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A clinical trial to learn more about the absorption of radiolabeled drug LXE408, how the body breaks it down, and how quickly the body gets rid of it in healthy men

Submission date
23/12/2025

Recruitment status
No longer recruiting

Registration date
09/01/2026

Overall study status
Completed

Last Edited
09/01/2026

Condition category
Infections and Infestations

[X] Prospectively registered
[_] Protocol
[_] Statistical analysis plan
[_] Results
[_] Individual participant data
[X] Record updated in last year

Plain English summary of protocol

Background and study aims
The Sponsor is developing the test medicine, LXE408, to treat diseases such as Chagas disease and leishmaniasis, which are caused by parasites.
This study in healthy volunteers aims to answer these questions.
* How much test medicine enters the bloodstream and how quickly does the body get rid of it?
* How does the body break down and get rid of the test medicine?
This study will also provide more information on the safety and tolerability of the test medicine, and any side effects.

Who can participate?
Healthy male volunteers aged 30 to 55 years.

What does the study involve?
Participants will take a single 300 mg oral dose of radiolabelled LXE408 containing not more than 44.8 kBq radioactivity (carbon-14) on Day 1. They'll stay in the clinic for up to 10 nights on one occasion, attend up to 5 outpatient visits (4 of which involve an overnight stay in the clinical unit) and take up to 11 weeks to finish the study.
Samples will be collected to:
1. Do safety tests (blood and urine)
2. Measure the amounts of the test medicine and its breakdown products and total radioactivity (blood, urine, feces, bile and expired air)

What are the possible benefits and risks of participating?
Healthy volunteers will get no medical benefit from the test medicine; however, the aims of the study can be most efficiently met in volunteers with no concurrent medical conditions and who do not need to take concomitant medication that might interfere with the study objectives or increase the risk of the study. The risk/benefit evaluation in this study supports the use of healthy volunteers.

Where is the study run from?
Quotient Sciences Limited (United Kingdom)

When is the study starting and how long is it expected to run for?
January 2026 until March 2026

Who is funding the study?
Novartis Pharmaceuticals UK Limited (United Kingdom)

Who is the main contact?
recruitment@weneedyou.co.uk

Contact information

Type(s)
Principal investigator

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Integrated Research Application System (IRAS)
1012840

Study information

Scientific Title
A Phase I, open-label, non-randomized study to assess the absorption, distribution, metabolism and excretion (ADME) and pharmacokinetics of LXE408 following a single oral dose of [14C] LXE408 in healthy male participants

Study objectives
This trial will meet the following primary and secondary objectives:
Primary objectives:
1. To determine the rates and routes of excretion of [14C]LXE408-related radioactivity, including mass balance of total radioactivity (TRA) following a single oral dose of 300 mg [14C]LXE408 in healthy male participants.
2. To determine the pharmacokinetics (PK) of TRA in whole blood and plasma following a single oral dose of 300 mg [14C]LXE408 in healthy male participants.
3. To characterize the PK of LXE408 and metabolite MAN519 in plasma following a single oral dose of 300 mg [14C]LXE408 in healthy male participants.

Secondary objective:
To assess the safety and tolerability of a single oral dose of 300 mg LXE408 administered to healthy male participants.

Ethics approval required
Ethics approval required

Ethics approval(s)
Approved 07/01/2026, South Central - Berkshire Research Ethics Committee (Health Research Authority 2 Redman Place, Stratford, E20 1JQ, United Kingdom; +44 020 7 104 8178; berkshire.rec@hra.nhs.uk), ref: 25/SC/0313

Primary study design
Interventional

Allocation
N/A: single arm study

Masking
Open (masking not used)

Control
Uncontrolled

Assignment
Single

Purpose
Healthy volunteer study to assess the absorption, distribution, metabolism and excretion (ADME) of the test medicine and the safety and tolerability.

Study type(s)

Health condition(s) or problem(s) studied
Chagas disease, Visceral Leishmaniasis and Cutaneous Leishmaniasis.

Interventions
This is a single part study. It is planned to enrol 8 healthy men. On Day 1, participants will take a single oral dose of 300 mg [14C]LXE408 Oral Suspension containing not more than [NMT] 44.8 kBq radioactivity in the fasted state. Participants will stay in the clinic for up to 10 nights, attend up to 5 outpatient visits (4 of which involve an overnight stay at the clinical unit) and take up to 11 weeks to finish the study.

Intervention Type
Drug

Phase
Phase I

Drug/device/biological/vaccine name(s)
[14C]LXE408

Primary outcome(s)
1. Excretion/mass balance of total radioactivity in urine, feces and expired air (and vomitus if produced) measured using assays for total radioactivity recovered in excreta at Day -1 (urine and feces) or pre-dose (expired air) until Day 2 (expired air) or the final return visit (up to Day 39 for urine and feces)

2. Pharmacokinetic parameters (including but not limited to Cmax, Tmax, AUClast, AUCinf, T1/2, assessment of whole blood/plasma ratio of total radioactivity over time) of total radioactivity measured using plasma and whole blood total radioactivity assays at pre-dose until the final return visit (up to Day 39)

3. Pharmacokinetic parameters (including but not limited to Cmax, Tmax, AUClast, AUCinf, T1/2, Vz/F (LXE408 only) and CL/F (LXE408 only)) of LXE408 and metabolite MAN519 measured using plasma drug concentration and plasma metabolite concentration assays at pre-dose until the final return visit (up to Day 39)

Key secondary outcome(s)
1. Safety and tolerability measured using the incidence of treatment-emergent adverse events, physical examinations and change from baseline in vital signs, electrocardiograms and laboratory safety tests at from Day -1 until the follow-up phone call

Completion date
27/03/2026

Eligibility

Key inclusion criteria
1. Signed informed consent must be obtained prior to participation in the study.
2. Healthy males aged 30 to 55 years inclusive at screening.
3. In good health as determined by no clinically significant findings from medical history, physical examination, vital signs, ECG, and laboratory tests at screening.
4. At screening, baseline (Day -1) and pre-dose, vital signs after resting in supine position for 5 minutes must be within the following ranges:
4.1. Body temperature from 35.0 to 37.5°c, inclusive

4.2. Systolic blood pressure (sbp) from 90 to 140 mm hg inclusive.
4.3. Diastolic blood pressure (dbp) from 50 to 90 mm hg inclusive.
4.4. Pulse rate from 45 to 100 bpm, inclusive
5. Weigh at least 50 kg with a body mass index (BMI) within the range of 18.0 to 30.0 kg/m2 at screening.
6. Participants must demonstrate their ability to swallow an empty size 00 capsule.
7. Participants agree to be available for the entire duration of the study and to be able to adhere to the study restrictions and visit schedule.
8. Able to communicate well with the Investigator and comply with the requirements of the study.

Healthy volunteers allowed
Yes

Age group
Adult

Lower age limit
30 Years

Upper age limit
55 Years

Sex
Male

Total final enrolment
0

Key exclusion criteria
1. Use of another investigational drug within 5 half-lives or within 90 days/until the expected pharmacodynamic effect has returned to baseline prior to dosing, whichever is longer.
2. Participants who are, or are immediate family members of, a study site or sponsor employee.
3. History of hypersensitivity to the investigational compound/compound class/radioactive substances or excipients being used in this study.
4. Participant has, in the opinion of the Investigator, a known relevant allergy (not including mild seasonal hay fever and/or conjunctivitis or low-grade food intolerances), a preexisting history of a relevant allergic condition, or a predisposition for an allergic reaction.
5. Participants who do not have suitable veins for multiple venipunctures/cannulations as assessed by the investigator or delegate at Screening.
6. History or presence of malignancy of any organ system (other than localized basal cell carcinoma of the skin), treated or untreated, within the past 5 years, regardless of whether there is evidence of local recurrence or metastases.
7. History of drug abuse or unhealthy alcohol use within the 12 months prior to dosing. Regular alcohol consumption > 21 units per week (1 unit = ½ pint beer, or a 25 mL shot of 40% spirit, 1.5 to 2 units = 125 mL glass of wine, depending on type).
8. Current users of any nicotine-containing products including but not limited to cigarettes, cigars, chewing tobacco, vaporizers, e-cigarettes and nicotine replacement products and those who have used these products or smoked within the last 3 months.
9. A confirmed breath carbon monoxide (CO) reading of > 10 ppm at screening or baseline.
10. Confirmed positive drugs of abuse test result at screening or baseline.

11. A confirmed positive alcohol breath test at screening or baseline.
12. Use of any prescription drugs, over-the-counter medications, herbal supplements, or cannabis /marijuana/cannabidiol-containing products, within 4 weeks prior to dosing. If needed, paracetamol/acetaminophen up to 2 g per 24 hours is acceptable, but must be documented in the Concomitant medications / Significant nondrug therapies page of the CRF. Exceptions may apply, as determined by the investigator, if each of the following criteria are met: medication with a short half-life if the washout is such that no PD activity is expected by the time of dosing with IMP; and if the use of medication does not jeopardize the safety of the trial participant; and if the use of medication is not considered to interfere with the objectives of the study.
13. Use of antiacid drugs within 4 weeks prior to dosing.
14. Use of any dietary supplements (vitamins included) within 2 weeks prior to dosing.
15. Absence of regular defecation pattern (participants with an average defecation frequency of less than once per 2 days or chronic diarrhea).
16. Any surgical or medical condition that might significantly alter the ADME properties of drugs, or that may jeopardize the participant in case of participation in the study. The investigator should make this determination in consideration of the participant's medical history and/or clinical or laboratory evidence of any of the following:
16.1. Inflammatory bowel disease, peptic ulcers, gastrointestinal (GI) disease including rectal bleeding.
16.2. Major GI tract surgery such as gastrectomy, gastroenterostomy, bowel resection or splenectomy.
16.3. Pancreatic injury or pancreatitis.
16.4. Evidence of urinary obstruction or difficulty in voiding at screening.
16.5. Participants with Gilbert's syndrome.
17. Acute diarrhea or constipation in the 7 days before the predicted Day 1. If screening occurs > 7 days before Day 1, this criterion will be determined on Day 1. Diarrhea will be defined as the passage of liquid feces and/or a stool frequency of greater than three times per day. Constipation will be defined as a failure to open the bowels more frequently than every other day.
18. Clinically significant abnormal clinical chemistry, hematology, or urinalysis as judged by the investigator.
19. At screening or baseline, any parameter of ALT, AST, GGT, ALP or total bilirubin > ULN.
20. Hemoglobin or fasting blood glucose levels below the lower limit of normal as defined by the local laboratory at screening or baseline.
21. At screening or baseline, impaired renal function as indicated by any of the following:
21.1. One or more parameters of creatinine, blood urea nitrogen (BUN) and/or urea > ULN
21.2. Clinically significant abnormal urinary constituents (e.g. proteinuria).
21.3. Estimated glomerular filtration rate (eGFR) < 80 mL/min/1.73 m2.
21.4. Cystatin C (screening visit only) or urine albumin-creatinine ratio (UACR) > ULN
22. Any single parameter of amylase or lipase > ULN, or any history or presence of clinical symptoms suggestive of pancreatitis at screening or baseline.
23. Positive hepatitis B surface antigen (HBsAg), hepatitis C virus (HCV) antibody or human immunodeficiency virus (HIV) 1 and 2 antibody at screening.
24. History or current diagnosis of ECG abnormalities indicating significant risk of safety for participants taking part in the study:
24.1. Concomitant clinically significant cardiac arrhythmias, e.g., sustained ventricular tachycardia, and clinically significant second or third degree atrioventricular (AV) block without a pacemaker.
24.2. History of familial long QT syndrome or known family history of Torsades de Pointes at screening.
24.3. QT interval corrected by Fridericia's formula (QTcF) ≥ 450 msec at screening, baseline or pre-dose.

24.4. PR interval > 220 msec at screening, baseline or pre-dose.
25. Sexually active males unwilling to adhere to the contraception requirements of the study as detailed below:
25.1. A condom is required for all sexually active male participants to prevent them from fathering a child AND to prevent delivery of the investigational drug via seminal fluid to their partner for 94 days after dosing (duration to cover one spermatogenesis cycle plus 5 half-lives).
25.2. In addition to condoms, as a precaution, if a participant has a female partner of childbearing potential*, the partner must use a method of highly effective contraception from the list below for 94 days after dosing:
25.2.1. Partner's bilateral tubal occlusion or bilateral tubal ligation.
25.2.2. Partner's use of oral (estrogen and progesterone; or progesterone only associated with inhibition of ovulation), injected, or implanted hormonal methods of contraception or placement of an intrauterine device (IUD) or intrauterine system (IUS), or other forms of hormonal contraception that have comparable efficacy (failure rate < 1%), for example hormone vaginal ring or transdermal hormone contraception.
25.2.3. Male participant sterilization (vasectomy [confirmed as successful]; at least 6 months prior to screening) is also appropriate.
25.2.4. Total abstinence (when this is in line with the preferred and usual lifestyle of the participant). Periodic abstinence (e.g., calendar, ovulation, symptothermal, postovulation methods) and withdrawal are not acceptable methods of contraception.
25.3. In addition, male participants should not donate semen for the time specified above.
25.3.1. *Women are considered to be of childbearing potential unless:
25.3.2. They are post-menopausal as evidenced by 12 months of natural (spontaneous) amenorrhea with an appropriate clinical profile (i.e., age-appropriate history of vasomotor symptoms).
25.3.3. They have had hysterectomy, total hysterectomy or bilateral salpingectomy/bilateral surgical oophorectomy.
26. Male participants with pregnant or lactating partners.
27. Donation or loss of 400 mL or more of blood or plasma within the last 8 weeks prior to dosing.
28. Radioactivity in blood, to be tested during screening using Accelerator Mass Spectrometry, must not exceed a 14C/12C ratio of 1.31 x 10^-12.
29. Radiation exposure, including that from the present study, excluding background radiation but including diagnostic x-rays and other medical exposures, exceeding 5 mSv in the last 12 months or 10 mSv in the last 5 years. No occupationally exposed worker, as defined in the Ionising Radiation Regulations 2017, shall participate in the study.
30. Receipt of a live vaccine within a 4-week period or an inactivated/killed vaccine within a 2-week period before dosing.
31. Subject has a medical condition that may adversely affect taste or smell activity including but not limited to mouth ulcers, significant gum disease, and respiratory and/or sinus infection or cold.
32. Failure to satisfy the investigator of fitness to participate for any other reason.

Date of first enrolment
12/01/2026

Date of final enrolment
27/03/2026

Locations

Countries of recruitment
United Kingdom

England

Study participating centre
Quotient Sciences
Mere Way, Ruddington Fields
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Sponsor information

Organisation
Novartis Pharmaceuticals UK Limited

Funder(s)

Funder type

Funder Name
Novartis Pharmaceuticals UK Limited

Alternative Name(s)
Novartis UK, NOVARTIS UK LIMITED

Funding Body Type
Private sector organisation

Funding Body Subtype
For-profit companies (industry)

Location
United Kingdom

Results and Publications

Individual participant data (IPD) sharing plan

IPD sharing plan summary

Data sharing statement to be made available at a later date