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 patients. 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)
Protocol Number:	B7981078
Dates of Study:	09 May 2023 to 24 July 2023
Title of this Study:	A Study to Assess Two Forms of the Study Medicine (Ritlecitinib) in Healthy Adult Participants [A Phase 1, Randomized, Open-Label, Crossover Study to Estimate the Relative Bioavailability of Pediatric Ritlecitinib (PF-06651600) Sprinkled in Applesauce, Yoghurt and Strawberry Jam Relative to Intact Blend-In Capsule of Ritlecitinib and the Effect of Food on the Bioavailability of the Intact Blend-In Capsule Dosage Formulation of Ritlecitinib in Healthy Adult Participants]
Date(s) of this Report:	01 February 2024

– 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 alopecia areata?

Alopecia areata (ALLO-pee-sha AIR-ee-ah-ta) is an autoimmune disease that causes hair loss. An autoimmune disease means a condition where a patient's immune system mistakenly attacks healthy parts of their body. Alopecia areata can affect adults and children across all ages, races, and sexes. Patients with alopecia areata may have lower self-esteem. They may also have problems with anxiety, depression, social relationships, and quality of life.

Patchy alopecia areata is the most common form of alopecia areata, when hair loss happens in one or more patches on the scalp or other places on the body that grow hair. Patchy alopecia areata may get worse and spread. Alopecia areata with loss of all scalp hair is known as alopecia totalis. Alopecia areata with loss of all scalp, face and body hair is known as alopecia universalis.

What is ritlecitinib?

Ritlecitinib (ri-tul-SIT-in-ib) (LITFULO™) is a medicine that is approved for the treatment of people 12 years of age and older with severe alopecia areata. At the time this study was run, ritlecitinib was an investigational treatment. This means that it was not approved for use outside of research studies.

Ritlecitinib is a small molecule medication that is taken by mouth. Small molecules can move into cells and interact with other molecules present inside a cell. Ritlecitinib is thought to work by blocking the activity of specific proteins in immune cells called "Janus Kinase 3" and the "TEC family kinases". These proteins act like on/off switches for the cells of the immune system. By turning off these switches, the cells of the

immune system produce fewer cytokines (a type of protein). This is expected to improve the symptoms of alopecia areata.

What was the purpose of this study?

The purpose of this study was to see what effect taking ritlecitinib mixed with applesauce, yoghurt, or strawberry jam had on the levels of ritlecitinib in the blood. This study also looked at the effect of taking ritlecitinib with a high fat meal (a fed condition) or no food (a fasted condition) on the amount of ritlecitinib in the blood.

This study will help researchers find methods of giving ritlecitinib to patients. This study did not test if ritlecitinib helps to treat alopecia areata.

Researchers wanted to know:

- **What was the level of ritlecitinib in the blood when it was taken mixed with applesauce, yoghurt, or strawberry jam compared to when it was taken as a capsule?**
- **What was the level of ritlecitinib in the blood when it was taken as a capsule with a high fat meal compared to when it was taken in a fasted condition?**
- **What medical problems did participants have during the study?**

What happened during the study?

How was the study done?

Researchers tested ritlecitinib sprinkled on 3 different foods (strawberry jam, yoghurt, and applesauce). They did this to learn how these different foods affected the amount of ritlecitinib in the blood compared to when it was taken as a capsule. These 4 treatments were taken under fasted conditions. Researchers also looked at the amount of ritlecitinib in the blood when it was taken as a capsule with a high fat meal (called a "fed condition") compared to when it was taken as a capsule in a fasted condition.

First, a study doctor checked each participant to make sure they were able to join the study. This is known as a screening period.

Participants were to stay at the study center for 11 days and 10 nights. During this time, they were given 5 treatments:

Treatment A: one intact 30 mg ritlecitinib capsule, under fasted conditions

Treatment B: the contents of one 30 mg ritlecitinib capsule sprinkled on strawberry jam, under fasted conditions

Treatment C: the contents of one 30 mg ritlecitinib capsule sprinkled on yoghurt, under fasted conditions

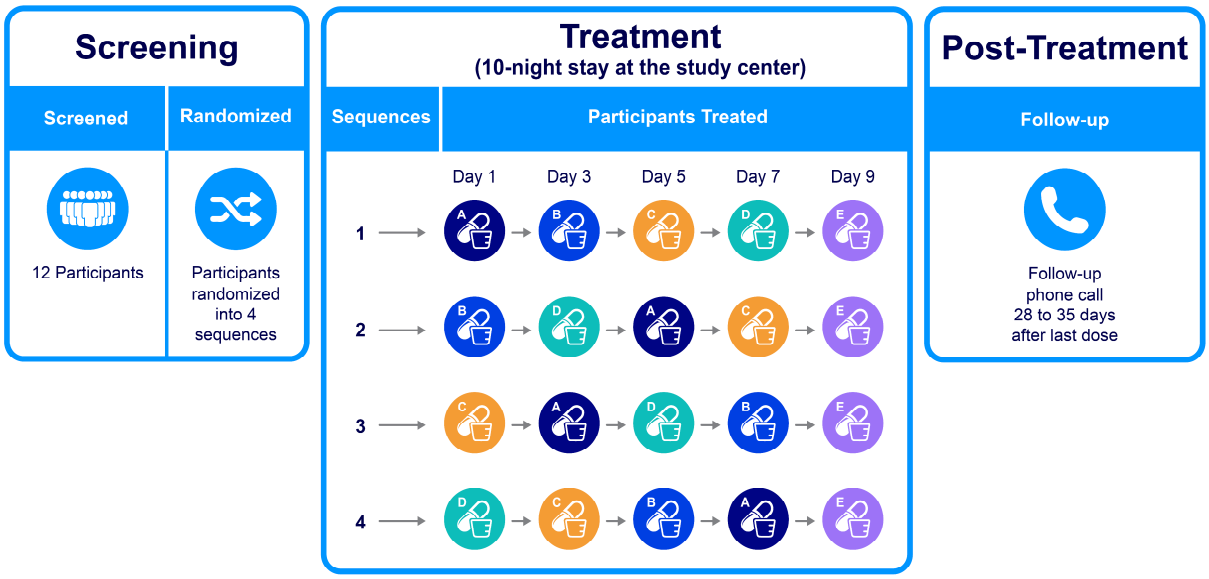
Treatment D: the contents of one 30 mg ritlecitinib capsule sprinkled on applesauce, under fasted conditions

Treatment E: one intact 30 mg ritlecitinib capsule given with a high fat meal

Participants were to arrive at the study center the day before their first treatment and leave the study centre the day after their last treatment. All participants were to be given Treatments A, B, C, D, and E. However, the order (sequence) in which they received the treatments was different. There were 4 different treatment sequences, with 3 participants in each sequence.

A diagram showing what happened in this study is provided in Figure 1.

Figure 1. Study Plan



Researchers took samples of blood from participants during the study and measured the amount of ritlecitinib in the blood. Researchers checked the participants' health during the study and asked them how they were feeling. Participants also received a telephone call between 28 and 35 days after their last dose of study treatment to check on their health.

The participants and researchers knew who took the different treatments during the study. This is known as an "open-label" study.

Participants were assigned to each treatment sequence by chance alone. This is known as a “randomized” study.

Where did this study take place?

The Sponsor ran this study at 1 location in Belgium.

When did this study take place?

It began on 09 May 2023 and ended on 24 July 2023.

Who participated in this study?

The study included healthy adult participants.

- A total of 8 men participated
- A total of 4 women participated
- All participants were between the ages of 26 and 65 years

All 12 participants finished the study. Of the 12 participants, 10 participants took all 5 treatments. Two (2) participants did not take Treatment E, as 1 participant did not complete the high fat meal and 1 participant had a medical problem. Medical problems experienced by the participants are described later in this report.

How long did the study last?

Study participants were in the study for around 11 weeks, from screening through to follow-up. The entire study took 11 weeks to complete.

When the study ended in July 2023, 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?

What was the level of ritlecitinib in the blood when it was taken mixed with applesauce, yoghurt, or strawberry jam compared to when it was taken as a capsule?

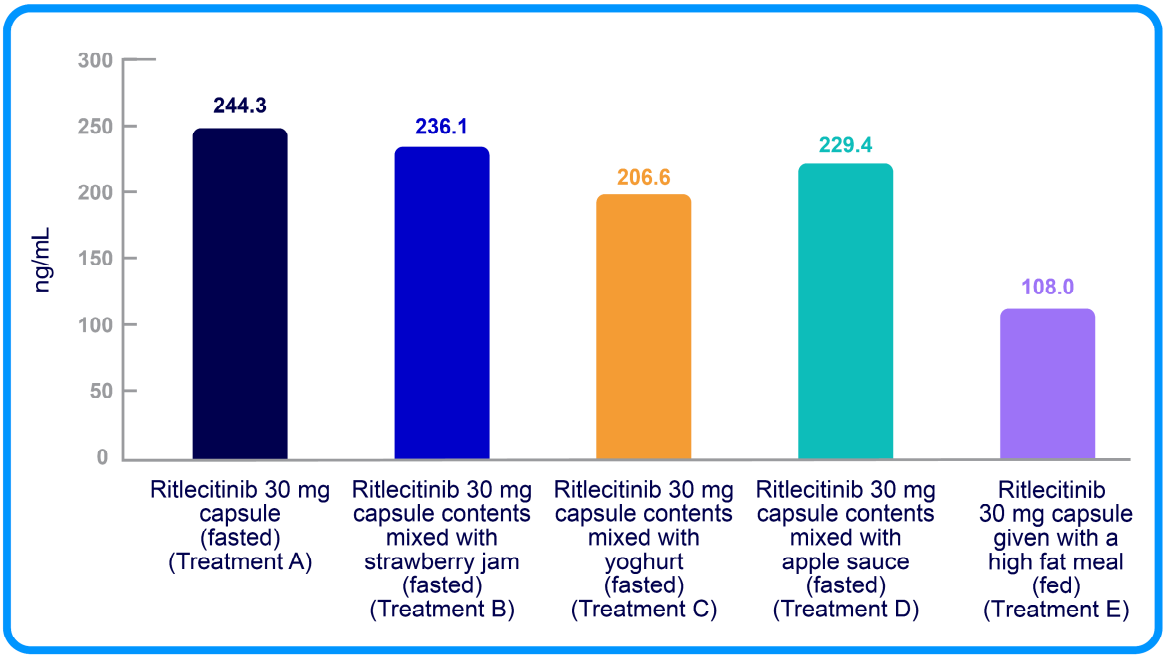
What was the level of ritlecitinib in the blood when it was taken as a capsule with a high fat meal compared to when it was taken in a fasted condition?

To answer these questions, researchers compared the average levels of ritlecitinib in participants' blood for each different treatment.

What was the highest amount of ritlecitinib in the blood after each treatment?

- The highest amount of ritlecitinib in the blood after participants took each treatment of ritlecitinib is shown in Figure 2. The amount of drug in the blood was measured in nanograms per milliliter (also called ng/mL).

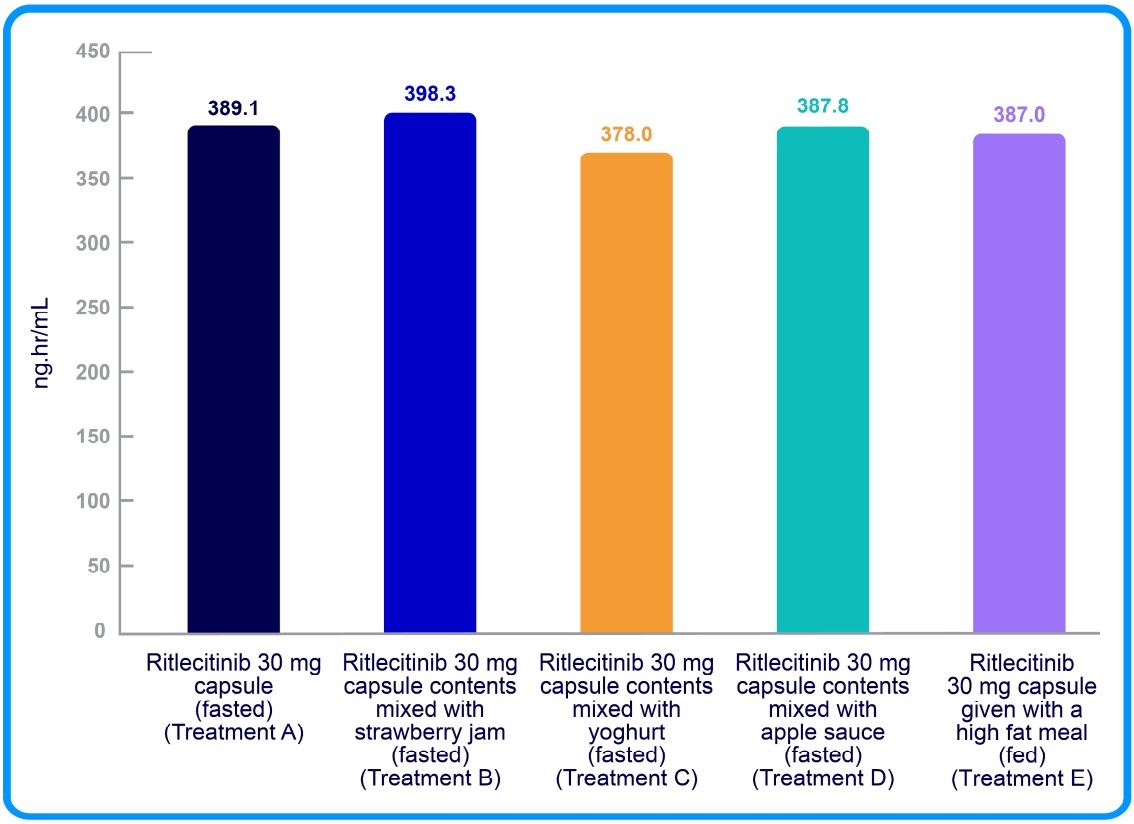
Figure 2. Highest amount of ritlecitinib in the blood



What was the estimated total amount of ritlecitinib in the blood after each treatment?

- The estimated total amount of ritlecitinib in the blood from when ritlecitinib was taken until it was removed from the body is shown in Figure 3. The ng•hr/mL (nanogram hours per milliliter) is a unit used to measure total amount of drug over time in the blood.

Figure 3. Estimated total amount of ritlecitinib in the blood



Based on these results, the researchers concluded that mixing ritlecitinib in the 3 different foods did not significantly change the level of ritlecitinib in the blood compared to when ritlecitinib was taken as a capsule. This was under fasted conditions.

The researchers also concluded that taking ritlecitinib with a high fat meal decreased the highest amount of ritlecitinib in the blood compared to when it was taken under fasted conditions. However, the high fat meal did not change the estimated total amount of ritlecitinib in the blood.

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.

Nine (9) out of 12 (75.0%) participants in this study had at least 1 medical problem. No participants left the study because of medical problems. One (1) participant in treatment sequence 4 (DCBAE) stopped taking study treatments due to having abdominal pain after taking Treatment A. This participant did not leave the study, but did not take Treatment E.

The most common medical problems – those reported more than once – are described below.

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 that were reported more than once are listed.
- The **2nd, 3rd, 4th, and 5th** columns tell how many of the 12 participants reported each medical problem when they took Treatment A, B, C, or D. Next to each number is the percentage of the 12 participants who reported the medical problem when they took each treatment.
- The **6th** column tells how many of the 10 participants who took Treatment E reported each medical problem when they took Treatment E. Next to each number is the percentage of the 10 participants who reported the medical problem when they took Treatment E.
- Using these instructions, you can see that joint pain was reported by 1 out of the 12 (8.3%) participants when they took Treatment A, 0 participants when they took Treatment B, 1 (8.3%) participant when they took Treatment C, and 0 participants when they took Treatment D. Joint pain was reported by 0 out of the 10 participants when they took Treatment E.

Table 1. Commonly reported medical problems by study participants

Medical Problem	Treatment A (12 Participants)	Treatment B (12 Participants)	Treatment C (12 Participants)	Treatment D (12 Participants)	Treatment E (10 Participants)
Joint pain	1 out of 12 participants (8.3%)	0	1 out of 12 participants (8.3%)	0	0
Acne	0	0	0	0	2 out of 10 participants (20.0%)
Bruising under the skin	1 out of 12 participants (8.3%)	1 out of 12 participants (8.3%)	2 out of 12 participants (16.7%)	4 out of 12 participants (33.3%)	0

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. No participants died during the 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.pfizer.com/research/research_clinical_trials/trial_results	Use the protocol number B7981078

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

www.clinicaltrials.gov	Use the study identifier **NCT05852340**
www.clinicaltrialsregister.eu	Use the study identifier 2022-502872-22-00

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

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