MedImmune

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Clinical Study Results

Research Sponsor: MedImmune LLC

Drug Studied: MEDI7247

Study Title: A study to learn about the safety of MEDI7247 in participants with cancer of the blood, bone marrow, or lymph nodes that has regrown or has not been helped by previous treatment

Thank you

Thank you to the participants who took part in the clinical study for the study treatment MEDI7247, and to their families. MedImmune, LLC sponsored this study and believes it is important to share the results. An independent non-profit organization called CISCRP helped prepare this summary of the study results.

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

Who took part in the study?

The researchers asked for the help of men and women with 1 of 3 different types of cancer:

- acute myeloid leukemia, also called AML
- diffuse large B-cell lymphoma, also called DLBCL
- multiple myeloma, also called MM

The participants in this study were 32 to 88 years old when they joined.

The study included 67 participants in France, the Republic of Korea, and the United States.

Why was the research needed?

Researchers are looking for a better way to treat cancer of the blood, bone marrow, or lymph nodes. Before a drug can be approved for people to take, researchers do clinical studies to find out how safe it is and how it works.

Cancer is a disease that happens when the body cannot control the growth of cells. Acute myeloid leukemia, also called AML, is a blood cancer that starts in the bone marrow, the soft inner part of certain bones, where new blood cells are made. From the bone marrow, the cancer cells can move quickly to the blood. Diffuse large B-cell lymphoma, also called DLBCL, is a cancer that starts in the lymphocytes, which are a type of white blood cell that help the body fight infection and disease. Multiple myeloma, also called MM, is a blood cancer that starts in white blood cells other than lymphocytes.

The cancer cells in people with AML, DLBCL, or MM produce more of a protein called ASCT2 than normal cells. The study treatment, MEDI7247, is toxic to cancer cells. MEDI7247 works by attaching itself to ASCT2 proteins at the surface of cancer cells, and then entering and killing the cells. In this study, the researchers wanted to learn more about the safety of MEDI7247 in participants with AML, DLBCL, or MM.

To do this, the researchers kept track of any dose-limiting toxicities the participants had during the study. A dose-limiting toxicity is a medical problem that is serious enough to stop the study doctor from increasing a participant's dose of study treatment or give this or higher doses of study treatment to future study participants.

This information may help researchers find out which doses of MEDI7247 to give to future study participants.

What was the purpose of this study?

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

- What signs and symptoms did the participants have during the study?
- Did any dose-limiting toxicities happen during the study?
- What medical problems happened during the study?

The answers to these questions are important to know before other studies can be done to find out if MEDI7247 improves the health of people who have AML, DLBCL, or MM.

What treatments did the participants get?

In this study, the participants got MEDI7247 through a needle into a vein. This is known as an intravenous infusion, also called an IV infusion.

This was an "open-label" study. This means the participants, researchers, study doctors, and other study staff knew what dose of MEDI7247 each participant was getting.

This was also a "dose-escalation" study. This means that some of the participants started out getting a low dose of MEDI7247. The study doctors looked at the results for these participants. Then, the researchers decided whether to increase the dose of MEDI7247 in the next group of participants.

The participants got MEDI7247 during 3-week or 4-week periods called "cycles". They could continue getting study treatment until their cancer got worse, they had medical problems the study doctors thought might be related to MEDI7247, or chose to leave the study. The participants could choose to continue treatment at the end of the study if the study treatment was helping their cancer.

The chart below shows the treatments the participants got.

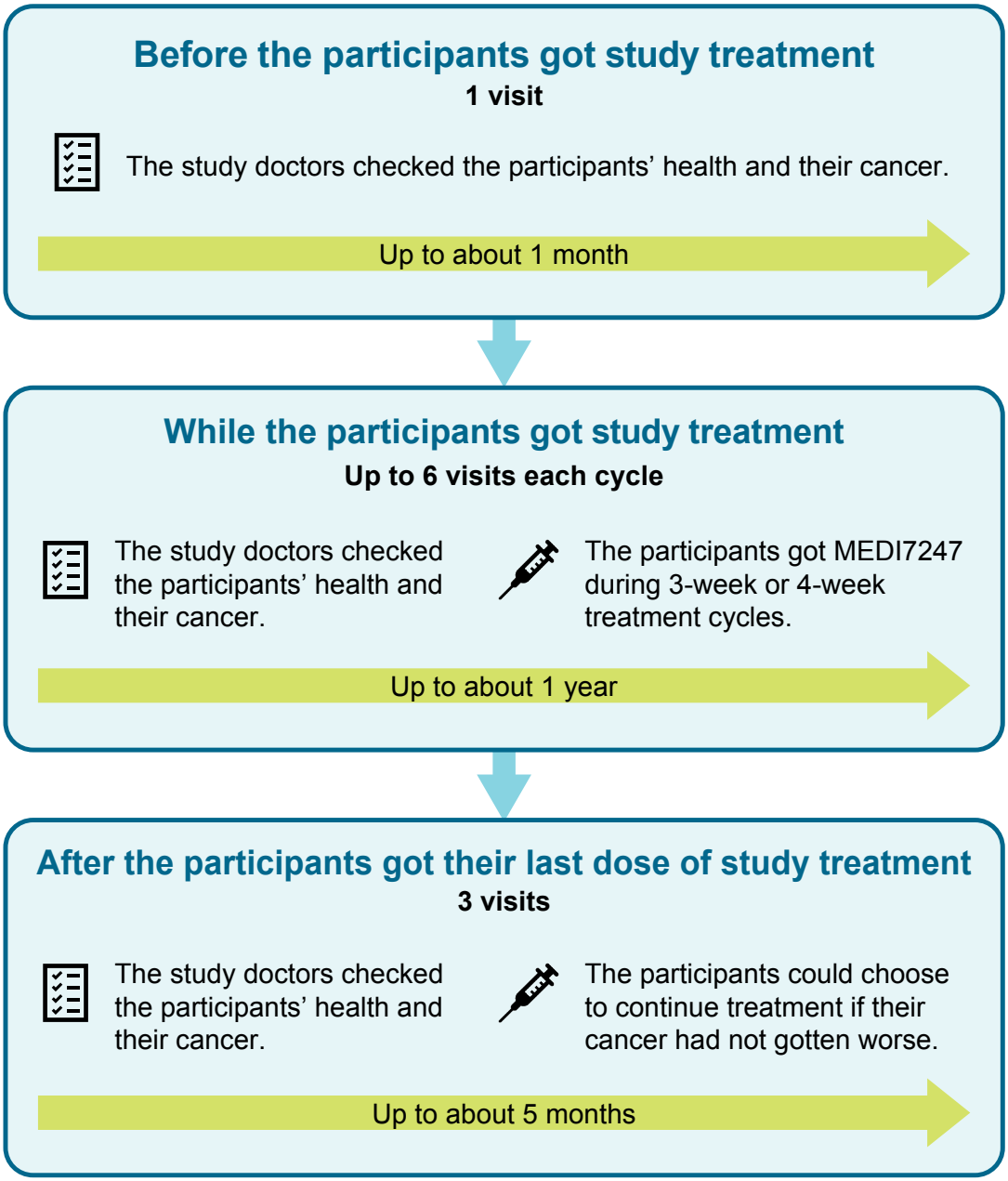
	Participants with AML (27 participants)	**Participants with DLBCL (22 participants)**	**Participants with MM (18 participants)**
What was the treatment?	• MEDI7247 through a needle into a vein • Low to high dose of MEDI7247	• MEDI7247 through a needle into a vein • Low to medium dose of MEDI7247	• MEDI7247 through a needle into a vein • Low to medium dose of MEDI7247
How often did the participants get treatment?	Once every 3 weeks	Once every 3 weeks	Once every 3 or 4 weeks

What happened during the study?

The researchers planned for the study to have 2 parts. But, they ended the study before part 2 began. This was because they found that the participants were not getting enough benefit from this treatment, compared to the medical problems that they were having during the study.

The study started in March 2017 and ended in January 2020.

The chart 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.

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.

The websites listed at the end of this summary may have more information about the study results.

What signs and symptoms did the participants have during the study?

To answer this question, the study doctors recorded the results of the participants' tests and measurements that were done throughout the study. Overall, they found that there were some changes in the results of these tests and measurements. The researchers thought that:

- The changes in the participants' blood test results were significant. These changes were a decrease in the number of blood cells and possible liver damage. A decrease in the number of blood cells is a common change in people who have cancer.
- The changes in the participants' heart health, measured using an electrocardiogram, or ECG, in their urine test results, and in their physical exam results were not significant.

The study doctors also kept track of the "adverse events" that the participants had. An adverse event is any sign or symptom that participants have during a study. Doctors keep track of all the adverse events that happen in studies, even if they do not think the adverse events might be related to the study treatment.

Later in this document, there will be a summary of the adverse events that the study doctors thought might be related to the study treatment. This particular section is a summary of all the adverse events, whether or not they might be related to the study treatment. An adverse event is considered "serious" when it is life-threatening, causes lasting problems, or the participant needs hospital care.

Adverse events may or may not be caused by the treatment in the study. A lot of research is needed to know whether a treatment causes an adverse event.

Summary of adverse events during this study

	Participants with AML (out of 27 participants)	Participants with DLBCL (out of 22 participants)	Participants with MM (out of 18 participants)	Total (out of 67 participants)
How many participants had adverse events?	96.3% (26)	100.0% (22)	100.0% (18)	98.5% (66)
How many participants had serious adverse events?	66.7% (18)	45.5% (10)	33.3% (6)	50.7% (34)
How many participants left this study due to adverse events?	22.2% (6)	36.4% (8)	50.0% (9)	34.3% (23)

The most common adverse event was a decrease in the number of platelets in blood. Platelets are cells that form clots to stop bleeding. This means the body cannot stop bleeding as well as it should.

The most common serious adverse event was a fever and a decrease in the number of neutrophils. Neutrophils are a type of white blood cell that fight infection and disease.

Did any dose-limiting toxicities happen during the study?

The researchers found that there were dose-limiting toxicities during the study. A dose-limiting toxicity is a medical problem that is serious enough to stop the study doctor from increasing a participant's dose of study treatment or give this or higher doses of study treatment to future study participants.

Overall, the researchers found that there were 10.4% of participants who had dose-limiting toxicities. This was 7 out of 67 participants. Some of the participants had more than 1 dose-limiting toxicity.

None of the participants who had AML had dose-limiting toxicities.

There were 18.2% of participants who had DLBCL who had dose-limiting toxicities. This was 4 out of 22 participants. These dose-limiting toxicities were:

- decrease in the number of platelets in blood, which means the body cannot stop bleeding as well as it should
- decrease in the number of neutrophils

There were 16.7% of participants who had MM who had dose-limiting toxicities. This was 3 out of 18 participants. These dose-limiting toxicities were:

- decrease in the number of platelets in blood
- decrease in the number of neutrophils
- swelling in the prostate

The researchers studied dose-limiting toxicities because they wanted to find the maximum tolerated dose of MEDI7247. This is the highest dose that does not result in a high percentage of dose-limiting toxicities. Because there was a small number of participants who had dose-limiting toxicities in this study, the researchers were not able to find out the maximum tolerated dose for MEDI7247.

What medical problems happened during the 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 treatment. 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 treatment. A lot of research is needed to know whether a treatment causes an adverse reaction. These adverse reactions have been, and will continue to be, reviewed together with all of the available data for the treatment.

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?

Summary of adverse reactions during this study

	Participants with AML (out of 27 participants)	Participants with DLBCL (out of 22 participants)	Participants with MM (out of 18 participants)	Total (out of 67 participants)
How many participants had adverse reactions?	63.0% (17)	81.8% (18)	94.4% (17)	77.6% (52)
How many participants had serious adverse reactions?	22.2% (6)	13.6% (3)	27.8% (5)	20.9% (14)
How many participants left this study due to adverse reactions?	11.1% (3)	27.3% (6)	38.9% (7)	23.9% (16)

What serious adverse reactions happened during this study?

The most common serious adverse reaction that happened during this study was a fever and a decrease in the number of neutrophils. Neutrophils are a type of white blood cell that fight infection and disease.

There were 1.5% of participants who died due to serious adverse reactions during this study. This was 1 out of 67 participants. This participant had AML and the serious adverse reaction that led to death was a disease of the liver, gallbladder, or bile ducts.

The table below shows the serious adverse reactions that happened during this study.

Serious adverse reactions during this study			
Serious adverse reaction	**Participants with AML (out of 27 participants)**	**Participants with DLBCL (out of 22 participants)**	**Participants with MM (out of 18 participants)**
Fever caused by a decrease in the number of neutrophils, which are a type of white blood cell that fight infection and disease	7.4% (2)	9.1% (2)	11.1% (2)
Decrease in the number of platelets, which are a type of blood cell that form clots to stop bleeding	0.0% (0)	0.0% (0)	11.1% (2)
Blistering and peeling of the skin	3.7% (1)	0.0% (0)	0.0% (0)
Decrease in the number of red and white blood cells and platelets, which can cause several medical problems	3.7% (1)	0.0% (0)	0.0% (0)
Disease of the liver, gallbladder, or bile ducts	3.7% (1)	0.0% (0)	0.0% (0)
Increase in the amount of proteins in the liver, a sign of possible liver damage	3.7% (1)	0.0% (0)	0.0% (0)
Lung infection	3.7% (1)	0.0% (0)	0.0% (0)
Decrease in the number of red blood cells in the body	0.0% (0)	4.5% (1)	0.0% (0)
Decrease in the number of neutrophils, which are a type of white blood cell that fight infection and disease	0.0% (0)	0.0% (0)	5.6% (1)
Swelling in the prostate	0.0% (0)	0.0% (0)	5.6% (1)

What adverse reactions happened during this study?

The most common adverse reaction that happened during this study was a decrease in the number of platelets in blood. Platelets are cells that form clots to stop bleeding. This means the body cannot stop bleeding as well as it should.

The table below shows the adverse reactions that happened in 7 or more participants during this study. There were other adverse reactions, but those happened in fewer participants.

Most common adverse reactions during this study

Adverse reaction	Participants with AML (out of 27 participants)	Participants with DLBCL (out of 22 participants)	Participants with MM (out of 18 participants)
Decrease in the number of platelets, which are a type of blood cell that form clots to stop bleeding	18.5% (5)	54.5% (12)	61.1% (11)
Decrease in the number of neutrophils, which are a type of white blood cell that fights infection and disease	7.4% (2)	50.0% (11)	61.1% (11)
Decrease in the number of red blood cells in the body	11.1% (3)	45.5% (10)	33.3% (6)
Feeling tired	7.4% (2)	18.2% (4)	22.2% (4)
Nausea	11.1% (3)	9.1% (2)	22.2% (4)
Fever caused by a decrease in the number of neutrophils, which are a type of white blood cell that fights infection and disease	11.1% (3)	9.1% (2)	11.1% (2)

How has this study helped patients and researchers?

This study helped researchers learn about the safety of MEDI7247 in participants with AML, DLBCL, or MM.

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 1 study. Other studies may provide new information or different results.

Further clinical studies with MEDI7247 are not planned.

Where can I learn more about this study?

You can find more information about this study on the websites listed below. If more information about the study results is available, it can also be found here.

- www.clinicaltrials.gov. Once you are on the website, type **"NCT03106428"** into the search box and click **"Search"**.
- www.AstraZenecaClinicalTrials.com. Once you are on the website, type **"D8540C00001"** into the search box, and click **"Find a Study"**.

Full Study Title: A Phase I Multicenter, Open-label, Dose-escalation and Dose expansion Study to Evaluate the Safety, Tolerability, Pharmacokinetics, Pharmacodynamics, Immunogenicity and Antitumor Activity of MEDI7247 in Patients with Selected Relapsed/Refractory Hematological Malignancies

AstraZeneca Protocol Number: D8540C00001

National Clinical Trials Number: NCT03106428

MedImmune, LLC, a member of the AstraZeneca Group, sponsored this study and has its headquarters at 1 MedImmune Way, Gaithersburg, MD 20878, USA.

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

Thank you

Clinical study participants and their families 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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