Retrospective Cohort Study of Pregnancy Outcomes in Women Exposed to Rimegepant During Pregnancy

First published: 24/02/2022
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Study | Ongoing

Administrative details

PURI
https://redirect.ema.europa.eu/resource/45953

EU PAS number
EUPAS45952

Study ID
45953

DARWIN EU® study
No

Study countries
United States

Study description
The purpose of the study is to evaluate the risk of pregnancy and infant outcomes among women with migraine exposed to rimegepant during pregnancy and in two rimegepant unexposed comparator groups, one of pregnant women with migraine treated with other medications indicated for the acute treatment or prevention of migraine during pregnancy, and a group of pregnant women without migraine. This is an observational, retrospective, cohort study using prospectively collected secondary health care data from a single US data source.

Study status
Ongoing

Research institution and networks

Institutions

Pfizer
First published: 01/02/2024
Last updated 01/02/2024
Institution

Optum
Germany
First published: 03/01/2012
Last updated 07/02/2014
Institution
ENCePP partner
Other

RTI Health Solutions (RTI-HS)
France
Spain
Sweden
United Kingdom
United Kingdom (Northern Ireland)
United States
First published: 21/04/2010
Last updated 19/02/2024
Institution
ENCePP partner
Not-for-profit

Contact details

Study institution contact
Monica Bertoia

Study contact

monica.bertoia@pfizer.com
Primary lead investigator
Monica Bertoia
Primary lead investigator

Study timelines

Date when funding contract was signed
Planned:
18/06/2020
Actual:
18/06/2020

Study start date
Planned:
15/07/2021
Actual:
11/08/2021

Data analysis start date
Planned:
01/04/2028

Date of interim report, if expected
Planned:
30/04/2022
Actual:
29/04/2022

Date of final study report
Planned:
30/04/2029

Sources of funding

- Pharmaceutical company and other private sector

More details on funding

Pfizer (100%)

Study protocol

C4951006_PROTOCOL_V1.0_08DEC2021.pdf(1.63 MB)

C4951006_PROTOCOL_V5.0_21AUG2023.pdf(1.6 MB)

Regulatory

Was the study required by a regulatory body?
Yes

Is the study required by a Risk Management Plan (RMP)?
Non-EU RMP only

Other study registration identification numbers and links

Study submitted to ClinicalTrials.gov (https://clinicaltrials.gov/), NCT number NCT05198245

Methodological aspects

Study type

Study type list

Study topic:
Human medicinal product

Study type:
Non-interventional study

Scope of the study:
Assessment of risk minimisation measure implementation or effectiveness
Drug utilisation

Data collection methods:

Combined primary and secondary data collection

Study design:
This is an observational, retrospective, cohort study using a single health care data source of prospectively collected secondary data. The source population will be pregnant women and their children born during the study period.

Main study objective:
The primary objective is to evaluate the risk of pregnancy and infant outcomes with major congenital malformations (MCMs) as the primary outcome of interest, and other primary outcomes including spontaneous abortions, fetal deaths/stillbirths, and small for gestational age (SGA) births among women with migraine exposed to rimegepant during pregnancy and in 2 rimegepant-unexposed comparator groups.

Specific objectives are as follows:
• Objective 1: To describe patterns of use of rimegepant and other medications for migraine in pregnant women with migraine.
• Objective 2: To estimate the frequency of pregnancy outcomes (i.e., spontaneous abortions, fetal deaths/stillbirths, elective terminations), complications of pregnancy (i.e., preeclampsia/eclampsia), and fetal/infant outcomes (i.e., MCMs, SGA births, and preterm births) in women with migraine exposed to rimegepant during pregnancy and in 2 comparator groups of pregnant women not exposed to rimegepant
• Objective 3: To estimate the adjusted relative risks (RRs) for the study outcomes among women exposed to rimegepant in pregnancy compared with the unexposed comparator groups.

Study Design

Non-interventional study design
Cohort

Study drug and medical condition

Name of medicine, other
Nurtec ODT

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

Anatomical Therapeutic Chemical (ATC) code
(N02CD06) rimegepant

Medical condition to be studied
Migraine

Population studied

Short description of the study population
The source for the study population will consist of women who have been pregnant during the study period in the selected US data source. Pregnant women will have to fulfill the following eligibility criteria:
• Has a pregnancy code or a recorded pregnancy outcome (i.e., live birth, stillbirth, spontaneous abortion, or elective termination) within the study observation period
• Be aged 16 to 49 years, inclusive, at the estimated LMP within the study observation period.

In this population of pregnant women, we aim to identify 3 study groups:
• Pregnant women with migraine treated with rimegepant
• Pregnant women with migraine, unexposed to rimegepant, treated with other migraine medications
• Pregnant women without migraine, unexposed to rimegepant

Age groups
Preterm newborn infants (0 – 27 days)
Term newborn infants (0 – 27 days)
Infants and toddlers (28 days – 23 months)
Adolescents (12 to < 18 years)
Adults (18 to < 46 years)
Adults (46 to < 65 years)

Special population of interest
Pregnant women

Estimated number of subjects
8064

Study design details

Setting
This study will be conducted in a US health care claims data source.

Comparators
The primary comparator group will include pregnancies in women with migraine exposed to medications for the treatment of migraine other than rimegepant.

Inclusion criteria:
• Have a migraine diagnosis that meets the criteria in Protocol Table 4 any time before the estimated LMP and through whichever is first: end of pregnancy or end of the study period
• Have at least 1 pharmacy dispensing for a medication indicated for the treatment of migraine within the 30-day time window before the estimated LMP and ending with whichever is first: end of pregnancy or end of the study period. Medications indicated for the treatment of migraine include NSAIDs, acetaminophen, triptans, ergots, opioids, betablockers, anti-epileptics, antidepressants, and botulinum toxin
• Have a recorded outcome of pregnancy within the study period
• Had continuous enrollment in a health care plan with medical and pharmacy benefits during the 6-month period before the estimated LMP through a postpartum period of 42 days
Exclusion criterion:
• Have at least 1 pharmacy dispensing for rimegepant within the 30-day time window before the estimated LMP and through whichever is first: end of pregnancy or end of the study period
The secondary comparator group will include rimegepant-unexposed pregnancies in women without migraine.
Inclusion criteria:
• Have no migraine diagnosis that meets the criteria in Protocol Table 4 any time before the estimated LMP through whichever is first: end of pregnancy or end of the study period
• Have a recorded outcome of pregnancy within the study period
• Had continuous enrollment in a health care plan with medical and pharmacy benefits during the 6-month period before the estimated LMP through a postpartum period of 42 days
Exclusion criterion:
• Have at least 1 pharmacy dispensing for rimegepant within the 30-day time window before the estimated LMP through whichever is first: end of pregnancy or end of the study period.

Outcomes
The primary outcome of interest is:
• Major congenital malformations

Other primary outcomes are the following:
• Spontaneous abortions
• Fetal deaths/stillbirths
• Small for gestational age births

The secondary outcomes are the following:
• Elective terminations
• Pre-eclampsia or eclampsia (combined), during pregnancy and through the postpartum period
• Preterm births.

Data analysis plan
A drug utilization analysis of use of rimegepant and other migraine medications will include number of users and mean, standard deviation, median, IQR of number of dispensings, and number of days between consecutive dispensings for each medication group. A description of the cohort attrition, selected characteristics of pregnancies in each exposure group, and frequency of study outcomes will be reported for each study group. For the safety comparative analyses, if feasible, the study groups will be matched on propensity scores to control for confounding and channeling. Each woman in the rimegepant-exposed group will be matched in a 1:n variable-matching ratio with up to 3 women in each of the comparator groups (separately). Regression models will be used to compare pregnant women with migraine exposed to rimegepant with women in the primary comparator group and in the secondary comparator group. Point estimates and 95% CIs from analyses within the matched study groups will be presented.

Documents

Study report
C4951006_Interim Report 2_11 April 2023.pdf(896.89 KB)
C4951006_Interim Report 3_08Apr2024.pdf(2.48 MB)

Data management

Data sources

Data source(s)
Optimum Patient Care Research Database

Data sources (types)
Administrative data (e.g. claims)
Drug dispensing/prescription data

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
Unknown