TRIUMPH-2: Trientine dihydrochloride (Syprine® capsules) vs. tetrahydrochloride (tablets): a Phase 1, single center, randomized, interventional, open-label, 4-way crossover study in adult healthy male and female subjects to evaluate the pharmacokinetics and the safety and tolerability of 2 different oral formulations.

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Ethical review	Approved WMO
Status	Recruitment stopped
Health condition type	Iron and trace metal metabolism disorders
Study type	Interventional

Summary

ID

NL-OMON43154

Source
ToetsingOnline

Brief title
CS0262 GMPO-131-003

Condition

- Iron and trace metal metabolism disorders

Synonym
excessive copper accumulation, Wilson's disease

Research involving
Human

Sponsors and support

Primary sponsor: GMP-Orphan SAS
Source(s) of monetary or material Support: GMP-Orphan SAS

Intervention

Keyword: 4-way crossover, pharmacokinetics, safety, tolerability

Outcome measures

Primary outcome

PK parameters

Secondary outcome

Safety and tolerability

Study description

Background summary

Wilson*s disease (WD) is an autosomal recessive disorder that results in pathological copper accumulation.
Treatment of WD aims to control copper levels within acceptable limits. Dietary control of copper intake is not sufficient in most patients, and pharmacological treatments are therefore needed. It is generally accepted that the most effective treatments are copper chelators which bind with copper to form stable complexes which is then excreted in the urine. There are two currently approved types of copper chelating agents, D-penicillamine and trientine. gmp-orphan has developed a new trientine salt for the treatment of WD.
The rationale for developing this tetrahydrochloride salt is that, unlike the

dihydrochloride, TETA·4HCl is stable at room temperature, has been developed as a convenient pharmaceutical formulation for adults as well as children, and will improve the access of this treatment to WD patients.

Study objective

The primary objective of this study is to evaluate and compare the plasma PK parameters of TETA and its two metabolites (MAT and DAT) after two dose levels of Syprine® capsules and TETA 4HCL tablets in adult healthy male and female volunteers.
The secondary objective is to compare the safety and tolerability of both formulations.

Study design

This is a single center, randomized, interventional, open-label, 4-way cross-over study to evaluate and compare the PK, safety and tolerability of two dose levels of Trientine dihydrochloride (Syprine® capsules) vs. tetrahydrochloride (tablets) in adult healthy male and female subjects.

Intervention

The study will start with a screening visit. During the screening visit standard medical assessments including safety laboratory tests (blood draw, urine collection), urine drug screen, a physical examination and a vital signs measurement will be performed.
During the study the subjects will enter the clinic, subjects will receive a single dose medication formulation four times (4 way cross-over design), will be asked on a regular basis for possible side effects, blood will be drawn for safety and PK measurements and the vital signs will be checked regularly during the 4 confinement periods.
Finally, a follow-up examination will be performed. During this visit the subjects will be asked for possible side effects, blood will be drawn for safety, vital signs will be checked and a physical examination will be conducted.

Study burden and risks

This study may cause the following side effects:
- nausea, skin rash, gastrointestinal complaints
- in rare cases anaemia can occur

Small risks are related to blood sampling. Regular blood sampling can cause minor aches and bruises at the puncture site.

The risks to health at these dose levels are limited, but subjects may

experience one of the above mentioned side-effects or other symptoms not previously reported. The subject's health will be closely monitored during the trial to minimize these risks.

Contacts

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Trial sites

Listed location countries

Netherlands

Eligibility criteria

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

Inclusion criteria

Male and female healthy volunteers of 18 to 45 (inclusive) years of age

Exclusion criteria

Clinical significant abnormalities at medical research

Study design

Design

Study type:	Interventional
Intervention model:	Crossover
Allocation:	Randomized controlled trial
Masking:	Open (masking not used)
Control:	Active
Primary purpose:	Treatment

Recruitment

NL

Recruitment status:	Recruitment stopped
Start date (anticipated):	03-10-2016
Enrollment:	28
Type:	Actual

Medical products/devices used

Product type:	Medicine
Brand name:	Syprine
Generic name:	Trientine
Product type:	Medicine
Brand name:	TETA 4HCL
Generic name:	TETA 4HCL

Ethics review

Approved WMO Date:	12-09-2016
Application type:	First submission
Review commission:	BEBO: Stichting Beoordeling Ethiek Bio-Medisch Onderzoek (Assen)
Approved WMO Date:	13-09-2016

Application type:	First submission
Review commission:	BEBO: Stichting Beoordeling Ethiek Bio-Medisch Onderzoek (Assen)
Approved WMO Date:	18-10-2017
Application type:	Amendment
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	EUCTR2016-003355-30-NL
CCMO	NL58934.056.16