Research study investigating how well NDec works in people with sickle cell disease

Estado	**Tipo de Participantes**	**Rangos de Edad**
EC Finalizado	No aportado	Mayores de 64 , Adultos (18-64 años)
Género	**Fases**	**Participantes esperados**
Ambos	Fase II	87
Resultados	**Bajo nivel intervención**	**Enfermedad rara**
Tiene resultados	No	Si
Cobertura geográfica	**Ámbitos del ensayo**	**Terapia avanzada**
Multicéntrico internacional	seguridad, eficacia, farmacocinética, farmacodinamica	NO

Información

Identificador
2023-508506-22-00 (CTIS)

Cod. Protocolo
NN7533-4470

Transicionado 2020-003485-39

Área terapéutica
Enfermedades [C] - Hematología [C15]|

Enfermedad investigada
Sickle cell disease

Título Científico
A multicentre trial evaluating the efficacy and safety of oral decitabine-tetrahydrouridine (NDec) in patients with sickle cell disease

Justificación

No aportado

Objetivo Principal

To investigate the efficacy of two dosing regimens of oral decitabine-tetrahydrouridine (NDec) combination as measured by improvement in haemoglobin compared to placebo in hydroxyurea (HU)-non-eligible patients with sickle cell disease (SCD)

Variables de Evaluación Primaria

Change from baseline (week 0) to week 24 in total haemoglobin in g/dL

Momentos temporales de evaluación primaria

No aportado

Objetivo Secundario

To investigate the safety and tolerability of NDec in HU-non-eligible patients with SCD compared to placebo
To evaluate clinical efficacy measures of NDec in HU-non-eligible patients with SCD compared to placebo
To further describe the pharmacokinetics and pharmacodynamics of NDec in HU-non-eligible patients with SCD

Variables de Evaluación Secundaria

Cmax (maximum concentration) for decitabine from pharmacokinetic assessment At week 24 in ng/mL
Cmax (maximum concentration) for tetrahydrouridine from pharmacokinetic assessment at week 24 in ng/mL
Change in DNMT1 activity From baseline (week 0) to week 24 in MFI
Change in CDA activity From baseline (week 0) to week 24 in µmol/L/min
Change in foetal haemoglobin (g/dL) From baseline (week 0) to week 24 in g/dL
Change in foetal haemoglobin as a proportion of total haemoglobin (%HbF) From baseline (week 0) to week 24 in %
Change in F-cell level as a proportion of total red blood cells (%F-cells) From baseline (week 0) to week 24 in %
Change in haemolysis measure: absolute reticulocyte count From baseline (week 0) to week 24 in cells × 10^9/L
Change in haemolysis measure: indirect bilirubin From baseline (week 0) to week 24 in mg/dL
Change in haemolysis measure: lactate dehydrogenase From baseline (week 0) to week 24 in U/L
Number of vaso-occlusive crises From baseline (week 0) to week 48 in Number of events
Number of acute chest syndrome From baseline (week 0) to week 48 in Number of events
Number of RBC units transfused From baseline (week 0) to week 48 in units
Number of adverse events of grade 3 or higher From baseline (week 0) to week 52 in Number of events

Momentos temporales de evaluación secundaria

No aportado

Criterios de Inclusión

Age above or equal to 18 years at the time of signing informed consent
Confirmed diagnosis of SCD (including HbSS, HbSC, HbS0 thalassaemia and HbS+ thalassaemia or other Sickle Cell disease variants)
210 episodes of documented VOCs within the last 12 months prior to the screening visit
Haemoglobin 5.0 g/dL and 10.5 g/dL at visit 1
Absolute reticulocyte (absolute) count above ULN at visit 1
Body weight 40 to 125 kg (inclusive)

Criterios de Exclusión

Patient is on chronic transfusion therapy as defined by receiving scheduled (pre-planned) series of blood transfusion (simple or exchange) for prophylactic purposes, or the patient is likely to begin chronic transfusion therapy during the course of the trial, or has received RBC or whole blood transfusion for any reason within 28 days of visit 1 Male with female partner of childbearing potential who does not agree to use condom and whose female partner of childbearing potential is not using a highly effective contraceptive measure from trial start to Six (6) months after the last dose of trial product for patients outside US and CA randomised to HU Male with female partner of childbearing potential who does not agree to use condom and whose female partner of childbearing potential is not using a highly effective contraceptive measure from trial start to Twelve (12) months after the last dose of trial product for patients randomised to HU in US and CA Receipt of erythropoietin or other haematopoietic growth factor treatment within 28 days of signing ICF, or planned treatment with these agents during the trial Receipt of voxelotor, crizanlizumab or L-glutamine treatment within 12 weeks of signing the informed consent form, or planned treatment with such agents during the trial Platelet count >800 x 10^9/L at visit 1 Absolute neutrophil count 1.5 x 10^9/L at visit 1 Any condition/concurrent chronic disease involving the stomach or small intestine which may affect drug absorption, as per investigator's judgement Female who is: pregnant, breast-feeding or intends to become pregnant within 6 months after the final trial product administration or Female who is: child-bearing potential and not using highly effective methods of contraception and whose male partner is not using effective contraception, at screening and until 6 months after the last dose of trial product Male with female partner of childbearing potential who does not agree to use condom and whose female partner of childbearing potential is not using a highly effective contraceptive measure from trial start to Six (6) months after the last dose of trial product for patients on NDec/Placebo

Calendario

(Última actualización: 29/07/2025)

Autorización	Inicio de Ensayo	Inclusión Primer Paciente	Interrumpido	Reiniciado
30/08/2022	11/10/2022	10/11/2022	No aportado	No aportado

Fin de reclutamiento	Fin prematuro (España)	Fin prematuro (Global)	Fin del ensayo en España	Fin del ensayo global
16/04/2024	No aportado	No aportado	22/04/2025	24/07/2025

Promotor

Novo Nordisk A/S Denmark

Novo Alle 1

Contact Person

EU Submission Hub

+4544448888

EUSUBHUB@novonordisk.com

Monetary support: N/A

Tipo de promotor: Comercial

Ceim

CEIm Hospital Universitario La Paz

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ceic.hulp@salud.madrid.org

917277413

Centros

Activo (21/11/2023)

HOSPITAL UNIVERSITARIO LA PAZ

Madrid

MADRID

Cerrado (27/06/2024)

HOSPITAL UNIVERSITARIO REGIONAL DE MALAGA

Málaga

MÁLAGA

Medicamentos

Siklos 1 000 mg film-coated tablet.

FILM-COATED TABLET

ORAL

Código ATC: L01XX05 - HIDROXICARBAMIDA

Principios Activos: N/A

Experimental

Decitabine/Tetrahydrouridine A 5/250 mg

CAPSULE, HARD

ORAL

-

Principios Activos: N/A

Huérfano

Experimental

Tiene resultados

Research study investigating how well NDec works in people with sickle cell disease

State	Type of participants	Age Ranges
Finished CT	Not provided	Older than 64 , Adults (18-64 years)
Gender	**Phases**	**Expected Participants**
Both	Phase II	87
Results	**Low level of intervention**	**Rare disease**
Has results	No	Yes
Geographic coverage	**Areas of the study**	**Advanced therapy**
International multicenter	safety, effectiveness, pharmacokinetics, pharmacodynamics	NO

Information

Identifier
2023-508506-22-00 (CTIS)

Protocol Code
NN7533-4470

Transitioned 2020-003485-39

Therapeutic area
Diseases [C] - Hemic and Lymphatic Diseases [C15]|

Investigated Disease
Sickle cell disease

Scientific Title
A multicentre trial evaluating the efficacy and safety of oral decitabine-tetrahydrouridine (NDec) in patients with sickle cell disease

Rationale

Not provided

Main Objective

To investigate the efficacy of two dosing regimens of oral decitabine-tetrahydrouridine (NDec) combination as measured by improvement in haemoglobin compared to placebo in hydroxyurea (HU)-non-eligible patients with sickle cell disease (SCD)

Primary Endpoints

Change from baseline (week 0) to week 24 in total haemoglobin in g/dL

Temporary moments of secondary assessment

Not provided

Secondary Objective

To investigate the safety and tolerability of NDec in HU-non-eligible patients with SCD compared to placebo
To evaluate clinical efficacy measures of NDec in HU-non-eligible patients with SCD compared to placebo
To further describe the pharmacokinetics and pharmacodynamics of NDec in HU-non-eligible patients with SCD

Secondary Endpoints

Cmax (maximum concentration) for decitabine from pharmacokinetic assessment At week 24 in ng/mL
Cmax (maximum concentration) for tetrahydrouridine from pharmacokinetic assessment at week 24 in ng/mL
Change in DNMT1 activity From baseline (week 0) to week 24 in MFI
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Number of adverse events of grade 3 or higher From baseline (week 0) to week 52 in Number of events

Temporary moments of secondary assessment

Not provided

Inclusion criteria

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Haemoglobin 5.0 g/dL and 10.5 g/dL at visit 1
Absolute reticulocyte (absolute) count above ULN at visit 1
Body weight 40 to 125 kg (inclusive)

Exclusion criteria

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Calendar

(Last Update: 29/07/2025)

Authorization	Start of Trial	First patient inclusion	Halted	Restarted
30/08/2022	11/10/2022	10/11/2022	Not aported	Not aported

End of recruitment	Premature end (Spain)	Premature End (Global)	Trial end (Spain)	Trial end (Global)
16/04/2024	Not aported	Not aported	22/04/2025	24/07/2025

Sponsor

Novo Nordisk A/S Denmark

Novo Alle 1

Contact Person

EU Submission Hub

+4544448888

EUSUBHUB@novonordisk.com

Monetary support: N/A

Sponsor type: Commercial

Ceim

CEIm Hospital Universitario La Paz

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Sites

Active (21/11/2023)

HOSPITAL UNIVERSITARIO LA PAZ

Madrid

MADRID

Closed (27/06/2024)

HOSPITAL UNIVERSITARIO REGIONAL DE MALAGA

Málaga

MÁLAGA

Medication

Siklos 1 000 mg film-coated tablet.

FILM-COATED TABLET

ORAL

ATC code: L01XX05 - HIDROXICARBAMIDA

Active Principles: N/A

Experimental

Decitabine/Tetrahydrouridine A 5/250 mg

CAPSULE, HARD

ORAL

-

Active Principles: N/A

Orphan

Experimental

Has results