Clinical trial results

AstraZeneca

Research Sponsor: AstraZeneca

Drugs Studied: AZD8871

National Clinical Trial #: NCT02573155

Protocol #: D6640C00001

Study Date: October 2015 to August 2016

Short Study Title: A study in participants to investigate AZD8871 for the treatment of chronic obstructive pulmonary disease and possibly other lung diseases like asthma

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 this clinical study for the drug AZD8871. This drug is being developed to treat chronic obstructive pulmonary disease, also called COPD, and possibly other lung diseases like asthma. You and all of the other participants helped researchers learn how AZD8871 affects the body, how AZD8871 acts in the body, and if AZD8871 causes medical problems.

AstraZeneca, 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 organisation called CISCRP prepared this summary of the study results for you with the help of a medical writing organisation. 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 study doctors or clinical staff at your study site.

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What's happened since my study ended?

This study had 2 parts, Part A and Part B. You could only join 1 of the 2 parts.

Part A
Part A of the study started in October 2015 and ended in March 2016. This part of the study happened at 1 study site in the United Kingdom.

Part A included 16 male participants with asthma.

Part B
Part B of the study started in April 2016 and ended in August 2016. This part of the study happened at 1 study site in the United Kingdom.

Part B included 38 male and female participants with COPD.

When both parts of 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?

Before patients can take a new drug, the company developing it must do research studies to show that the drug is safe and effective. The first step in studying a new drug is to test it in healthy people. This means people without any serious health problems. The next step is to test it in people with health problems. The participants in this study had either COPD or asthma.

The study drug, AZD8871, is being developed to treat COPD and possibly other lung diseases like asthma. COPD is a lung disease that causes a chronic inflammation of the lungs that creates a blockage of the airways and makes it difficult to breathe. Asthma is a lung disease that can cause coughing, wheezing, chest tightness, and difficulty breathing. COPD and asthma are both diseases that make it hard to breathe.

In this study, researchers wanted to see if AZD8871 causes any medical problems, how AZD8871 affects the body, and how AZD8871 acts in the body.

Researchers compared several different doses of AZD8871 to each other, to 2 drugs that are similar to AZD8871, and to a placebo. The first similar drug is called indacaterol, and the second similar drug is called tiotropium. A placebo looks like the study drug but contains no real medicine. Researchers use placebos in studies to compare the results for participants who take study drugs with the results for participants who take no medicine at all. Researchers wanted to know:

- What medical problems did participants have after they got AZD8871?
- How did AZD8871 affect the body?
- How did AZD8871 act in the body?

What kind of study was this?

This study had 2 parts: Part A and Part B.

Part A
Part A of the study included 16 male participants with asthma who were 21 to 65 years old.

Part A of the study was "single-blind". This means that none of the participants knew what treatment each participant took but the study staff did. In Part A, participants took either AZD8871 or the placebo.

Part B
Part B of the study included 38 male and female participants with COPD who were 52 to 78 years old.

Part B of the study was "double-blind". This means that none of the participants or study staff knew what treatment each participant took.

What happened during the study?

Part A
Participants in Part A were in the study for up to about 3 months.

In Part A, participants visited the study site 5 times and had a follow-up phone call after the 5th visit to check on the participants' health. One Part A participant left the study before it was completed.

The first visit was a screening visit to make sure you and all the other participants were healthy enough to take part in the study.

Part A had 2 groups, with 8 participants in each. The different doses of the study drug were given in micrograms, or µg. This is a widely accepted scientific unit of measurement.

The 8 participants in Group 1 got 3 treatments out of 50, 400, or 1800 µg of AZD8871 or a placebo. Some participants got only AZD8871 treatments, and some participants got 2 AZD8871 treatments and 1 placebo treatment.

The 8 participants in Group 2 got 3 treatments that were 200, 900, or 2100 µg of AZD8871 or a placebo. Some participants got only AZD8871 treatments, and some participants got AZD8871 and placebo treatments.

There was a "washout period" of 7 to 21 days between treatments. During the washout periods, participants did not take any drugs. This helped get rid of any effects from previous treatments. The figure below shows how Part A of the study was done.

Part A: Single-Blind
16 participants were split into 2 groups

Group 1	Group 2
(8 participants)	**(8 participants)**
Participants got 3 of the below treatments	Participants got 3 of the below treatments
• 50 µg of AZD8871 • 400 µg of AZD8871 • 1800 µg of AZD8871 • placebo	• 200 µg of AZD8871 • 900 µg of AZD8871 • 2100 µg of AZD8871 • placebo
Washout period of 7 to 21 days between treatments	

In Part A of the study and during the follow-up visit, study doctors did tests to make sure the participants were still healthy and checked participants' hearts using an electrocardiogram, or ECG.

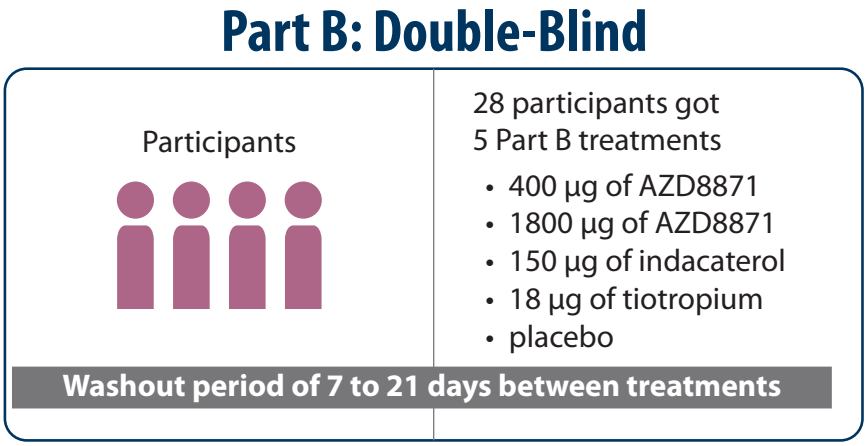
Part B
Participants in Part B were in the study for up to about 3 months.

In Part B, 10 of the 38 participants didn't complete the study. The participants who did complete the study visited the study site 7 times. These participants then had a follow-up phone call after the 7th visit to check on the participants' health.

The first visit was a screening visit to make sure you and all the other participants were healthy enough to take part in the study.

A total of 28 participants got 400 and 1800 µg of AZD8871, 150 µg of indacaterol, 18 µg of tiotropium, and the placebo. These 28 participants in Part B took all 5 treatments.

There was a "washout period" of 7 to 21 days between treatments. The figure below shows how Part B of the study was done.



In Part B of the study and during the follow-up visit, study doctors did tests to make sure the participants were still healthy and checked participants' hearts using an electrocardiogram, or ECG.

What were the study results?

Below is a summary of the results of some of the questions the researchers asked during this study. It is important to know that researchers look at the results of many studies to decide which medicines work best and are safest for patients. Further clinical studies with AZD8871 are ongoing.

What medical problems did participants have during the study?

A lot of research is needed to know whether a drug causes a medical problem, so researchers keep track of all medical problems that participants had during the study. These medical problems are called "adverse events". They may or may not be caused by the study drug.

How many participants developed medical problems in the study?

Part A

During Part A of this study, 14 out of 16 participants (87.5%) developed medical problems. No participants left the study because of medical problems.

The table below shows how many participants in Part A developed medical problems.

Part A	50 µg AZD8871 (6 participants)	200 µg AZD8871 (6 participants)	400 µg AZD8871 (6 participants)	900 µg AZD8871 (6 participants)	1800 µg AZD8871 (6 participants)	2100 µg AZD8871 (5 participants)	Placebo (12 participants)
How many participants developed medical problems?	5 (83.3%)	5 (83.3%)	3 (50.0%)	3 (50.0%)	3 (50.0%)	2 (40.0%)	7 (58.3%)

Part B

During Part B of this study, 31 out of 38 participants (81.6%) developed medical problems. Five participants (13.2%) left the study because of medical problems. The table below shows how many participants in Part B developed medical problems.

Part B	400 µg AZD8871 (34 participants)	1800 µg AZD8871 (31 participants)	150 µg Indacaterol (32 participants)	18 µg Tiotropium (30 participants)	Placebo (32 participants)
How many participants developed medical problems?	18 (52.9%)	7 (22.6%)	12 (37.5%)	11 (36.7%)	11 (34.4%)

How many participants developed serious medical problems?

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

Part A

No participants in Part A of the study developed serious medical problems.

Part B

Two of the 38 participants (5.3%) in Part B developed serious medical problems. These serious medical problems occurred during different social circumstances. Researchers didn't think that either of these medical problems were related to the study drug.

No participants died during this study. No new safety concerns were raised during this study.

What were the medical problems in the study that were not considered serious?

Part A

In Part A of the study, the only medical problems that were not considered serious that happened in at least 2 participants in any treatment group were headache (62.5%) and common cold (43.8%). Four participants (25.0%) had at least 1 medical problem that researchers thought were possibly related to the study drug. These possibly related medical problems were cough, dizziness, and headache.

The table below shows the medical problems that were not considered serious that developed in at least 2 participants in any treatment group in Part A.

Part A	50 µg AZD8871 (6 participants)	200 µg AZD8871 (6 participants)	400 µg AZD8871 (6 participants)	900 µg AZD8871 (6 participants)	1800 µg AZD8871 (6 participants)	2100 µg AZD8871 (5 participants)	Placebo (12 participants)
Headache	3 (50.0%)	1 (16.7%)	2 (33.3%)	2 (33.3%)	1 (16.7%)	0 (0.0%)	3 (25.0%)
Common cold	3 (50.0%)	1 (16.7%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	2 (40.0%)	1 (8.3%)

Part B

In Part B, the only medical problems that were not considered serious that happened in at least 2 participants in any treatment group were common cold (13.2%), COPD (10.5%), and headache.

One participant (2.6%) had at least 1 medical problem that researchers thought was possibly related to treatment. This participant got only tiotropium in this study. This possibly related medical problem was headache (31.6%).

The table below shows the medical problems that were not considered serious that developed in at least 2 participants in any treatment group in Part B.

Part B	400 µg AZD8871 (34 participants)	1800 µg AZD8871 (31 participants)	150 µg Indacaterol (32 participants)	18 µg Tiotropium (30 participants)	Placebo (32 participants)
Headache	5 (14.7%)	3 (9.7%)	4 (12.5%)	7 (23.3%)	7 (21.9%)
COPD	2 (5.9%)	1 (3.2%)	1 (3.1%)	0 (0.0%)	0 (0.0%)
Common cold	1 (2.9%)	1 (3.2%)	2 (6.3%)	1 (3.3%)	1 (3.1%)

How did AZD8871 affect the body?

Researchers wanted to learn how AZD8871 affected the body. Researchers measured participants' breathing to find out if their breathing improved during the study.

Part A

Overall, researchers found that:

- In Part A, participants who got higher doses of AZD8871 had improved breathing.
- In Part A, participants' breathing improved quickly and stayed improved for up to 36 hours when they got AZD8871.
- In Part A, participants' breathing improved more when they got the 200ug dose or higher doses of AZD8871 compared to the placebo.

Part B
Overall, researchers found that:

- In Part B, participants who got the higher dose of AZD8871 had improved breathing.
- In Part B, participants' breathing improved quickly and stayed improved for up to 36 hours when they got AZD8871.
- In Part B, participants' breathing improved more when they got both the 400 µg and 1800 µg doses of AZD8871 compared to the placebo. Part B participants' breathing improved more when they got the 1800 µg dose of AZD8871 compared to both of the similar drugs.

How did AZD8871 act in the body?

Researchers wanted to learn how the study drug acted in the body. They wanted to know:

- The average amount of AZD8871 in the blood
- The highest amount of AZD8871 in the blood
- How long it took for AZD8871 to reach its highest amount in the blood
- The total amount of AZD8871 that left the body through urine in Part A

Part A
Overall, researchers found that:

- In Part A, participants who got higher doses of AZD8871 had higher average amounts of the drug in the blood. Researchers thought this increase of AZD8871 was directly related to how much of the study drug the participants got.
- In Part A, the highest amount of AZD8871 in the blood was generally greater when participants got higher doses of the study drug. This highest amount was greatest for the participants who got the 1800 µg dose. Researchers thought this increase of AZD8871 was directly related to how much of the study drug the participants got.
- In Part A, it took between 0.9 to 1.5 hours for the AZD8871 doses to reach their highest amount in participants' blood.
- In Part A, the amount of AZD8871 eliminated from the body through urine was about 0.4% of the AZD8871 dose that participants got. Researchers considered this to be a very low amount.

Part B
Overall, researchers found that:

- In Part B, participants who got higher doses of AZD8871 had higher average amounts of the drug in the blood.
- In Part B, the highest amount of AZD8871 in the blood was greater when participants got the 1800 µg dose compared to the 400 µg dose.
- In Part B, it took between 45 minutes to 3 hours for AZD8871 to reach its highest amount in participants' blood for the 400 and 1800 µg doses of the study drug.

Where can I learn more about the study?

If you have questions about the results, please speak with the study doctor or clinical staff at your study site. You can find more information about your study online at www.clinicaltrials.gov/show/NCT02573155.

Official study title: A 2-part, randomised, placebo-controlled, safety, tolerability, pharmacokinetic and pharmacodynamic study of AZD8871 delivered by inhalation in asthmatic and chronic obstructive pulmonary disease (COPD) subjects.

The phone number for the AstraZeneca Information Centre is 1-877-240-9479

The results presented here are for a single study. Other studies may provide new information or different results. You should not make changes to your therapy based on the results of a single study without first consulting your healthcare professional.

Thank you

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

This is the act that you have performed 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 your participation in clinical research.

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The Centre for Information & Study on Clinical Research Participation (CISCRP) is a non-profit organisation 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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