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:	Talzenna (PF-06944076)
Protocol Number:	C3441006 (MDV3800-06)
Dates of Study:	04 July 2017 to 02 September 2022
Title of this Study:	A Study of Talazoparib in Men With Metastatic Castration-Resistant Prostate Cancer and DNA Repair Defects [TALAPRO-1: A Phase 2, Open-Label, Response Rate Study of Talazoparib in Men With DNA Repair Defects and Metastatic Castration-Resistant Prostate Cancer Who Previously Received Taxane-Based Chemotherapy and Progressed on at Least 1 Novel Hormonal Agent (Enzalutamide and/or Abiraterone Acetate/Prednisone)]
Date(s) of this Report:	05 September 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 metastatic castration-resistant prostate cancer?

Prostate cancer is the name for cancer that starts in the prostate, which is a small, walnut-sized gland that lies at the base of the bladder in men and is part of the male reproductive system. Prostate cancer is a common cancer in men, and it is often a slow-growing cancer with few symptoms.

"Metastatic" means that the cancer has spread to a part of the body beyond the prostate. In earlier stages of the disease, male hormones, or "androgens", are usually stimulating prostate cancer cells to grow. "Castration-resistant" means that the prostate cancer continued to worsen despite receiving treatment that reduces androgen production from the testis.

What is talazoparib?

Talazoparib (Talzenna®) is known as a PARP inhibitor. PARP inhibitors are drugs that stop the normal activity of certain proteins called "Poly (ADP-ribose) polymerases", also called "PARPs". PARPs are proteins that are found in all normal and cancer cells, and that are involved in the repair of DNA. PARPs are needed to repair mistakes that can happen in DNA when cells divide. If the mistakes are not repaired, the cell will usually die and be replaced. Cells with mistakes in their DNA that do not die can become cancer cells. This is known as a "DNA-repair defect".

PARP inhibitors selectively kill specific cancer cells through a mechanism called "synthetic lethality", in which loss of function in 2 genes together causes cell death, but a loss of function in either gene alone would not. Clinical trials have shown that the use of talazoparib, as well as other PARP inhibitors, may reduce tumor size and slow tumor growth in some men with prostate cancer. Talazoparib is given in a capsule and is taken by mouth once daily at around the same time every day.

What was the purpose of this study?

The main purposes of this study were to learn more about the safety and about the possible effectiveness of talazoparib in men with metastatic castration-resistant prostate cancer and DNA-repair defects.

Researchers wanted to know:

How many participants had a partial or complete response to talazoparib treatment?

What medical problems did participants have or report during the study?

What happened during the study?

How was the study done?

Researchers studied a group of participants to learn more about the safety and the possible effectiveness of talazoparib in men with metastatic castration-resistant prostate cancer and DNA-repair defects.

Participants included in the study:

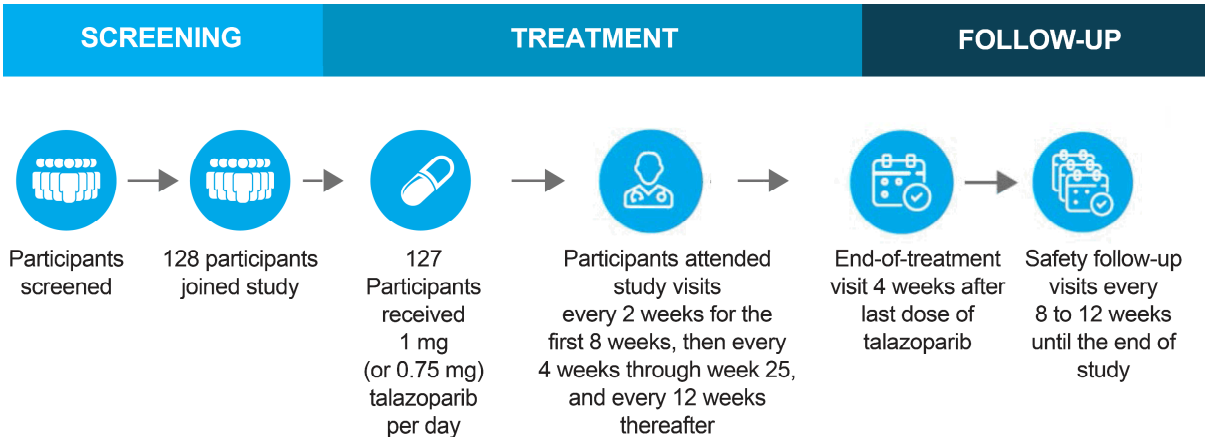
- Were examined by a study doctor and determined to be appropriate to participate
- Were adult men
- Had a recent biopsy of their prostate cancer
- Had confirmed prostate cancer with a DNA-repair defect (mistake in DNA)

- Were currently either receiving drugs or had their testes removed with the aim to reduce androgen in the body. This strategy is called ADT (androgen deprivation therapy)
- Had prostate cancer that was metastatic and was progressive (getting worse)
- Had previously been treated with 1 or 2 different chemotherapy regimens

First, a study doctor checked each potential participant to make sure they were appropriate to join the study. This is known as the screening period. Most participants received 1 milligram (mg) talazoparib once a day (participants with moderate kidney disease received 0.75 mg talazoparib once a day), and could continue receiving talazoparib until their cancer worsened, they had unacceptable medical problems, they chose to stop taking talazoparib, they passed away, or they were no longer benefitting from talazoparib. Participants also continued to take ADT throughout the study. This was an open-label study, which means that the participants, researchers, and study doctors knew which treatment the participants received.

Participants were expected to attend visits at the study center every 2 weeks for the first 8 weeks (through Week 9), then every 4 weeks through Week 25, and every 12 weeks thereafter. They had imaging tests done at some of these visits, to see if their prostate cancer was growing or shrinking. Participants were also expected to attend an end-of-treatment visit about 4 weeks after their last dose of talazoparib, plus safety follow-up visits every 8 to 12 weeks until the study ended.

The figure below shows what happened during the study.



Where did this study take place?

Participants were recruited from 43 hospitals, cancer centers, and medical centers in Australia, Austria, Belgium, Brazil, France, Germany, Hungary, Italy, the Netherlands, Poland, Spain, South Korea, the United Kingdom, and the United States.

When did this study take place?

It began 04 July 2017 and is scheduled to end 02 September 2022. The Sponsor reviewed the information collected and created a report of the results. This is a summary of that report.

Who participated in this study?

A total of 128 men joined this study, and 127 men received study treatment. All participants were between the ages of 46 and 84 years.

Of the 127 participants who received study treatment, 97 (76%) completed treatment. At the time the Sponsor reviewed the information collected, 30 participants were still receiving study treatment.

What were the results of the study?

How many participants had a partial or complete response to talazoparib treatment?

A total of 31 out of 104 (30%) participants responded to talazoparib treatment, with 24 (23%) participants achieving a partial response and 7 (7%) participants achieving a complete response. Partial response means that the participant had at least a 30% reduction in tumor size. Complete response means that the participant's cancer tumors disappeared completely.

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 or report 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, such as their prostate cancer, or by chance). Or, medical problems could also have been caused by the study treatment or by another medicine the participant was taking. Sometimes the cause of a medical problem is unknown. By collating medical problems across many treatment groups in many studies, doctors try to understand what effects a study medication might have on a participant.

Of the 127 participants who received study treatment, 121 (95%) participants reported at least 1 medical problem during their treatment in the study. A total of 15 (12%) participants stopped taking study treatment because of medical problems.

The table below shows the most common medical problems—those occurring in at least 20% of participants—that happened during the study.

Below are instructions on how to read Tables 1 and 2.

Instructions for Understanding Tables 1 and 2.

- The **1st** column of Table 1 lists medical problems that were commonly reported during the study. All medical problems reported by at least 20% of participants are listed.
- The **2nd** column tells how many of the 127 participants treated with talazoparib reported each medical problem. Next to this number is the percentage of the 127 participants treated with talazoparib who reported the medical problem.
- Using these instructions, you can see that 62 out of 127 (49%) participants had low number of red blood cells.

Table 1. Commonly reported medical problems by study participants	
Medical Problem	**Talazoparib (127 Participants)**
Low number of red blood cells	62 out of 127 participants (49%)
Nausea	42 out of 127 participants (33%)
Decreased appetite	36 out of 127 participants (28%)
Feeling weak	30 out of 127 participants (24%)

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. A total of 43 out of 127 (34%) participants reported at least 1 serious medical problem during their treatment in the study, and 11 out of 127 (9%) participants reported at least 1 serious medical problem during their treatment in the study that was considered to be related to study treatment. The table below shows the most common serious medical problems—those occurring in at least 2% of participants—that happened during the study.

Table 2. Commonly reported serious medical problems by study participants	
Serious Medical Problem	**Talazoparib (127 Participants)**
Blood clot in lung	8 out of 127 participants (6%)
Low number of red blood cells	5 out of 127 participants (4%)
Worsening prostate cancer	4 out of 127 participants (3%)
Pneumonia (lung infection)	3 out of 127 participants (2%)
Urinary tract infection	3 out of 127 participants (2%)

A total of 69 out of 127 (54%) participants who received study treatment died during this study. Most of these deaths were due to worsening cancer, and none of the deaths were considered to be related to study treatment.

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	Use the study identifier **NCT03148795**
www.clinicaltrialsregister.eu	Use the study identifier **2016-002036-32**

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!