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A study to investigate whether novel vaccines can improve Crohn's disease by targeting a bacterium thought to contribute to the condition

Submission date 26/05/2026	**Recruitment status** Not yet recruiting	[X] Prospectively registered [_] Protocol
Registration date 01/06/2026	**Overall study status** Ongoing	[_] Statistical analysis plan [_] Results
Last Edited 01/06/2026	**Condition category** Digestive System	[_] Individual participant data [X] Record updated in last year

Plain English summary of protocol

Background and study aims
This study is a phase II study testing two experimental vaccines designed to target Mycobacterium avium subspecies paratuberculosis (MAP), which researchers believe may play a role in Crohn's disease.

Who can participate?
Adult patients aged 18–50 with active Crohn's disease.

What does the study involve?
Participants will be randomly assigned to receive either the vaccine treatment or a placebo (dummy treatment). Neither the participants nor the researchers will know which treatment each person receives during the study.

The vaccine approach uses two different vaccines in sequence (called a 'heterologous prime–boost' strategy):

Participants in the vaccine group will receive:
-ChAdOx2 HAV by injection into the muscle on Day 0
-MVA HAV by injection into the muscle on Day 56

Participants in the placebo group will receive matching placebo injections at the same time points.

The study aims to assess:
-How effective the vaccines are at improving Crohn's disease
-Their safety
-How the immune system responds to them

Researchers will measure whether participants achieve remission of Crohn's disease by Day 112 using standard disease activity assessments (CDAI and SES-CD).

Participants will attend several clinic visits over approximately 4–5 months, including screening, vaccination visits, safety checks, and follow-up assessments. All participants will be monitored for at least 112 days after their first vaccination.

What are the possible benefits and risks of participating?
Participants may or may not receive a direct benefit from taking part in this study. The investigational vaccine is designed to generate an immune response against Mycobacterium avium subspecies paratuberculosis (MAP), which is hypothesised to contribute to Crohn's disease in some patients. Participants receiving the vaccine regimen may experience an improvement in Crohn's disease symptoms or disease activity, although this cannot be guaranteed. Information obtained from this study may contribute to the development of new treatment options for future patients with Crohn's disease.

The investigational vaccines may cause side effects like those observed with other adenoviral and MVA-vectored vaccines. These may include pain, redness, swelling, warmth or itching at the injection site, headache, fatigue, feverishness, muscle aches, joint pain, nausea, malaise and flu-like symptoms. Most expected reactions are mild to moderate and self-limiting. As with any investigational medicinal product, there may be risks and side effects that are currently unknown. Participants will be closely monitored throughout the study.

Where is the study run from?
Guy's Hospital, UK.

When is the study starting and how long is it expected to run for?
November 2026 to December 2028

Who is funding the study?
HAV Vaccines Limited, UK.

Who is the main contact?
Prof Jeremy Sanderson, gstt.gastroenterologyofficestaff@nhs.net

Contact information

Type(s)
Principal investigator, Public, Scientific

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Additional identifiers

Integrated Research Application System (IRAS)
366726

Study information

Scientific Title
A randomised, placebo-controlled, double–blind, single site, phase II clinical trial to evaluate the efficacy, safety and immunogenicity of simian adenovirus and poxvirus vectored vaccines against a Mycobacterium avium complex subspecies in participants with active Crohn's disease.

Acronym
HAV003

Study objectives
Primary Objective
To assess the efficacy of the ChAdOx2 HAV–MVA HAV prime–boost regimen versus placebo in participants with active Crohn’s disease, measured by CDAI/SES-CD remission at Day 112.

Primary Outcome Measure
Proportion of participants achieving CDAI/SES-CD remission at Day 112.

Secondary Objectives
To assess the safety and tolerability of the ChAdOx2 HAV–MVA HAV prime–boost regimen versus placebo.

To assess the immunogenicity of the ChAdOx2 HAV–MVA HAV prime–boost regimen versus placebo.

Secondary Outcome Measures
Safety outcomes will include:
• Occurrence of local reactogenicity signs and symptoms for 7 days following each vaccination.
• Occurrence of systemic reactogenicity signs and symptoms for 7 days following each vaccination.
• Occurrence of adverse events for 28 days following each vaccination.
• Changes from baseline in safety laboratory measures.
• Occurrence of serious adverse events during the whole study duration (to Day 140).

Immunogenicity outcomes will include:
• Humoral and cellular immune responses to ChAdOx2 HAV and MVA HAV, measured by validated immunoassays.
• Kinetics of immune responses at defined time points following prime and boost vaccinations.

Ethics approval required
Ethics approval required

Ethics approval(s)
notYetSubmitted

Primary study design
Interventional

Allocation
Randomized controlled trial

Masking
Blinded (masking used)

Control
Placebo

Assignment
Parallel

Purpose
Treatment

Study type(s)

Health condition(s) or problem(s) studied
Crohn's disease

Interventions
Participants will be randomised 1:1 using a computer-generated randomisation schedule to receive either the investigational vaccine or a placebo.

ChAdOx2 HAV: viral vectored vaccine using a chimpanzee adenovirus as a vector encoding a Mycobacterium avium subspecies paratuberculosis (MAP) insert designated HAV

MVA HAV: viral vectored vaccine using a modified vaccinia Ankara as a vector encoding a Mycobacterium avium subspecies paratuberculosis (MAP) insert designated HAV

Sodium Chloride 0.9% w/v: sterile solution for injection

Experimental arm
• ChAdOx2 HAV, 5 × 10^10 viral particles, administered by intramuscular injection into the deltoid region on Day 0.
• MVA HAV, 2 × 10^8 plaque-forming units, administered by intramuscular injection into the deltoid region on Day 56.

Control arm
• Matching placebo (0.9% sodium chloride solution for injection), administered by intramuscular injection on Day 0 and Day 56 using matching volumes.

Participants will attend study visits at Screening (within 30 days before dosing), Day 0, Day 2, Day 7, Day 14, Day 28, Day 56, Day 58, Day 63, Day 70, Day 84, Day 112 and Day 140.

Intervention Type
Drug

Phase
Phase II

Drug/device/biological/vaccine name(s)
ChAdOx2 HAV, MVA HAV

Primary outcome(s)
1. Clinical Remission at day 112 measured using the Crohn's Disease Activity Index (CDAI)/Simple Endoscopic Score for Crohn's Disease (SES-CD) at baseline, before administration of study treatment at day 0, and day 112

Key secondary outcome(s))
1. Safety and tolerability measured using data collected on the incidence, severity and relationship of adverse events, adverse reactions, serious adverse events and serious adverse reactions from first vaccination until study completion, with data access at one timepoint at the end of the study

2. Immunogenicity, assessed via vaccine-specific immune responses, measured using immunological assays including ELISpot and related laboratory assessments at at baseline (before administration of study treatment at day 0) and post-vaccination study visits

3. Crohn's disease activity measured using the Crohn's Disease Activity Index (CDAI) and endoscopic assessment at assessments throughout the study period

Completion date
30/09/2028

Eligibility

Key inclusion criteria
1. Age 18 to 50 years
2. Confirmed diagnosis of Crohn’s disease diagnosed according to standard clinical, endoscopic, radiological or histological criteria
3. Mild to moderately active Crohn’s inflammation as defined by one or more of a raised CRP >10mg/L, faecal calprotectin >150 and a CDAI >150 but <320
4. Active Crohn’s inflammation in at least one segment of the ileum or colon on a colonoscopy or flexible sigmoidoscopy
5. No immunomodulatory treatment (thiopurines, methotrexate, tacrolimus, anti-TN alpha antibody therapy, anti-alpha4beta7 antibody therapy, anti-p40 antibody therapy) currently or within the last 3 months
6. Able to comply with all study requirements
7. For females only, willingness to practice continuous effective contraception (see below) during the study and a negative pregnancy serum hCG test on the day(s) of screening and vaccination
8. Agreement to refrain from blood donation during the course of the study
9. Provide written informed consent

Healthy volunteers allowed
No

Age group

Adult

Lower age limit
18 years

Upper age limit
50 years

Sex
All

Total final enrolment
0

Key exclusion criteria
1. Participation in another research study involving receipt of an investigational product in the 30 days preceding enrolment, or planned use during the study period
2. Prior receipt of an investigational vaccine likely to impact on the interpretation of the trial data
3. Prior receipt of an adenoviral vectored vaccine (or any other vaccine) in the last 28 days
4. Administration of immunoglobulins and/or any blood products within the three months preceding the planned administration of the vaccine candidate
5. Any confirmed or suspected immunosuppressive or immunodeficient state, including HIV infection; asplenia; recurrent, severe infections
6. Any immunosuppressive medication currently or within the preceding 3 months, including corticosteroids (except inhaled steroid or topical steroid), thiopurines, methotrexate, tacrolimus and any biological therapy
7. History of allergic disease or reactions likely to be exacerbated by any component of the vaccine (e.g., egg allergy)
8. Any history of hereditary angioedema, acquired angioedema, or idiopathic angioedema
9. Any history of anaphylaxis in relation to vaccination
10. Unable to provide written informed consent
11. Pregnancy, lactation or willingness/intention to become pregnant during the study
12. History of cancer (except basal cell carcinoma of the skin and cervical carcinoma in situ)
13. History of a serious psychiatric condition likely to affect participation in the study
14. Bleeding disorder (e.g. Factor deficiency, coagulopathy or platelet disorder), or prior history of significant bleeding or bruising following IM injections or venipuncture
15. Any other serious chronic illness requiring hospital specialist supervision
16. Suspected or known current alcohol abuse as defined by an alcohol intake of greater than 42 units every week
17. Suspected or known injecting drug abuse in the 5 years preceding enrolment
18. Seropositive for hepatitis C (antibodies to HCV)
19. Seropositive for hepatitis B surface antigen (HBsAg)
20. Any clinically significant abnormal finding on screening biochemistry or hematology blood tests, urinalysis, or a positive test for SARS-COV-2 (Covid-19) at screening
21. Any other significant disease, disorder or finding which may significantly increase the risk to the participant because of participation in the study, affect the ability of the participant to take part in the study or impair interpretation of the study data

Date of first enrolment
01/11/2026

Date of final enrolment
31/10/2027

Locations

Countries of recruitment
United Kingdom

England

Study participating centre
Guy's and St Thomas' Hospitals
Trust Offices
Guy's Hospital
Great Maze Pond
London
England
SE1 9RT

Sponsor information

Organisation
HAV Vaccines Limited

Funder(s)

Funder type

Funder Name
HAV Vaccines Limited

Results and Publications

Individual participant data (IPD) sharing plan

IPD sharing plan summary
Not expected to be made available