# An open label, single dose, single period study to assess the mass balance recovery, metabolite profile and metabolite identification of [14C] APD421 administered via the intravenous route to healthy male subjects

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| **Ethical review** | Approved WMO |
| **Status** | Recruitment stopped |
| **Health condition type** | Other condition |
| **Study type** | Interventional |

## Summary

### ID

NL-OMON42878

**Source**
ToetsingOnline

**Brief title**
ADP421 Human ADME Study

### Condition

- Other condition

**Synonym**
nausea, vomiting

**Health condition**

misselijkheid en braken

**Research involving**
Human

## Sponsors and support

**Primary sponsor:** Acacia Pharma
**Source(s) of monetary or material Support:** Farmaceutische industrie

## Intervention

**Keyword:** ADME, Amisulpride, APD412

## Outcome measures

### Primary outcome

- To assess the mass balance recovery after a single IV dose of [14C]-APD421

- To identify the chemical structure of each metabolite accounting for * 10% of

parent compound exposure

- To determine the routes and rates of elimination of [14C]-APD421

### Secondary outcome

- To further explore the IV PK of [14C]-APD421

- To evaluate the extent of distribution of total radioactivity into blood cells

- To provide additional safety and tolerability information for APD421

# Study description

### Background summary

APD421 is a new formulation for intravenous administration of the already registered drug amisulpride. Thus, the active compound in APD421 is no new drug; the active compound is already available on the market in other formulations and under several dosages for the treatment of schizophrenia and other psychoses. APD421 is being developed for the treatment of nausea and vomiting following operations or chemotherapy. This new formulation is in

development and is not registered as a drug but has been given to humans before. Amisulpride blocks some of the effects of a substance known as dopamine. Dopamine is a neurotransmitter that occurs naturally in the body and plays a role in the brain and nervous system, including triggering nausea and vomiting. Amisulpride binds to specific dopamine receptors and, like other dopamine antagonists, may be useful in prevention and treatment of nausea and vomiting.

## Study objective

The purpose of the study is to investigate how quickly and to what extent APD421 is absorbed, distributed, metabolized (broken down) and eliminated from the body (this is called pharmacokinetics). APD421 to be administered will be labelled with 14-Carbon (14C) and is thus radioactive (also called radiolabeled). In this way APD421 can be traced in blood, urine and faeces. It will also be investigated to what extent APD421 is tolerated.

## Study design

The study will consist of 1 period during which you will stay in the clinical research centre in Groningen for a maximum of 9 days (8 nights).

## Intervention

The volunteer will receive a single dose of 10 mg radiolabeled APD421 as an intravenous infusion (in a vein) during 4 minutes (with a possible extension up to 8 minutes).

## Study burden and risks

All potential drugs cause adverse effects; the extent to which this occurs differs. Amisulpride is already approved in tablet form for treatment of some psychiatric illnesses (under brand names such as Solian®), when it is given at 5 to 100 times higher doses than the dose given in the current study. For adverse effects, please see the patient information leaflet for Solian. In 7 clinical studies with APD421 to date, the only adverse effects considered related to study drug and occurring more frequently than with placebo (placebo is the same formulation without the active ingredient) have been:
* short-lived pain at the infusion site, at doses of 20 mg and above, and
* short-lived increase in prolactin levels in the blood. Prolactin is a hormone which is normally high during pregnancy and lactation and also in severe stress.
In these clinical studies, no other medical problems were associated with these adverse effects. You should be aware that the aforementioned adverse effects and possibly other, still unknown adverse effects, may occur during the study. However, with the dose used in this study no serious adverse effects are expected.

In this study radiolabeled APD421 will be used. The amount of radioactivity in this dose will be maximally 3.7 MBq (MBq = megabecquerel, this is a unit to express the amount of radioactivity in the study compound). The average environmental background radiation burden in The Netherlands is approximately 2 mSv per year (mSv = millisievert, this unit indicates the burden on the human body; thus the effect on the human body of the amount of radioactivity administered). The additional radiation burden in this study due to the administration of approximately 3.7 MBq radiolabeled APD421 is calculated to be less than 0.1 mSv. This is maximally 5% of the average annual radiation burden.

Procedures: pain, minor bleeding, bruising, possible infection

## 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

healthy male subjects
18-65 yrs, inclusive
BMI: 18.0-30.0 kg/m2, inclusive

### Exclusion criteria

Suffering from hepatitis B, hepatitis C, cancer or HIV/AIDS. In case of participation in another drug study within 3 months before the start of this study or being a blood donor within 3 months from the start of the study. In case of donating more than 100 ml of blood in the 3 months prior the start of this study.

## Study design

### Design

**Study type:** Interventional

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

### Recruitment

NL

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|---|---|
| Recruitment status: | Recruitment stopped |
| Start date (anticipated): | 13-07-2016 |
| Enrollment: | 6 |
| Type: | Actual |

## Ethics review

Approved WMO

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| Date: | 07-07-2016 |
| Application type: | First submission |
| Review commission: | BEBO: Stichting Beoordeling Ethiek Bio-Medisch Onderzoek (Assen) |

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| Approved WMO Date: | 11-07-2016 |
| 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 | EUCTR2016-001701-16-NL |
| CCMO | NL58339.056.16 |