DARWIN EU® Drug utilisation of valproatecontaining medicinal products in women of childbearing potential

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Administrative details

EU PAS number	
EUPAS50789	
Study ID	
84554	
DARWIN EU® study	
V	
Yes	
Study countries	
Study countries	
Study countries Belgium	

Spain	
United	Kingdom

Study description

Valproic acid/valproate-containing medicines are first-line treatment for epilepsy, and used as second-line treatments for the treatment of bipolar disorder and migraine prevention. Valproic acid/valproate is a teratogen, with prenatal exposure carrying a substantial risk of neurodevelopmental impairment and congenital malformations in the child. Therefore, its use in women of childbearing age is restricted to prevent valproate exposure during conception and pregnancy.

The European Medicines Agency commissioned this DARWIN EU© study to estimate the incidence rate and prevalence of VPA use and alternative treatments, and to characterise patient-level valproate use in women between aged ≥ 12 to ≤ 55 12 and 55 years of age from 2010 to 2022.

Study status

Finalised

Research institutions and networks

Institutions

Department of Medical Informatics - Health Data Science, Erasmus Medical Center (ErasmusMC)

Netherlands

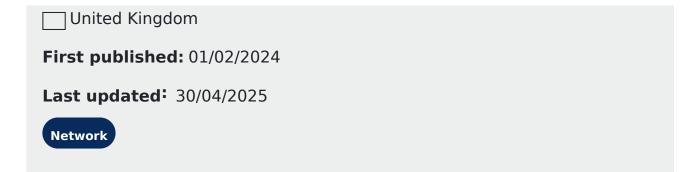
First published: 03/11/2022

Last updated: 02/05/2024
Institution
10) ((4)) ((5)) ((5))
IQVIA NL, Real-World-Evidence
☐ Netherlands
First published: 25/11/2022
Last updated: 21/03/2025
Institution Other 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: 23/05/2025
Institution Educational Institution Laboratory/Research/Testing facility
Not-for-profit ENCePP partner
Hospital District of Southwest Finland (HSDF)
☐ Finland

First published: 01/02/2024
Last updated: 01/02/2024
Institution Hospital/Clinic/Other health care facility
Oxford University UK

Networks

Data Analysis and Real World Interrogation Network
(DARWIN EU®)
Belgium
Croatia
Denmark
Estonia
Finland
France
Germany
Greece
Hungary
Italy
☐ Netherlands
Norway
Portugal
Spain
Sweden



Contact details

Study institution contact

Annika Jodicke annika.jodicke@ndorms.ox.ac.uk

Study contact

annika.jodicke@ndorms.ox.ac.uk

Primary lead investigator

Annika Jodicke

Primary lead investigator

Study timelines

Date when funding contract was signed

Planned: 26/07/2022

Actual: 26/07/2022

Study start date

Planned: 01/01/2012

Actual: 01/01/2012

Date of final study report

Planned: 17/01/2023

Actual: 17/01/2023

Sources of funding

EMA

Study protocol

D2.2.3 DARWIN EU Study Protocol C1-002 v2.0 Clean EUPAS.pdf(965.28 KB)

Regulatory

Was the study required by a regulatory body?

Yes

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

Not applicable

Methodological aspects

Study type

Study type list

Study topic:

Human medicinal product

Study type:

Non-interventional study

Scope of the study:

Drug utilisation

Data collection methods:

Secondary use of data

Main study objective:

1.To characterise the prevalence and incidence of use of valproate, valproate containing medicines, and alternative antiepileptic therapies among women aged 12-55 years of age, stratified by calendar year and age; 2.To characterise the use of valproic acid or valproate containing medicines

Study Design

Non-interventional study design

Cohort

Study drug and medical condition

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

SODIUM VALPROATE

VALPROATE MAGNESIUM

VALPROATE SEMISODIUM

Anatomical Therapeutic Chemical (ATC) code

(N03AG01) valproic acid valproic acid (N03AG02) valpromide valpromide

Population studied

Short description of the study population

The study included women aged 12-55 years old using vaproic acid/valproate-containing medicines between January 2010 and December 2021, with at least 365 days of prior history. The study also included new users with at least 365 days of visibility prior to their first VPA prescription and no previous VPA use.

Age groups

Adolescents (12 to < 18 years)

Adults (18 to < 46 years)

Adults (46 to < 65 years)

Special population of interest

Pregnant women

Women of childbearing potential using contraception

Estimated number of subjects

20000

Study design details

Outcomes

- 1) Prevalence and incidence of valproate-containing medication and alternative treatments.
- 2) Patient-level drug utilisation

Data analysis plan

The study will be carried out as a Federated Network Analysis Project. All analyses will be conducted separately for each database. The data partners locally execute the analytics and review and approve the by default aggregated results before returning them to the DARWIN EU Coordination Centre. For all analyses a minimum cell count of 5 will be used when reporting results, with any smaller counts obscured. Population level cohort study: Annual prevalence of valproate use and alternative treatments will be estimated, as will annual incidence rates per 100,000 person years. New user cohort study: Large-scale patient-level characterisation will be conducted. Index date will be the date of the first VPA prescription for each person.

Documents

Study results

DARWIN_EU_Study_Report_C1-002_V2.1.pdf(4.54 MB)

Data management

Data sources

Data source(s)

Clinical Practice Research Datalink

Integrated Primary Care Information (IPCI)

The Information System for Research in Primary Care (SIDIAP)

Auria Clinical Informatics (FinOMOP)

IQVIA Longitudinal Patient Data - Belgium

Data sources (types)

Electronic healthcare records (EHR)

Use of a Common Data Model (CDM)

CDM mapping

Yes

CDM Mappings

CDM name

OMOP

CDM website

https://www.ohdsi.org/Data-standardization/

Data quality specifications

Check conformance

Unknown

Check completeness

Unknown

Check stability

Unknown

Check logical consistency

Unknown

Data characterisation

Data characterisation conducted

No