A study to compare nintedanib with placebo for patients with scleroderma-related lung fibrosis (SENSCIS® study, 1199.214)

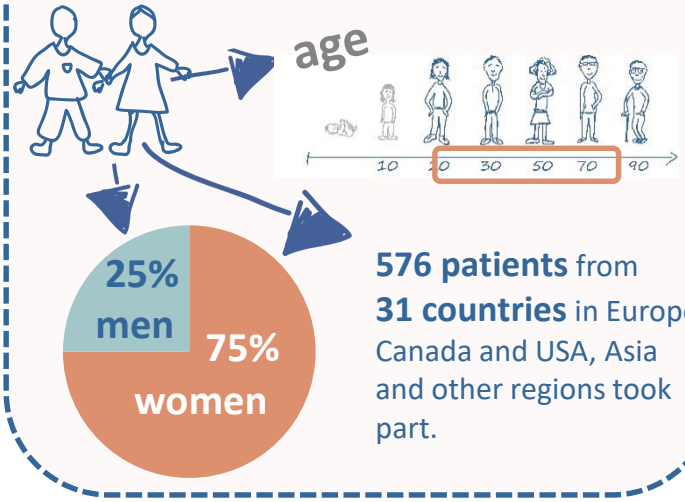
Boehringer Ingelheim

Scleroderma (also called systemic sclerosis) is a rare disease. Scleroderma can affect the skin and other organs. In some people with scleroderma, the disease causes **lung fibrosis**.

This **study** wanted to find out:

Does a medicine called **nintedanib** help patients who have lung fibrosis due to scleroderma?

Patients taking part had scleroderma with lung fibrosis



576 patients from **31 countries** in Europe, Canada and USA, Asia and other regions took part.

Each patient took twice a day

1 150 mg nintedanib

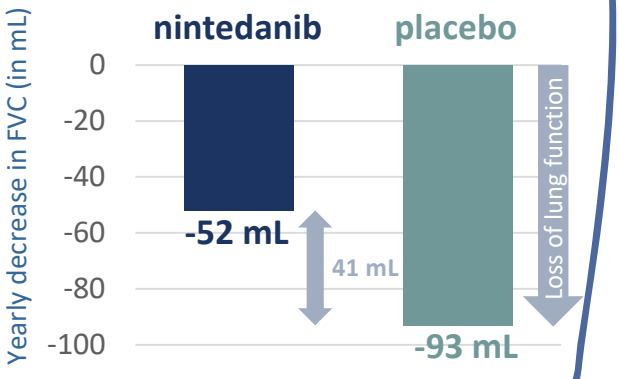
or

1 placebo

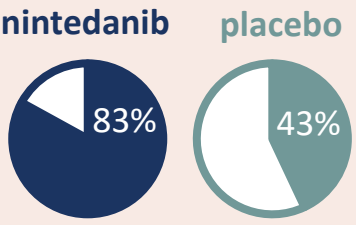
which didn't contain any medicine

RESULTS

On average, after 1 year of treatment, **nintedanib slowed down** the **loss of lung function** by **44%**.



83% of patients who took nintedanib and 43% of patients who took placebo had **unwanted effects**.



Diarrhoea was the most common unwanted effect: 68% of patients taking nintedanib and 20% of patients taking placebo had diarrhoea.

SENSCIS®

A study to compare nintedanib with placebo for patients with scleroderma-related lung fibrosis

This is a summary of a clinical study about scleroderma (also called systemic sclerosis). This summary describes the results of the study.

We thank all patients who took part in this study. You helped researchers answer important questions about nintedanib and the treatment of scleroderma-related lung fibrosis.

What was this study about?

This study was done to find out whether a medicine called nintedanib helps patients with scleroderma, who have lung fibrosis due to their disease. Scleroderma is a rare disease that can cause thickening and hardening (fibrosis) of the skin and other organs.

In many people with scleroderma, the disease causes lung fibrosis (also called interstitial lung disease). Lung fibrosis means that the lungs become stiffer and thicker. This can make breathing difficult. Lung fibrosis often worsens over time.

Why was the study needed?

There are not many treatment options for patients with scleroderma who have lung fibrosis due to their disease. New treatments are needed.

Which medicines were studied?

We studied the medicine nintedanib. Researchers think that nintedanib can block biological signals that take place in the process of tissue hardening (fibrosis). Nintedanib is used to treat a disease called idiopathic pulmonary fibrosis, which is another type of lung fibrosis. In idiopathic pulmonary fibrosis, lung function worsens as the disease progresses. Nintedanib can help to slow down worsening of lung function. Nintedanib is taken as a capsule that patients swallow.

Half of the patients in this study took nintedanib, and the other half took placebo. The placebo capsules looked just like the nintedanib capsules, but did not contain any medicine. We compared nintedanib with placebo to find out whether nintedanib works in patients who have scleroderma with lung fibrosis.

Who participated in the study?

Adult patients with scleroderma who had lung fibrosis due to their disease participated in the study.

A total of 576 patients took part in the study. 433 patients (75%) were women and 143 patients (25%) were men. The average age was 54 years. The youngest patient was 20 years old and the oldest patient was 79 years old.

This study was done in Europe, Canada and the USA, Asia, and other regions. The table below shows where the study was done.

Region	Countries	Number of patients
Europe	Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Ireland, Italy, the Netherlands, Norway, Poland, Portugal, Spain, Sweden, Switzerland, United Kingdom	266
Canada and USA	Canada, United States	142
Asia	China, India, Japan, Malaysia, Thailand	130
Other regions	Argentina, Australia, Brazil, Chile, Israel, Mexico	38

How was this study done?

The patients were divided into 2 groups. It was decided by chance who got into which group. One group of patients took nintedanib, and the other group of patients took placebo. Each patient had an equal chance of being in the nintedanib group or in the placebo group. Patients did not know if they were taking nintedanib or placebo. The doctors did not know either.

Patients took the nintedanib capsules or the placebo capsules twice a day. All patients started on the dose of 150 milligrams (mg) twice a day. If patients had unwanted effects, the doctors could lower the dose to 100 mg twice a day. Patients could also stop taking the capsules for a while.

It was planned that patients stay in the study for at least 1 year. The maximum amount of time patients were in the study was around 2 years. During this time, the patients visited their doctors regularly. At these visits, the doctors collected information on each patient's health.

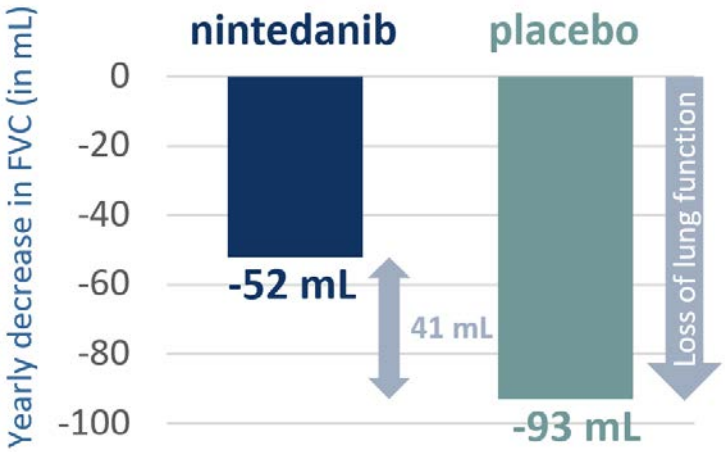
To see if nintedanib could slow down the loss of lung function, a lung function test was used. The test measured in millilitres (mL) how much air a patient could exhale into a device. This measurement is called Forced Vital Capacity, or FVC. We measured how much FVC changed over 1 year. A decrease in FVC over 1 year meant a loss of lung function.

We also wanted to know whether nintedanib can reduce skin thickening. To test this, doctors checked skin thickness on different parts of patients' bodies. We then calculated a score, called a modified Rodnan skin score, or mRSS. We compared the skin thickness scores at the beginning of the study with scores after 1 year of being in the study.

We also wanted to know whether nintedanib can improve patients' quality of life related to their health. For this, patients answered a set of questions called the St. George's Respiratory Questionnaire (SGRQ). Patients answered questions about how much their breathing problems were troubling them and how this affected their lives. We used the answers of each patient to calculate the SGRQ score. We compared the scores at the beginning of the study with scores after 1 year of being in the study.

What were the results of this study?

As scleroderma-related lung fibrosis progresses, a loss of lung function is expected. The graph shows the average yearly loss of lung function in patients who took nintedanib (blue bar on the left) and patients who took placebo (green bar on the right). On average, after 1 year of treatment, nintedanib slowed down the loss of lung function by 44%.



We did statistical tests on the results. These tests showed it was unlikely that the difference between the treatment groups happened by chance.

Nintedanib did not reduce skin thickening. In both the nintedanib group and the placebo group, on average, skin thickening decreased slightly after 1 year. But, there was no meaningful difference between the groups.

Nintedanib did not improve the patients' quality of life related to health as measured by the SGRQ. Both groups, on average, had only very small changes in the SGRQ score after 1 year. There was no meaningful difference between the groups.

Did patients have any unwanted effects?

Unwanted effects are any health problems that the doctors thought were caused by the study medicines. In this study, 238 out of 288 patients (83%) who took nintedanib had unwanted effects. 125 out of 288 patients (43%) who took placebo had unwanted effects.

The following table shows the most common unwanted effects seen in patients who took nintedanib.

	Nintedanib (288 patients)	**Placebo (288 patients)**
Diarrhoea	197 patients (68%)	57 patients (20%)
Nausea	71 patients (25%)	21 patients (7%)
Vomiting	51 patients (18%)	12 patients (4%)
Stomach pain	22 patients (8%)	9 patients (3%)
Weight loss	20 patients (7%)	4 patients (1%)
Decreased appetite	18 patients (6%)	8 patients (3%)

Some unwanted effects were serious because they required a visit to hospital or a longer stay in hospital, were life-threatening, or fatal. Unwanted effects were also serious if they led to disability or if the doctor thought they were serious for any other reason. In this study, 14 patients (5%) in the nintedanib group had serious unwanted effects. 6 patients (2%) in the placebo group had serious unwanted effects. 1 patient in the nintedanib group died from an unwanted effect. This patient died from lung injury. No patients in the placebo group died from unwanted effects.

Where can I find more information?

You can find more information about this study at these websites:

www.clinicaltrialsregister.eu/ctr-search	search for the EudraCT number: 2015-000392-28
www.clinicaltrials.gov	search for the NCT number: NCT02597933

A scientific summary of the study will be available at this website in November 2019:

www.trials.boehringer-ingelheim.com	search for the study number: 1199.214

Boehringer Ingelheim sponsored this study.

The full title of the study is:

'SENSCIS®: A double blind, randomised, placebo-controlled trial evaluating efficacy and safety of oral nintedanib treatment for at least 52 weeks in patients with 'Systemic Sclerosis associated Interstitial Lung Disease'(SSc-ILD)'.

This was a Phase III study.

This study started in November, 2015, and ended in November, 2018.

Are there follow-up studies?

If we do more clinical studies with nintedanib, they may be found on the public websites listed in the section above. To find these studies, search for: nintedanib.

Patients from the nintedanib group and the placebo group who completed this study on treatment could participate in a follow-up study SENSCIS-ON® (study number: 1199.225). In the SENSCIS-ON® study all patients receive nintedanib. The SENSCIS-ON® study is still ongoing.

Acknowledgement

We would like to thank the following scleroderma patient organisations for their advice regarding the design and implementation of the clinical study and the writing of this lay summary:

- Asociación Española de Esclerodermia, Spain
- Associação Portuguesa de Doentes com Esclerodermia, Portugal
- Federation of European Scleroderma Associations aisbl. (FESCA)
- Gruppo Italiano per la Lotta alla Sclerodermia (GILS), Italy
- Scleroderma and Raynaud's UK
- Scleroderma Canada
- Scleroderma Foundation, USA
- Scleroderma Research Foundation, USA
- Sklerodermie Selbsthilfe e.V., Germany
- Sklerodermiforeningen, Denmark

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 carried out in order to find out how well a medicine works and the side effects of the medicine. Other studies may have different results.

You should not change your therapy based on the results of this study without first talking to your treating physician. Always consult your treating physician about your specific therapy.

Boehringer Ingelheim has provided this lay summary in accordance with European Union transparency obligations.