Observational Cohort Study of Zavegepant Safety in Pregnancy within a US Claims Database

First published: 10/12/2024

Last updated: 12/06/2025

Study Ongoing

Administrative details

EU PAS number

EUPAS1000000408

Study ID

1000000408

DARWIN EU® study

No

Study countries

United States

Study description

While no adverse developmental effects were observed in zavegepant animal studies, there are limited data on the safety of zavegepant use in pregnant individuals.
The purpose of this study is to assess the safety of zavegepant when used in pregnancy in terms of risk of major congenital malformations (MCMs), spontaneous abortions, pregnancy complications (pre-eclampsia, eclampsia, gestational diabetes, gestational hypertension), stillbirths, preterm births, and small for gestational age (SGA) births.
This non-interventional study is designated as a post-authorization safety study (PASS) and is a post-marketing commitment to the FDA.

Study status

Ongoing

Research institutions and networks

Institutions

Pfizer

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Institution

Contact details

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Study contact

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Primary lead investigator

Monica Bertoia

Primary lead investigator

Study timelines

Date when funding contract was signed

Planned: 25/05/2023

Actual: 25/05/2023

Study start date

Planned: 01/01/2025

Actual: 01/01/2025

Data analysis start date

Planned: 02/01/2031

Date of interim report, if expected

Planned: 30/06/2025

Date of final study report

Planned: 30/06/2032

Sources of funding

- Pharmaceutical company and other private sector

More details on funding

Pfizer 100%

Study protocol

C5301027_ZAVEGEPANT PREGNANCY DATABASE PROTOCOL_V3.0_28OCT2024.pdf (715.02 KB)

C5301027_ZAVEGEPANT_PROTOCOL_V5.0_20MAY2025.pdf (679.95 KB)

C5301027_ZAVEGEPANT PREGNANCY DATABASE PROTOCOL_V4.0_03MAR2025.pdf (1 MB)

Regulatory

Was the study required by a regulatory body?

Yes

Is the study required by a Risk Management Plan (RMP)?

Not applicable

Other study registration identification numbers and links

C5301027

Methodological aspects

Study type

Study type list

Study topic:

Human medicinal product

Study type:

Non-interventional study

Scope of the study:

Safety study (incl. comparative)

Data collection methods:

Combined primary data collection and secondary use of data

Study design:

This is an observational cohort study. Three cohorts of pregnancies among individuals with migraine; a cohort of zavegepant-exposed pregnancies and 2 propensity score-matched (1:3) comparator groups of pregnancies exposed to other migraine therapies and unexposed to migraine therapies.

Main study objective:

1. To estimate the prevalence of MCM births among pregnant individuals with migraine who are (1) exposed to zavegepant (exposed cohort), (2) unexposed to zavegepant (treated comparator cohort), and (3) unexposed to migraine treatment (untreated comparator cohort).

2. To estimate the relative risk of MCM births in the exposed cohort versus the comparator cohorts, if sample size permits.

Study Design

Non-interventional study design

Cohort

Study drug and medical condition

Medicinal product name, other

Zavegepant

Study drug International non-proprietary name (INN) or common name

RIMEGEPANT

Anatomical Therapeutic Chemical (ATC) code

(N02CD06) rimegepant

rimegepant

Population studied

Short description of the study population

The base population will include all pregnancies among individuals with migraine with an EDC (estimated date of conception) between 09 March 2023 and 31 December 2030 (or most recent data available at the time of the last data extract) within the US-based health insurance claims database.

Age groups

- **Paediatric Population (< 18 years)**
- Adults (18 to < 65 years)

Special population of interest

Pregnant women

Estimated number of subjects

6.188

Study design details

Setting

The base population will include all pregnancies among individuals with migraine with an EDC between 09 March 2023 and 31 December 2030 (or most recent data available at the time of the last data extract) within the US-based health insurance claims database.

Comparators

The treated comparator cohort will include eligible pregnancies that meet the following criteria:

1. Exposure period for a medication indicated for the acute treatment of migraine that overlaps with the relevant exposure window (Table 4). Exposure periods for migraine medications will be defined for each pregnancy using the date of dispensing or administration as the start of exposure, and the days' supply or recommended
administration schedule plus 5 times the half-life of the therapy as the length of exposure. (a. Triptans and ditans).
2. No exposure period for zavegepant that overlaps with the relevant exposure window
3. Migraine, based on the criteria summarized in Table 3 (Identification of pregnancies with migraine in the present study)

The untreated comparator cohort will include eligible pregnancies that meet the following criteria:

1. No exposure periods for zavegepant, triptans, and ditans that overlap with an

exposure window (defined as 30 days prior to EDC through the end of the relevant exposure window)
2. Migraine, based on the criteria summarized in Table 3

Outcomes

The primary outcome is MCM. The secondary outcomes are spontaneous abortion, pregnancy complications (pre-eclampsia, eclampsia, gestational diabetes, gestational hypertension), stillbirth, preterm birth, and SGA.

Data analysis plan

Annual interim reports will describe the flow of pregnancies into the 3 migraine cohorts including the number of accrued pregnancies meeting each of the eligibility criteria. Each study cohort will be described with respect to select covariates (Section 9.3.3).
All analyses will be descriptive, including the number of observations, mean, standard deviation, median, interquartile range, and range for all continuous variables and counts and percentages for each binary or categorical variable.

Claims-identified outcome counts will be provided to assess whether the prevalence estimates incorporated into the power calculation hold. These counts will include non-adjudicated MCM, as identified using the specific algorithm (Section 9.3.2).There will be no propensity score matching of the exposed to comparator group pregnancies in the annual interim reports and no comparative analyses. As noted in Section 9.4.4, the addition of research partners will be considered after the third annual interim report, based on observed accrual.

The comparative analysis in the final report will match exposed and comparator pregnancies on propensity scores to identify the final study cohorts.

Documents

Study report

c5301027-interim-report-body.pdf (1019.7 KB)

Data management

ENCePP Seal

The use of the ENCePP Seal has been discontinued since February 2025. The ENCePP Seal fields are retained in the display mode for transparency but are no longer maintained.

Data sources

Data source(s), other

Optum Research Database (ORD) and medical records.

Data sources (types)

Administrative healthcare records (e.g., claims)

Use of a Common Data Model (CDM)

CDM mapping

No

Data quality specifications

Check conformance

Unknown

Check completeness

Unknown

Check stability

Unknown

Check logical consistency

Unknown

Data characterisation

Data characterisation conducted

No