

**Research Sponsor:** AstraZeneca

**Drug Studied:** Benralizumab

**Study Purpose:** This study was done to learn how well benralizumab works and about its safety in participants with severe asthma

**Protocol Number:** D3250C00065

## Thank you!

Thank you for taking part in the clinical study for the study drug benralizumab.

You and all of the participants helped researchers learn more about benralizumab to help people with severe asthma.

AstraZeneca sponsored this study, and believes it is important to share the results of the study with you and the public. An independent non-profit organization called CISCRP helped prepare this summary of the study results for you. We hope it helps you understand and feel proud of your important role in medical research.

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

# Overview of this study



## Why was the research needed?

Researchers are looking for a better way to treat severe asthma. Before and after a drug is approved for people to get, researchers do clinical studies to find out how it works and how safe it is.



## What treatments did the participants get?

All of the participants in this study got benralizumab.

The participants also continued to take their regular asthma treatments called “oral corticosteroids”. During the study, they decreased the dose of oral corticosteroids to the lowest dose they needed to control their asthma. For some participants, this was no oral corticosteroids.



## What were the results of this study?

The main questions the researchers wanted to answer in this study were:

- ▶ **How many participants no longer needed oral corticosteroids to control their asthma after getting benralizumab?**

Overall, 62.9% of participants no longer needed daily oral corticosteroids to control their asthma after getting benralizumab. There were also 81.9% of participants who either no longer needed oral corticosteroids to control their asthma or only needed oral corticosteroids to control other conditions besides asthma after getting benralizumab.

- ▶ **Did the participants feel that getting benralizumab while taking a lower dose of oral corticosteroids or no oral corticosteroids helped them control their asthma symptoms and helped their quality of life?**

Overall, the participants felt that taking a lower dose of oral corticosteroids and getting benralizumab helped them control their asthma symptoms and improved their quality of life.

► **What medical problems did the participants have during this study?**

There were 8.4% of participants who had medical problems that the study doctors thought might be related to the study drug during the study. The most common medical problem was reddening of the skin at the injection site.

More details about the results of this study are included later in this summary.



**Where can I learn more about this study?**

You can find more information about this study on the websites listed on the last page. When a full report of the study results is available, it also can be found on those websites.



## Who took part in this study?

The researchers asked for the help of men and women with severe asthma. The participants in this study were 19 to 84 years old when they joined.

All of the participants in this study had a high level of white blood cells called eosinophils and were already taking a type of treatment called oral corticosteroids to control their asthma.

The study included 598 participants in Argentina, Belgium, Brazil, Canada, Colombia, Denmark, France, Germany, Italy, Mexico, Poland, Russia, Spain, Sweden, Taiwan, the United Kingdom, and the United States.



## Why was the research needed?

Researchers are looking for a better way to treat severe asthma. Before and after a drug is approved for people to get, researchers do clinical studies to find out how it works and how safe it is.

In this study, the researchers wanted to find out if benralizumab works in a large number of participants with severe asthma. They also wanted to find out if the participants had any medical problems during the study.

Asthma is a long-term lung disease that causes the airways to narrow and causes inflammation in the lungs. This can make it difficult to breathe. People who have asthma may wheeze, cough, and have shortness of breath.

Severe asthma can be treated with a type of treatment called oral corticosteroids. But, oral corticosteroids can have side effects that affect the health and quality of life of people living with severe asthma.

The study drug, benralizumab, was designed to help treat asthma by reducing the number of eosinophils in the blood. Eosinophils are a type of white blood cell that helps to fight disease. Having a high number of eosinophils can lead to inflammation in the lungs and can contribute to asthma. The researchers think that benralizumab may help to treat the participants' asthma and allow the doctors to lower their dose of oral corticosteroids.

In this study, the researchers wanted to find out if benralizumab affected the dose of oral corticosteroids that the participants needed to control their asthma. They also wanted to learn if taking a lower dose of oral corticosteroids or no oral corticosteroids and getting benralizumab helped the participants control their asthma symptoms and helped their quality of life.



## What was the purpose of this study?

The main questions the researchers wanted to answer in this study were:

- ▶ How many participants no longer needed oral corticosteroids to control their asthma after getting benralizumab?
- ▶ Did the participants feel that getting benralizumab while taking a lower dose of oral corticosteroids or no oral corticosteroids helped them control their asthma symptoms and helped their quality of life?
- ▶ What medical problems did the participants have during this study?

The answers to these questions are important to know to find out if benralizumab helps improve the health of people with severe asthma.



## What treatments did the participants get?

In this study, all of the participants got benralizumab and their regular oral corticosteroid treatments for asthma.

This was an “open-label” study. This means the participants, researchers, study doctors, and other study staff knew what each participant was getting.

The participants got benralizumab through a needle under the skin, also called an injection. The dose was measured in milligrams, also known as “mg”.

The chart below shows the treatments the researchers planned to study.

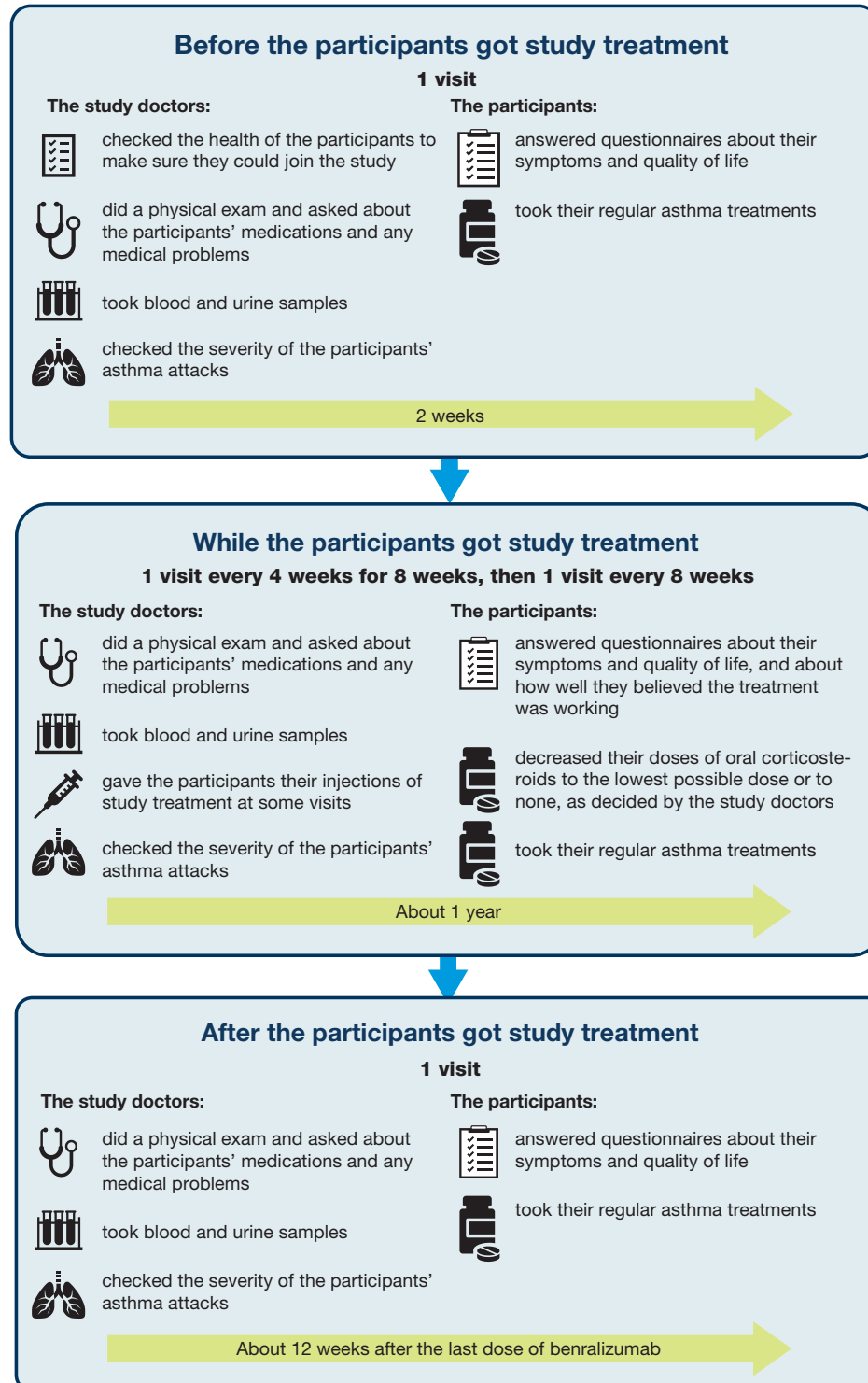
	<b>Part 1</b> Benralizumab and regular dose of oral corticosteroids	<b>Part 2</b> Benralizumab and decreasing dose of oral corticosteroids	<b>Part 3</b> Benralizumab and lowest dose of oral corticosteroids
	All of the participants were planned to complete all 3 parts of the study.		
	<ul style="list-style-type: none"><li>• 30 mg of benralizumab as an injection under the skin</li></ul>		
	<ul style="list-style-type: none"><li>• Regular dose of oral corticosteroids the participants were taking before they joined the study</li></ul>	<ul style="list-style-type: none"><li>• Decreasing doses of oral corticosteroids to the lowest possible dose or to none, as decided by the study doctors</li></ul>	<ul style="list-style-type: none"><li>• No oral corticosteroids or lowest dose needed to control the participants' asthma symptoms</li></ul>
	<ul style="list-style-type: none"><li>• 1 dose of benralizumab</li><li>• 1 dose of oral corticosteroids every day until the dose was stable, about 4 weeks</li></ul>	<ul style="list-style-type: none"><li>• 1 dose of benralizumab every 4 weeks for 2 doses, then every 8 weeks</li><li>• 1 dose of oral corticosteroids every day until the study doctors found the lowest dose of oral corticosteroids needed to control the participants' asthma symptoms, or until no oral corticosteroids were needed</li></ul>	<ul style="list-style-type: none"><li>• 1 dose of benralizumab every 8 weeks for 24 to 32 weeks</li><li>• If needed, 1 dose of oral corticosteroids every day for 24 to 32 weeks</li></ul>



## What happened during this study?

The participants were in the study for about 14 months. But the entire study took about 2 years and 8 months to finish. The study started in August 2018 and ended in April 2021.

The chart below shows what happened during the study.





At the end of the main study, the participants were invited to join another part of the study. During this part of the study, the participants visited the study site once about 12 to 18 months after the end of the main study. During that visit, the study doctors checked what treatments the participants had been taking to control their asthma. The results of that part of the study are not in this summary.



## What were the results of this study?

This is a summary of the main results from this study overall. The results each participant had might be different and are not in this summary. A full list of the questions that researchers wanted to answer can be found on the websites listed at the end of this summary. When a full report of the study results is available, it can also be found on these websites.

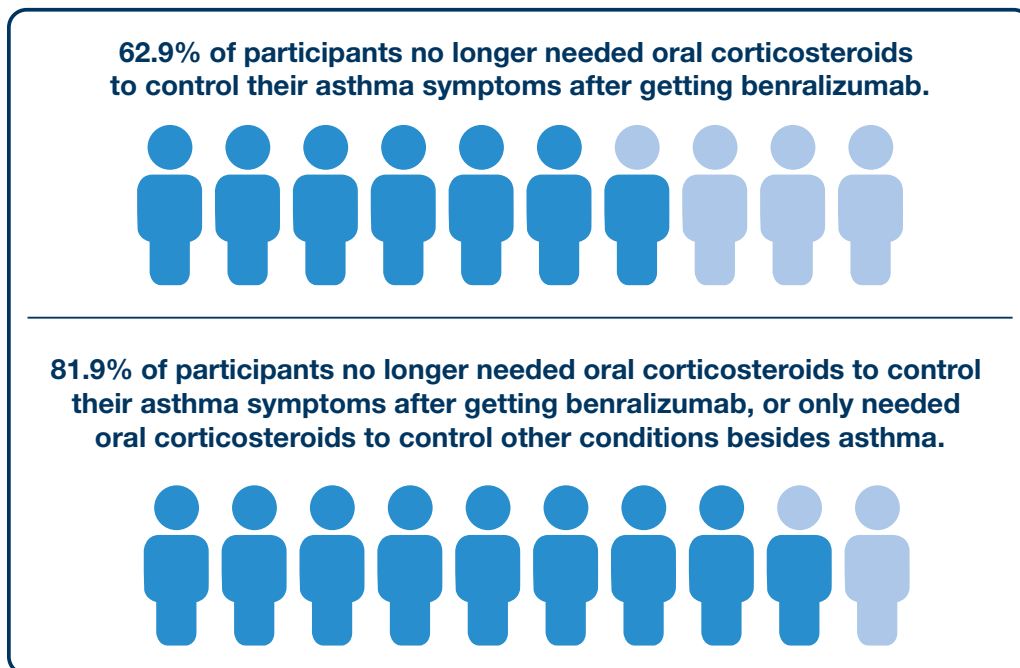
Researchers look at the results of many studies to decide which treatments work best and are safest. Other studies may provide new information or different results. Always talk to a doctor before making any treatment changes.

### **How many participants no longer needed oral corticosteroids to control their asthma after getting benralizumab?**

To answer this question, the researchers compared the dose of oral corticosteroids that the participants needed to control their asthma before and after getting benralizumab. Then, the researchers counted how many participants no longer needed oral corticosteroids to control their asthma symptoms after getting benralizumab.

The researchers found that **62.9%** of participants no longer needed oral corticosteroids to control their asthma symptoms after getting benralizumab. This was 376 out of 598 participants.

The researchers also found that **81.9%** of participants either no longer needed oral corticosteroids to control their asthma or only needed oral corticosteroids to control other conditions besides asthma after getting benralizumab. This was 490 out of 598 participants.



## Did the participants feel that getting benralizumab while taking a lower dose of oral corticosteroids or no oral corticosteroids helped them control their asthma symptoms and helped their quality of life?

To answer this question, the researchers asked the participants to complete 2 different surveys throughout the study. These surveys were called:

- ▶ Asthma Control Questionnaire-6, also called **ACQ-6**
- ▶ St. George's Respiratory Questionnaire, also called **SGRQ**

### ACQ-6

After the participants completed the ACQ-6 survey, the researchers calculated the score for each participant based on their responses to the survey. ACQ-6 scores could range from 0 to 6. A lower ACQ-6 score meant that the participant's asthma symptoms were better controlled. The researchers calculated the scores for all of the participants before they started getting benralizumab and at the end of the study.

The researchers found that, on average, ACQ-6 scores **decreased by 1.04 points** after the participants got benralizumab with their lowest dose of oral corticosteroids or no oral corticosteroids.

The researchers also counted how many participants' ACQ-6 scores **decreased by at least 0.5 points**. The study doctors think that a decrease of 0.5 points could mean that benralizumab helped control the participants' asthma symptoms.

Overall, there were **51.5%** of participants whose ACQ-6 scores **decreased by at least 0.5 points** during the study. This was 308 out of 598 participants. This means that overall, the participants felt that benralizumab helped control their asthma symptoms.

## SGRQ

After the participants completed the SGRQ survey, the researchers calculated the score for each participant based on their responses to the survey. SGRQ scores could range from 0 to 100. The higher the score, the more a participant's asthma was affecting their quality of life.

The researchers calculated the scores for all of the participants before they started getting benralizumab and at the end of the study.

The researchers found that, on average, the participants' SGRQ scores **decreased by 19.66 points** by the end of the study.

The researchers also counted how many participants' SGRQ scores decreased by at least 4 points. The study doctors think that a decrease of 4 points could mean that benralizumab helped the participants' quality of life.

Overall, there were **47.5%** of participants whose SGRQ scores **decreased by at least 4 points** by the end of the study. This was 284 out of 598 participants. This means that overall, the participants felt that their quality of life was less affected by their asthma than before the study.



## What medical problems happened during this study?

This section is a summary of the medical problems the participants had during the study that the study doctors thought might be related to the study drug. These medical problems are called “adverse reactions”. An adverse reaction is considered “serious” when it is life-threatening, causes lasting problems, or requires hospital care.

These adverse reactions may or may not be caused by the study drug. A lot of research is needed to know whether a drug causes an adverse reaction. These adverse reactions have been, and will continue to be, reviewed together with all of the available data for benralizumab.

The websites listed at the end of this summary may have other information about adverse reactions or other medical problems that happened during this study.

### Did any adverse reactions happen during this study?

How many participants had adverse reactions?

- ▶ There were **8.4%** of participants who had adverse reactions. This was 50 out of 598 participants.

How many participants had serious adverse reactions?

- ▶ There were **0.2%** of participants who had serious adverse reactions. This was 1 out of 598 participants.

How many participants stopped getting study treatment due to adverse reactions?

- ▶ There were **0.3%** of participants who stopped getting study treatment due to adverse reactions. This was 2 out of 598 participants.

## What serious adverse reactions happened during this study?

The only serious adverse reaction was a sudden inflammation of the pancreas.

None of the participants died because of serious adverse reactions.

## What adverse reactions happened during this study?

The most common adverse reaction was reddening of the skin at the injection site.

The table below shows the adverse reactions that happened in 2 or more participants during the study. There were other adverse reactions, but these happened in fewer participants.

**Most common adverse reactions**

<b>Adverse reaction</b>	<b>Benralizumab (out of 598 participants)</b>
Reddening of the skin at the injection site	1.0% (6)
Headache	0.8% (5)
Fever	0.7% (4)
Muscle pain	0.7% (4)
Nausea	0.5% (3)
Allergic reaction to the drug	0.3% (2)
Chills	0.3% (2)
Fatigue	0.3% (2)
Infection of the lungs that causes them to become irritated and inflamed	0.3% (2)
Rash at the injection site	0.3% (2)



## How has this study helped patients and researchers?

This study helped researchers learn more about how benralizumab works and about its safety in participants with severe asthma.

Overall, 62.9% of participants no longer needed daily oral corticosteroids to control their asthma after getting benralizumab. There were also 81.9% of participants who either no longer needed oral corticosteroids to control their asthma or only needed oral corticosteroids to control other conditions besides asthma after getting benralizumab. The participants felt that getting benralizumab while taking a lower dose of oral corticosteroids or no oral corticosteroids helped them control their asthma symptoms and improved their quality of life.

Researchers look at the results of many studies to decide which treatments work best and are safest. This summary shows only the main results from this one study. Other studies may provide new information or different results.

Further clinical studies with benralizumab are planned.



## Where can I learn more about this study?

You can find more information about this study on the websites listed below. When a full report of the study results is available, it can also be found here.

- ▶ [www.clinicaltrials.gov](http://www.clinicaltrials.gov) Once you are on the website, type **"NCT03557307"** into the search box and click **"Search"**.
- ▶ [www.clinicaltrialsregister.eu](http://www.clinicaltrialsregister.eu) Once you are on the website, click **"Home and Search"**, then type **"2018-000170-30"** in the search box and click **"Search"**.
- ▶ [www.AstraZenecaClinicalTrials.com](http://www.AstraZenecaClinicalTrials.com) Once you are on the website, type **"D3250C00065"** into the search box, and click **"Find a Study"**.

**Full Study Title:** PONENTE: A Multicenter, Open-label, Phase 3b Efficacy and Safety Study of Benralizumab 30 mg Administered Subcutaneously to Reduce Oral Corticosteroid Use in Adult Patients with Severe Eosinophilic Asthma on High-Dose Inhaled Corticosteroid plus Long-acting  $\beta$ 2 Agonist and Chronic Oral Corticosteroid Therapy

**AstraZeneca Protocol Number:** D3250C00065

**National Clinical Trials Number:** NCT03557307

**EudraCT Number:** 2018-000170-30

**AstraZeneca** sponsored this study and has its headquarters in Cambridge, UK.

**The phone number** for the AstraZeneca Information Center is +1-877-240-9479.

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## Thank you!

Clinical study participants belong to a large community of people who take part in clinical research around the world. They help researchers answer important health questions and find medical treatments for patients.

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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 studies, nor is it involved in conducting clinical studies.

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