Clinical Study Results

AstraZeneca

Research sponsor: AstraZeneca

Drug studied: Naloxegol

Short study title: A study in participants who have constipation from taking opioids for chronic pain not related to cancer to learn if they prefer taking naloxegol or PEG 3350 to treat their constipation

Thank you!

Thank you to the participants who took part in the clinical trial for the study drug naloxegol, also known as Movantik. You and all of the participants helped researchers learn more about how naloxegol works to help people who get constipation from taking opioids for chronic pain.

AstraZeneca sponsored this study and thinks it is important to share the results of the study with you and the public. An independent non-profit organization called CISCRP prepared 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 doctor or staff at your study site.

What is happening with the study now?

The participants were in the study for up to about 6 weeks. But, the entire study took about 5 months to finish.

The study started in March 2017 and ended in August 2017. The study included 276 participants in the United States.

Some of the participants left the study before it was completed. So, the researchers weren't able to study some of the results for all of the 276 participants.

The sponsor reviewed the data collected when the study ended and created a report of the results. This is a summary of that report.

Why was the research needed?

Researchers already did studies that showed that naloxegol worked for people who get constipation from taking opioids for chronic pain not related to cancer. In this study, the researchers wanted to find out more about how naloxegol works.

The researchers also wanted to learn if participants with this type of constipation preferred taking naloxegol or another drug called PEG 3350 to treat their constipation. PEG 3350 is 1 of the main ingredients in a drug that is already approved and is commonly used to treat constipation.

Constipation is a medical problem that causes people to have less frequent bowel movements, hard and dry stools, and difficulty emptying the bowels.

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

- Did the participants with this type of constipation prefer taking naloxegol or PEG 3350 to treat their constipation?
- Why did the participants prefer naloxegol or PEG 3350?
- What medical problems did the participants have during the study?

To answer the questions in this study, the researchers asked for the help of men and women with constipation from taking opioids for chronic pain not related to cancer. The participants in this study were 28 to 81 years of age.

What kind of study was this?

This was an “open-label” study. This means both the researchers and the participants knew what the participants were taking.

This was also a “crossover” study. In a crossover study, all of the participants take all of the treatments, but in a different order.

A computer program was used to randomly choose the order in which the treatments were taken. Researchers do this so that comparing the results of each treatment is as accurate as possible.

What happened during the study?

To see if the participants could join the study, the doctors did a physical examination by checking their height, weight, blood pressure, pulse, and temperature. The doctors took blood and urine samples and also asked about the medical history of the participants, how they were feeling, and what medicines they were taking.

All of the participants in this study took both naloxegol and PEG 3350. Some of the participants took naloxegol first, and some of the participants took PEG 3350 first.

The study treatments are listed below:

- 25 milligrams, also known as mg, of naloxegol
- 17 grams of PEG 3350

Naloxegol was taken in pill form. PEG 3350 was taken as a powder that the participants mixed into a liquid and drank.

All of the participants who completed the study visited their study site 5 times.

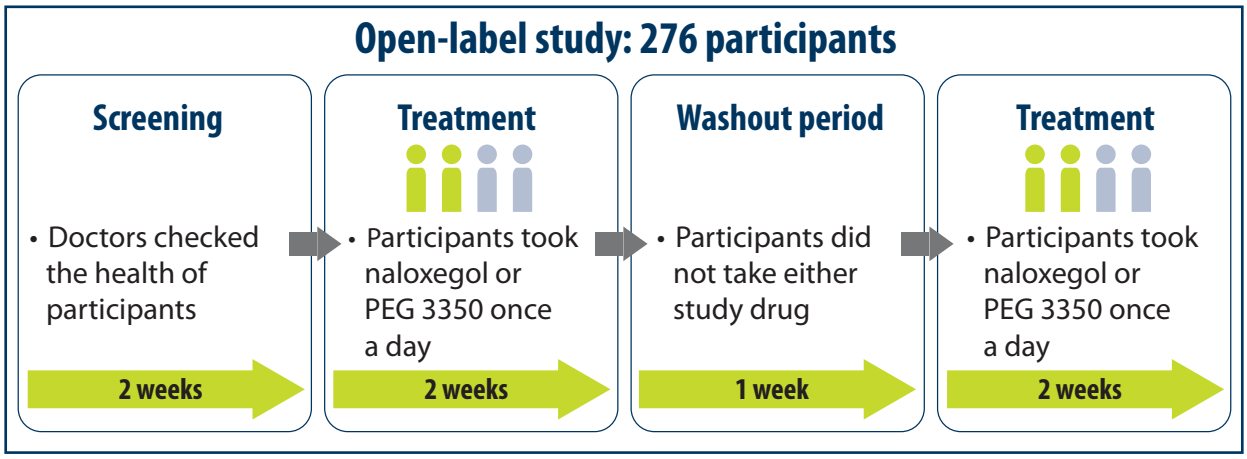
The participants in the study took either the naloxegol or the PEG 3350 treatment once a day for 2 weeks. Then, they had a “washout period” of 1 week. During the washout period, the participants were not allowed to take certain medications. These medications included the study drugs and any other medications that help with constipation. A washout period means that their bodies had time to process the medications in their blood and wash out remaining medications before they took the next treatment.

After the washout period:

- the participants who had taken naloxegol then took PEG 3350 once a day for 2 weeks
- the participants who had taken PEG 3350 then took naloxegol once a day for 2 weeks

Throughout the study, the doctors checked the health of the participants.

The figure below shows how the study was done.



What were the results of the 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 the researchers wanted to answer can be found on the website listed at the end of this summary. If a full report of the study results is available, it can also be found on this website.

Some of the participants left the study before it was completed, so the researchers weren't able to study some of the results for all 276 of the participants.

Which treatment did participants prefer to treat their constipation?

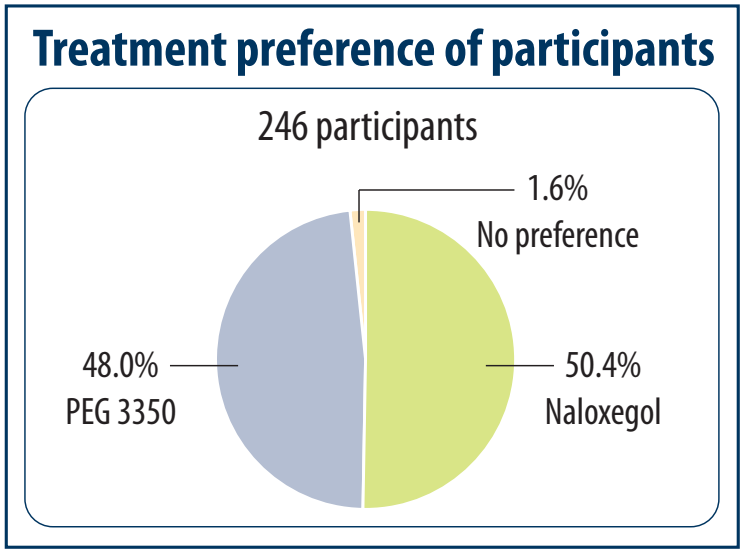
The researchers wanted to learn if the participants preferred taking naloxegol or PEG 3350 to treat their constipation. So, the researchers gave the participants a questionnaire after they completed both treatment periods and asked them if they preferred naloxegol or PEG 3350, or had no preference between the 2 treatments.

Overall, a similar number of participants preferred naloxegol to PEG 3350.

Of the 246 participants that the researchers could study the results for:

- 50.4% of the participants preferred naloxegol. This was 124 of the 246 participants.
- 48.0% of the participants preferred PEG 3350. This was 118 of the 246 participants.
- 1.6% of the participants had no preference between the 2 treatments. This was 4 of the 246 participants.

The figure below shows these results.



Why did the participants prefer naloxegol or PEG 3350?

The researchers wanted to learn why the participants preferred taking naloxegol or PEG 3350 to treat their constipation. So, they gave the participants a questionnaire after they completed both treatments and asked them to rate the importance of the following 5 reasons for their preference:

- the drug worked better to relieve their constipation
- they were able to tolerate the drug better
- the drug was more convenient for them to take
- the drug worked quicker
- the drug worked in the way that they expected it to

The researchers found that the most frequent reason the participants preferred naloxegol was that it was more convenient for them to take.

In general, the researchers found that the other reasons were chosen about as often among the participants who preferred either naloxegol or PEG 3350.

What medical problems did the participants have?

This section is a summary of the medical problems the participants had during the study that the doctors thought might be related to the study drugs. 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 drugs. A lot of research is needed to know whether a drug causes an adverse reaction. The website listed at the end of this summary may have more information about the adverse reactions or other medical problems that happened in this study.

How many of the participants had serious adverse reactions?

There were 0.4% of the participants who had serious adverse reactions during this study while taking naloxegol. This was 1 of the 271 participants. The researchers thought that this serious adverse reaction of diarrhea was related to naloxegol.

None of the participants had serious adverse reactions while taking PEG 3350. None of the participants died during this study.

How many of the participants had adverse reactions?

There were 15.1% of the participants who had adverse reactions while taking naloxegol. This was 41 of the 271 participants. The researchers thought that these adverse reactions were related to naloxegol.

There were 9.0% of the participants who had adverse reactions while taking PEG 3350. This was 24 of the 268 participants. The researchers thought that these adverse reactions were related to PEG 3350.

There were 3.3% of the participants who stopped treatment because of adverse reactions they had while taking naloxegol. This was 9 of 271 participants.

There were 1.1% of the participants who stopped treatment because of adverse reactions they had while taking PEG 3350. This was 3 of the 268 participants.

What adverse reactions did the participants have?

The most common adverse reaction related to naloxegol was stomach pain. The table below shows the most common adverse reactions that happened in 3 or more participants in either treatment group. There were other adverse reactions, but these happened in fewer participants.

Most common adverse reactions

	Naloxegol (Out of 271 participants)	PEG 3350 (Out of 268 participants)
Stomach pain	4.8% (13)	2.2% (6)
Flatulence	2.6% (7)	2.6% (7)
Diarrhea	3.7% (10)	1.1% (3)
Upper stomach pain	3.7% (10)	1.1% (3)
Nausea	0.7% (2)	1.5% (4)
Bloating in stomach	0.4% (1)	1.5% (4)
Headache	1.1% (3)	0.0% (0)

How has this study helped patients and researchers?

The results presented here are from a single study. These results helped the researchers learn if participants who get constipation from taking opioids for pain not related to cancer preferred taking naloxegol compared to PEG 3350, and for what reason.

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 changes in treatment.

Further clinical studies with naloxegol are planned.

Where can I learn more about this study?

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

- www.clinicaltrials.gov. Once you are on the website, type **"NCT03060512"** into the search box and click **"Search"**.

Official study title: A Phase IV, Randomized, Multi-Center, Open-Label, Prospective, Crossover Study to Evaluate Patient Preference of Movantik™ versus Polyethylene Glycol 3350 (PEG 3350) for Opioid-Induced Constipation (OIC) Treatment

Protocol number: D3820L00017

AstraZeneca is the sponsor of this study and has its headquarters at 1800 Concord Pike in Wilmington, Delaware.

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

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 participants.