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Safety and tolerability of APL-3007 administered as a single dose in addition to background therapy with a C5 inhibitor in adults with paroxysmal nocturnal hemoglobinuria

Submission date
15/03/2025

Recruitment status
Recruiting

Registration date
19/03/2026

Overall study status
Ongoing

Last Edited
10/04/2026

Condition category
Haematological Disorders

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

Plain English summary of protocol
A phase 1b study to assess the safety and tolerability of apl-3007 administered as a single dose in addition to background therapy with a c5 inhibitor in adults with paroxysmal nocturnal hemoglobinuria.

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Additional identifiers

Integrated Research Application System (IRAS)
1011778

Central Portfolio Management System (CPMS)
66906

Protocol serial number
APL3007-PNH-102

Study information

Scientific Title
Safety and tolerability of APL-3007 administered as a single dose in addition to background therapy with a C5 inhibitor in adults with paroxysmal nocturnal hemoglobinuria

Study objectives
The primary purpose of the study is to find out if APL-3007, the drug that is being studied, is safe in treating adult participants with Paroxysmal Nocturnal Hemoglobinuria (PNH) who have been treated with a stable dose of ravulizumab-cwvz for at least the previous 6 months and remain anemic (with a Hb <10.5 g/dL).

To assess the efficacy of APL-3007 in participants with PNH, by assessing CFB in Hb, ARC, TBL, and proportion of C3-loaded PNH RBCs. To assess the systemic C3 silencing of a single SC dose of APL-3007 in participants with PNH

Ethics approval required
Ethics approval required

Ethics approval(s)
Approved 25/04/2025, North East – Tyne & Wear South Research Ethics Committee (HRA Jarrow, Jarrow Business Centre Rolling Mill Road, Jarrow, NE32 3DT, United Kingdom; +44 20 7104 8085; tyneandwearsouth.rec@hra.nhs.uk), ref: 25/NE/0060

Primary study design
Interventional

Allocation
Non-randomized controlled trial

Masking
Open (masking not used)

Control
Active

Assignment
Single

Purpose
Basic science, Health services research

Study type(s)

Health condition(s) or problem(s) studied
Paroxysmal Nocturnal Hemoglobinuria (PNH)

Interventions
This is a Phase 1b, singlearm, openlabel study designed to evaluate the safety and tolerability of APL3007 in adults with paroxysmal nocturnal hemoglobinuria (PNH). Eligible participants receive a single dose of APL3007 administered in addition to their ongoing background therapy with a C5 inhibitor (ravulizumabcwvz). Participants must be on a stable dose of ravulizumabcwvz prior to study entry and continue this background therapy throughout the study.

APL3007 is supplied as a sterile aqueous solution and administered as a single injection.

The study includes one treatment arm only. There is no placebo or notreatment control group, and no randomisation is performed. All enrolled participants receive active treatment with APL3007 and are followed for safety and tolerability assessments after dosing.

The planned study duration is approximately 6 months.

Intervention Type
Drug

Phase
Phase I

Drug/device/biological/vaccine name(s)
APL-3007

Primary outcome(s)
1. Safety and tolerability of APL3007 measured using incidence, nature, and severity of treatmentemergent adverse events (TEAEs) and serious adverse events (SAEs), assessed using clinical assessments, vital signs, laboratory evaluations, and adverse event reporting. at from dosing through end of study followup (approximately 6 months)

Key secondary outcome(s)

Completion date
14/09/2027

Eligibility

Key inclusion criteria
1. Participants must be 18 years or older at the time of signing the informed consent.
2. Participants must have a diagnosis of paroxysmal nocturnal hemoglobinuria (PNH for short), have been treated for at least 6 months with the dose of ravulizumab-cwvz thought to have the best chance of controlling their disease but still show evidence of low hemoglobin below 10.5 g /dl. Also, they would have evidence abnormal breakdown of their blood cells leading to high count of reticulocytes more than the upper normal level, platelets being greater than 100 x 109 /L, and total count of neutrophils being greater than 500/mm3.
3. Female participants must be either:
3.1. Women of who are not able to get pregnant, nonchildbearing potential, defined as women who have not seen their periods for at least 12 months after reaching menopause without applying an unnatural method to stop their periods. This also includes women who had surgery to remove both ovaries with or without the womb, or both fallopian tubes; and the surgery must have happened at least 6 weeks before being screened for the study. For those who had their ovaries removed there would be need to have on record that lab tests to check on the hormone levels were performed as a measure to confirm that she is no longer able to get pregnant.
3.2. Women who can get pregnant, defined as any women who have had their first menstrual period but have not used any method that makes it impossible for them to get pregnant or who have reached menopause. Such women must have a negative blood pregnancy test when screened for inclusion into the study and must agree to use methods that help prevent a woman from getting pregnant as defined in the protocol for this study ((Section 10.3.5.1) for the duration of the study and also agree to not breastfeed their babies during the entire period of the study.
4. Participants must have written evidence of vaccination against Streptococcus pneumoniae, Neisseria meningitidis types A, C, W, and Y (with a quadrivalent meningococcal conjugate vaccine [eg, Menactra or MenQuadfi]), and Neisseria meningitidis type B (with a meningococcal serogroup B vaccine [eg, Bexsero]). These vaccines need to have been received within 5 years prior to screening, or the patient must be willing to initiate vaccinations at least 14 days before being given the first dose of the trial medication. Vaccination is mandatory and should occur at least 14 days prior to dosing.
5. Participants must have normal levels of enzymes which are tested to check how the liver functions; these include the enzymes alanine aminotransferase (ALT) and alkaline phosphatase (ALP). Given the nature of PNH, participants may be included in the study even if they have high levels of total bilirubin (TBL), or the enzymes aspartate aminotransferase (AST) or γ-

glutamyltransferase if the leader of the study site where this trial is happening believes that the abnormal levels of these enzymes can be explained by the primary condition, PNH, which patient has.
6. Participants must be willing and able to give signed informed consent and adhere to the study visit schedule and other requirements and restrictions listed in the informed consent form and in this protocol.

Healthy volunteers allowed
No

Age group
Mixed

Lower age limit
18 Years

Upper age limit
70 Years

Sex
All

Total final enrolment
0

Key exclusion criteria
1. The person can't take certain medicines that affect part of the immune system called the complement system. This includes drugs like rituximab and belimumab, or any other similar medicine even if it's still being tested unless it's a drug called ravulizumab-cwvz. They must stop taking those medicines long enough before the study starts so the medicine is mostly out of their body.
2. Participant has received a live vaccination (excluding seasonal flu vaccination) within 30 days before being given the study drug APL-3007.
3. Participant has received APL-3007 in the past.
4. The person has had any serious health problems like issues with their stomach, kidneys, liver, lungs, brain, heart, hormones, blood, allergies, or cancer that the doctor thinks could make it unsafe for them.
5. The person has liver damage, like liver scarring (called cirrhosis), or any other liver problem that could make it more likely for the medicine to hurt their liver
6. The person has or had an autoimmune disease that affects the whole body, unless they have Hashimoto’s thyroiditis and it’s well controlled
7. The person had an allergic reaction or serious side effects from a type of treatment called small interfering RNA therapy, or if they’re allergic to anything in the drug APL-3007.
8. The person has or had cancer, unless it was a type of skin cancer called basal cell or squamous cell, and it was treated successfully at least 2 years before joining the study
9. If it is hard to find a vein for drawing blood, or if they have skin problems, tattoos, dark spots, or bumps in the area where the shot will be given that could make it hard to give the shot or check the skin afterward.
10. The person has a health problem or is getting treatment for one that could affect how the study is done or make it unsafe for them, according to the doctor in charge.
11. The person has a medical or mental health condition that might make it hard for them to

keep up with study visits or could make it unsafe for them to take part, according to the doctor.
12. The person was part of another study testing a new drug or medical device within the last 30 days or longer, depending on how long the drug stays in the body before the screening visit.
13. The person’s lab test results are clearly not normal, especially if certain liver tests (like ALT or ALP) are too high, or if other tests (like AST, bilirubin, or GGT) are abnormal and the doctor thinks it's not because of their main illness.
14. The person has had repeated or unexplained infections, or has HIV, hepatitis B or C, or a meningococcal infection.
15. The person has a temperature of over 100.4°F (38°C), which is regarded as fever or any recent infection, like COVID-19 or one that needed antibiotics within 30 days before getting the study medicine.
16. Participant has clinically relevant abnormalities on the electrocardiogram, including:
16.1. Sustained resting heart rate outside of range of 60 to 100 beats/minute, confirmed on repeat testing within a maximum of 30 minutes, at screening.
16.2. History or evidence of hereditary short QT syndrome.
16.3. QT interval corrected for heart rate using Fridericia’s formula >450 milliseconds for males or >470 milliseconds for females, or the PR interval outside the range of 120 to 220 milliseconds, confirmed on repeat testing within a maximum of 30 minutes at screening. The person’s heart test (ECG) shows serious problems, like:
16.3.1. A resting heart rate that’s too fast or too slow (not between 60 and 100 beats per minute), even after checking again within 30 minutes.
16.3.2. A rare condition called short QT syndrome, which affects heart rhythm.
16.3.3. Certain heart rhythm measurements (called QT or PR intervals) that are outside the normal range, even after a second test within 30 minutes.
17. Participant is pregnant or breastfeeding.
18. The person has a history or proof of drug or alcohol problems, based on the doctor’s judgment.
19. Participant intends to donate sperm during this study or within 90 days after the last dose of APL-3007.

Date of first enrolment
20/11/2025

Date of final enrolment
30/03/2027

Locations

Countries of recruitment
United Kingdom

England

Study participating centre
Leeds Teaching Hospitals NHS Trust
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Sponsor information

Organisation
Apellis Pharmaceuticals (United States)

ROR
https://ror.org/0231n7e68

Funder(s)

Funder type
Industry

Funder Name
Apellis Pharmaceuticals

Alternative Name(s)
Apellis, Apellis Pharmaceuticals, Inc., Apellis Pharma, Apellis Pharmaceuticals Inc, Apellis Pharmaceuticals Inc.

Funding Body Type
Government organisation

Funding Body Subtype
For-profit companies (industry)

Location
United States of America

Results and Publications

Individual participant data (IPD) sharing plan

IPD sharing plan summary
Not expected to be made available