

Study to Evaluate the Effect of Voxelotor Administered Orally to Patients With Sickle Cell Disease (GBT HOPE)

18/08/2025 14:30:22

Main Information

Primary registry identifying number

LBCTR2019080217

MOH registration number

2017/2/19436

Study registered at the country of origin

Type of registration

Retrospective

Date of registration in national regulatory agency

24/05/2017

Primary sponsor

Global Blood Therapeutics, Inc.

Date of registration in primary registry

05/09/2019

Public title

Scientific title

Study to Evaluate the Effect of Voxelotor Administered Orally to Patients With Sickle Cell Disease (GBT HOPE)

A Phase 3, Double-blind, Randomized, Placebo-controlled, Multicenter Study of Voxelotor Administered Orally to Patients With

Sickle Cell Disease

Brief summary of the study: English

Study to Evaluate the Effect of Voxelotor Administered Orally to Patients With Sickle Cell Disease

Brief summary of the study: Arabic

المأخوذ عن طريق الفم عند المرضى الذين يعانون من مرض الخلايا المنجلية Voxelotor-دراسة لتقييم تأثير ال

Health conditions/problem studied: Specify

Sickle Cell Disease

Interventions: Specify

GBT440 (Voxelotor) tablets orally administered

Key inclusion and exclusion criteria: Inclusion criteria

- Male or female study participants with sickle cell disease
- Participant has had at least 1 episode of vaso-occlusive crisis (VOC) in the past 12 months.
- Age 12 to 65 years

Protocol number

GBT440-031

Study registered at the country of origin: Specify

Type of registration: Justify

Sponsor's request and registry was not available when study

Primary sponsor: Country of origin

United States of America

Date of registration in national regulatory agency

24/05/2017

Acronym

Acronym



- Hemoglobin (Hb) ≥5.5 and ≤10.5 g/dL during screening

- For participants taking hydroxyurea (HU), the dose of HU (mg/kg) must be stable for at least 3 months prior to signing the ICF

Key inclusion and exclusion criteria: Gender

Key inclusion and exclusion criteria: Specify gender

Both

Key inclusion and exclusion criteria: Age minimum

Key inclusion and exclusion criteria: Age maximum

65

Key inclusion and exclusion criteria: Exclusion criteria

- More than 10 VOCs within the past 12 months that required a hospital, emergency room or clinic visit

- Patients who are receiving regularly scheduled blood (RBC) transfusion therapy (also termed chronic, prophylactic, or preventive transfusion) or have received a RBC transfusion for any reason within 60 days of signing the ICF
- Hospitalized for sickle cell crisis or other vaso-occlusive event within 14 days of signing the ICF (i.e., a vaso-occlusive event cannot be within 14 days prior to signing the ICF)

- Hepatic dysfunction characterized by alanine aminotransferase (ALT)>4 x ULN

- Severe renal dysfunction (estimated glomerular filtration rate at the Screening visit; calculated by the central laboratory) <30mL/min/1.73m2 or on chronic dialysis

Type of study

Interventional

Type of intervention

Pharmaceutical

Trial scope

Therapy

Study design: Allocation
Randomized controlled trial

Study design: Control

Placebo

Study design: Purpose

Treatment

Study design: Assignment

Parallel

IMP has market authorization

No

Name of IMP

Voxelotor (previously GBT440)

Type of IMP

Others

Pharmaceutical class

Allosteric modulator of hemoglobin oxygen affinity

Therapeutic indication

Treatment of sickle cell disease

Therapeutic benefit

Type of intervention: Specify type

N/A

Trial scope: Specify scope

N/A

Study design: Masking Blinded (masking used)

Study phase

3

Study design: Specify purpose

N/A

Study design: Specify assignment

N/A

IMP has market authorization: Specify

Year of authorization Month of authorization



Voxelotor is an orally bioavailable HbS polymerization inhibitor that binds specifically to HbS with a 1:1 stoichiometry, and exhibits preferential partitioning to RBCs. By increasing Hb's affinity for oxygen, voxelotor inhibits HbS polymerization in a dose dependent manner that may improve deformability, decrease the viscosity of SCD blood, and ultimately increase blood flow in the microcirculation, thus improving net O2 delivery. Therefore, chronically modifying 20% to 30% of HbS with voxelotor in subjects with SCD is expected to deliver the clinical benefits of reducing HbS polymerization while improving O2 delivery to peripheral tissues.

Study model Study model: Explain model

N/A N/A

Study model: Specify model

N/A

Time perspective Time perspective: Explain time perspective

N/A

Time perspective: Specify perspective

N/A

13

Date of completion

Target follow-up duration Target follow-up duration: Unit

Number of groups/cohorts

 Biospecimen retention
 Biospecimen description

 Samples without DNA
 Samples not including DNA

Target sample size Actual enrollment target size

Date of first enrollment: Type Date of first enrollment: Date

Actual 14/09/2017

Date of study closure: Type Date of study closure: Date

tual 18/10/2019

Recruitment status: Specify

Other Active, not recruiting

IPD sharing statement plan IPD sharing statement description



No Plan of data sharing

Additional data URL

https://clinicaltrials.gov/ct2/show/record/NCT03036813

Admin comments

Trial status

Approved

Secondary Identifying Numbers		
Full name of issuing authority	Secondary identifying number	
International Clinical Trials Registry Platform WHO (EUCTR)	EUCTR2016-003370-40	
Clinicaltrials.gov	NCT03036813	

Sources of Monetary or Material Support

Name

Global Blood Therapeutics Inc. USA

Secondary Sponsors

No Sponsors



Contact for Public/Scientific Queries						
Contact type	Contact full name	Address	Country	Telephone	Email	Affiliation
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Centers/Hospitals Involved in the Study			
Center/Hospital name	Name of principles investigator	Principles investigator speciality	Ethical approval
American University of Beirut Medical Center	Dr. Miguel Abboud	Pediatric Hematology and Oncology	Approved
Rafik Hariri University Hospital	Dr. Adlette Inati	Pediatric Hematology and Oncology	Approved

Ethics Review				
Ethics approval obtained	Approval date	Contact name	Contact email	Contact phone
American University of Beirut Medical Center	21/02/2019	Dr. Fuad Ziyadeh	irb@aub.edu.lb	+961 1 350000 ext 5445
Rafic Hariri University Hospital	31/01/2018	Dr.lyad Issa	NA	+961 1 830000



Countries of Recruitment
Name
Lebanon
United States of America
United Kingdom
Netherlands
Canada
France
Egypt
Italy
Turkey
Jamaica
Oman
Kenya

Health Conditions or Problems Studied		
Condition	Code	Keyword
Sickle cell disease	Sickle-cell disorders (D57)	Anemia, Sickle Cell, Hemolytic, Congenital, Hemoglobinopathies, Genetic Diseases, Inborn

Interventions		
Intervention	Description	Keyword
Drug	Voxelotor	Oral tablet

Primary Outcomes		
Name	Time Points	Measure
Change in hemoglobin (Hb)>1g/dl	Baseline to Week 24	Proportion of participants with increase in Hb >1 g/dL



Key Secondary Outcomes			
Name	Time Points	Measure	
Change from baseline in hemolysis measures	Baseline to Week 24	Analyze hemoglobin, unconjugated bilirubin, absolute reticulocyte, reticulocytes %, and LDH	
Annualized VOC incidence rate	Baseline to Week 72	Number of VOC events	

Trial Results	
Summary results	
Study results globally	
Date of posting of results summaries	Date of first journal publication of results
Results URL link	
Baseline characteristics	
Participant flow	
Adverse events	
Outcome measures	
URL to protocol files	