A Phase 1, Randomized, Open-Label, Crossover Study to Evaluate Relative Oral Bioavailability of 2 Formulations of PTC857 When Administered as a Single Dose to Healthy Subjects

Published: 31-05-2021
Last updated: 05-04-2024

In this research study we will compare a new PTC857 formulation to the current PTC857 formulation. The aim of the new formulation is to improve ease of manufacturing and to reduce the effect of food on PTC857 uptake. Our aim is to study how quickly...

Ethical review	Approved WMO
Status	Recruitment stopped
Health condition type	Neurological disorders NEC
Study type	Interventional

Summary

ID

NL-OMON50852

Source
ToetsingOnline

Brief title
Crossover study to assess relative bioavailability of 2 formulations PTC857

Condition

- Neurological disorders NEC

Synonym
Parkinson's Disease

Research involving
Human

Sponsors and support

Primary sponsor: PTC Therapeutics, Inc.
Source(s) of monetary or material Support: Pharmaceutical Industry

Intervention

Keyword: Bioavailability, Cross over, PTC857

Outcome measures

Primary outcome

The primary objective of the study is to assess the relative bioavailability of

PTC857 following a single oral administration of the new (Phase 2) formulation

compared to current (Phase 1) formulation.

Secondary outcome

The secondary objective of the study is to assess the safety and tolerability

of PTC857 after administration of single doses of the new and current

formulations under fed (medium fat) conditions in healthy adult subjects.

Study description

Background summary

PTC857 is a new compound that is being studied for the treatment of neurological disorders, such as Parkinson*s disease. Parkinson*s disease is a brain disorder with symptoms such as arm or leg shaking and/or stiffness, and difficulty with walking, balance, and coordination. It is caused by death of specific nerve cells in the brain that are important for controlling movement. There is currently no cure for Parkinson*s disease, and treatment is aimed at reducing the symptoms. In Parkinson*s disease there is an overproduction of highly reactive compounds that can damage cell structures, which in turn can result in inflammation in the brain. PTC857 aims to reduce overproduction of the highly reactive compounds by inhibiting a specific protein (15-lipoxygenase).

PTC857 has been tested in humans before. In addition, it has been extensively

tested in the laboratory and on animals.

Study objective

In this research study we will compare a new PTC857 formulation to the current PTC857 formulation. The aim of the new formulation is to improve ease of manufacturing and to reduce the effect of food on PTC857 uptake.

Our aim is to study how quickly and to what extent both PTC857 formulations are absorbed, transported, and eliminated from the body. Our other aim is to study how safe both PTC857 formulations are and how well they are tolerated by healthy participants.

Study design

For the study it is necessary that subjects stay in the research center for 1 period of 12 days (11 nights). In addition, we will call subjects approximately 27 days after leaving the research center.

Day 1 is the first day when subjects receive the study compound. Subjects will leave the research center on Day 11 of the study.

Below is an overview of the days of the stay at the research center, or when there's a visit at the research center.

Screening > Day -21 up to Day -2

Treatment period - Arrival > Day -1
Treatment period - In-house stay > Day -1 to Day 11
Treatment period - Departure > Day 11

Follow-up phone call > Day 38

Subjects will be given PTC857 as oral capsules with 240 milliliters (mL) of water.

PTC857 will be given after they've consumed a medium-fat breakfast with a standard composition. This breakfast must be started exactly on time and must be finished within 25 minutes. The entire breakfast must be consumed. They have to fast for at least 10 hours during the night before this breakfast.

One of the investigators will inspect the hands and mouth after subjects take the study compound. This it to confirm they have taken the study compound.

Intervention

Subjects will receive PTC857 twice: the new formulation once and the current formulation once. The order in which they receive the formulations will be determined by chance. The first dose will be given on Day 1 and the second one on Day 8. Each time they will receive a dose of 150 mg PTC857. Each capsule contains 50 mg PTC857, meaning that they have to ingest 3 capsules for each dosing. Each capsule is *size 0*, with a length of 21.7 mm and diameter of 7.6 mm.

Study burden and risks

Blood draw
Drawing blood may be painful or cause some bruising. The use of the indwelling cannula can sometimes lead to inflammation, swelling, hardening of the vein, blood clotting, and bleeding in the environment (bruising) of the puncture site. In some individuals, a blood draw can sometimes cause pallor, nausea, sweating, low heart rate, or drop in blood pressure with dizziness or fainting.

In total, we will take about 140 milliliters (mL) of blood. This amount does not cause any problems in adults. To compare: a blood donation involves 500 mL of blood being taken each time. If the investigator thinks it is necessary for the safety of a participant, extra samples might be taken for possible additional testing. If this happens, the total amount of blood drawn will be more than the amount indicated above, but the total amount of blood collected will not be greater than 150 mL of blood.

Heart tracing
To make a heart tracing, electrodes will be placed on your arms, chest and legs. Prolonged use of these electrodes can cause skin irritation (rash and itching).

Meals/Fasting
The medium-fat breakfast is a study specific breakfast. Subjects must consume the whole breakfast in 25 minutes. It can be difficult to consume the entire breakfast, particularly for light eaters.

If they have to fast for a prolonged time during the study, this may lead to symptoms such as dizziness, headache, stomach upset, or fainting.

Coronavirus test
Samples for the coronavirus test will be taken from the back of the nose and throat using swabs. Taking the samples only takes a few seconds, but can cause discomfort and can give an unpleasant feeling. Taking a sample from the back of the throat may cause subjects to gag. When the sample is taken from the back of the nose, they may experience a stinging sensation and the eyes may become watery.

Contacts

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Scientific
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Trial sites

Listed location countries

Netherlands

Eligibility criteria

Age
Adults (18-64 years)
Elderly (65 years and older)

Inclusion criteria

1. Males or females aged between 18 and 55 years old and have a body mass index (BMI) between 18.5 and 30 kg/m2 (inclusive at Screening as well).
2. Subjects must understand the nature of the study and must provide signed and dated written informed consent before the conduct of any study-related procedures.
3. Females must be either postmenopausal for >=1 year or surgically sterile (having undergone tubal ligation, hysterectomy, or bilateral oophorectomy) for at least 6 months or, if of childbearing potential and not abstinent, willing to use a highly effective method of contraception from Screening through 90 days after the last dose of study drug. For a detailed breakdown of the birth control methods which may be considered as highly effective as well as the acceptable birth control methods which may not be considered as highly

effective, refer to Section 11.4 and Section 11.5, respectively (Appendices).
4. Females who are abstinent will not be required to use a contraceptive method unless they become sexually active.
5. Women of childbearing potential who are using hormonal contraception should also employ, together with their male partner, at least one barrier method.
6. Females must refrain from ova (egg cell) donation during this time period.

Exclusion criteria

1. History of coagulopathy.
2. History of fat malabsorption.
3. Dietary restrictions that preclude participation.
4. History of allergies or adverse reactions to PTC857 or to any excipients in the study drug formulation.
5. Females who are pregnant or nursing.
6. Subjects with a prior medical history of clinically significant gastrointestinal, renal, hepatic, neurologic, hematologic, endocrine, oncologic, pulmonary, immunologic, psychiatric, or cardiovascular disease or any other condition which, in the opinion of the Investigator, would jeopardize the safety of the subject or impact the validity of the study results.

Study design

Design

Study type:	Interventional
Intervention model:	Crossover
Masking:	Open (masking not used)
Control:	Uncontrolled
Primary purpose:	Treatment

Recruitment

NL

Recruitment status:	Recruitment stopped
Start date (anticipated):	18-06-2021
Enrollment:	16
Type:	Actual

Ethics review

Approved WMO Date:	31-05-2021
Application type:	First submission
Review commission:	BEBO: Stichting Beoordeling Ethiek Bio-Medisch Onderzoek (Assen)
Approved WMO Date:	10-06-2021
Application type:	First submission
Review commission:	BEBO: Stichting Beoordeling Ethiek Bio-Medisch Onderzoek (Assen)

Study registrations

Followed up by the following (possibly more current) registration

No registrations found.

Other (possibly less up-to-date) registrations in this register

No registrations found.

In other registers

Register	ID
EudraCT	EUCTR2021-001948-10-NL
CCMO	NL77772.056.21

Study results

Results posted: 08-03-2022

First publication
16-12-2021

URL result

Type
int
Naam
M2.1 Wetenschappelijke samenvatting M3. Clinical study report Synopsis 16Dec21
URL
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