Clinical Trial RESULTS

Ardea Biosciences
A member of the AstraZeneca Group

Research Sponsor: Ardea Biosciences, Inc.
Drug Studied: Lesinurad/Allopurinol Fixed Dose Combination
Study Drug Indication: Gout
National Clinical Trial #: NCT02581553
Protocol #: RDEA594-501
Study Date: October 2015 to July 2016
Short Study Title: A study to measure and compare healthy adults' blood levels of lesinurad and allopurinol, taken in a combined tablet and separate tablets, both with and without food

Thank you!

As a clinical study participant, you belong to a large community of participants around the world. You help researchers answer important health questions and discover new medical treatments.

Thank you for taking part in the clinical study for the drugs lesinurad and allopurinol. These drugs have been developed to treat gout, a type of arthritis.

You and all of the other participants helped researchers learn how lesinurad and allopurinol acted in the body when given as 1 combined tablet and as 2 separate tablets.

Ardea Biosciences, Inc., the sponsor of this study, thanks you for your help and thinks it is important for you to know the results of your study. An independent non-profit organization called CISCRP prepared this summary of the study results for you with the help of a medical writing organization. We hope it helps you understand and feel proud of your important role in medical research. If you have questions about the results, please speak with the doctor or staff at your study site.

CISCRP
THE CENTER FOR INFORMATION & STUDY ON CLINICAL RESEARCH PARTICIPATION

What's happened since my study ended?

The study started in October 2015 and ended in July 2016. The entire study took almost 10 months to complete. It included 119 participants at 1 site in the United States. When the study 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?

Gout is a type of arthritis, or inflammation of the joints, that can cause pain and stiffness. Even though you and the other participants in this study didn't have gout and were considered healthy, researchers believe that the results of this study will help patients who do have gout. Gout is caused by too much uric acid in your blood. Uric acid is made when your body breaks down certain substances. It usually leaves your body through urine. Gout can happen when uric acid does not leave your body properly and instead builds up in the blood and joints. The study drugs lesinurad and allopurinol treat gout by helping reduce uric acid in your body. The sponsor wanted to find out if, in the future, it would be effective to combine the 2 drugs into one tablet.

In this study, researchers wanted to know:

- How much lesinurad and allopurinol stayed in participants' blood when taken as one combined tablet compared to separate tablets?
- How much lesinurad and allopurinol stayed in participants' blood when taken with food compared to without food?
- Did participants have medical problems during the study?

What kind of study was this?

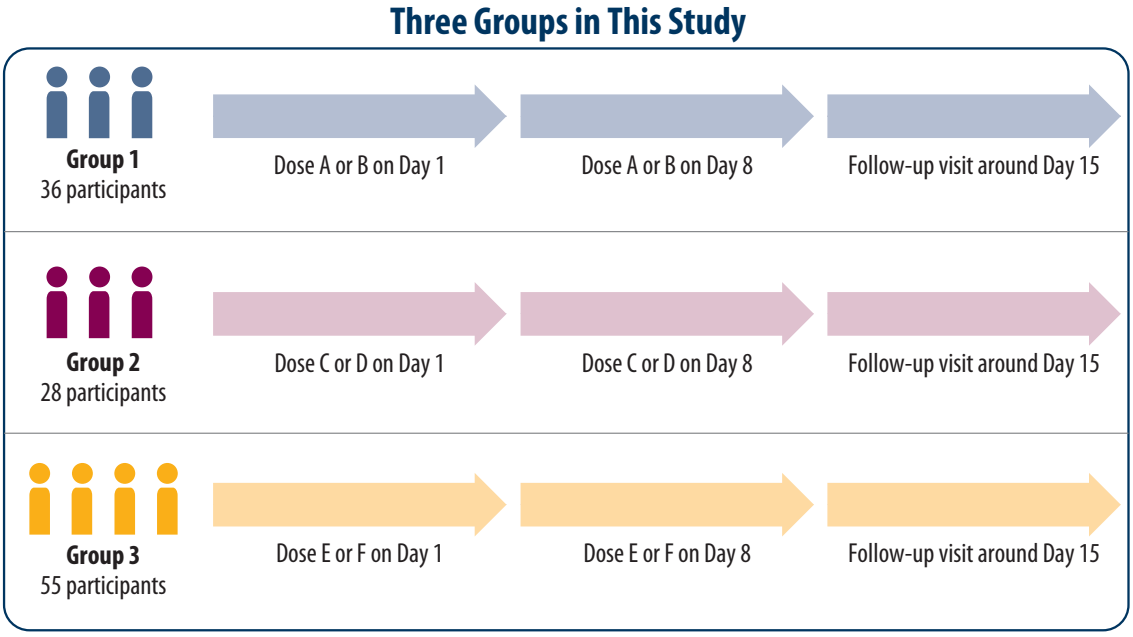
This was an "open-label" study. This means the participants and study staff knew what study drug each participant took.

What happened during the study?

There were 119 participants in this study. All participants were healthy adults between the ages of 18 and 65 years.

Participants stayed at the study site up to 12 days. Study doctors did a physical exam, took urine samples, and asked about participants' medical history to make sure they could participate in the study. They checked participants' blood pressure, heart rate, and body temperature. Study doctors also took blood samples and did an electrocardiogram, or ECG, to check participants' heart health. Study doctors also took blood samples to measure the amount of lesinurad and allopurinol in the blood.

The figure below shows how the study was done.



Participants in Group 1 and Group 2 were assigned by chance, like flipping a coin, to 1 of 2 doses. Group 3 participants were added later to the study.

Group 1 had 36 participants. On Day 1 and Day 8, participants took one of the below:

- **Dose A:** One combined 200/300-milligram (mg) tablet of lesinurad/allopurinol
- **Dose B:** One 200-mg tablet of lesinurad and one 300-mg tablet of allopurinol

Group 2 had 28 participants. On Day 1 and Day 8, participants took either:

- **Dose C:** One combined 200/300-mg tablet of lesinurad/allopurinol given without food
- **Dose D:** One combined 200/300-mg tablet of lesinurad/allopurinol given with food

Group 3 had 55 participants. On Day 1, participants took one of the below doses, and on Day 8 they took the other:

- **Dose E:** One combined 200/200-mg tablet of lesinurad/allopurinol
- **Dose F:** One 200-mg tablet of lesinurad and two 100-mg tablets of allopurinol all participants took 2 doses during the study.

On Day 1, they took 1 dose. Then on Day 8, they took the other dose for their group. Participants went back to the study site for a follow-up visit around Day 15, about 1 week after their last dose with the study drugs. Study doctors did a physical exam, took blood and urine samples, and answered questions about any medical problems and other drugs participants were taking.

What were the study results?

Below is a summary of the results of some of the questions researchers asked during the study. It is important to know that researchers look at the results of many studies to decide which doses work the best and are the safest for patients. Further clinical studies with lesinurad and allopurinol are currently planned.

How much lesinurad and allopurinol stayed in participants' blood when taken as a combined tablet compared to separate tablets?

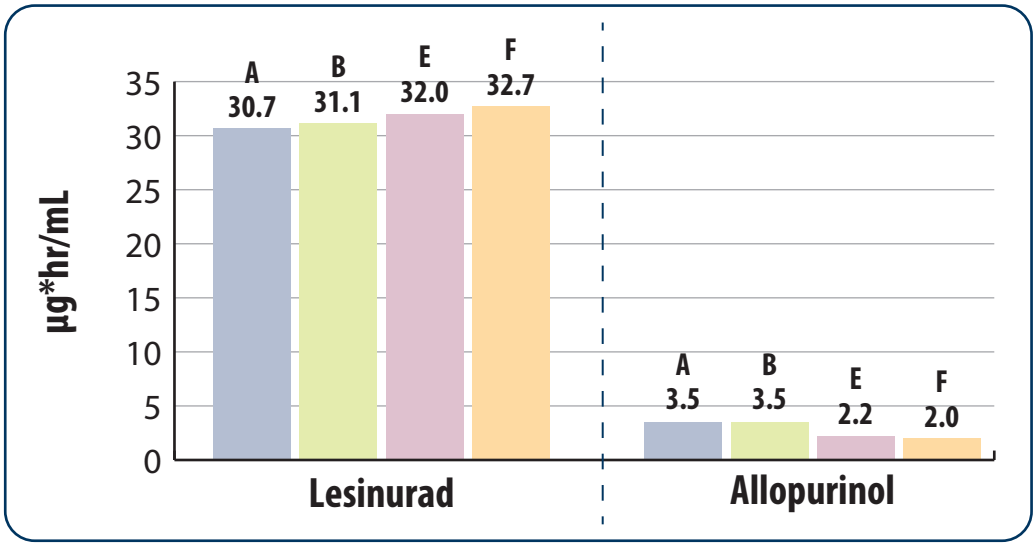
Overall, researchers found that participants had about the same amount of lesinurad and allopurinol in their blood no matter which dose they took. This was also true of the highest amount of the study drug measured at any time while participants were in the study.

Average total amount of study drugs in the blood

Researchers compared the average amount of lesinurad and allopurinol in the blood of participants in Groups 1 and 3. Researchers measured the amount of lesinurad and allopurinol that stayed in participants' blood in microgram hours per milliliter, or µg*hr/mL.

The figure below shows the results for Doses A, B, E, and F.

Average Total Amount of Study Drugs in the Blood by Dose

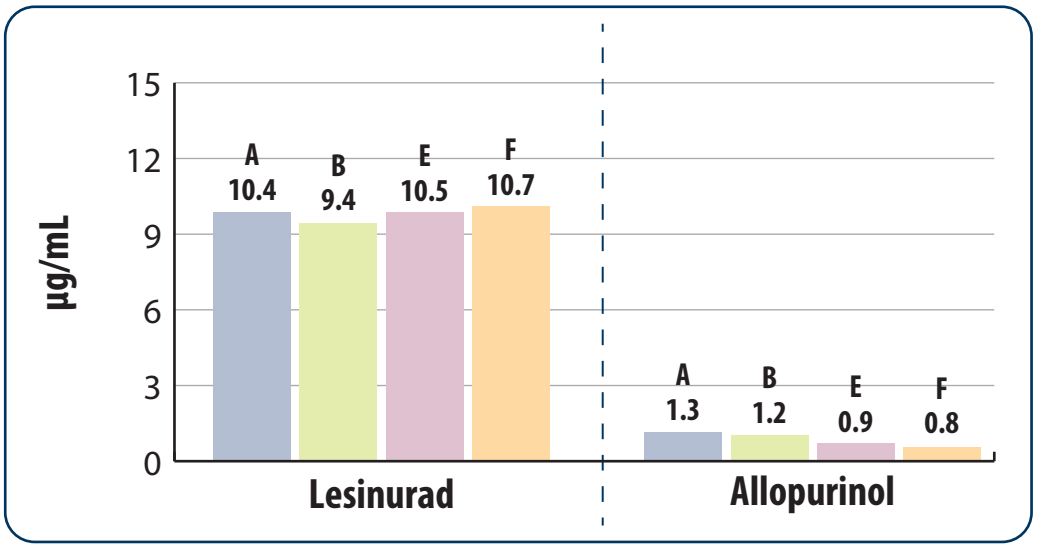


Highest average amount of study drugs in participants' blood

Researchers compared the highest average amount of lesinurad and allopurinol in the blood of participants in Groups 1 and 3. Researchers calculated this using micrograms per milliliter, or µg/mL.

The figure below shows the results for Doses A, B, E, and F.

Highest Average Amount of Study Drugs in the Blood by Dose

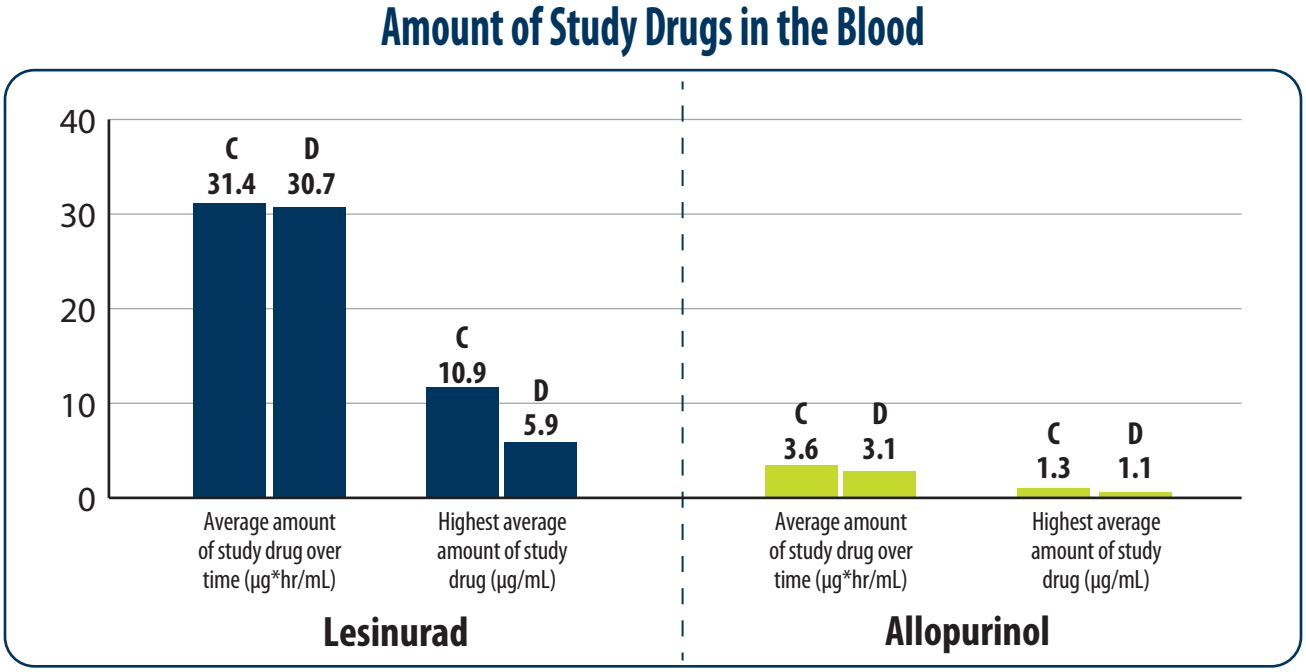


How much lesinurad and allopurinol stayed in participants' blood with food compared to without food?

To answer this question, researchers studied participants in Group 2. Participants in Group 2 took one combined 200/300-mg tablet of lesinurad/allopurinol without food for Dose C and the same tablet with food for Dose D.

Overall, researchers found that the average amounts of both study drugs that stayed in the blood were similar whether participants took the tablet with or without food. However, the highest amount of lesinurad in the blood was higher when participants took the tablet without food than with food. The highest amount of allopurinol in their blood was similar whether participants took the tablet with or without food.

The figure below shows these results.



What medical problems did participants have during the study?

A lot of research is needed to know if a drug causes a medical problem. So when researchers study new drugs, they keep track of all the medical problems that participants have during the study. These problems are called "adverse events". They may or may not be caused by the study drug.

During this study, 29 participants (24.4%) had at least one medical problem. Some participants had medical problems with both doses they took.

Three participants were removed from the study because of medical problems that the researchers believed were not serious.

The table below shows how many participants in each group had medical problems in this study.

	Group 1 (out of 36 participants)		Group 2 (out of 28 participants)		Group 3 (out of 55 participants)	
	Dose A	Dose B	Dose C	Dose D	Dose E	Dose F
How many participants had medical problems?	5 (13.9%)	8 (22.2%)	5 (17.9%)	1 (3.6%)	5 (9.1%)	11 (20.0%)
How many participants had serious medical problems?	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)

What were the most common medical problems?

The only medical problem that happened in more than 1 participant per dose was a headache.

In Dose B, 2 participants (5.6%) had a headache. In both Doses E and F, 2 participants (3.6%) also had a headache.

What serious medical problems did participants have?

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

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

Where can I learn more about the study?

You can find more information about your study online at www.clinicaltrials.gov/show/results/NCT02581553.

These results are from a single study, and new information or different results may happen in other studies. Changes in your medical care should not be made based on the results of a single study without speaking with your doctor or another healthcare professional. If you have questions about the results, please speak with the doctor or staff at your study site.

Official study title: A Phase 1, Randomized, Open-Label, Crossover Study to Assess the Relative Bioavailability of Lesinurad/Allopurinol Fixed Dose Combination Tablets and Coadministered Lesinurad and Allopurinol Tablets and the Effect of Food on the Pharmacokinetics of Lesinurad/Allopurinol Fixed Dose Combination Tablets in Healthy Adult Subjects.

Ardea Biosciences, Inc., the sponsor of this study, is a member of the AstraZeneca Group and is located at 9390 Towne Centre Drive, San Diego, CA, 92121.

Thank you

It is said that the greatest gift is one that is given anonymously, giving when you do not know whether you will get direct personal benefit.

This is the gift that you have given by taking part in a clinical trial. It is a brave and selfless act, one that advances medical knowledge and benefits public health.

Thank you for the gift of your participation in clinical research.

CISCRP
THE CENTER FOR INFORMATION & STUDY ON CLINICAL RESEARCH PARTICIPATION

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

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