by a doctor to make sure they met the requirements to join the study. This study was done in 2 parts. Part 1 lasted 24 weeks, and looked at the safety and effects of different doses of ritlecitinib. Participants were assigned to 1 of 6 treatment groups:

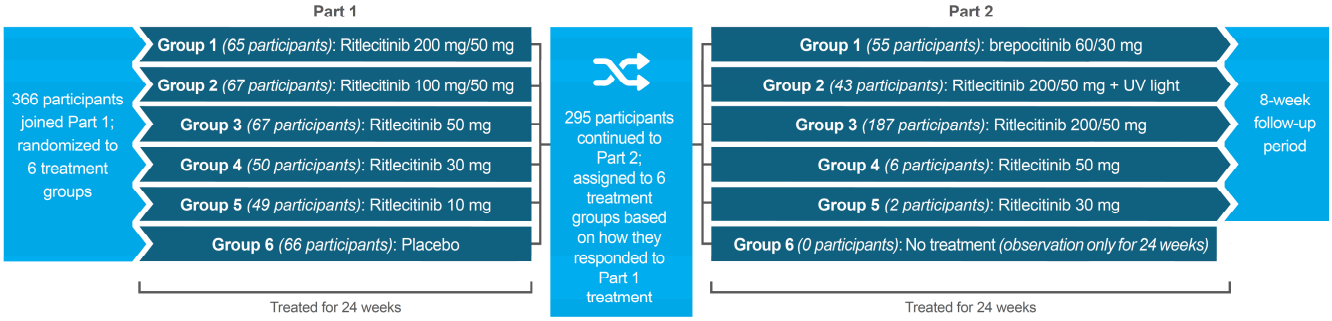
- Part 1 Group 1 (65 participants): Ritlecitinib 200 mg for 4 weeks, followed by ritlecitinib 50 mg for 20 weeks
- Part 1 Group 2 (67 participants): Ritlecitinib 100 mg for 4 weeks, followed by ritlecitinib 50 mg for 20 weeks
- Part 1 Group 3 (67 participants): Ritlecitinib 50 mg for 24 weeks
- Part 1 Group 4 (50 participants): Ritlecitinib 30 mg for 24 weeks
- Part 1 Group 5 (49 participants): Ritlecitinib 10 mg for 24 weeks
- Part 1 Group 6 (66 participants): Placebo

Participants who completed Part 1 were eligible to join Part 2. This part of the study lasted 24 weeks, and looked at the safety of ritlecitinib and brepocitinib. During Part 2, some participants also received treatment with ultraviolet light. Participants

were assigned to 1 of 6 treatment groups based on how they had responded to treatment during Part 1. Groups 1, 2, and 6 were "unblinded", which means that the study participants and researchers knew who took which study treatment/dose, and who took the placebo. Groups 3, 4, and 5 were blinded:

- Part 2 Group 1 (55 participants): No treatment for 4 weeks (to allow the body to clear up any effects of the study treatments given during Part 1), followed by brepocitinib 60 mg for 4 weeks, followed by brepocitinib 30 mg for 16 weeks
- Part 2 Group 2 (43 participants): Ritlecitinib 200 mg plus ultraviolet (UV) light treatment for 4 weeks, followed by ritlecitinib 50 mg plus ultraviolet light treatment for 20 weeks
- Part 2 Group 3 (187 participants): Ritlecitinib 200 mg for 4 weeks, followed by ritlecitinib 50 mg for 20 weeks
- Part 2 Group 4 (6 participants): Ritlecitinib 50 mg for 24 weeks
- Part 2 Group 5 (2 participants): Ritlecitinib 30 mg for 24 weeks
- Part 2 Group 6 (0 participants): No treatment (observation only for 24 weeks)

Participants from Groups 1 to 5 entered an 8-week follow-up period after they completed Part 2. Participants were also expected to attend up to 19 visits at the study center. The figure below shows what happened during the study.



Where did this study take place?

The Sponsor ran this study at 80 locations in 10 countries.

When did this study take place?

It began 26 November 2018 and ended 5 February 2021.

Who participated in this study?

The study included men and women with active, non-segmental vitiligo. Participants agreed to use contraception during the course of the study.

- A total of 171 men (47%) participated
- A total of 193 women (53%) participated
- All participants were between the ages of 18 and 66

A total of 366 participants joined Part 1, and 364 participants received study treatment. Of these 364 participants, 43 (12%) left during Part 1 by their choice or a doctor decided it was best for a participant to stop being in the study.
321 participants (88%) completed this part of the study.

A total of 295 participants continued on to Part 2, and 293 participants received study treatment. Of these 293 participants, 32 (11%) left during Part 2 by their choice or a doctor decided it was best for a participant to stop being in the study. 261 participants (89%) completed this part of the study.

How long did the study last?

Study participants were in the study for up to 60 weeks. The entire study took a little more than 2 years to complete.

When the study ended in February 2021, 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?

During Part 1, did participants have an improvement in facial vitiligo after taking study treatment for 24 weeks?

To answer this question, the study doctors assessed vitiligo found on the face after participants completed Part 1 of the study (24 weeks of treatment).

On average, participants from Group 1 (ritlecitinib 200 mg/50 mg), Group 2 (ritlecitinib 100 mg/50 mg), and Group 3 (ritlecitinib 50 mg) showed an improvement in vitiligo of the face after 24 weeks of treatment, compared with participants from the placebo group (Group 6). However, on average, participants from Group 4 (ritlecitinib 30 mg) showed a marginal improvement, and participants from Group 5 (ritlecitinib 10 mg) did not show an improvement in vitiligo of the face after 24 weeks of treatment, compared with participants from the placebo group (Group 6).

Based on these results, the researchers have decided that the results are not likely the result of chance. Ritlecitinib may help to improve non-segmental vitiligo.

This does not mean that everyone in this study had these results. This is a summary of just some of the main results 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.

Below are instructions for understanding 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 more than 10% of participants in any group are listed.
- The **2nd** column tells how many of the 65 participants taking ritlecitinib 200/50 mg reported each medical problem. Next to this number is the percentage of the 65 participants taking ritlecitinib 200/50 mg who reported the medical problem.
- The **3rd** column tells how many of the 67 participants taking ritlecitinib 100/50 mg reported each medical problem. Next to this number is the percentage of the 67 participants taking ritlecitinib 100/50 mg who reported the medical problem.
- The **4th** column tells how many of the 67 participants taking ritlecitinib 50 mg reported each medical problem. Next to this number is the percentage of the 67 participants taking ritlecitinib 50 mg who reported the medical problem.
- The **5th** column tells how many of the 50 participants taking ritlecitinib 30 mg reported each medical problem. Next to this number is the percentage of the 50 participants taking ritlecitinib 30 mg who reported the medical problem.

Instructions for Understanding Table 1.

- The **6th** column tells how many of the 49 participants taking ritlecitinib 10 mg reported each medical problem. Next to this number is the percentage of the 49 participants taking ritlecitinib 10 mg who reported the medical problem.
- The **7th** column tells how many of the 66 participants taking placebo reported each medical problem. Next to this number is the percentage of the 66 participants taking placebo who reported the medical problem.
- Using these instructions, you can see that 8 out of the 65 participants (12%) taking ritlecitinib 200/50 mg reported common cold. A total of 10 out of the 67 participants (15%) taking ritlecitinib 100/50 mg reported common cold.

277 out of 364 (76%) participants treated in Part 1 had at least 1 medical problem. A total of 19 (5%) participants left the study because of medical problems. The most common medical problems (both related and unrelated to study treatment) – those reported by more than 10% of participants in any group – are described below.

Table 1. Commonly reported medical problems by study participants treated during Part 1						
Medical Problem	**Group 1 Ritlecitinib 200/50 mg (65 Treated)**	**Group 2 Ritlecitinib 100/50 mg (67 Treated)**	**Group 3 Ritlecitinib 50 mg (67 Treated)**	**Group 4 Ritlecitinib 30 mg (50 Treated)**	**Group 5 Ritlecitinib 10 mg (49 Treated)**	**Group 6 Placebo (66 Treated)**
Common cold	8 out of 65 treated (12%)	10 out of 67 treated (15%)	16 out of 67 treated (24%)	5 out of 50 treated (10%)	5 out of 49 treated (10%)	14 out of 66 treated (21%)
Infection of the nose, throat, and upper airways	5 out of 65 treated (8%)	10 out of 67 treated (15%)	5 out of 67 treated (7%)	8 out of 50 treated (16%)	6 out of 49 treated (12%)	8 out of 66 treated (12%)
Headache	4 out of 65 treated (6%)	7 out of 67 treated (10%)	8 out of 67 treated (12%)	1 out of 50 treated (2%)	4 out of 49 treated (8%)	8 out of 66 treated (12%)

Below are instructions for understanding Table 2.

Instructions for Understanding Table 2.

- The **1st** column of Table 2 lists medical problems that were commonly reported during the study. All medical problems reported by more than 10% of participants in any group and at least 2 participants overall are listed.
- The **2nd** column tells how many of the 55 participants taking brepocitinib 60/30 mg reported each medical problem. Next to this number is the percentage of the 55 participants taking brepocitinib 60/30 mg who reported the medical problem.
- The **3rd** column tells how many of the 43 participants taking ritlecitinib 200/50 mg + UV reported each medical problem. Next to this number is the percentage of the 43 participants taking ritlecitinib 200/50 mg + UV who reported the medical problem.
- The **4th** column tells how many of the 187 participants taking ritlecitinib 200/50 mg reported each medical problem. Next to this number is the percentage of the 187 participants taking ritlecitinib 200/50 mg who reported the medical problem.
- The **5th** column tells how many of the 6 participants taking ritlecitinib 50 mg reported each medical problem. Next to this number is the percentage of the 6 participants taking ritlecitinib 50 mg who reported the medical problem.
- The **6th** column tells how many of the 2 participants taking ritlecitinib 30 mg reported each medical problem. Next to this number is the percentage of the 2 participants taking ritlecitinib 30 mg who reported the medical problem.
- Using these instructions, you can see that 1 out of the 55 participants (2%) taking brepocitinib 60/30 mg reported urinary tract infection. A total of 3 out of 43 participants (7%) taking ritlecitinib 200/50 mg + UV reported urinary tract infection.

194 out of 293 (66%) participants treated in Part 2 had at least 1 medical problem. A total of 10 (3%) participants left the study because of medical problems. The most common medical problems (both related and unrelated to study treatment) – those reported by more than 10% of participants in any group and at least 2 participants overall – are described below.

Table 2. Commonly reported medical problems by study participants treated during Part 2					
Medical Problem	**Group 1 Brepocitinib 60/30 mg (55 Treated)**	**Group 2 Ritlecitinib 200/50 mg + UV (43 Treated)**	**Group 3 Ritlecitinib 200/50 mg (187 Treated)**	**Group 4 Ritlecitinib 50 mg (6 Treated)**	**Group 5 Ritlecitinib 30 mg (2 Treated)**
Urinary tract infection	1 out of 55 treated (2%)	3 out of 43 treated (7%)	12 out of 187 treated (6%)	1 out of 6 treated (17%)	1 out of 2 treated (50%)
Rash	0 out of 55 treated (0%)	1 out of 43 treated (2%)	1 out of 187 treated (1%)	0 out of 6 treated (0%)	1 out of 2 treated (50%)
High blood pressure	1 out of 55 treated (2%)	0 out of 43 treated (0%)	2 out of 187 treated (1%)	1 out of 6 treated (17%)	0 out of 2 treated (0%)
Bronchitis	1 out of 55 treated (2%)	0 out of 43 treated (0%)	0 out of 187 treated (0%)	0 out of 6 treated (0%)	1 out of 2 treated (50%)
COVID-19	0 out of 55 treated (0%)	0 out of 43 treated (0%)	2 out of 187 treated (1%)	0 out of 6 treated (0%)	1 out of 2 treated (50%)

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.

4 out of 364 (1%) participants treated in Part 1 had serious medical problems. The serious medical problems are described below. None of these serious medical problems were considered by the study doctors to be related to study treatment.

- Part 1 Group 3 (ritlecitinib 50 mg): 1 participant had migraine headache
- Part 1 Group 4 (ritlecitinib 30 mg): 1 participant had spasm of the esophagus (food pipe)
- Part 1 Group 5 (ritlecitinib 10 mg): 1 participant had migraine headache
- Part 1 Group 6 (Placebo): 1 participant had bladder problems caused by dysfunction of the nerves

2 out of 293 (1%) participants treated in Part 2 had serious medical problems. The serious medical problems are described below.

- Part 2 Group 1 (brepocitinib 60/30 mg): 1 participant had shingles, which was considered by the study doctors to be related to study treatment
- Part 2 Group 3 (ritlecitinib 200/50 mg): 1 participant had uterine fibroids, which was not considered by the study doctors to be related to study treatment

No participants died during this study.

Where can I learn more about this study?

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

For more details on your study protocol, please visit:

www.clinicaltrials.gov	Use the study identifier **NCT03715829**
www.clinicaltrialsregister.eu	Use the study identifier **2018-001271-20**

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 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!