# Clinical Study Results

## 1. Study Name

**What does this summary cover?**

This summary shows the main results from one clinical study. The results are only for this study. Other studies may find different results. Researchers and health authorities look at the results of many studies to decide which medicines work best and are safest for patients.

| | |
|---|---|
| Title of the Study: | A Phase 3, Multicenter, Randomized, Open-label Trial to Evaluate the Survival Benefit of Panitumumab and Best Supportive Care, Compared to Best Supportive Care Alone, in Subjects With Chemorefractory Wild-type *KRAS* Metastatic Colorectal Cancer |
| Brief Title: | How Does Adding Vectibix to Colorectal Cancer Care Plans Compare to Supportive Care Alone? |
| Protocol Number: | 20100007 |
| EU Trial Number | 2010-022951-49 |
| Other Identifiers | NCT01412957 |
| Date of This Summary | 17 August 2018 |

## 2. Who Sponsored This Study?

Amgen Inc.
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Amgen Inc. is the sponsor of the study who manufactured Vectibix (also known as panitumumab), the investigational medicine included in the study. Amgen would like to thank everyone who participated in this study and feels it is important to share the results of this study.

## 3. General Information About the Clinical Trial

**Where and when was the study done?**

- This study took place in China, India, South Korea, Malaysia, Philippines, Croatia, Estonia, Greece, Latvia, Lithuania, Romania, Serbia, Brazil, Canada, Chile, and Mexico.
- The study began in November 2011 and ended in November 2016.
- The study was completed as planned.

**Why was the study done?**

Colorectal cancer is one of the most common cancers for both men and women around the world. More than 1.2 million new patients are found to have colorectal cancer every year. If cancer spreads to other places in the body besides the colon or rectum, it is called "metastatic" colorectal cancer.

Researchers are testing new medicines to fight cancer caused by gene mutations:

| | |
|---|---|
|  **DNA:** | • Material inside the cells of all living things<br>• Contains the code for features, like how things look, work, grow, or multiply |
|  **Gene:** | • A part or unit of DNA with the instructions for one feature |
|  **Mutation:** | • Change in the DNA code of a gene<br>• Some gene mutations can make cells multiply out of control, and help cancer grow or spread<br>• Other gene mutations may keep some cancer treatments from working |
|  ***KRAS*:** | • A gene that is mutated in some patients with cancer<br>• *KRAS* mutations may keep some colorectal cancer treatments from working |

Some cancer treatments work best when there is no mutation in the DNA.

Vectibix (panitumumab) is a cancer-fighting medicine that can block the messages that tell cancer cells to multiply. Vectibix does not seem to work for patients with KRAS gene mutations, so doctors will order DNA testing before prescribing it for treatment.

Vectibix is approved by the health agencies in many countries to treat metastatic colorectal cancer. When used in studies like this one, it is called an "investigational medicine."

This was a “phase 3 study,” which is the latest stage for testing investigational medicines in humans before they are approved for use. This was called an “open-label” study because all of the participants and study doctors knew what kind of treatment they were getting.

The main goal of this study was for researchers to learn if adding Vectibix to supportive care treatments for colorectal cancer could help participants live longer, overall, than supportive care treatments alone.

## 4. What Patients/People Were Included in This Study?

**Who took part in the study?**

This study included 377 adult men and women with metastatic colorectal cancer. This study took place at 66 different study centers in Europe, Asia, North America, and South America:


161 participants (43%, or about 4 out of 10) were women and 216 participants (57%, or about 6 out of 10) were men. They ranged in age from 19 to 82 years old.
241 participants (64%, or about 2 out of 3) were younger than 65 years old. The average age of all participants was about 59 years old.

Participants were examined by a study doctor and chosen to be in the study if they:

- did not have DNA mutations in the KRAS gene
- had at least 1 cancer growth that could be examined in x-ray scans
- could care for themselves and were up and active at least half the time they were awake
- were already being treated with chemotherapy drugs, but not other anti-tumor cancer drugs

- had their cancer get worse with their other treatments, or if their treatment made them too sick to continue it
- had not been given their cancer treatments in the last 2-3 weeks
- did not have cancer that spread to the brain
- had healthy enough blood, kidney, liver, and digestive activity for treatment

## 5. Which Medicines Were Studied?

**What investigational medicines were studied?**

Researchers looked at participants who were treated with best supportive care and those who were given supportive care plus Vectibix. Best supportive care was a mix of treatments that study doctors and the hospital thought would be best to control pain and fight infections.

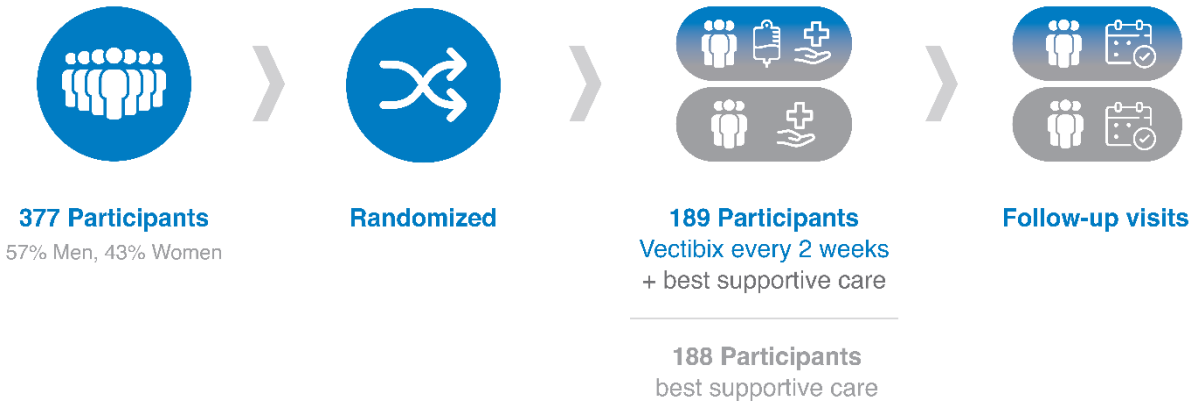
Supportive care included pain medicines, surgery, radiation treatment for bone tumors, and getting blood from a donor. Supportive care did not include chemotherapy or any other tumor-fighting medicines. All participants in this study were given the best supportive care for their cancer.

About half of the participants in this study (1 in 2) were also given Vectibix every 2 weeks along with their supportive care. The amount of Vectibix (or "dose") was decided by the participant's weight and was given into the vein through a needle (called intravenous or "IV" treatment). In this study, participants had an equal chance of being treated with Vectibix plus supportive care or best supportive care only.

Neither the participants nor the study doctor could choose who got Vectibix treatment. Participants agreed to be put into 1 of the 2 treatment groups by chance ("randomized"). This is like flipping a coin or drawing numbers out of a hat.

About every 8 weeks, each participant had tests like an x-ray (called "CT scan" or "MRI") to see if their tumor got smaller, stayed the same, or started growing again.

Participants taking Vectibix continued their treatments until they chose to stop or if their cancer started growing again. Participants in the supportive care group also left the study if their cancer started getting worse. 299 participants (79%, or about 8 out of 10 participants) stopped because their cancer started getting worse.




About 1 month after stopping study treatments, participants had a check-up with their study doctors to see how they were doing after treatment. Other follow-up visits or phone call check-ups continued every 3 months for up to 2 years.

This study was completed as planned. 284 of the 377 participants completed all their follow-up visits. 93 participants either chose to stop coming to follow-up visits, lost contact with the study center, or they passed away prior to their final follow-up.

## 6. What Were the Side Effects?

**What is an adverse reaction (sometimes called side effects)?**

A lot of research is needed to know whether a medicine causes a side effect. All medicines can cause side effects, or unwanted medical problems that may happen when you take a medicine. In a clinical study, the study doctors record side effects that they believe is possibly caused by the investigational medicine each patient is receiving. These are also called “adverse reactions.”

**What side effects related to the treatment were seen?**

A side effect was recorded as “serious” if it caused death, was life threatening, required the participant to stay in a hospital, or caused a birth defect.

In total, 23 participants passed away due to a medical problem that started during the study. Study doctors determined that the medical problems in these participants were not related to Vectibix treatment. 8 of those participants were taking Vectibix and 15 participants had best supportive care only.

The table below shows how many participants had side effects that were considered related to treatment.

**Participants With Treatment-Related Side Effects During the Study**

| | Vectibix Plus Best Supportive Care (189 participants) | Best Supportive Care Only (188 participants) |
|---|---|---|
| How many participants had serious side effects? | 2 participants (1%) | 3 participants (2%) |
| How many participants had non-serious side effects? | 166 participants (88%) | 5 participants (3%) |
| How many participants died from side effects? | 0 participants | 0 participants |
| How many participants stopped taking the study medicine because of side effects? | 1 participant (less than 1%) | 0 participants |

A total of 5 participants had serious side effects that were considered by study doctors to be related to their study treatment. Some participants had more than 1 serious side effect, including:

- Asthma and acne in the Vectibix group
- Stomach pain, vomiting, blocked digestive system, tiredness, worsening colon cancer, and kidney swelling in the supportive care only group

The most common side effects from this study were similar to the side effects seen in other study participants or patients who have taken Vectibix. These include skin problems and eye problems, digestive problems, and issues with vitamin and mineral levels (known as electrolytes). The table below shows the non-serious side effects that occurred in at least 1 participant in either treatment group. Some participants had more than 1 non-serious side effect.

**Treatment-related Non-serious Side Effects During the Study**

| Type of Non-Serious Side Effect | Vectibix Plus Best Supportive Care (189 participants) | Best Supportive Care Only (188 participants) |
|---|---|---|
| Skin problems (like rashes or acne) | 161 participants (85%) | 0 participants |
| Nutrition problems (such as loss of appetite or low vitamin levels) | 55 participants (29%) | 0 participants |
| Stomach or digestive problems | 40 participants (21%) | 2 participants (1%) |
| Infections | 39 participants (21%) | 1 participant (less than 1%) |
| Fevers, swelling, or tiredness | 23 participants (12%) | 0 participants |
| Eye or vision problems | 17 participants (9%) | 0 participants |
| Breathing or lung problems | 9 participants (5%) | 0 participants |
| Abnormal laboratory results | 8 participants (4%) | 1 participant (less than 1%) |
| Nervous system problems | 8 participants (4%) | 0 participants |
| Painful or swollen joints | 3 participants (2%) | 0 participants |
| Low numbers of blood cells | 2 participants (1%) | 0 participants |
| Skin wounds | 2 participants (1%) | 0 participants |
| Kidney, bladder, or genital problems | 1 participant (less than 1%) | 1 participants (less than 1%) |
| Hearing or balance problems | 1 participant (less than 1%) | 0 participants |

This section only shows the most frequently reported side effects. Information about other side effects may be available at the websites listed at the end of this summary.

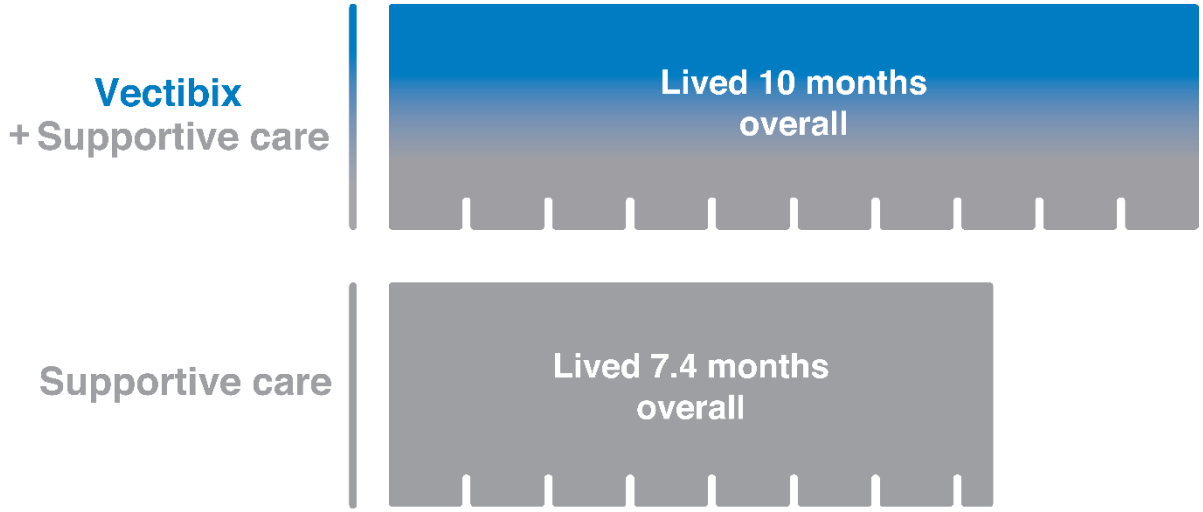
## 7. What Were the Overall Results of the Study?

***Did adding Vectibix treatment to best supportive care help participants in this study live longer than those treated with supportive care only?***

Researchers looked at how long the participants in each study group lived. They calculated this length of time from the start of the study until the participant passed away. The results for each group were arranged in a list from shortest to longest. Researchers

compared the “median” length of time for each treatment group. The median is the number in the middle of the list, with equal amounts above and below this number.

The results in the figure below show the median length of time participants survived in each treatment group. Participants treated with Vectibix plus best supportive care had a median overall survival of 10.0 months. Participants treated with best supportive care alone had a median overall survival of 7.4 months. Researchers determined that this time difference is significant and not likely due to chance.




These are just some of the main results of the study. More results may be available at the websites listed at the end of this summary.

## 8. How Has This Study Helped Patients and Researchers?

**What is important to know about these results?**

These results are only for this clinical study, which looked at a sample of 377 people with metastatic colorectal cancer. Not all participants in the study had the same results. The results for any individual participant could have been better or worse than the results for their group. These results are not an explanation of what a treatment can and cannot do for an individual. No single clinical study can give a complete picture of the benefits and risks of a medicine. Other studies may find different results.

This research may help future cancer patients and their families by helping doctors understand more about how Vectibix may improve patients’ survival.

## 9. Are There Plans for Further Studies?

**Will there be more studies with Vectibix?**

If more clinical studies are done, they may be listed on public websites, such as those below. Search for study medicine names “Vectibix” or “panitumumab” on these or other websites:

- www.clinicaltrials.gov
- www.clinicaltrialsregister.eu
- amgentrials.com

## 10. Where Can I Find More Information About This Study?

**Where can I learn more?**

Amgen has committed to make research results available to the public. This summary has been provided as part of that commitment and should not be used for any other purpose. It should not be considered to make a claim for any product or to guide treatment decisions.

Some information in this summary may be different from the approved labelling for Vectibix. Your healthcare professional should refer to the full prescribing information for proper use of Vectibix.

To find out more about this study, check these websites:

- www.clinicaltrials.gov. Use the study identifier NCT01412957
- www.clinicaltrialsregister.eu. Use the study identifier 2010-022951-49
- www.amgentrials.com. Use the study identifier 20100007

If you participated in the study and have questions about the study results, the doctor or staff at your study site may be able to answer them.