Summary of Results for Laypersons

What was the Study Called?

A Multi-center, Single-arm Study of Enzalutamide in Patients with Progressive Metastatic Castration-resistant Prostate Cancer Previously Treated with Abiraterone Acetate

Why was this Study Needed?

Prostate cancer that keeps growing even when the amount of testosterone in the body is reduced to very low levels is called castration-resistant prostate cancer (CRPC). Prostate cancer growth is dependent on male hormones or "androgens." An example of an androgen is testosterone. Abiraterone acetate and enzalutamide (also known as MDV3100 and Xtandi®) are medicines used to treat patients with prostate cancer. They block the effect of androgens. For a time, this stops or slows down the growth of prostate cancer and lowers the blood level of a protein produced by prostate cancer cells. That protein is called prostate specific antigen or "PSA" for short. There is not much information on how well enzalutamide works in patients after they have received abiraterone acetate treatment. Therefore, there was a need to study new treatments for CRPC.

This study was conducted in patients with CRPC who were previously treated with abiraterone acetate. The patients took enzalutamide in this study. The study looked at the progression-free survival (PFS) in patients with CRPC who were taking enzalutamide, but were previously treated with abiraterone acetate. PFS is the length of time during and after treatment of a disease that a patient lives with the disease but it does not get worse. It was also important to find out what unwanted effects the patients had from enzalutamide.

The study started in May 2014 and ended in September 2017. When this study ended, the sponsor (Astellas) reviewed all the study information and created a report of the results. This is a summary of that report.

What Kind of Study was This and Who Took Part in it?

This was an "open-label" study. This means that all patients knew that they took enzalutamide.

Clinical studies have a list of requirements for patients who can be in a study ("inclusion" criteria) and patients who cannot take part in a study ("exclusion" criteria). The requirements for this study are listed below.

Men aged 18 years or older could be in the study if:

- Their doctor had confirmed that they had prostate cancer. Their prostate cancer had spread from the prostate to other places in the body.
- Their testosterone level was ≤ 1.7 nmol/L (or ≤ 50 ng/dL) at the start of the study. Their PSA value was ≥ 2 ng/mL at the start of the study. ("nmol/L, ng/dL and ng/mL" are units that measure the amount of the material in the blood. For example, a testosterone blood level of 1.7 nmol/L means that there is 1.7 nmol of testosterone in 1 L of blood.)

- They had received at least 24 weeks of abiraterone acetate treatment and stopped its use for at least 4 weeks before starting enzalutamide.
- They were taking hormonal therapy that blocks the effect of androgens and were planning to continue this therapy throughout the study or they had been castrated.
- They were active or they could perform light daily activities. They were expected to live for at least 6 months.

Patients could not take part in this study if:

- They had used ketoconazole, cabazitaxel or enzalutamide (the study medicine) prior to the start of the study, or
- They received anti-androgen therapy (or therapy that works against male hormones), chemotherapy or any other therapy after abiraterone acetate treatment prior to the start of the study.
- Their cancer had spread to the brain.
- They had a history of convulsion or seizures.
- They had abnormal hematology laboratory tests. Hematology laboratory tests examine the blood and blood disorders. Patients could not receive growth factors or blood transfusions 7 days prior to the start of the study.
- They had abnormal liver or kidney function.

During the study, the study doctor did a check-up of the patients at all study visits. At the first visit, patients were checked to see if they could be in the study. Patients who could be in the study received 160 mg of enzalutamide (four 40-mg capsules). The patients could take enzalutamide until their cancer got worse, they had unwanted effects they could not tolerate, they asked to stop treatment or they died.

This study took place at 47 clinics in several countries. 215 patients were in the study. Out of these patients, 214 took at least 1 dose of enzalutamide.

	Number of Patients
Age Group	
Aged 65 years or younger	24
Aged older than 65 years	190
Sex	
Men	214
Clinic Location	
European Union Countries *(at the time of the study)*	214
Belgium	15
France	47
Germany	54
Spain	32
UK	66

What Were the Study Results?

This study looked at the length of time from the start of enzalutamide up until the time the cancer did not get worse (PFS) in patients with CRPC who were taking enzalutamide, but were previously treated with abiraterone acetate.

The results showed that from the start of enzalutamide, the average time for disease progression to occur was 8.1 months.

What Adverse Reactions did Patients Have?

A lot of research is needed to know whether a medicine causes a medical problem. So when new medicines are being studied researchers keep track of all medical problems that patients have while they are in the study. These medical problems are called "adverse events" and are recorded whether or not they might be caused by the treatment taken. An "adverse reaction" is any medical problem or "adverse event" that is judged by the study doctor to be possibly caused by a medicine or treatment used in the study.

The table below shows the adverse reactions experienced by approximately 5% or more of the patients who took at least 1 dose of enzalutamide in the study. This means that those adverse reactions were experienced by at least 10 out of 214 patients.

Adverse Reaction	**Number of Patients (out of 214 Patients)**
Any adverse reaction	127 (59.3%)
Fatigue or tiredness	57 (26.6%)
Decreased appetite	27 (12.6%)
Feeling of weakness	19 (8.9%)
Nausea or the urge to vomit	17 (7.9%)
Constipation	12 (5.6%)

An adverse reaction is considered "serious" when it is life-threatening, causes lasting problems or needs hospital care.

8 patients experienced serious adverse reactions. The table below shows these serious adverse reactions.

Serious Adverse Reaction	Number of Patients (out of 214 Patients)
Any serious adverse reaction	8 (3.7%)
General feeling of discomfort or being unwell or out of sorts	1 (0.5%)
Pain	1 (0.5%)
Inflammation of the lungs that may cause difficulty breathing and can be life-threatening	1 (0.5%)
Blood clot in the lungs which causes chest pain and breathlessness	1 (0.5%)
Condition in which the number of white blood cells called neutrophils is abnormally low	1 (0.5%)
Constipation	1 (0.5%)
Death of tissue in the brain resulting from a blockage or narrowing in the arteries	1 (0.5%)
Skin drug rash	1 (0.5%)

22 patients died during the study. The death of 1 patient could have been related to enzalutamide. This patient experienced a serious adverse reaction of death of tissue in the brain resulting from a blockage or narrowing in the arteries.

Where Can I Learn More About This Study?

This document is a short summary of the main results from this study and reflects the information available as of February 2018. You can find this summary and more information about this study online at http://www.astellasclinicalstudyresults.com.

Please remember that researchers look at the results of many studies to find out how well medicines work and which adverse reactions they might cause. This summary only shows the results of this 1 study. Your doctor may help you understand more about the results of this study.

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