

## Clinical Study Results

This summary reports the results of only one study. Researchers must look at the results of many types of studies to understand if a study medication works, how it works, and if it is safe to prescribe to patients. The results of this study might be different than the results of other studies that the researchers review.

**Sponsor:** Pfizer Inc.

**Medicine(s) Studied:** Aztreonam-Avibactam

**Protocol Number:** C3601006

**Dates of Study:** 10 August 2020 to 18 October 2021

**Title of this Study:** Pharmacokinetic Study of Aztreonam-Avibactam in Participants With Severe Renal Impairment  
[An Open-Label, Parallel-Group, Pharmacokinetic Study of Multiple Intravenous Doses of Aztreonam and Avibactam in Subjects With Severe Renal Impairment and Normal Renal Function]

**Date(s) of this Report:** 03 May 2022

— Thank You —

If you participated in this study, Pfizer, the Sponsor, would like to thank you for your participation.

This summary will describe the study results. If you have any questions about the study or the results, please contact the doctor or staff at your study site.

## Why was this study done?

---

### What is renal impairment?

Renal impairment means that a person's kidneys are not functioning normally. The kidneys play an important role in keeping the body healthy, including making urine and helping to remove substances such as medicines or their byproducts from the body. People with renal impairment may not be able to remove some substances from the body as well as people with normal renal function.

### What is aztreonam-avibactam?

Aztreonam-avibactam is a combination investigational drug being studied for the possible treatment of certain infections. An investigational drug is one that has not been approved for use outside of research studies (aztreonam and avibactam are approved separately for other uses, but have not been approved as a combination drug). In this study, aztreonam-avibactam was given as an intravenous (IV) infusion (a needle through the vein).

### What was the purpose of this study?

The purpose of this study was to compare how aztreonam-avibactam moved through the body and how long it stayed in the body in participants with renal impairment and in participants with normal renal function. After aztreonam-avibactam was given, it entered the blood and organs (for example, kidneys) as it moved through the body. Afterwards, aztreonam-avibactam was removed from the body through urine.

This study did not test if aztreonam-avibactam helps to treat infections.

---

## Researchers wanted to know:

- How did aztreonam-avibactam act in the body of participants with severe renal impairment, compared to participants with normal renal function?
  - What, if any, medical problems did participants have during the study?
- 

## What happened during the study?

---

### How was the study done?

Researchers tested aztreonam-avibactam on a group of participants with renal impairment and on a group of participants with normal renal function and of similar age, gender, and weight as the participants with renal impairment, to learn how renal impairment affected the way that aztreonam-avibactam acted in the body.

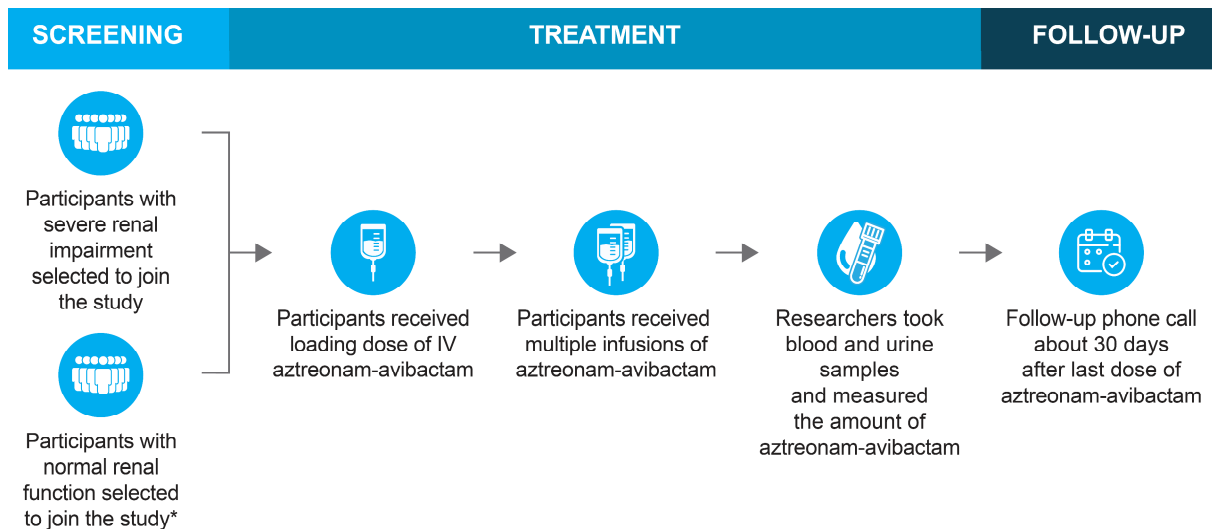
In this study, participants received a “loading dose” (30-minute infusion) of aztreonam-avibactam followed by multiple 3-hour infusions of aztreonam-avibactam. This was an open-label study, which means that the participants and the researchers knew what treatment the participants received. Participants with renal impairment were given a lower total dose of aztreonam-avibactam than participants with normal renal function since aztreonam-avibactam is removed from the body by the kidneys.

Researchers took samples of blood and urine from participants during the study and measured the amount of aztreonam-avibactam in the blood and urine at various time points after doses. Researchers then compared the amount of aztreonam-avibactam in the blood and urine from participants with renal impairment and those with normal renal function. Researchers also checked the participants’ health during the study and

asked them how they were feeling. There was a follow-up phone call about 30 days after the last dose of aztreonam-avibactam.

Figure 1 below shows what happened during this study.

Figure 1



*\*Participants were similar age, gender, and weight to renal impairment participants*

## Where did this study take place?

The Sponsor ran this study at a single location in the United States.

## When did this study take place?

It began 10 August 2020 and ended 18 October 2021.

## Who participated in this study?

Participants between the ages of 18 and 75 years could have joined this study. Participants were examined by a study doctor and found to be healthy enough to join the study, and had to avoid most medications for 7 days before their first dose of aztreonam-avibactam. Participants with renal impairment were selected first for the study. They had to have severe but stable renal impairment (meaning no recent major changes in renal impairment), and could not be receiving kidney dialysis. Participants

with normal renal function were then selected for the study based on gender, age, and weight, so that they would have similar characteristics to the participants with renal impairment.

- A total of 11 men (100%) and no women (0%) participated
- All participants were between the ages of 54 and 76
- Six participants (55%) had normal renal function and 5 participants (45%) had renal impairment
- All 11 participants (100%) finished the study

### **How long did the study last?**

Study participants could be in the study for up to 67 days (from time of screening to last follow-up). The entire study took a little over 1 year to complete and was completed as planned.

When the study ended in October 2021, the Sponsor began reviewing the information collected. The Sponsor then created a report of the results. This is a summary of that report.

### **What were the results of the study?**

---

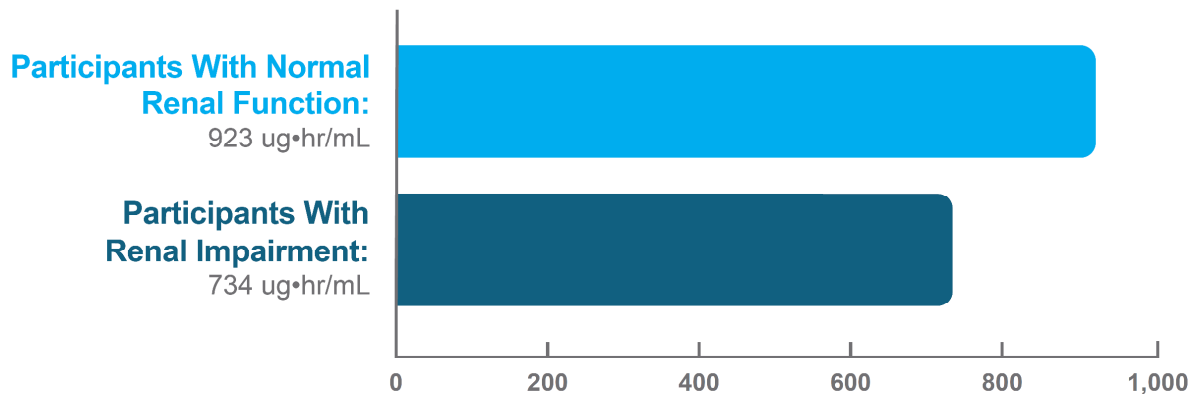
#### **How did aztreonam-avibactam act in the body of participants with severe renal impairment, compared to participants with normal renal function?**

To answer this question, the researchers compared blood tests from participants with renal impairment and those with normal renal function.

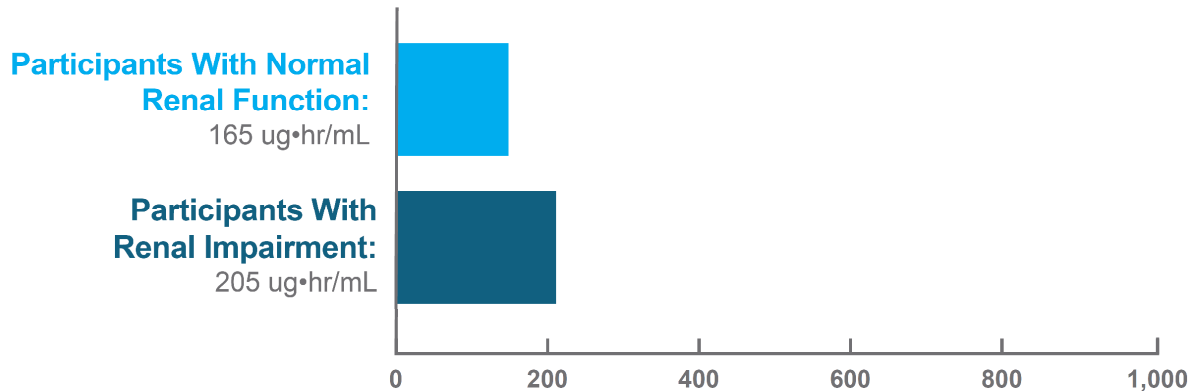
**What was the total amount of aztreonam and avibactam measured in the blood during the 24 hours after participants received aztreonam-avibactam, after they had reached “steady-state”?**

Figures 2 and 3 below show the total amount of aztreonam and avibactam measured in the blood during the 24 hours after participants took aztreonam-avibactam, once they had reached “steady-state”. “Steady-state” means that the amount of drug that is entering the body and being cleared from the body are the same. The total amount of aztreonam and avibactam in the blood was measured in microgram hours per milliliter, also called  $\text{ug}\cdot\text{hr}/\text{mL}$ .

**Figure 2: Total Amount of Aztreonam in the Blood During the 24 hours After Participants Took Aztreonam-Avibactam (At Steady State)**



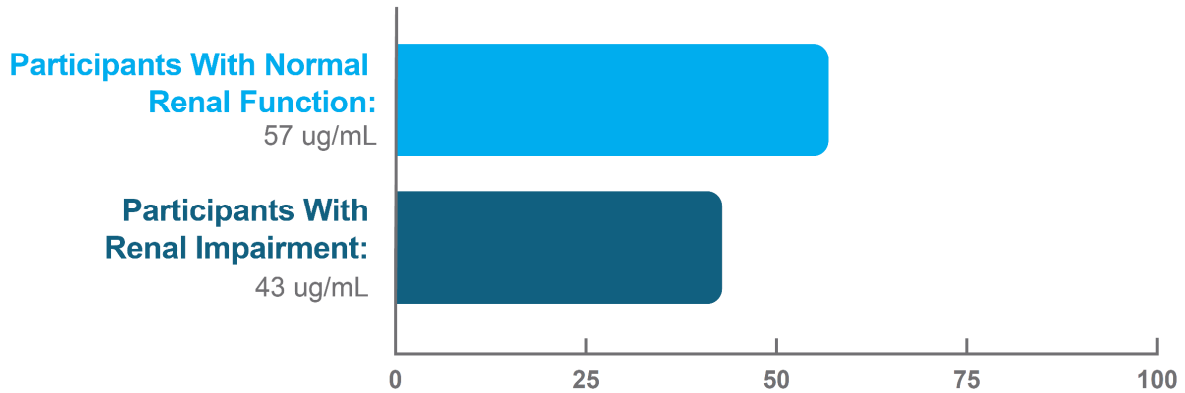
**Figure 3: Total Amount of Avibactam in the Blood During the 24 hours After Participants Took Aztreonam-Avibactam (At Steady State)**



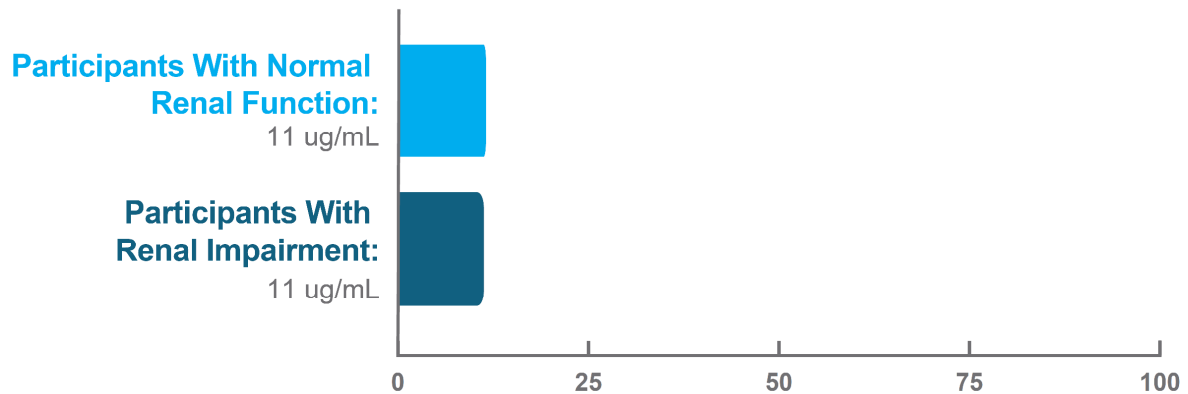
### What was the highest level of aztreonam-avibactam measured in the blood?

Figures 4 and 5 below show the highest level of aztreonam and avibactam measured in the blood. The amount of aztreonam and avibactam in the blood was measured in micrograms per milliliter, also called ug/mL.

**Figure 4: Highest Level of Aztreonam in the Blood**



**Figure 5: Highest Level of Avibactam in the Blood**



This does not mean that everyone in this study had these results. This is a summary of just some of the main results of this study. Other studies may have different results.



## What medical problems did participants have during the study?

---

The researchers recorded any medical problems the participants had during the study. Participants could have had medical problems for reasons not related to the study (for example, caused by an underlying disease or by chance). Or, medical problems could also have been caused by a study treatment or by another medicine the participant was taking. Sometimes the cause of a medical problem is unknown. By comparing medical problems across many treatment groups in many studies, doctors try to understand what effects a study medication might have on a participant.

A total of 5 out of 11 participants (45%) in this study had at least 1 medical problem. No participants left the study because of a medical problem. The table below shows the medical problems that happened during the study.

Below are instructions on how to read Table 1.

### Instructions for Understanding Table 1.

- The **1st** column of Table 1 lists medical problems that were commonly reported during the study. All medical problems reported are listed.
- The **2nd** column tells how many of the 6 participants with normal renal function reported each medical problem. Next to this number is the percentage of the 6 participants with normal renal function who reported the medical problem.
- The **3rd** column tells how many of the 5 participants with renal impairment reported each medical problem. Next to this number is the percentage of the 5 participants with renal impairment who reported the medical problem.
- Using these instructions, you can see that 1 out of the 6 (17%) participants with normal renal function reported itching. No (0%) participant with renal impairment reported itching.

**Table 1. Medical problems reported by study participants**

<b>Medical Problem</b>	<b>Normal Renal Function (6 Participants)</b>	<b>Renal Impairment (5 Participants)</b>
Skin irritation caused by touching something	1 out of 6 participants (17%)	0 out of 5 participants (0%)
Itching	1 out of 6 participants (17%)	0 out of 5 participants (0%)

<b>Diarrhea</b>	0 out of 6 participants (0%)	1 out of 5 participants (20%)
<b>Decreased appetite</b>	0 out of 6 participants (0%)	1 out of 5 participants (20%)
<b>Headache</b>	0 out of 6 participants (0%)	1 out of 5 participants (20%)
<b>Trouble breathing</b>	0 out of 6 participants (0%)	1 out of 5 participants (20%)

## Did study participants have any serious medical problems?

---

A medical problem is considered “serious” when it is life-threatening, needs hospital care, or causes lasting problems. No participants in this study had serious medical problems, and no participants died during the study.

## Where can I learn more about this study?

---

If you have questions about the results of your study, please speak with the doctor or staff at your study site.

For more details on your study protocol, please visit:

[www.clinicaltrials.gov](http://www.clinicaltrials.gov)

Use the study identifier **NCT04486625**

Please remember that researchers look at the results of many studies to find out which medicines can work and are safe for patients.



Again, if you participated in this study,

**thank you** for volunteering.

We do research to try to find the  
best ways to help patients, and you helped  
us to do that!