Summary of Results for Laypersons

What was the Study Called?

Open Label Study to Evaluate the Pharmacokinetics of Fidaxomicin in Inflammatory Bowel Disease (IBD) Subjects with *Clostridium difficile* Infection (CDI). This is also known as the PROFILE study.

Why was this Study Needed?

Inflammatory bowel disease (IBD) is a group of inflammatory conditions of the large and small intestines. Patients with IBD have a greater risk for *Clostridium difficile* (C. difficile) infection (CDI) of the large intestines. C. difficile bacteria can overgrow in the large intestines and cause an infection by attacking the lining of the intestine and cause watery diarrhea. Vancomycin (also known as Vancocin) and fidaxomicin (also known as ASP2819, Dificlir and Dificid) are prescription medicines used to treat CDI. The use of fidaxomicin has been investigated in patients with CDI. However, the use of fidaxomicin in patients with IBD has not been studied. As a result, there is no information on the blood levels of fidaxomicin in patients who were diagnosed with both CDI and IBD. Therefore, there was a need to study the blood levels of fidaxomicin and its use in patients with both CDI and IBD.

This study was conducted in patients aged 18 years or older who were diagnosed with both CDI and IBD. All of the patients in this study took fidaxomicin for 10 days.

The purpose of this study was to find out if blood levels of fidaxomicin and its metabolite (OP-1118) increased in patients who have both CDI and IBD as compared to patients who have CDI but do not have IBD. When fidaxomicin is introduced into the body, it works in the small and large intestines. It is broken down into a metabolite called OP-1118. It was also important to find out what unwanted effects the patients had from fidaxomicin.

This study for fidaxomicin took place at 25 clinics in Austria, France, Greece, Italy, Poland, Russia and the UK. The study took place from August 2015 to October 2016. When the 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 the patients knew they were taking fidaxomicin.

Men and women could take part in the study if:

- They were at least 18 years of age.
- They were diagnosed with IBD for at least 3 months
- They had a confirmed CDI infection within 48 hours prior to enrollment in the study.

Patients could not take part in the study if:

- They had taken more than 1 day of treatment for CDI within 48 hours prior to enrollment in the study.
- They were unable to swallow the study medicine.

- They had an ostomy (a surgically created opening between the intestines and the abdominal wall) or short bowel syndrome (a disorder that causes an inability to absorb nutrients due to a lack of functional small intestine).
- They had a life-threatening condition where swelling and inflammation spread into the deeper layers of the large intestines. The large intestines then stops working and widens.
- They were allergic to any component of fidaxomicin.

Before the start of study treatment, patients were checked to see if they could be in the study. At the study visit on day 1, patients began treatment with fidaxomicin (200 mg) taken by mouth twice daily for 10 days.

Patients returned to the clinic for a check-up visit on days 5, 10, 26, 40, 90 and 180 after they started to take fidaxomicin. The study doctor checked if their infection symptoms improved and took blood samples (if necessary). Patients were asked questions about their health in general. Patients were contacted by telephone 11 days after they had started to take fidaxomicin to check if their CDI had come back. Patients returned to the clinic for the last check-up visit 180 days after they started fidaxomicin. The study doctor checked if their CDI had come back. Patients also returned to the clinic for an additional check-up visit if their infection came back or got worse.

A total of 25 patients were in the study. All patients received at least 1 dose of study medicine and took the same dose for 10 days.

	Number of Patients
Age Group	
Aged 18 to 64 years	22
Aged 65 years and older	3
Sex	
Men	13
Women	12
Clinic Location	
European Union Countries	18
Austria	1
France	2
Greece	3
Italy	2
Poland	9
UK	1
Outside of European Union	7
Russia	7

What Were the Study Results?

This study was conducted in patients aged 18 years or older who were diagnosed with both CDI and IBD. All of the patients in this study took fidaxomicin for 10 days.

Using the average of 24 patients, the highest amount of fidaxomicin was 22.6 ng/mL with a range of 5.8 to 154 ng/mL.

Using the average of 24 patients, the highest amount of OP-1118 in blood was 78.5 ng/mL with a range of 13.5 to 555 ng/mL.

The concentrations of fidaxomicin and OP-1118 in patients who were diagnosed with both CDI and IBD were within the same measurable range found in earlier studies of fidaxomicin and OP-1118 involving patients who had CDI but did not have IBD.

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 only adverse reaction experienced by more than 1 patient while taking part in this study was excess passing of gas which was experienced in 2 patients.

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

One patient experienced a serious adverse reaction of decrease in the oxygen supply to a tissue. Another patient experienced a serious adverse reaction of sore or destruction of skin.

Where Can I Learn More About This Study?

After evaluating the results of this clinical study, Astellas may perform additional studies to better understand fidaxomicin use in patients who are diagnosed with both CDI and IBD.

This summary of the clinical study results is available 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. If you have questions about fidaxomicin, please discuss these with your doctor.

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