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A study in healthy volunteers to assess different doses (quantity) of the test medicine (Aprepitant) and to investigate the impact of food on the different doses of the test medicine

Submission date 16/09/2022	**Recruitment status** No longer recruiting	[X] Prospectively registered [_] Protocol [_] Statistical analysis plan [_] Results [_] Individual participant data [_] Record updated in last year
Registration date 05/10/2022	**Overall study status** Completed	
Last Edited 06/05/2025	**Condition category** Other	

Plain English summary of protocol

Background and study aims
The sponsor is developing a new recipe of the test medicine, aprepitant, for the potential treatment of cancer. Aprepitant is currently used to treat nausea and vomiting related the chemotherapy, however in preclinical trials it was found to have anticancer effects at higher doses than currently given to patients. This single part, healthy volunteer study will investigate how the test medicine is taken up by the body, safety and tolerability and varying and increasing dose, and the effect of food may be explored.

Who can participate?
Healthy males aged 18 – 55 inclusive.

What does the study involve?
The study consists of one part, involving a single cohort of 12 male volunteers. In each period, volunteers will receive single oral doses of the test medicine. In period 1, volunteers will receive a 150 mg dose of the test medicine, and the results from Period 1 will determine the dose given in Period 2. Period 3 – 5 are optional, and depending on results from the previous period, volunteers may receive a higher dose of the test medicine, or it may be given in the fed state. Volunteers may also receive a dose of the marketed product of aprepitant.
Volunteers will be discharged on Day 3 in each period and will return to the clinical unit on Day 4 of each period for the collection of a PK blood sample and for any new adverse events (AE's) to be recorded. There will be a break of at least 14 days between each period, to make sure there is no test medicine in the volunteers' bodies before their next dose.
Volunteers will receive a follow up phone call 5 to 7 days following the final dose.
Volunteer's blood and urine will be taken throughout the study for analysis of the test medicine and for their safety.
Volunteers are expected to be involved in this study for 16 weeks from screening to the follow up call.

What are the possible risks and benefits of participating?
Participants get no medical benefit from taking part in this study. However, development of a treatment for cancer may benefit the population as a whole. It is considered that the risk /benefit evaluation in this study supports the use of healthy volunteers. Full information on possible side effects is provided to volunteers in the Participant Information Sheet and Informed Consent Form. Volunteers are closely monitored during the study and safety assessments are performed regularly.

Where is the study run from?
Quotient Sciences, Nottingham, UK

When is the study starting and how long is it expected to run for?
August 2022 to February 2023

Who is funding the study?
Oxilio Limited

Who is the main contact?
Simon Yaxley
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Contact information

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Principal investigator

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Additional identifiers

Integrated Research Application System (IRAS)
1005687

Protocol serial number
QSC206159

Study information

Scientific Title
A single-part, five-period, sequential, open-labelled study designed to evaluate the safety and pharmacokinetic profile of varying doses of aprepitant following administration of a lipidic capsule formulation (LipAprep) in healthy subjects

Study objectives
The trial will meet the following primary and secondary objectives:

Primary objectives
- To evaluate the pharmacokinetic (PK) profiles of aprepitant following oral administrations of a lipidic capsule formulation (LipAprep) in healthy subjects
- To provide safety and tolerability information for aprepitant following oral administrations of a lipidic capsule formulation (LipAprep) in healthy subjects

Secondary objectives
- To evaluate the PK profiles of aprepitant following oral administrations of an immediate release (IR) marketed reference formulation in healthy subjects (optional)
- To assess the relative bioavailability of the aprepitant lipidic capsule formulations (LipAprep) compared to the IR marketed formulation following oral administration in healthy subjects (optional)

- To evaluate the PK profiles of aprepitant following oral administrations of the lipidic capsule formulation (LipAprep) at the same dose in the fed and fasted state in healthy subjects (optional)
- To provide additional safety and tolerability information for aprepitant following oral administrations of an IR marketed formulation in healthy subjects (optional)

Ethics approval required
Ethics approval required

Ethics approval(s)
approved 21/09/2022, London Bridge Research Ethics Committee (2 Redman Place, Stratford, London, E20 1JQ, United Kingdom; +44 (0)2071048387, 2071048124; londonbridge.rec@hra.nhs.uk), ref: 22/LO/0549

Study design
Single-centre single-part five-period controlled study

Primary study design
Interventional

Study type(s)
Other

Health condition(s) or problem(s) studied
Cancer

Interventions
This study will investigate the PK, safety and tolerability of varying or increasing doses of LipAprep capsule formulation and optionally an immediate release aprepitant formulation. Each participant will receive single oral doses of LipAprep on up to 5 occasions across up to 5 treatment periods. In Period 1, volunteers will receive a 150 mg dose of the test medicine. This will determine the single dose given in Period 2. Periods 3 - 5 are optional; volunteers may be given a higher dose or be dosed with a dose previously administered in the fed state.

Intervention Type
Drug

Phase
Phase I

Drug/device/biological/vaccine name(s)
Aprepitant IR capsule, 125 mg LipAprep capsule 37.5 mg

Primary outcome(s)
1. Evaluate the pharmacokinetic (PK) profiles of LipAprep (aprepitant lipidic capsule formulation) by measurement of PK parameters including but not limited to: Tlag, Tmax, Cmax, Cmax/D, C24, AUC(0-24), AUC(0-24)/D, AUC(0-last), AUC(0-last)/D, lambda-z, T1/2, and statistical assessment of dose proportionality, where applicable
2. To provide safety and tolerability information for LipAprep by assessing: incidence of adverse events (AEs), physical examinations and change from baseline for vital signs, electrocardiograms (ECGs), and laboratory safety tests

Key secondary outcome(s))
1. Evaluate the PK profiles of aprepitant immediate release (IR) marketed reference formulation by measurement of PK parameters including but not limited to: Tlag, Tmax, Cmax, Cmax/D, C24, AUC(0-24), AUC(0-24)/D, AUC(0-last), AUC(0-last)/D, lambda-z and T1/2, where applicable
2. To assess the relative bioavailability of LipAprep compared to the IR marketed formulation by calculation of relative bioavailability (Frel) for Cmax, AUC(0-24) and AUC(0-last), including statistical assessment of relative bioavailability
3. Evaluate PK profiles of LipAprep at the same dose in the fed and fasted state by measurement of PK parameters including but not limited to: Tlag, Tmax, Cmax, Cmax/D, C24, AUC(0-24), AUC(0-24)/D, AUC(0-last), AUC(0-last)/D, lambda-z, T1/2, and statistical assessment of food effect, where applicable
4. To provide additional safety and tolerability information for aprepitant following oral administrations of an IR marketed formulation by assessment of the incidence of AEs, physical examinations and change from baseline for vital signs, ECGs, and laboratory safety tests

Completion date
20/02/2023

Eligibility

Key inclusion criteria
1. Must provide written informed consent
2. Must be willing and able to communicate and participate in the whole study
3. Aged 18 – 55 at the time of signing informed consent
4. Must agree to adhere to the contraception requirements defined in the protocol
5. Healthy males, determined by no clinically significant findings on ECG, vital signs or urinalysis
6. Body mass index (BMI) of 18.0 to 32.0 kg/m2 as measured at screening
7. Weight ≥50 kg at screening

Participant type(s)
Healthy volunteer

Healthy volunteers allowed
No

Age group
Adult

Lower age limit
18 years

Upper age limit
55 years

Sex
Male

Total final enrolment
13

Key exclusion criteria
1. Serious adverse reaction or serious hypersensitivity to any drug or the formulation excipients
2. Presence or history of clinically significant allergy requiring treatment. Hay fever is allowed unless it is active.
3. History of clinically significant cardiovascular, renal, hepatic, dermatological, chronic respiratory or gastrointestinal disease, neurological or psychiatric disorder
4. Subjects with a history of cholecystectomy or gall stones
5. History or presence of fructose intolerance, glucose-galactose malabsorption or sucrase-isomaltase insufficiency
6. Subjects who do not have suitable veins for multiple venepunctures/cannulation
7. Evidence of current SARS-CoV-2 infection or recent infection within 4 weeks of first IMP administration or subjects who have ongoing symptoms attributed to COVID-19
8. Clinically significant abnormal clinical chemistry, haematology or urinalysis. Subjects with Gilbert's Syndrome are allowed.
9. Positive hepatitis B surface antigen (HBsAg), hepatitis C virus antibody (HCV Ab) or HIV 1 and 2 antibody results
10. Subjects who have received any IMP in a clinical research study within the 90 days prior to Day 1, or less than 5 elimination half-lives prior to Day 1, whichever is longer
11. Donation of blood or plasma within the previous 3 months or loss of greater than 400 mL of blood
12. Subjects who are taking, or have taken, any prescribed or over-the-counter drug or herbal remedies in the 14 days before IMP administration
13. History of any drug or alcohol abuse in the past 2 years
14. Regular alcohol consumption >21 units per week
15. A confirmed positive alcohol breath test at screening or admission
16. Current smokers and those who have smoked within the last 12 months
17. Current users of e-cigarettes and nicotine replacement products and those who have used these products within the last 12 months
18. Confirmed positive drugs of abuse test result, as detailed in the protocol
19. Consumption of a low-fat diet within 2 weeks of first dose
20. Male subjects with pregnant or lactating partners
21. Subjects who are, or are immediate family members of, a study site or sponsor employee
22. Failure to satisfy the investigator of fitness to participate for any other reason

Date of first enrolment
14/10/2022

Date of final enrolment
20/02/2023

Locations

Countries of recruitment
United Kingdom

England

Study participating centre

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Sponsor information

Organisation
Oxilio Limited

Funder(s)

Funder type
Industry

Funder Name
Oxilio Limited

Results and Publications

Individual participant data (IPD) sharing plan
The datasets generated and/or analysed during the current study are not expected to be made available because of their high commercial sensitivity and the negligible benefit to the public of publication of results of non-therapeutic clinical trials

IPD sharing plan summary
Not expected to be made available

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
HRA research summary			28/06/2023	No	No