ISRCTN76681798 https://doi.org/10.1186/ISRCTN76681798

A research study testing NGM120 in pregnant women with severe nausea and vomiting (Hyperemesis Gravidarum)

Submission date
06/09/2024

Recruitment status
No longer recruiting

Registration date
13/12/2024

Overall study status
Ongoing

Last Edited
04/06/2026

Condition category
Pregnancy and Childbirth

[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
This clinical trial aims to help pregnant women suffering from severe nausea and vomiting, known as hyperemesis gravidarum (HG). HG can lead to significant weight loss, multiple hospital admissions and other pregnancy complications, including foetal growth problems and earlier delivery (premature delivery). Currently, there are limited treatments available for HG. This trial will test NGM120, a monoclonal antibody, to see if it is safe and effective for treating HG.

Who can participate?
Pregnant women aged 18 to 45 years who are experiencing severe nausea and vomiting between 9 and less than 17 weeks of pregnancy

What does the study involve?
The participants will be divided into two groups, both receiving the standard of care treatment for HG that they would normally receive. One group will also receive a single dose of the study drug, NGM120; the other will receive a single dose of placebo. After 7 days, participants will receive a single dose of the other treatment. Researchers will closely monitor the participants to ensure safety and assess the effectiveness of NGM120 in reducing nausea and improving daily functioning. The goal of the study is to better understand how well NGM120 works to treat severe nausea during pregnancy.

What are the possible benefits and risks of participating?
A benefit of participating in the study is that participants' symptoms of HG may improve; however, this cannot be guaranteed. Being in this study will help doctors learn more about NGM120 and HG. This may help others with HG in the future.
As with any clinical trial, participants may face several risks and burdens, but measures will be taken to minimise them. An independent group of safety experts will regularly review participant safety during the study. They will make recommendations to stop or make changes to the study if their review shows this to be necessary.
One risk faced by participants is the potential side effects from the investigational product, NGM120, which could include nausea, headaches, and other reactions. Procedures such as blood

tests, and the study drug/placebo injections may also cause discomfort. However, these risks are necessary to assess the safety and effectiveness of NGM120.
Another risk involves the potential impact on pregnancy, as the study includes pregnant women. Although the trial is designed with safety in mind, there are unknown risks to the foetus or pregnancy complications. Understanding how NGM120 affects pregnant women is essential for developing better treatments for HG. To mitigate these risks, regular health checks for both the mother and baby will be conducted, and NHS sites with expertise in managing high-risk pregnancies will oversee the trial.
Participants will not need to stop any current HG treatments during the study, but the same medications and their doses should be taken from Day -3 to Day 12 of the study with no changes. This step is necessary to accurately evaluate the effectiveness of NGM120.
The trial requires 4 hospital visits over 12 days, which could be considered burdensome, especially for those already struggling with severe nausea and vomiting. These visits are crucial for monitoring participants' health and ensuring the study's safety and accuracy. The clinical study team will try to reduce this burden by scheduling visits efficiently.
Finally, there may be concerns about confidentiality and privacy, as sharing personal and medical information in the trial could raise privacy issues. Collecting this data is essential for analysing the effects of NGM120 and ensuring the study's validity. To protect participants, data protection policies and procedures will be followed, and their consent will be obtained before any information is shared. NHS sites involved in the study are experienced in handling sensitive information and will ensure participants' confidentiality is maintained throughout the trial.
This trial has been carefully designed to minimise risks and burdens for participants while aiming to improve treatments for HG. By prioritising safety and support, the study seeks to gather valuable information to benefit women suffering from HG in the future.

Where is the study run from?
Novotech Clinical Research (UK)

When is the study starting and how long is it expected to run for?
September 2024 to April 2027

Who is funding the study?
NGM Biopharmaceuticals (USA)

Who is the main contact?
EMERALD@ngmbio.com

Contact information

Type(s)
Scientific

Contact name
None NGM Study Director

Contact details
611 Gateway Blvd., Suite 540
South San Francisco
United States of America

CA 94080
+1-650-727- 8800
EMERALD@ngmbio.com

Type(s)
Principal investigator

Contact name
Dr Jon Lartey

Contact details
Colney Lane
Norwich
United Kingdom
NR4 7UY
+44 (0)1603286286
JON.LARTEY@nnuh.nhs.uk

Additional identifiers

Integrated Research Application System (IRAS)
1010482

Central Portfolio Management System (CPMS)
63108

Protocol serial number
120-HG-201

Study information

Scientific Title
A Phase II randomized, proof-of-concept study to evaluate the safety, tolerability, and efficacy of NGM120 in pregnant women with severe nausea and vomiting (Hyperemesis Gravidarum) (EMERALD)

Acronym
EMERALD

Study objectives
Current study objectives as of 30/07/2025:
Primary objective:
1. To assess the safety and tolerability of NGM120 in addition to standard of care (SOC) and supportive care.

Secondary objectives:
1. To evaluate the efficacy of NGM120 in addition to SOC and supportive care compared to placebo in addition to SOC and supportive care

Previous study objectives:
Primary objective:
1. To assess the safety and tolerability of NGM120 in addition to standard of care (SOC) and supportive care.

Secondary objectives:
1. To evaluate the efficacy of NGM120 in addition to SOC and supportive care compared to placebo in addition to SOC and supportive care through the use of Pregnancy-Unique Quantification of Emesis 24 (PUQE-24) scores and on HyperEmesis Level Prediction (HELP) scores

Ethics approval required
Ethics approval required

Ethics approval(s)
Approved 22/11/2024, North East - Tyne & Wear South Research Ethics Committee (NHSBT Newcastle Blood Donor Centre, Holland Drive, Newcastle upon Tyne, NE2 4NQ, United Kingdom; +44 (0)2071048120, +44 (0)207 104 8286, +44 (0)2071048108; tyneandwearsouth.rec@hra.nhs.uk), ref: 24/NE/0177

Primary study design
Interventional

Study design
Single-blind randomized placebo-controlled two-group cross-over trial

Study type(s)
Efficacy, Safety

Health condition(s) or problem(s) studied
Hyperemesis gravidarum

Interventions
Current interventions as of 30/07/2025:
The study drug is NGM120, a humanised monoclonal antibody. Participants will be randomised to receive a single dose of NGM120 or placebo (a sterile solvent with no NGM120) on Day 1, and cross-over to the other treatment on Day 8, according to the treatment sequence assigned. All participants will be centrally assigned to a randomised study treatment using an Interactive Web Response System. Regardless of the treatment sequence to which they are assigned, participants will receive HG treatments and supportive care as per standard of care at each study centre.

Previous interventions:
The study drug is NGM120, a humanized monoclonal antibody. Participants will be randomized to receive a single dose of NGM120 or placebo (a sterile solvent with no NGM120) on Day 1, and cross-over to the other treatment on Day 8, according to the treatment sequence assigned. All participants will be centrally assigned to randomized study treatment using an Interactive Web Response System. As supportive care, participants will receive intravenous (IV) fluids with multivitamins administered on Study Days -3, 1, 5, and 8, regardless of the treatment sequence to which they are assigned. Participants will receive IV multivitamins according to the SOC at each study center.

Additionally, participants will receive 4 mg ondansetron three times daily as SOC, administered orally or sublingually.

Intervention Type
Drug

Phase
Phase II

Drug/device/biological/vaccine name(s)
NGM120

Primary outcome(s)
The safety and tolerability of NGM120 in addition to SOC, assessed by the incidence of treatment-emergent adverse events (TEAEs) characterised by type, frequency, severity, timing, seriousness, and relationship to the study drug over time. Specific timepoints for evaluation include Study Day 1, when the initial dose of the investigational product is administered, and continuously through Study Day 12, to monitor any adverse events following treatment. At each scheduled visit or contact, adverse events will be recorded to track their type, frequency, severity, timing, and seriousness, along with their relationship to the study drug.

Key secondary outcome(s)
1. Nausea, vomiting, and retching assessed using the Pregnancy-Unique Quantification of Emesis 24 score (PUQE-24) at Baseline and Study Day 5
2. Nausea, vomiting, retching, and overall wellbeing assessed using the HyperEmesis Level Prediction (HELP) score at Baseline and Study Day 5

Completion date
30/04/2027

Eligibility

Key inclusion criteria
Current inclusion criteria as of 30/07/2025:
1. Pregnant females with singleton pregnancy (including vanishing twin syndrome) and gestational age of the foetus is between 9 to less than 17 weeks.
2. Severe nausea and vomiting with PUQE-24 greater than or equal to 12
3. Agree to no changes in any current anti-emetics or other treatments for hyperemesis gravidarum and will receive treatments and supportive care per normal practice from Day -3 to Day 12.

Previous inclusion criteria as of 06/02/2025:
1. Pregnant females with singleton pregnancy and gestational age of the fetus is between 10 to 15 weeks.
2. Severe nausea and vomiting with PUQE-24 greater than or equal to 13
3. Agree to discontinue any current anti-emetics or other treatments for hyperemesis gravidarum and will receive ondansetron and IV fluids per protocol.

Previous inclusion criteria:
1. Pregnant females with singleton pregnancy and gestational age of the fetus is between 10 to 15 weeks.

2. Severe nausea and vomiting with PUQE-24 greater than or equal to 13
3. Agree to discontinue any current anti-emetics or other treatments for hyperemesis gravidarum.

Participant type(s)
Patient

Healthy volunteers allowed
No

Age group
Adult

Lower age limit
18 Years

Upper age limit
45 Years

Sex
Female

Total final enrolment
31

Key exclusion criteria
Current exclusion criteria as of 30/07/2025:
1. History of cyclic vomiting or gastroparesis which could contribute to the aetiology of nausea and vomiting
2. Prior health conditions (i.e. bowel obstruction, pancreatitis, surgical adhesions in bowel) which could contribute to the aetiology of nausea and vomiting
3. Have active hepatitis B (HBV), hepatitis C (HCV), or human immunodeficiency virus (HIV) infection.
4. Pre-existing diagnosis of chronic kidney disease, uncontrolled diabetes (type 1 or 2), significant cardiac disease (including long QT syndrome) or epilepsy
5. Elevated liver enzymes (alanine aminotransferase or aspartate aminotransferase greater than or equal to 3.0 times the upper limit of normal)
6. Known foetal chromosomal abnormalities

Previous exclusion criteria:
1. History of cyclic vomiting or gastroparesis which could contribute to the etiology of nausea and vomiting
2. Prior bariatric surgery, bowel obstruction, pancreatitis, or other prior health conditions which could contribute to the etiology of nausea and vomiting
3. Positive for hepatitis B surface antigen, hepatitis C viral load RNA, or anti-human immunodeficiency virus
4. Pre-existing diagnosis of chronic kidney disease, diabetes (type 1 or 2), significant cardiac disease (including long QT syndrome) or epilepsy
5. Elevated liver enzymes (alanine aminotransferase or aspartate aminotransferase greater than

or equal to 3.0 times the upper limit of normal)
6. Known fetal chromosomal abnormalities
7. Pregnancy conceived through in vitro fertilization

Date of first enrolment
03/02/2025

Date of final enrolment
10/04/2026

Locations

Countries of recruitment
United Kingdom

England

Australia

Philippines

Study participating centre
Birmingham Women's and Children's Hospital
Steelhouse Lane
Birmingham
England
B4 6NH

Study participating centre
Rosie Hospital
Robinson Way
Cambridge
England
CB2 0SW

Study participating centre
Pinderfields Hospital
Aberford Road
Wakefield
England
WF1 4DG

Study participating centre

Norfolk & Norwich University Hospital
Colney Lane
Norwich
England
NR4 7UY

Study participating centre
Royal Free Hospital
Pond Street
Hampstead
London
England
NW3 2QG

Study participating centre
King's College Hospital
Denmark Hill
London
England
SE5 9RS

Study participating centre
Northwick Park Hospital
Watford Road
Harrow
England
HA1 3UJ

Sponsor information

Organisation
NGM Biopharmaceuticals, Inc.

Funder(s)

Funder type
Industry

Funder Name
NGM Biopharmaceuticals

Alternative Name(s)
NGM Biopharmaceuticals, Inc., NGM Biopharmaceuticals Inc., NGM Biopharmaceuticals Inc, NGM Bio

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
Data sharing statement to be made available at a later date