Post-Authorization Safety Study to Assess the Effectiveness of the Newly Implemented Risk Minimization Measures for Topiramate: Drug Utilization Study

First published: 20/03/2025

Last updated: 20/03/2025

Study Planned

Administrative details

EU PAS number

EUPAS1000000494

Study ID

1000000494

DARWIN EU® study

No

Study countries

France

Germany

Spain

Sweden

United Kingdom

Study description

This is a pre-post, observational study using data derived from existing healthcare databases to answer the research question whether the newly implemented risk minimization measures for topiramate are associated with change in topiramate use and pregnancy exposure to the drug among women of childbearing potential with epilepsy or migraine diagnosis.

The study aims to describe the prevalence and the incidence of topiramate use among women of child-bearing potential (WOCBP) with epilepsy or migraine during the pre- and post-implementation period of the newly implemented risk minimization measures (RMMs).

In addition, the study aims to quantify exposure to topiramate during pregnancy among incident users of topiramate at two critical points:

(1) being pregnant at treatment initiation, and

(2) becoming pregnant during treatment.

Study status

Planned

Research institutions and networks

Institutions

Syneos Health

United Kingdom

First published: 23/04/2015

Last updated: 06/03/2024

Institution | Non-Pharmaceutical company | ENCePP partner

Leibniz Institute for Prevention Research and Epidemiology - BIPS

Germany

First published: 29/03/2010

Last updated: 30/03/2026

Institution | Not-for-profit | ENCePP partner

Fundació Institut Universitari per a la Recerca a l'Atenció Primària de Salut Jordi Gol i Gurina, IDIAPJGol

Spain

First published: 05/10/2012

Last updated: 09/07/2026

Institution | Educational Institution | Laboratory/Research/Testing facility | Not-for-profit | ENCePP partner

Karolinska Institutet

Sweden

First published: 01/02/2024

Last updated: 01/02/2024

Institution | Educational Institution

Contact details

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Study timelines

Date when funding contract was signed

Planned: 20/09/2024

Actual: 20/09/2024

Study start date

Planned: 01/11/2025

Date of interim report, if expected
Planned: 16/01/2027

Date of final study report
Planned: 16/01/2029

Sources of funding

- Pharmaceutical company and other private sector

More details on funding

Topiramate Safety Consortium of 30 MAHs, led by Janssen

Study protocol

Protocol_abstract_Topiramate PASS_7054981_DUS.pdf (91.81 KB)

Regulatory

Was the study required by a regulatory body?
Yes

Is the study required by a Risk Management Plan (RMP)?
EU RMP category 1 (imposed as condition of marketing authorisation)

Regulatory procedure number
EMEA/H/A-31/1520

Other study registration identification numbers and links

PCSESPA0009

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:

Secondary use of data

Study design:

The study design is a pre-post, observational study using data from existing healthcare databases in the EU and the UK.

The pre- and post-implementation periods will be defined as 36 months prior to

publication of Bjørk et al. on 31 May 2022 and 36 months after implementation of the new RMMs.

Main study objective:
The overarching goal of the study is to describe the use of topiramate among WOCBP with epilepsy or migraine during pre- and post-implementation periods of the newly implemented RMM and to determine the effectiveness of the newly implemented RMMs to reduce exposure to topiramate during pregnancy and for at least up to four weeks after discontinuing treatment with topiramate.

Study Design

Non-interventional study design
Cohort

Study drug and medical condition

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

Anatomical Therapeutic Chemical (ATC) code
(N03AX11) topiramate
topiramate

Medical condition to be studied
Epilepsy
Migraine

Population studied

Short description of the study population

Patients in this study will be WOCBP (≥13 to ≤49 years of age and without prior record of hysterectomy or sterilization) identified in the healthcare database selected for each of the countries (France, Germany, Spain, Sweden, UK). Depending on the study objective, patients must have epilepsy and/or migraine or be exposed to topiramate.

Age groups

- Adolescents (12 to < 18 years)
- Adults (18 to < 46 years)
- Adults (46 to < 65 years)

Special population of interest

Women of childbearing potential not using contraception

Women of childbearing potential using contraception

Study design details

Outcomes

Exposure to topiramate is the outcome of interest and will be determined by indication. In addition, new users of topiramate during the pre- and post-implementation periods will be characterized by indication.

Data analysis plan

The data from each data source will be analysed separately according to a common study protocol.

All descriptive analyses will be displayed for the pre- and post-implementation periods, overall and by age category and country.

Interrupted time-series analysis is planned for primary objective 1, contingent

upon sufficient statistical power. All other study objectives are descriptive.
Continuous variables will be summarized using appropriate statistics for continuous variables (eg, mean, standard deviation (SD), median, range, minimum and maximum).
Categorical variables will be summarized using appropriate statistics (eg, number, percentage and 95% Clopper-Pearson confidence intervals).

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)

Système National des Données de Santé (French national health system main database)
German Pharmacoepidemiological Research Database
The Information System for Research in Primary Care (SIDIAP)
Landspatientregisteret (National Patient Register)
Sweden National Prescribed Drugs Register / Läkemedelsregistret
Clinical Practice Research Datalink
Hospital Episode Statistics

Swedish Cause of Death Register

Data source(s), other

National Medical Birth Register (MBR) Sweden

Total Population Register (TPR) Sweden

Office for National Statistics (ONS) United Kingdom

Données de Consommation Inter-régimes, (DCIR) France

Programme de Médicalisation des Systèmes d'Information, (PMSI) France

Inserm's CépiDc Causes of Deaths database (BCMD) France

Data sources (types)

Administrative healthcare records (e.g., claims)

Electronic healthcare records (EHR)

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