A phase I, open-label trial to investigate metabolism and pharmacokinetics of a single dose of [14C] BI 1358894 administered as oral solution (Part 1) and multiple doses of BI 1358894 administered as film-coated tablets (Part 2) in healthy male volunteers

Published: 22-09-2020
Last updated: 08-04-2024

The purpose of this study is to investigate how quickly and to what extent BI 1358894 is absorbed and eliminated from the body (this is called pharmacokinetics) when given as a single dose / multiple doses. BI 1348894 will be labelled with Carbon-14…

Ethical review	Approved WMO
Status	Recruitment stopped
Health condition type	Mood disorders and disturbances NEC
Study type	Interventional

Summary

ID

NL-OMON49751

Source
ToetsingOnline

Brief title
ADME study of BI 1358894

Condition

- Mood disorders and disturbances NEC

Synonym
borderline, major depressive disorder

Research involving
Human

Sponsors and support

Primary sponsor: Boehringer Ingelheim Pharma GmbH & Co. KG
Source(s) of monetary or material Support: Pharmaceutical Industry

Intervention

Keyword: BI 1358894, Metabolism, Pharmacokinetics

Outcome measures

Primary outcome

Part 1:

The following pharmacokinetic parameters will be determined for BI 1358894:

- Mass balance recoveries of [14C] BI 1358894 total radioactivity in urine and

faeces after single oral dose

- Amount of radioactivity excreted as a percentage of the administered dose

(fe0-t2) for urine and faeces

Secondary outcome

Part 1:

The following pharmacokinetic parameters will be determined for total [14C] BI

1358894 and

BI 1358894 after single dose administration:

- AUC0-tz (area under the concentration-time curve of the analyte in plasma

over the time interval from 0 to the last quantifiable data point)

- Cmax (maximum measured concentration of the analyte in plasma)

Part 2:

The following pharmacokinetic parameters will be determined for BI 1358894:

- AUC0-24 (area under the concentration-time curve of the analyte in plasma

over the

time interval from 0 to 24)

- Cmax (maximum measured concentration of the analyte in plasma)

- AUC*,ss (area under the concentration-time curve of the analyte in plasma at

steady state over a uniform dosing interval *)

- Cmax,ss (maximum measured concentration of the analyte in plasma at steady

state over a uniform dosing interval *)

Study description

Background summary

BI 1358894 is a new compound that may potentially be used for the treatment of major depressive disorder and borderline personality disorder.

Study objective

The purpose of this study is to investigate how quickly and to what extent BI 1358894 is absorbed and eliminated from the body (this is called pharmacokinetics) when given as a single dose / multiple doses. BI 1348894 will be labelled with Carbon-14 (14C), this means it is made radioactive. In this way BI 1358894 can be traced in blood, urine and feces. The breakdown products (metabolites) of BI 1358894 will also be investigated.

Study design

Part 1:
Participation from screening until the follow-up visit will last up to approximately 10 weeks.
The volunteer will come to the research center for:
1 screening visit
1 stay in the research center of 16 days (15 nights)
Up to 5 additional 24-hour visits
1 follow-up visit

Part 2:
Participation from screening until the follow-up visit will last up to approximately 12 weeks.
The volunteer will come to the research center for:
1 screening visit
1 stay in the research center of 28 days (27 nights)
9 short visits to the research center
1 follow-up visit

Intervention

N/A

Study burden and risks

BI 1358894 has already been administered to humans before. In total, approximately 217 healthy volunteers and 73 patients have received BI 1358894 in 7 previous clinical trials. In these studies, doses up to 200 mg BI 1358894 under fasted and fed conditions have been tested. These doses were safe and were found to be well tolerated.
The most frequent side effect was headache. The intensity of headache was mild to moderate.
Furthermore, the following side effects were observed:
Dizziness
Tiredness

For a complete overview see the protocol.

Contacts

Public
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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. Healthy male subjects according to the assessment of the investigator, as based on a complete medical history including a physical examination, vital signs (BP, PR), 12-lead ECG, and clinical laboratory tests
2. Age of 18 to 65 years (inclusive)
3. BMI of 18.5 to 29.9 kg/m2 (inclusive)
4. Signed and dated written informed consent prior to admission to the study, in accordance with GCP and local legislation
5. Male subjects who meet any of the following criteria from screening until 90 days after trial completion:
- Use of adequate contraception of the female partner, e.g. any of the following methods plus condom: implants, injectables, combined oral or vaginal contraceptives, intrauterine device that started at least two months prior to first study drug administration or barrier method (e.g. diaphragm with spermicide) or,
- Sexually abstinent or,
- A vasectomy performed at least 1 year prior to screening (with medical assessment of the surgical success) or,
- Surgically sterilised female partner (including hysterectomy, bilateral tubal occlusion, or bilateral oophorectomy) or,
- Postmenopausal female partner, defined as at least 1 year of spontaneous amenorrhea (in questionable cases a blood sample with levels of FSH above 40 U/L and estradiol below 30 ng/L is confirmatory)

Exclusion criteria

1. Any finding in the medical examination (including BP, PR or ECG) deviating from normal and assessed as clinically relevant by the investigator

2. Repeated measurement of systolic blood pressure outside the range of 90 to 140 mmHg, diastolic blood pressure outside the range of 50 to 90 mmHg, or pulse rate outside the range of 40 to 100 bpm
3. Any laboratory value outside the reference range that the investigator considers to be of clinical relevance
4. C-reactive protein (CRP) > upper limit of normal (ULN), liver or kidney parameter above ULN
5. Any evidence of a concomitant disease assessed as clinically relevant by the investigator

For complete overview see the protocol

Study design

Design

Study type: Interventional

Masking:	Open (masking not used)
Control:	Uncontrolled
Primary purpose:	Treatment

Recruitment

NL

Recruitment status:	Recruitment stopped
Start date (anticipated):	20-10-2020
Enrollment:	16
Type:	Actual

Ethics review

Approved WMO Date:	22-09-2020
Application type:	First submission
Review commission:	BEBO: Stichting Beoordeling Ethiek Bio-Medisch Onderzoek (Assen)
Approved WMO Date:	08-10-2020

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	EUCTR2020-002054-25-NL
CCMO	NL75122.056.20