NOVARTIS

Clinical Trial Results Summary

A clinical study to learn about the effects of secukinumab, given into the vein, in adults with active Psoriatic Arthritis (PsA)

Protocol number: CAIN457P12302

Thank You!

Novartis sponsored this trial and believes it is important to share what was learned from the results of this trial with the participants and the public.

Thanks to the participants for taking part in this trial for the drug secukinumab, also known as AIN457. They helped researchers learn more about how secukinumab works in people with active PsA.

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If the participants have any questions about the trial results, please talk to the doctor or staff at the trial site.

This summary shows the results of a single clinical trial. Other clinical trials may have different findings.

Why was the research needed?

Researchers were looking for a better way to treat active **Psoriatic Arthritis (PsA)**.

PsA is an illness that can affect the skin and joints. It results in pain, tenderness, and limited function of joints. Joints are stiff, inflamed, with redness and warmth. It also results in patches of thick, red, raised skin covered with scales on any part of the body. Scales are a silvery-white buildup of dead skin cells. These symptoms can become aggressive at times if not managed carefully. Researchers believe that in PsA the immune system mistakenly attacks its own tissues.

Drug	***Pronounced as***
Secukinumab	*sek-cu-KIN-umab*

PsA is treated with painkillers and drugs that work by blocking proteins causing inflammation. Secukinumab, or **AIN457**, reduces the activity of a protein called Interleukin-17A that is responsible for inflammation and helps relieve PsA symptoms. **AIN457** is approved for treating active PsA given as an injection under the skin or subcutaneously. However, in this trial, **AIN457** was given in a different way, as an injection into the vein or intravenously. This alternate way of giving the drug allows dosing based on the participant's body weight.

In this trial, researchers wanted to learn about the effects and safety of **AIN457** in adults with active PsA when given into the vein compared to **placebo** given into the vein.

How long was this trial?

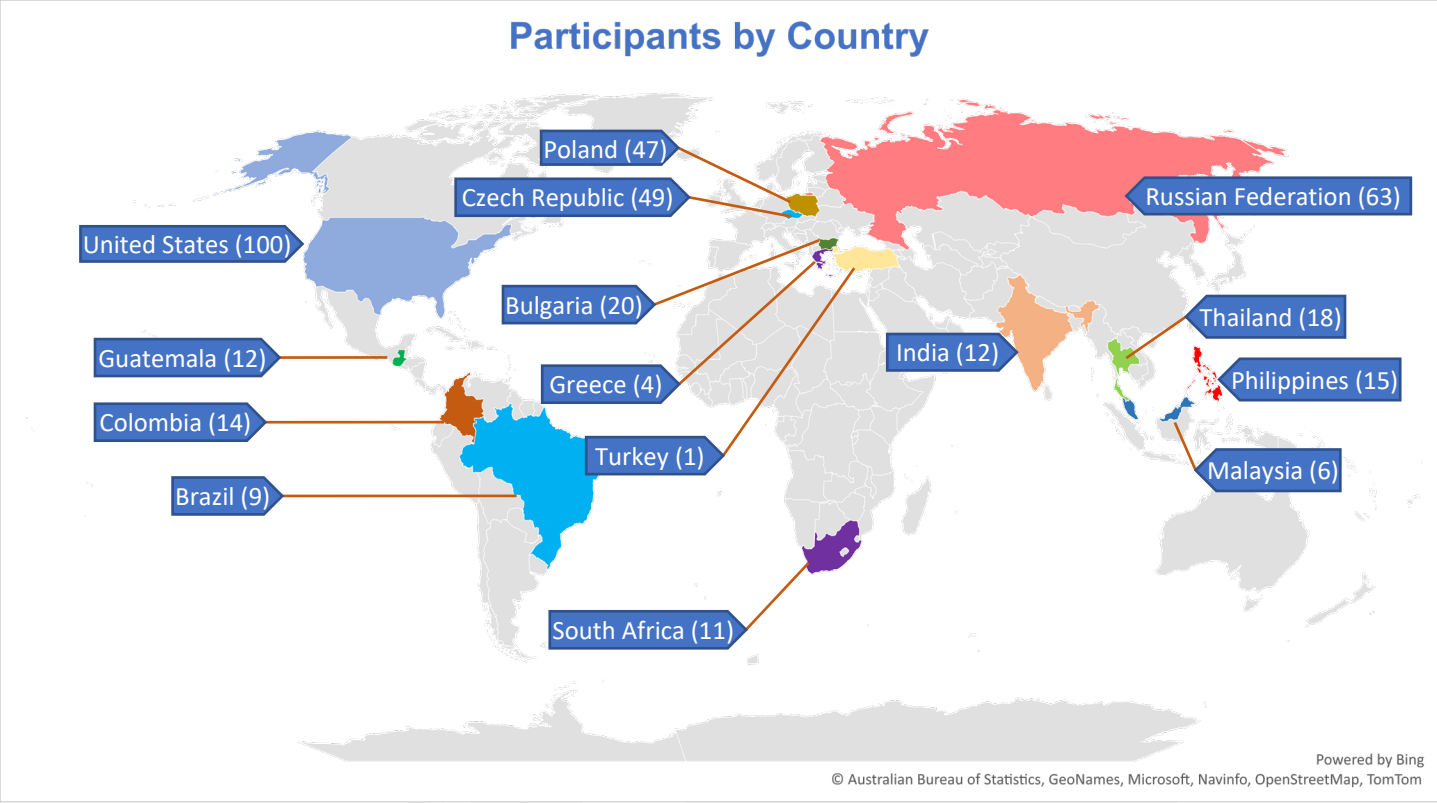
This trial started in January 2020 and ended in May 2022. The entire duration, from enrolling the first participant to the last participant completing the trial was around 2 years and 4 months. An individual participant was in this trial for a maximum of 1 year and 4 months.

Who was in this trial?

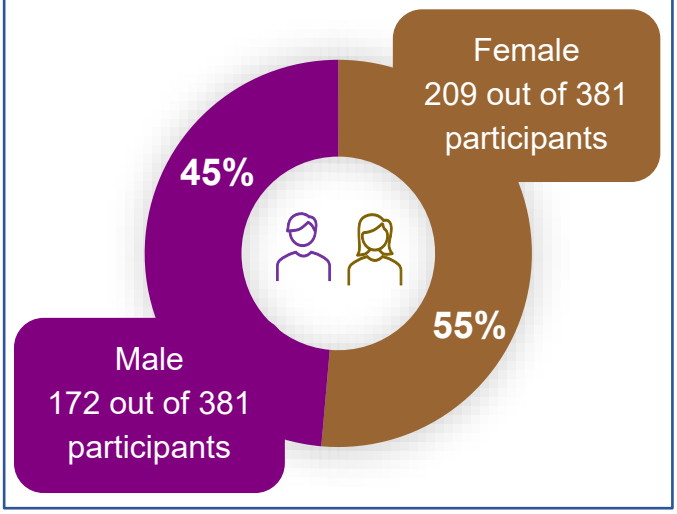
The participants could take part in this trial if they:

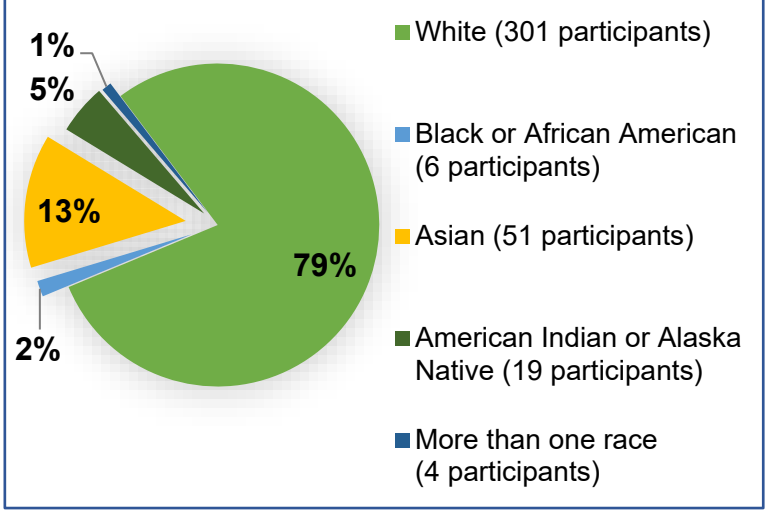
- were at least 18 years of age or older,
- were diagnosed with PsA with symptoms at least 6 months before the start of the trial,
- were taking or have taken medication to treat their PsA disease, and
- were not diagnosed with rheumatoid arthritis, a disorder where the body's immune system attacks and destroys healthy body tissue by mistake.

A total of 381 participants from 15 countries were randomly assigned to treatment groups using a computer system. This process is called randomization. It means that each participant could be assigned to any group, and it helps to make sure the groups are distributed fairly.



Participants' ages ranged from 19 to 81 years. The average age of the participants was 48 years.





What treatments did the participants take?

	**AIN457,** the trial drug, is already approved to treat active PsA given as an injection under the skin. However, in this study, it was given as an injection into the vein at a dose of 6 mg/kg ⓘ at the start of the trial and then 3 mg/kg every 4 weeks.
	**Placebo** which looked like the trial drug, but did not have any medicine in it. Using a **placebo** helps researchers better understand the effect of a trial drug by making sure that the changes were not happening by chance.

ⓘ **AIN457** 6 mg/kg means, 6 milligrams of **AIN457** given for each kilogram of the participant's body weight.

Along with **AIN457** or **placebo**, participants could continue their PsA medicines or other regular medications with the permission of the trial doctor. They could take rescue medications after 16 weeks of treatment if needed. Rescue medications are the medicines given to relieve PsA symptoms immediately in case participants do not receive relief from their PsA during trial treatment.

What happened during this trial?

Before treatment

Up to 10 weeks

Trial doctors checked if participants could take part in the study.

This was a trial where none of the participants, trial doctors, or trial staff knew what treatment participants were receiving.

Some trials are done this way because knowing what treatment each participant is getting can affect the results of the trial.

During treatment

Up to 52 weeks

Participants were randomly assigned to one of the following 2 treatment groups, with an equal chance of being assigned to either group.

Group 1 (191 participants)
AIN457 6 mg/kg on Day 1. Then continued at a dose of 3 mg/kg from Week 4 to Week 12 → **AIN457** 3 mg/kg from Week 16 until Week 48

Group 2 (190 participants)
Placebo from the start of the trial until Week 12 → **AIN457** 3 mg/kg from Week 16 until Week 48

- The treatment was given as an injection into the vein every 4 weeks.
- Participants could take rescue medications after 16 weeks of treatment if needed.

After treatment

Up to 8 weeks

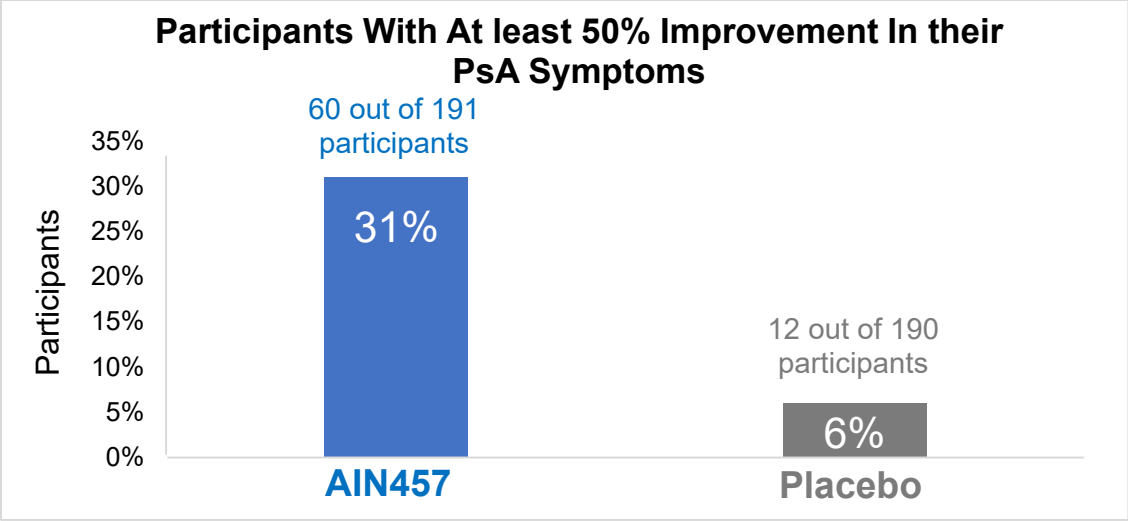
No trial drug was given; however, participants were allowed to take their PsA medicines and rescue medication to relieve their PsA symptoms.

Researchers monitored the health of the participants throughout the trial.

What were the main results of this trial?

How many participants on AIN457 had at least 50% improvement in their PsA symptoms after 16 weeks of treatment compared to placebo?

60 out of 191 participants (31%) on **AIN457** improved their PsA symptoms by at least 50% after 16 weeks of treatment, compared to 12 out of 190 participants (6%) on **placebo**.



To measure improvement in PsA symptoms, the researchers used a scale called the American College of Rheumatology (ACR) score. A 50% improvement in ACR score is called ACR50, which means a 50% improvement in PsA symptoms. ACR50 is achieved if there is 50% improvement in the number of swollen and tender joints as well as a 50% improvement in at least 3 of the 5 categories below.

- Self-assessment: participants assess their own PsA symptoms.
- Doctor assessment: study doctors assess participants' PsA symptoms.
- Pain assessment: participants assess how much pain they have experienced.
- Disability assessment: participants assess how much the PsA symptoms are stopping them from doing their daily activities.
- Inflammation assessment: doctors assess how much inflammation the participants have, using a blood test.

What were the other results of this trial?

How many participants on AIN457 had at least 20% improvement in their PsA symptoms after 16 weeks of treatment compared to placebo?

114 out of 191 participants (60%) on **AIN457** improved their PsA symptoms by at least 20% after 16 weeks of treatment, compared to 55 out of 190 participants (29%) on **placebo**.

How many participants on AIN457 had at least 90% improvement in their psoriasis skin lesions after 16 weeks of treatment compared to placebo?

49 out of 102 participants (48%) on **AIN457** had at least 90% improvement in their psoriasis skin lesions after 16 weeks of treatment, compared to 7 out of 109 participants (6%) on **placebo**.

To measure improvement in participants' psoriasis skin lesions, researchers used a scale called the Psoriasis Area Severity Index, or PASI. It measures the level of redness, scaling, and thickness of the psoriasis plaques, and how much of the body area is affected. PASI was only measured in participants with moderate to severe PsA. A total of 102 participants on **AIN457** and 109 participants on **placebo** had moderate to severe PsA.

What medical problems did the participants have during the trial?

Medical problems that happen in clinical trials are called "adverse events".

A lot of research is needed to know whether a drug causes an adverse event. **During a trial, all adverse events are recorded, whether or not they are thought to be caused by the trial drug.** When new drugs are being studied, researchers keep track of all adverse events participants have.

This section is a summary of the adverse events that happened during this trial. The websites listed at the end of this summary may have more information about all the adverse events that happened in this trial.

An adverse event is any sign, symptom, or disease that participants have during a trial.

An adverse event is considered "serious" when it is life-threatening, causes lasting problems, or the participant needs hospital care. These problems may or may not be caused by the trial drug.

How many participants had adverse events?

The adverse events that happened in the 2 treatment groups during the trial up to week 60 are listed in the table below.

374 participants took any dose of **AIN457** (6 mg/kg or 3 mg/kg). It includes 191 participants from Group 1 and 190 participants from Group 2 who switched from **placebo** to **AIN457** after Week 12.

Number of Participants (%) With Adverse Events

	Any AIN457 (Out of 374 participants)	**Placebo** (Out of 190 participants)
At least 1 adverse event	237 (63%)	76 (40%)
At least 1 serious adverse event	22 (6%)	3 (2%)
Stopped drug due to adverse event	7 (2%)	3 (2%)
Deaths	0	1 (<1%)

What were the most common serious adverse events?

The most common serious adverse events that happened in at least 2 of the participants in any group are listed below.

Number of Participants (%) With Most Common Serious Adverse Events

	Any AIN457 (Out of 374 participants)	**Placebo** (Out of 190 participants)
Breathing illness caused by COVID-19 virus (COVID-19)	6 (2%)	0
Lung infection caused by COVID-19 virus (COVID-19 pneumonia)	2 (<1%)	2 (1%)
Lung infection (Pneumonia)	2 (<1%)	0

What other adverse events did the participants have?

The most common other adverse events that happened in at least 4% (4 out of 100) of participants in any group are listed below.

Number of Participants (%) With Most Common Other Adverse Events

	Any AIN457 (Out of 374 participants)	**Placebo** (Out of 190 participants)
Breathing illness caused by COVID-19 virus (COVID-19)	42 (11%)	7 (4%)
Infection in the urinary system (Urinary tract infection)	18 (5%)	1 (<1%)
Joint pain (Arthralgia)	14 (4%)	3 (2%)

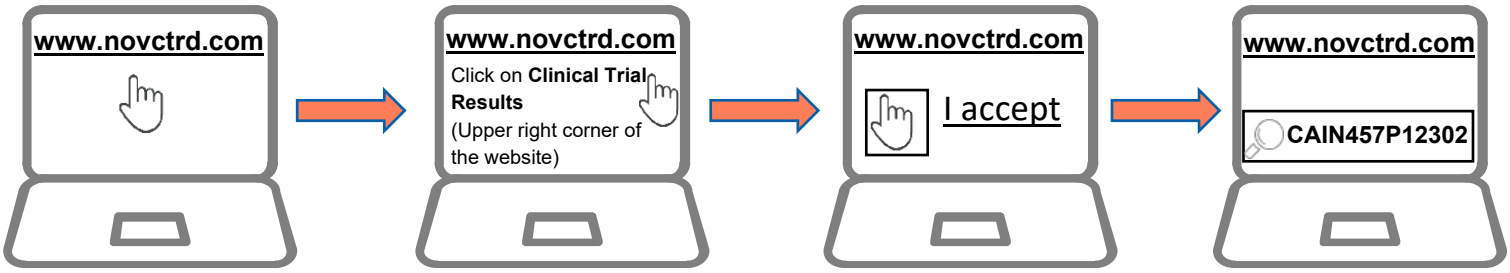
How has the trial helped?

The trial showed that **AIN457** was effective and safe in adults with PsA when given into the vein and with a dose based on the participant's body weight. **AIN457** showed a meaningful improvement in PsA symptoms after 12 weeks of treatment compared to **placebo**. For this trial, **AIN457** safety was similar to previous studies. It is planned to use this trial to get approval in the United States, followed by other countries for AIN457 given into the vein.

Where can I learn more about this trial?

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

Please follow the steps below:



You can find more information about this trial on the following websites:

- www.clinicaltrials.gov Use the NCT identifier NCT04209205 in the search field.
- https://www.clinicaltrialsregister.eu/ctr-search Use the EudraCT identifier 2019-001176-11 in the search field.

Full clinical trial title: A randomized, double-blind, placebo-controlled, parallel group, phase III multicenter study of intravenous secukinumab to compare efficacy at 16 weeks with placebo and to assess safety and tolerability up to 52 weeks in subjects with active Psoriatic Arthritis

Thank you

Thank you for taking part in this trial. As a clinical trial participant, you belong to a large community of people around the world. You helped researchers answer important health questions and test new medical treatments.

Novartis is a global healthcare company based in Switzerland that provides solutions to address the evolving needs of patients worldwide.

1-888-669-6682 (US); +41-61-324-1111 (EU); www.novartisclinicaltrials.com

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