Summary of Results for Laypersons

Astellas is grateful to the patients who took part in this clinical study. Thank you.

What was the Study Called?

An Exploratory Study to Compare the Efficacy and Safety of Micafungin as a Pre-emptive Treatment of Invasive Candidiasis versus Placebo in High Risk Surgical Subjects with Intra-abdominal Infections - A Multicentre, Randomized, Double-Blind Study. This study is also known as the INTENSE study.

Why was this Study Needed?

Having surgery on the belly increases the risk of developing a fungal infection. One reason for this risk is the use of antibiotics. Fungal infections can be caused by yeast called *Candida*. If the infection with *Candida* has spread to other parts of the body it is called invasive candidiasis. There are medicines for invasive *Candida* infections. But some medicines treat only a few types of *Candida*. And they may have unwanted effects. There was a need to find out if treating patients before they have *Candida* will reduce the risk of them getting invasive candidiasis. This is called pre-emptive treatment. Micafungin (also known as FK463) is a prescription medicine for the treatment of *Candida* infections.

Patients were included in the study if they had an infection in their belly. And it required surgery. Patients received either micafungin or a placebo solution. (The section below describes what a placebo solution is). This study looked at the patients with no confirmed invasive fungal infection at the start of treatment. It then determined how many of them had a confirmed invasive fungal infection at the end of treatment. Confirmed infection means tests were done that verified the fungal infection. In addition, the study looked at the length of time from start to the first confirmed invasive fungal infection. It was also important to find out what unwanted effects these patients had from the study medicines.

The study started in July 2010 and ended in December 2011. When the study ended, the sponsor of this study (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 a "double-blinded" study. That means that the patients and the study doctors did not know who received which of the study medicines (micafungin or placebo). A "placebo" is a dummy treatment that looks like a medicine, but does not have any medicine in it. The placebo solution in this study was saline. Using a placebo helps make study results fair and unbiased, because study doctors and patients cannot tell who is taking a placebo, and who is taking the test medicine.

This study was conducted in women and men 18 years or older. The patients had an infection in the belly. They needed surgery to help fix the infection. They were considered high risk for invasive fungal infection. They also needed to stay 4 or 5 days in the hospital intensive care unit after surgery.

During the study, the study doctor did a check-up of the patients at several 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 were picked for a treatment (micafungin or placebo) by chance alone. The study medicines were given through a vein in the arm. The patient could be treated for up to 6 weeks if necessary.

- Micafungin: 100 mg once a day.
- Placebo: standard saline once a day.

This study took place at 53 clinics in several countries. 252 patients were in the study. Out of these, 248 patients received at least 1 dose of study medicine.

	Number of Patients (out of 248 patients)
Age Group	
Aged 18 to 65 years	132
Aged more than 65 years	116
Sex	
Men	93
Women	155
Clinic Location	
European Union Countries (*at the time of the study*)	204
Austria	3
Belgium	21
Denmark	3
Finland	6
France	27
Germany	47
Greece	14
Hungary	20
Italy	8
The Netherlands	9
Romania	10
Spain	28
United Kingdom	8
Outside European Union	44
Israel	9
Norway	4
Russia	5
Turkey	26

What Were the Study Results?

The study looked at the proportion of patients with confirmed invasive fungal infection at the end of treatment.

At the end of treatment, this proportion was 11.1% (13 out of 117) patients in the micafungin group. And it was 8.9% (11 out of 124) patients in the placebo group. A statistical test showed that the difference between the treatment groups was likely to be due to chance.

The study also looked at the time from start to the first confirmed invasive fungal infection. At the end of treatment, there was little difference between the treatment groups.

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 most common adverse reactions experienced by patients who received at least 1 dose of study medicine in this study.

Adverse Reaction	**Micafungin (out of 122 patients)**	**Placebo (out of 126 patients)**
Any adverse reaction	10 (8.2%)	15 (11.9%)
Yeast (*Candida*) infection in the bloodstream	2 (1.6%)	0
Infection caused by an overgrowth of the *Candida* yeast	1 (0.8%)	2 (1.6%)
Condition in which the flow of bile from the liver is slowed or blocked	0	2 (1.6%)
Lack of enough red blood cells (anemia)	0	2 (1.6%)
Rash	0	2 (1.6%)

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

Three patients (1.2%, or 3 out of 248 patients) experienced serious adverse reactions in this study: 1 patient who received micafungin and 2 patients who received placebo.

59 patients died during the study: 31 patients who received micafungin and 28 patients who received placebo. The death of 1 of the patients who received micafungin could have been related to micafungin.

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 March 2013. 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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