DARWIN EU® - Sex differences in prescribing of benzodiazepines and benzodiazepine-related drugs over time in adolescents and young adults.

First published: 25/08/2026

Last updated: 01/10/2026

Study Ongoing

Administrative details

EU PAS number

EUPAS1000001096

Study ID

1000001096

DARWIN EU® study

Yes

Study countries

Denmark

Finland

Germany

Netherlands

Spain

United Kingdom

Study description

The widespread prescribing of benzodiazepines and related medicines has raised ongoing public health concerns due to risks, such as tolerance, dependence, withdrawal, and serious side effects. Evidence on use of benzodiazepines in younger populations is limited.

Given the prevalence of off-label prescribing and the unclear balance of risks and benefits in younger populations, there is a need to better understand prescribing patterns.

In addition, the COVID-19 pandemic has had a large impact on mental health, particularly among young females. However, its potential influence on prescribing patterns of anxiolytics, including benzodiazepines, remains unclear.

To address these gaps, this study aims to examine patterns in prescribing of benzodiazepines over time among adolescents and young adults and to assess differences in prescribing patterns between females and males, including changes during the COVID-19 pandemic period

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Study status

Ongoing

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 | Educational Institution | ENCePP partner

Networks

Data Analysis and Real World Interrogation Network (DARWIN EU®)

- Belgium
- Croatia
- Denmark
- Estonia
- Finland
- France
- Germany
- Greece
- Hungary
- Italy
- Lithuania
- Netherlands
- Norway

Poland
Portugal
Spain
Sweden
United Kingdom
United States

First published: 01/02/2024

Last updated: 05/11/2026

Network

Contact details

Study institution contact

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Study contact

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Primary lead investigator

Ellen Gerritsen

Primary lead investigator

Study timelines

Date when funding contract was signed

Planned: 30/06/2026

Actual: 30/06/2026

Study start date
Planned: 25/08/2026

Actual: 26/08/2026

Date of final study report
Planned: 31/12/2026

Sources of funding

- EMA

Study protocol

DARWIN EU_Protocol_P5-C1-012_Sex diff BDZ_V5.0.pdf (2.12 MB)

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

Study Design

Non-interventional study design

Cohort

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)

Danish Health Data Registries

IQVIA Disease Analyzer Germany

The Information System for Research in Primary Care (SIDIAP)

Integrated Primary Care Information (IPCI)

Clinical Practice Research Datalink (CPRD) GOLD

Data source(s), other

FinOMOP-THL

Use of a Common Data Model (CDM)

CDM mapping

Yes

CDM Mappings

CDM name

OMOP

CDM website

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

CDM version

https://ohdsi.github.io/CommonDataModel/cdm54.html

Data quality specifications

Check conformance

Unknown

Check completeness

Unknown

Check stability

Unknown

Check logical consistency

Unknown

Data characterisation

Data characterisation conducted

No