Thank you to the participants, and to their parents who took part in the study called "A Multicenter Study to Monitor for the Potential Development of Renal Tumors in Subjects with Transfusional Iron Overload Who Were Previously Exposed to Deferitazole".

This study helped researchers find out if a medicine called deferitazole could cause renal tumors in participants who took deferitazole in previous clinical studies.

Why was this study done?

Cancer is a disease where cells in the body grow out of control, causing tumors. Renal tumors are found in the kidneys. The kidneys are 2 bean-shaped organs located below the ribs and behind the belly. In each kidney, there are tiny tubes that help filter blood and make urine. In renal tumors, kidney cells grow out of control to form a dense mass in the kidney.

A 2-year study in rats showed that deferitazole causes renal tumors to develop in male rats. Researchers were concerned that deferitazole could cause tumors to develop in people as well. Because of this, researchers stopped all ongoing studies with deferitazole.

Deferitazole was previously tested in participants with transfusional iron overload. These participants had blood disorders that required regular blood infusions. Getting a lot of blood transfusions may lead to too much iron in the body. Deferitazole binds to iron and removes it from the body.

Researchers wanted to know if participants who took deferitazole in any previous study had renal tumors or other changes in their kidneys.

When was this study done?

This study started in March 2015 and ended in May 2017.

Who took part in this study?

Who was allowed to take part in this study?

Participants could take part in this study if they:

- Took deferitazole for more than 3 days in any previous study

For more information on who could take part in this study, please refer to the website listed on the last page of this summary.

How many people took part in this study?

A total of 90 participants enrolled in the study. Of those, 7 did not continue past the first visit so only 83 were considered for the results. There were 37 (45%) males and 46 (55%) females in the study. Participants were between 8 and 53 years of age.

The study took place at 17 clinics around the world. The table below shows a list of countries where the study took place.

Countries where the study took place	
Australia	Canada
Italy	Lebanon
Thailand	Turkey
United Kingdom	United States

What happened during the study?

What did researchers want to know?

Researchers wanted to know if deferitazole could cause renal tumors in participants who took deferitazole for more than 3 days in any previous study. They wanted to look at ultrasounds of participants' kidneys to see if they had any unusual changes. An ultrasound is an imaging test that uses sound waves to create a picture of organs or other structures in the body.

What treatment was studied?

This was an observational study. In this type of study, researchers observe participants. They do not give participants any medication or treatment. In previous

studies, participants took deferitazole once or twice a day at a dose based on their weight.

How was the study done?

There are many types of clinical studies. This study was:

- Observational: A type of study where researchers observe participants. They do not give participants any medications or treatments.

The study had 2 parts: the Enrollment Period and the Assessment Follow-Up Period. Participants were screened during the Enrollment Period to see if they were eligible to take part in the study. At Visit 1, researchers collected information about participants' medical histories and family backgrounds. Researchers performed a renal ultrasound. They also recorded any side effects that happened since the previous deferitazole studies. The Enrollment Period lasted up to 2 weeks.

During the Assessment Follow-Up Period, participants visited the study clinic up to 6 more times for regular check-ups.

- In the first year, participants had clinic visits every 6 months.
- After the first year, participants visited the clinic once a year.

During each visit, researchers checked for the development of renal tumors with help of renal ultrasounds. If there were any problems found in the kidneys, a medical specialist was consulted. If needed, magnetic resonance imaging (MRI) scans were done to confirm the results. MRI is a procedure that uses magnetic waves to take pictures of various parts of the body. The Assessment Follow-Up Period lasted up to 2 years.

What were the results?

Researchers monitored participants who had previously taken deferitazole for more than 3 days. They compared ultrasound images of participants kidneys and recorded side effects to see if there was an increased risk of developing renal tumors.

Out of 90 participants who took part in the Enrollment Period, only 83 had at least 1 follow-up visit.

- Researchers found that participants who took deferitazole in previous studies did not have any signs of renal tumors.

Researchers decided that the renal tumors observed in male rats did not occur in people. As a result, the study was ended earlier than expected.

For more information on study results, please refer to the website listed on the last page of this summary.

Were there any drug-related side effects?

Side effects are unwanted medical problems thought to be caused by a medicine or medical treatment. A side effect is called ‘serious’ when it is life threatening, causes lasting problems, or needs hospital care. In this study, researchers only considered a confirmed diagnosis of renal tumors and study procedure-related events as side effects.

Although 90 participants joined the study, side effect results include only the 83 participants who had at least 1 follow-up visit.

No participants had any side effects during the study. No one died during this study.

How has this study helped patients and researchers?

Researchers look at the results of many studies to decide which medicines work best and are safest for patients. This summary gives the results for 83 participants in a single study. Other studies may have more participants and may give different results.

Findings from this study may be used to seek approval for using deferitazole as a treatment in other studies.

Are there plans for further studies?

No further clinical studies with deferitazole are planned.

Where can I find out more about this study?

Title of this study:	A Multicenter Study to Monitor for the Potential Development of Renal Tumors in Subjects With Transfusional Iron Overload Who Were Previously Exposed to Deferitazole
Protocol number:	SHP602-206
EU study number:	2014-005086-70

https://www.clinicaltrialsregister.eu/ctr-search/trial/2014-005086-70/IT#A

Shire Development LLC and International Affiliates（a wholly-owned subsidiary of Takeda Pharmaceutical Company Ltd.) is the sponsor of this study.

Takeda has its headquarters in **Nihonbashi, Tokyo** in Japan.

More information about this study can be found at: https://www.clinicaltrials.takeda.com/