This is a summary of a clinical study in rheumatoid arthritis. It is written for the general reader and uses language that is easy to understand. It includes information about how researchers did the study and what the results were. The simplified title for the study is: 'BI 695501 compared to Humira® in patients with active rheumatoid arthritis'.

We thank all patients who took part in this study. Through your participation, you helped researchers answer important questions about BI 695501 and the treatment of rheumatoid arthritis.

What was this study about?

In this study, researchers wanted to see if a medicine called BI 695501 worked as well as Humira® (adalimumab) in helping patients with active rheumatoid arthritis. Researchers also collected information on any side effects patients had during the study.

This study started in February 2015 and finished in October 2016. The sponsor of this study was Boehringer Ingelheim.

Why was the study needed?

The purpose of this study was to see if BI 695501 works as well as Humira in patients with rheumatoid arthritis. Rheumatoid arthritis is a condition that can cause a person's joints to become swollen, red, and painful. If not treated, severe rheumatoid arthritis can lead to permanent joint damage. It may also cause problems in other parts of the body such as the lungs and eyes. Humira is a medicine used to treat rheumatoid arthritis in patients who have active disease despite their taking other medicines. The new medicine, BI 695501, has been designed to be similar to Humira.

Which medicines were studied?

Some patients received Humira (adalimumab), and other patients received BI 695501. Each medicine is injected under the skin. They bind to a substance in the body called TNFα. Humira and BI 695501 reduce the symptoms of rheumatoid arthritis by binding to TNFα and blocking its effects.

All patients in this study also took methotrexate. Methotrexate is a medicine for treating rheumatoid arthritis, taken by mouth, which slows down the body's immune system.

Who participated in the study?

Patients could be in this study if they had moderate to severe rheumatoid arthritis. It must have been active for at least 6 months. They also had to be receiving treatment with methotrexate. Patients were to have at least 6 swollen joints and at least 6 tender joints at the study start. Patients could not be in the study if they had certain infections, a weak immune system, or severe heart failure.

Overall, 645 patients were treated in the study. There were 109 men (17%) and 536 women (83%). The average age was 54 years. The youngest patient was 21 years old and the oldest was 81 years old. The table below lists the regions and countries where patients took part in the study.

Geographical	Country	Number of Patients
Asia	Republic of Korea, Malaysia, Thailand	12
Europe	Bulgaria, Estonia, Germany, Hungary, Poland, Russian Federation, Serbia, Spain, Ukraine	459
Latin America	Chile	51
North America	United States	123

How was this study done?

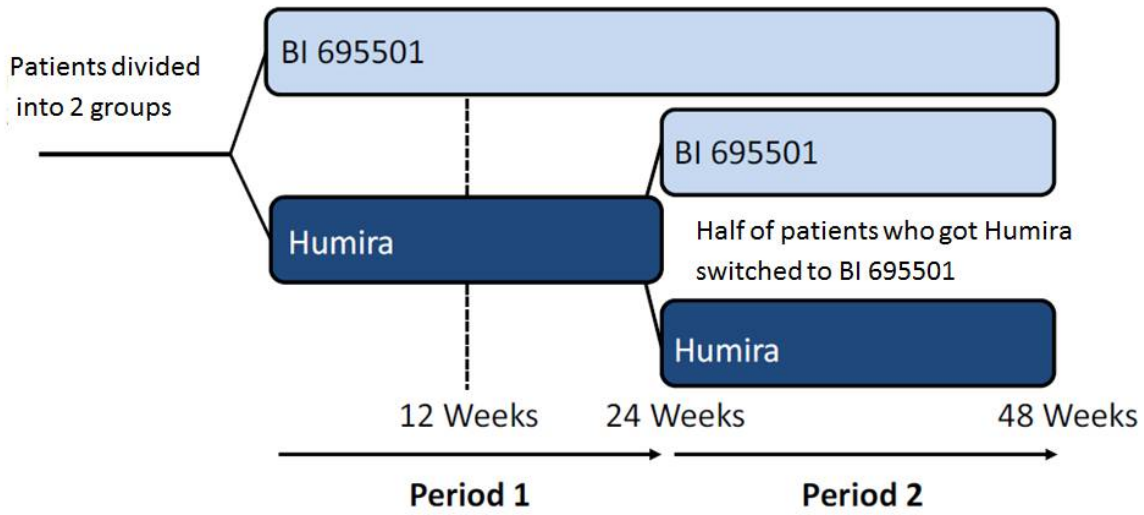
Patients were divided into 2 groups of similar size. It was decided by chance who got into which group. Neither the patients in the groups nor the study doctors knew which kind of treatment the patients got.

The patients in each group received 1 of the following medicines as an injection under the skin every 2 weeks:

BI 695501: 40 milligrams

Humira: 40 milligrams

The first 24 weeks of treatment was called Period 1. After Period 1 ended, half of the patients treated with Humira were switched to BI 695501. The other patients continued to get Humira. The study doctors switched the treatment in these patients to see if changing their treatment changed the effects of the treatment. Neither the patients in the groups nor the study doctors knew whether the patients' treatment was changed. All patients were then treated for another 24 weeks. This second treatment period was called Period 2. In total, patients in this study got BI 695501 or Humira injections every 2 weeks over 48 weeks. The picture on the next page shows the design of the study.



Except for taking the different medicines, all patients followed the same procedures:

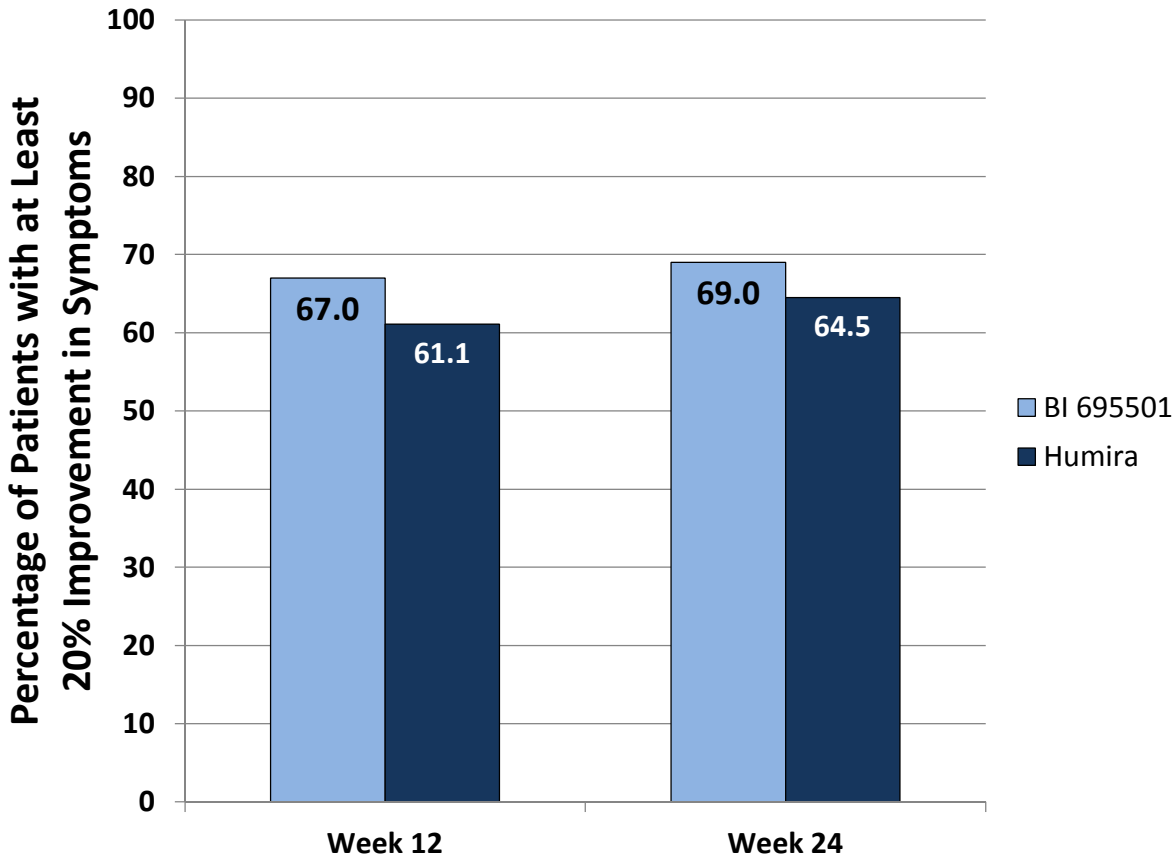
- Patients went to the study doctor every 1 to 8 weeks.
- Doctors took blood samples at certain visits.
- Doctors collected information on the patients' rheumatoid arthritis symptoms.
- Doctors collected information on side effects.
- Patients had measurements of their heart rhythm taken at certain visits (electrocardiograms, or ECGs).

The doctors reviewed the blood test and heart rhythm results. They discussed any health problems with the patients and performed further medical tests when needed.

The doctors wanted to know whether patients treated with either Humira or BI 695501 had improvements in their rheumatoid arthritis symptoms after 12 weeks and 24 weeks of treatment. The doctors used a measurement called the American College of Rheumatology 20% response criteria (ACR20). For this measurement, the doctors looked at certain blood test results, counted swollen and tender joints, and asked patients about their pain and how well they were doing in their daily lives. The doctors wanted to know if the percentage of patients who improved after BI 695501 treatment was the same as the percentage of patients who improved after Humira treatment.

What were the results of this study?

More than 60% of patients who got BI 695501 or Humira had an improvement in their rheumatoid arthritis symptoms in Period 1 as measured by the ACR20. The researchers compared the percentage of patients who improved after treatment with BI 695501 and Humira. The researchers found that both treatments were equally effective in improving patient symptoms. Statistical tests showed that the results were unlikely to be due to chance. The picture on the next page shows the percentage of patients whose symptoms improved after 12 weeks and 24 weeks of treatment.



This picture shows the percentage of patients with at least a 20% improvement in their rheumatoid arthritis symptoms at 2 time points: after 12 weeks of treatment (left pair of bars) and after 24 weeks of treatment (right pair of bars). The light blue bars show results for patients who got BI 695501. The dark blue bars show results for patients who got Humira.

What side effects did patients have?

A similar number of patients in the BI 695501 group (36, or 11%) and in the Humira group (44, or 14%) had side effects during Period 1. Side effects mostly affected the patients' airways or the tissue surrounding where a drug was injected (injection site).

The table below shows side effects that occurred in at least 1% of patients who received BI 695501 or Humira during Period 1.

Doctors keep track of all health problems patients have during a study. Some of these health problems might be caused by the study medicines, and some by other medicines taken by the patient. Others might be caused by the disease, and some have yet a different cause. Here we describe health problems that the doctors thought were caused by the study medicines. These health problems are called side effects.

	BI 695501 (324 patients)	Humira (321 patients)
Patients with any side effect during Period 1	36 patients (11%)	44 patients (14%)
Inflammation of the large airways (Bronchitis)	7 patients (2%)	4 patients (1%)
Inflammation in or damage to the tissue at the injection site (Injection site reaction)	3 patients (less than 1%)	4 patients (1%)
Had a cold (Upper respiratory tract infection)	2 patients (less than 1%)	4 patients (1%)
Headache	4 patients (1%)	2 patients (less than 1%)
Itching at the injection site (Injection site pruritus)	0 patients	5 patients (2%)
Lung infection (Pneumonia)	0 patients	4 patients (1%)
Redness at the injection site (Injection site erythema)	0 patients	4 patients (1%)

After Humira patients were switched to either BI 695501 or remained on Humira in Period 2, the side effects were similar to those during Period 1.

Some patients in the study had serious side effects. A side effect was serious if it caused the patient to go to the hospital or stay longer in the hospital. Or if it needed a doctor's immediate attention, or was life-threatening.

During Period 1, there was 1 patient in the BI 695501 group (less than 1%) and 5 patients in the Humira group (2%) who had a serious side effect. Pneumonia (an infection of the lungs) was the most common serious side effect. It occurred in 3 patients who received Humira (less than 1%). Other serious side effects included inflammation of the large airways (bronchitis); inflammation in the joints caused by infection (infective arthritis); bacterial skin infection (cellulitis); and inflammation, irritation, or erosion of the lining of the stomach (chronic gastritis).

Are there follow-up studies?

Patients who responded well to treatment with BI 695501 or Humira could take part in a follow-up study (Trial 1297.3) if they qualified. In this study, patients receive BI 695501 for up to 48 weeks. The study doctors want to see if there are any additional side effects after taking BI 695501 for a long period of time.

Where can I find more information?

You can find the scientific summaries of the study results at these websites:

www.trials.boehringer-ingelheim.com	search for the study number: 1297.2
www.clinicaltrialsregister.eu	search for the EudraCT number: 2012-002945-40
www.clinicaltrials.gov	search for the NCT number: NCT02137226

The full title of the study is:

'Efficacy, safety, and immunogenicity of BI 695501 versus adalimumab in patients with active rheumatoid arthritis: a randomized, double-blind, parallel arm, multiple dose, active comparator trial'.

Important notice

This summary shows only the results from one study and may not represent all of the knowledge about the medicine studied. Usually, more than one study is done to find out how well a medicine works and the side effects of the medicine. Other studies may have different results.

You should consult the prescribing information for your country to get more information on the medicine studied, or ask your physician about the medicine. You should not change your therapy based on the results of this study without first talking to your physician. Always consult your physician about your specific therapy.

Boehringer Ingelheim has provided this lay summary in accordance with transparency obligations. This lay summary is intended for audiences located within the European Union.