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A study of nipocalimab in participants with active idiopathic inflammatory myopathies

Submission date
20/09/2022

Recruitment status
No longer recruiting

Registration date
19/05/2023

Overall study status
Ongoing

Last Edited
09/07/2025

Condition category
Musculoskeletal Diseases

[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
Idiopathic inflammatory myopathies (IIM) are a group of rare diseases marked by long-standing inflammation and weakness of muscles used for movement. The primary symptoms of IIM are muscle weakness (which develops over a period of time), joint pain, and general tiredness. Nipocalimab is an antibody (a protein made in the body in response to a foreign substance) that blocks a specific antibody immunoglobulin G (IgG) binding site on the neonatal fragment crystallisable receptor (FcRn). FcRn is responsible for controlling IgG levels in the body. Nipocalimab blocks FcRn, resulting in a reduction of IgG which may reduce inflammation in muscles. This study is designed to see if nipocalimab is better than a placebo (dummy drug). This will be assessed by measuring how many participants achieve improvement in symptoms of IIM.

Who can participate?
Patients aged 18 years or above with IIM

What does the study involve?
The study will be conducted as:
1. Screening (6 weeks or less)
2. Double-blind* period (52 weeks): Participants will receive one of the two treatments below:
1. Nipocalimab: based on body weight as an injection in a vein at Week 0 up to Week 50
2. Placebo: similar to the nipocalimab treatment
Neither the researcher nor the participant knows which treatment is being given. Participants will also receive their current IIM medications. The amount of these medications may be reduced if the participant's IIM is not getting worse.
3. Long-term extension (48 weeks): eligible participants will receive nipocalimab from Week 52 to Week 98, or until sponsor decision to stop treatment.
4. Safety follow-up (8 weeks after the last dose of study treatment).
During the study, some tests such as blood tests, physical examinations, and vital signs will be performed. Side effects will be recorded until the study ends (up to 112 weeks)

What are the possible benefits and risks of participating?
There is no established benefit to participants of this study. Based on scientific theory, taking nipocalimab may improve IIM. However, this cannot be guaranteed because nipocalimab is still

under investigation as a treatment and it is not known whether nipocalimab will work. If participants are put into the placebo treatment group, they will not receive nipocalimab and will only receive placebo during this study. Participants may experience some benefit from participation in the study that is not due to receiving nipocalimab, but rather is due to regular visits and assessments monitoring overall health. Participation in the study may help other people with IIM in the future.
Participants may have side effects from the drug(s) or procedures used in this study that may be mild to severe and even life-threatening, and they can vary from person to person. The most common potential risks of nipocalimab are increased risk for infection, reduced effectiveness of routine vaccines, and activation of present virus due to decreased serum Immunoglobulin G (IgG) levels. There are other, less frequent risks. The participant information sheet and informed consent form, which will be signed by every participant agreeing to participate in the study, includes a detailed section outlining the known risks of participating in the study. Not all possible side effects and risks related to nipocalimab are known at this moment. During the study, the sponsor may learn new information about nipocalimab. The study doctor will tell participants as soon as possible about any new information that might make them change their mind about being in the study, such as new risks.
To minimize the risk associated with taking part in the study, participants are frequently looked at and asked about any side effects and other medical events. Participants are educated to report any such events to the study doctor who will provide appropriate medical care. Any serious side effects that are reported to the sponsor are thoroughly reviewed by a drug safety team. There are no costs to participants to be in the study. The sponsor will pay for the study drug and tests that are part of the study. The participant will receive reasonable reimbursement for study-related costs (for example, travel/parking costs).

Where is the study run from?
Janssen-Cilag International NV (Netherlands)

When is the study starting and how long is it expected to run for?
September 2022 to May 2027

Who is funding the study?
Janssen-Cilag International NV (Netherlands)

Who is the main contact?
Clinical Registry Group, ClinicalTrialsEU@its.jnj.com

Contact information

Type(s)
Principal investigator

Contact name
Dr Pedro Machado

Contact details
250 Euston Road
London
United Kingdom

NW1 2PG
-
pedro.machado@nhs.net

Type(s)
Scientific

Contact name
Dr Clinical Registry Group

Contact details
Janssen-Cilag International NV
Archimedesweg 29
Leiden
Netherlands
2333
-
ClinicalTrialsEU@its.jnj.com

Additional identifiers

Clinical Trials Information System (CTIS)
2021-005202-98

Integrated Research Application System (IRAS)
1005992

ClinicalTrials.gov (NCT)
NCT05379634

Protocol serial number
80202135IIM2001, IRAS 1005992, CPMS 53473

Study information

Scientific Title
A Phase II, multicenter, randomized, double-blind, placebo-controlled, parallel-group study to evaluate the efficacy and safety of nipocalimab in participants with active idiopathic inflammatory myopathies

Acronym
SPIREA

Study objectives
Main objectives:
To see how effective nipocalimab is as compared to placebo in participants with active idiopathic inflammatory myopathies (IIM), a group of disorders marked by inflammation and weakness of the muscles used for movement (skeletal muscles).

Secondary objectives:
1. To see how effective nipocalimab is as compared to placebo across other measures in participants with active IIM
2. To see how effective nipocalimab is as compared to placebo in: oral glucocorticoid reduction, disease improvement over time, and cutaneous (affecting skin) disease activity improvement (in dermatomyositis participants [inflammatory disease of muscle and skin])
3. To assess the safety and tolerability of nipocalimab as compared to placebo
4. To see the effect of nipocalimab on patient-reported outcomes (PROs). PRO is a health outcome reported by the patient who experienced it
5. To see the pharmacokinetics (what the body does to the drug) and immunogenicity (immune response against the drug) of nipocalimab

Ethics approval required
Old ethics approval format

Ethics approval(s)
Approved 29/11/2022, North West - Haydock Research Ethics Committee (3rd Floor - Barlow House, 4 Minshull Street, Manchester, M1 3DZ, UK; +44 (0)2071048248; haydock.rec@hra.nhs.uk), ref: 22/NW/0324

Study design
Double-blind randomized placebo-controlled parallel-group trial

Primary study design
Interventional

Study type(s)
Treatment

Health condition(s) or problem(s) studied
Active idiopathic inflammatory myopathies (IIM)

Interventions
Nipocalimab arm:
Participants will receive nipocalimab at Week 0 (Baseline) and then every 2 weeks (Q2W) up to Week 50 during the double-blind period. Participants on glucocorticoids (GC) at baseline will receive a stable dose of oral GC (prednisone or equivalent) from 4 weeks prior to the first administration of study intervention to Week 0. No changes in GC doses are allowed between Week 0 and Week 24. From Week 24 to Week 44, GC doses will be tapered. No changes to GC doses will be allowed from Week 44 to Week 52. Eligible participants will enter a long-term extension (LTE) period and continue receiving nipocalimab starting from Week 52 up to Week 98 and will be followed up to Week 106.

Placebo arm:
Participants will receive nipocalimab matching placebo at Week 0 (Baseline) and then Q2W up to Week 50 during the double-blind period. Participants on GC at baseline will receive a stable dose of oral GC (prednisone or equivalent) from 4 weeks prior to the first administration of study intervention to Week 0. No changes in GC doses are allowed between Week 0 and Week 24. From Week 24 to Week 44, GC doses will be tapered. No changes to GC doses will be allowed from Week 44 to Week 52. Eligible participants will enter the LTE period and continue receiving

nipocalimab matching placebo Q2W starting from Week 52 up to Week 98 and will be followed up to Week 106.

Stratified randomization will be used to minimize bias in the assignment of participants to intervention groups, to increase the likelihood that known and unknown participant attributes are evenly balanced across intervention groups, and to enhance the validity of statistical comparisons

Intervention Type
Drug

Phase
Phase II

Drug/device/biological/vaccine name(s)
Nipocalimab

Primary outcome(s)
Clinical improvement assessed as the percentage of participants who achieve at least minimal improvement (≥20) in International Myositis Assessment and Clinical Studies Total Improvement Score (IMACS TIS) and on ≤5 mg/day of oral prednisone (or equivalent) from week 44 through week 52. This assessment is conducted at week 52.

Key secondary outcome(s))
1. Clinical improvement assessed as the percentage of participants who achieve at least minimal improvement (≥20) in the IMACS TIS standardised clinical response criteria score at week 24
2. Clinical improvement assessed using the IMACS TIS standardised clinical response criteria score at week 52
3. Clinical improvement assessed as the percentage of participants who achieve at least moderate improvement (≥40) in the IMACS TIS standardised clinical response criteria score at week 24
4. Evaluation of muscle strength using the change in Manual Muscle Testing (MMT)-8 score from baseline to week 52
5. Reduced use of oral GCs among participants on oral GC >5 mg/day at baseline based on the percentage of participants who achieve oral GC reduction to 5 mg/day of oral prednisone (or equivalent) at week 44 and maintain that reduction through week 52
6. Clinical improvement expressed as the percentage of participants who achieve at least minimal improvement (≥20) in IMACS TIS score on ≤5 mg/day of oral prednisone (or equivalent) from week 44 through week 52 reported from week 44 through week 52
7. Physical function assessed through change from baseline in Patient-Reported Outcomes Measurement Information System (PROMIS) Physical Function (PF-20) at week 52
8. Clinical improvement assessed using the IMACS TIS standardised clinical response criteria score at week 24
9. Clinical improvement assessed as the percentage of participants who achieve at least moderate improvement (≥40) in the IMACS TIS standardised clinical response criteria score at week 52
10. Clinical improvement assessed as the percentage of participants who achieve at least major improvement (≥60) in IMACS TIS standardised clinical response criteria score at weeks 24 and 52
11. Muscle strength evaluated using the change in Manual Muscle Testing (MMT)-8 score from baseline to week 24
12. Overall disease activity evaluated using the change from baseline in the Physician Global

Assessment (PhGA) tool at Weeks 24 and 52
13. Extramuscular global assessment using the Myositis Disease Activity Assessment Tool (MDAAT) at baseline, weeks 24 and 52
14. Serum muscle enzymes (creatine kinase [CK], alanine aminotransferase [ALT], aspartate aminotransferase [AST], lactate dehydrogenase [LDH], and aldolase) levels measured using a validated spectrophotometric method at baseline, Weeks 24 and 52
15. Percentage of participants on ≤5 mg/day of oral prednisone (or equivalent) from week 44 through week 52
16. Clinical improvement assessed as the percentage of participants on oral GC >5 mg/day at baseline who achieve at least minimal improvement (≥20) in IMACS TIS and achieve oral GC reduction to 5 mg/day at week 44 and maintain that reduction through week 52
17. Clinical improvement assessed as the percentage of participants who achieve at least minimal improvement (≥20) in IMACS TIS standardised clinical response criteria score from week 44 through week 52 (on ≤7.5 mg/day of oral prednisone or equivalent, from week 44 through week 52)
18. Percentage of participants on oral GC >7.5 mg/day at baseline who achieve oral GC reduction to ≤7.5 mg/day of oral prednisone (or equivalent) at week 44 and maintain that reduction through week 52
19. Clinical improvement assessed as the percentage of participants on oral GC >7.5 mg/day at baseline who achieve at least minimal improvement (≥20) in IMACS TIS standardised clinical response criteria score and achieve oral GC reduction to ≤7.5 mg/day at week 44 and maintain that reduction through week 52
20. Clinical improvement assessed using the IMACS TIS standardised clinical response criteria score up to week 106
21. Level of activity and damage in skin using the change in baseline in the Cutaneous Dermatomyositis Disease Area and Severity Index (CDASI) scale score at weeks 24 and 52
22. Level of activity and damage in skin using the change in baseline in the Cutaneous Dermatomyositis Disease Area and Severity Index (CDASI) scale score up to 106 weeks
23. Treatment-emergent adverse events (AEs) in study participants (percentage of total) recorded up to 106 weeks
24. Treatment-emergent serious adverse events (SAEs) in study participants (percentage of total) recorded up to 106 weeks
25. Functional status of the participant assessed by change from baseline in functional disability using the Health Assessment Questionnaire- disability Index (HAQ-DI) at weeks 24 and 52
26. Serum nipocalimab concentration over time derived using population pharmacokinetic (PK) modeling from baseline to week 98
27. Number of participants with anti-drug antibody (ADA), measured using a validated, specific and sensitive immunoassay method at baseline to week 106
28. Number of participants with neutralizing antibodies (Nabs) to nipocalimab, measured using a validated, specific and sensitive immunoassay method at baseline to week 106

Completion date
10/05/2027

Eligibility

Key inclusion criteria
1. Disease classification criteria: Participant meets the diagnostic criteria of probable or definite idiopathic inflammatory myopathies (IIM) based on 2017 The European League Against Rheumatism (EULAR)/American College of Rheumatology (ACR) classification criteria for adult IIM at least 6 weeks prior to first administration of the study intervention

2. If a participant is on regular or as needed treatment with low potency topical glucocorticoids (GC) that are allowed in the study or topical tacrolimus (TAC) to treat skin lesions, the dose and frequency should be stable for greater than or equal to (>=) 4 weeks prior to first administration of the study intervention as well as maintained at the same dose until Week 52 of the study
3. Antibody positivity criteria: Any 1 of the myositis-specific antibodies (MSAs) positive: dermatomyositis (DM): anti-Mi-2 (Mi-2/nucleosome remodeling and deacetylase [NuRD] complex), anti-transcription intermediary factor 1-Gamma (TIF1-Gamma), anti-nuclear matrix protein 2 (NXP-2), anti-serious adverse event (SAE); anti-antimelanoma differentiation-associated gene 5 (MDA-5) antibodies. Or immune-mediated necrotizing myopathy (IMNM): anti-signal recognition particle (SRP) and anti- 3-hydroxy-3-methylglutaryl-coenzyme A reductase (HMGCR) antibodies. Or anti-synthetase syndrome (ASyS): anti-histidyl-ribonucleic acid [tRNA] synthetase (Jo-1), anti- threonyl-tRNA synthetase (PL7), anti- alanyl-tRNA synthetase (PL12), anti- isoleucyl-tRNA synthetase (OJ), and anti-glycyl-tRNA synthetase (EJ) antibodies. If all MSAs are negative or more than 1 MSA is positive (defined by the central laboratory) at screening, the tests should be repeated during the screening period. If the same results are observed at retesting, the participant should not be enrolled in the study

Participant type(s)
Patient

Healthy volunteers allowed
No

Age group
Adult

Lower age limit
18 years

Sex
All

Key exclusion criteria
1. Has a juvenile myositis diagnosis and now ≥18 years old
2. Has cancer-associated myositis defined as cancer diagnosis within 3 years of myositis diagnosis except for cervical carcinoma in situ and non-melanoma skin cancer (squamous cell carcinoma, basal cell carcinoma of the skin)
3. Has comorbidities (for example, asthma, chronic obstructive pulmonary disease [COPD]) which have required three or more courses of oral GC within 1 year prior to screening
4. Has a history of primary immunodeficiency or secondary immunodeficiency not related to the treatment of the participants IIM
5. Has experienced myocardial infarction (MI), unstable ischemic heart disease, or stroke within 12 weeks of screening

Date of first enrolment
30/05/2023

Date of final enrolment
27/02/2025

Locations

Countries of recruitment
United Kingdom

England

Australia

Canada

France

Germany

Hungary

Italy

Japan

Mexico

Netherlands

Poland

Spain

Study participating centre
University College London Hospital
250 Euston Road
London
United Kingdom
NW1 2PQ

Study participating centre
Salford Royal Hospital
Stott Lane
Eccles
Salford
United Kingdom
M6 8HD

Sponsor information

Organisation
Janssen-Cilag International NV

Funder(s)

Funder type
Industry

Funder Name
Janssen-Cilag International NV (Netherlands)

Results and Publications

Individual participant data (IPD) sharing plan
The data sharing policy of the Janssen Pharmaceutical Companies of Johnson & Johnson is available at https://www.janssen.com/clinical-trials/transparency. As noted on this site, requests for access to the study data can be submitted through the Yale Open Data Access (YODA) Project site at yoda.yale.edu.

IPD sharing plan summary
Available on request

Study outputs

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