



Tribute to Andrew Williams/ Power of Collaboration

OHDSI Community Call
Oct. 21, 2025 • 11 am ET



Upcoming Community Calls

Date	Topic
Oct. 21	Tribute to Andrew Williams/The Power of Collaboration
Oct. 28	Meet the Titans
Nov. 4	Collaborator Showcase Honorees
Nov. 11	Early-Stage Researcher Presentations
Nov. 18	DARWIN EU 2025 Update
Nov. 25	Collaborator Showcase Demo Spotlight
Dec. 2	OHDSI/OMOP Research Spotlight
Dec. 9	How Did OHDSI Do This Year?
Dec. 16	Holiday Farewell To 2025



Three Stages of The Journey

Where Have We Been?

Where Are We Now?

Where Are We Going?



OHDSI Shoutouts!



Congratulations to the team of **Kye Hwa Lee, Sujung Jang, Grace Juyun Kim, Sukyoung Park, Doeun Kim, Oh Jin Kwon, Jae-Ho Lee, and Young-Hak Kim** on the publication of **Large Language Models for Automating Clinical Trial Criteria Conversion to Observational Medical Outcomes Partnership Common Data Model Queries: Validation and Evaluation Study** in *JMIR Medical Informatics*.

JMIR MEDICAL INFORMATICS

Lee et al

Original Paper

Large Language Models for Automating Clinical Trial Criteria Conversion to Observational Medical Outcomes Partnership Common Data Model Queries: Validation and Evaluation Study

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Abstract

Background: Real-world data-based feasibility assessments enhance clinical trial design, but automating eligibility criteria conversion to database queries is hindered by challenges related to ensuring high accuracy and generating clear, usable outputs.

Objective: The aim of this study is to develop an automated system converting free-text eligibility criteria from ClinicalTrials.gov into Observational Medical Outcomes Partnership Common Data Model (OMOP CDM)-compatible Structured Query Language (SQL) queries and systematically evaluate hallucination patterns across multiple large language models (LLMs) to identify the optimal deployment strategies.



OHDSI Shoutouts!



Congratulations to the team of **Lucía Bellas, Martí Català, Edward Burn, Yuchen Guo, Mike Du, Katia Verhamme, Egil Fridgeirsson, Talita Duarte-Salles, Tommi Kauko, Eeva Kronqvist, James T. Brash, Sarah Seager, Daniel Prieto-Alhambra, Annika M. Jödicke, and Albert Prats-Uribe** on the publication of **Secular Trends in the Use of Valproate-Containing Medicines in Women of Childbearing Age in Europe: A Multinational DARWIN EU Network Study** in *Pharmacoepidemiology and Drug Safety*.

Pharmacoepidemiology and Drug Safety

WILEY

ORIGINAL ARTICLE **OPEN ACCESS**

Secular Trends in the Use of Valproate-Containing Medicines in Women of Childbearing Age in Europe: A Multinational DARWIN EU Network Study

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Received: 3 September 2024 | **Revised:** 3 June 2025 | **Accepted:** 23 September 2025

Funding: This study was funded by the Europeans Medicines Agency in the context of DARWIN EU (Study P2-C1-002) <https://catalogues.ema.europa.eu/node/3650/administrative-details>.

Keywords: antiepileptic drugs | drug utilization | network study | pharmacoepidemiology

ABSTRACT

Background: Valproate-containing medicines (VPA) are first-line treatments for epilepsy; however, they pose teratogenic risks, restricting their use in women of childbearing age. We aimed to estimate the secular trends in the use of VPA and alternative treatments in young women, and to characterise dose/strength, treatment duration, and indication in new VPA users.

Methods: We conducted a multi-national population-based cohort study using primary care records from the Netherlands, Spain, and the UK (IPCI, SIDIAF, CPRD GOLD), primary and outpatient specialist care records from Germany and Belgium (IQVIA DA Germany, IQVIA LPD Belgium), and hospital records from Finland (ACI VARHA), all mapped to the OMOP Common data model. All women present in the databases aged ≥ 12 and ≤ 55 years on the 1st of January of each year in the period 2010–2022 (or latest available), with at least 365 days of prior observation, were included.

Results: A total of 2948860 (CPRD GOLD), 718835 (IPCI), 2494052 (SIDIAF), 157361 (ACI VARHA), 218250 (IQVIA LPD Belgium); and 5152752 (IQVIA DA Germany) women were included. Among those, 6416, 1241, 10398, 1447, 945, and 4002 started treatments with VPA, respectively. Incidence and prevalence of VPA use in young women decreased between 2010 and 2021, while the prevalence of the alternative treatments pregabalin and gabapentin increased, especially in CPRD (it rises from 0.5% to 1.5%). Median age of new VPA users ranged between 40 and 43 years. Anxiety and depressive disorder were frequent



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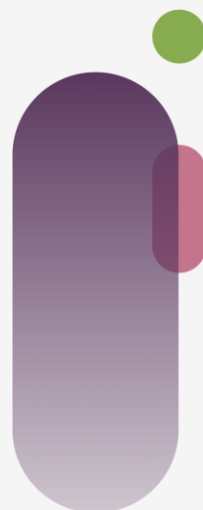
[Home](#) > [News and Events](#) > [Newsroom](#) > EHDEN Publishes Largest Study To Date On The Global Effect of Drug Shortages

EHDEN publishes largest study to date on the global effect of drug shortages

The study was made possible thanks to EHDEN's work on harmonising more than 350 million real-world health data records.



21 October 2025



Changes in use and utilisation patterns of drugs with reported shortages between 2010 and 2024 in Europe and North America: a network cohort study

Marta Pineda-Moncusí, Alexandros Rekkas, Álvaro Martínez Pérez, Angela Leis, Carlos Lopez Gomez, Eric Fey, Erwin Bruninx, Filip Majković, Francisco Sánchez-Sáez, Jordi Rodeiro-Boliart, Loretta Zsuzsa Kiss, Michael Franz, Miguel-Angel Mayer, Neva Eleangovan, Pau Pericàs Pulido, Pantelis Natsiavas, Selçuk Şen, Steven Cooper, Sulev Reisberg, Katrin Manlik, David Brendan Price, Luca Moschetti, Manon Merkelbach, Mina Tadrous, Nadav Rappoport, Ravinder Claire, Salvador Garcia-Torrens, Daniel Prieto-Alhambra, Peter R Rijnbeek, Theresa Burkard, on behalf of the Drug Shortages EHDEN Study Group

Summary

Background Drug shortages can negatively impact patient care. We aimed to estimate the incidence and prevalence of use of medicines with shortages announced by the European Medicines Agency between January, 2013, and September, 2023, and to characterise the users of these drugs.

Methods In this multinational network cohort study, we used routinely collected data from 52 databases across 18 European countries and the USA covering primary care, secondary care, health insurance claims, and disease registries. We included all participants with a minimum of 365 days of medical history between 2010 and 2024. We estimated annual incidence rates and period prevalence of use of medicines with a reported shortage (n=16), and their key alternatives (n=41). A reduction of 33% or more in incidence or prevalence after the shortage announcement was considered confirmation of a shortage. Additionally, we analysed changes in utilisation in terms of age, sex, indication, duration, and dosage.

Findings Eight drugs had a 33% or higher reduction in incidence and nine drugs had a 33% or higher reduction in prevalence. Varenicline and amoxicillin (alone or combined with clavulanate) were the medicines affected in the highest number of countries and databases. Additionally, we observed changes in the indication of alteplase (pulmonary embolism indication increased in hospitals in Finland and Germany during the shortage period) and sarilumab (rheumatoid arthritis indication decreased in databases in the UK, Spain, Finland, and Sweden); and among incident users of sarilumab, a decrease in the cumulative dose was observed in databases in the Netherlands (from 84 mg in 2020 to 28 mg in 2023) and a reduction in treatment duration was observed in databases in Finland (from 104 days in 2020 to 1 day in 2022) and Belgium (from 71 days in 2020 to 30 days in 2022).

Interpretation This study highlighted changes in incidence and prevalence of use of medicines after shortage announcements, and changes observed in patient care in terms of the indication, duration, or prescribed dose of medicines. Our findings showed that some reductions in use were observed across Europe and the USA, and others differed across countries. More research is needed to reduce the effects of drug shortages globally.



Lancet Public Health 2025;
10: e835–47
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Three Stages of The Journey

Where Have We Been?

Where Are We Now?

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Upcoming Workgroup Calls



Date	Time (ET)	Meeting
Tuesday	12 pm	ATLAS/WebAPI
Tuesday	12 pm	CDM Vocabulary Subgroup
Wednesday	9 am	Oncology Outreach/Research Subgroup
Wednesday	12 pm	Latin America
Thursday	9:30 am	Network Data Quality
Friday	9 am	Phenotype Development and Evaluation
Friday	10 am	GIS-Geographic Information System
Friday	11 am	Clinical Trials
Friday	11:30 am	Steering
Monday	10 am	Africa Chapter
Monday	10 am	Getting Started Subgroup
Tuesday	10 am	CDM Survey Subgroup



OHDSI 2025



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Africa Symposium: Nov. 10-12

The first-ever OHDSI Africa Symposium will be held Nov. 10-12 in Kampala, Uganda, at the Joint Clinical Research Centre (JCRC) and Mestil Hotel. The event will begin with a dedicated one-day training course at JCRC, followed by a two-day main conference at the Mestil Hotel.



ohdsi.org/africa2025



APAC Symposium: Dec. 6-7

The 2025 OHDSI APAC Symposium will be held Dec. 6-7 in Shanghai, China at the Shanghai Jiao Tong University. It will feature a 1-day tutorial and a 1-day main conference.



ohdsi.org/apac2025



#OHDSISocialShowcase This Week

Monday

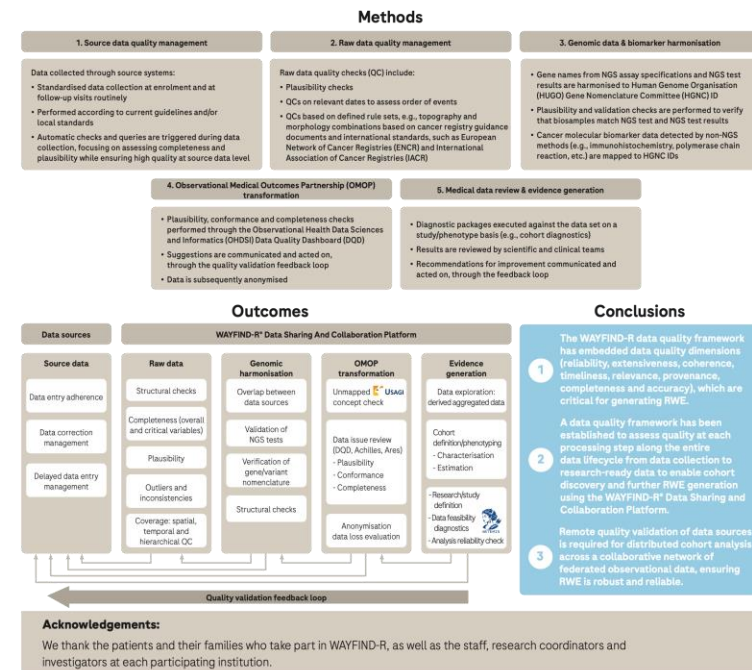
Data quality framework for cohort discovery: Insights from the design of the global WAYFIND-R oncology real-world data research platform

(Tom Stone, Ana Ferro, Natalia Kulczakiewicz, Anna Ledwon, Christina Gredy, Dimitar Toshev, Erika Schirghuber)

WAYFIND-R

Data quality framework for cohort discovery: Insights from the design of the global WAYFIND-R oncology real-world data research platform

Background: The global WAYFIND-R registry (NCT04529122) aims to inform on best practices for next-generation sequencing (NGS)-based treatment decisions, and aid understanding of disparities in patients' access to diagnostics and therapies. By making data interoperable and shareable, it supports research collaborations worldwide. To confirm the registry's fitness for purpose, a data quality framework was established to assess quality at each processing step along the entire data lifecycle. Here we describe the data quality framework and processes established from data collection to research-ready data for each periodic data release to enable cohort discovery and further real-world evidence (RWE) generation using the WAYFIND-R® Data Sharing and Collaboration Platform.



<https://t.me/ohdsi>

Tom Stone¹, Ana Ferro¹, Natalia Kulczakiewicz², Anna Ledwon¹, Christina Gredy², Dimitar Toshev¹, Erika Schirghuber²

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#OHDSISocialShowcase This Week

Tuesday

Development of the HEARTwise ML framework to predict patient deterioration

(**Frederick De Baene**, Hanne Derycke, Freija Descamps, Panagiotis Gialernios, Mythili Palanisamy, Elyne Scheurwegs)

Development of HEARTwise Machine Learning framework to predict patient deterioration using existing OMOP CDM NEWS variables

Three-phase approach to design and develop the HW ML models

Background: The data track of the Belgian FOD innovation project HEARTwise is a collaboration between Jan Yperman Ziekenhuis (JYZ), Universitair Ziekenhuis Antwerpen (UZA), and edenceHealth. It focuses on the development of a scalable and flexible ML pipeline to predict the deterioration of a patient's health status. The models will be trained using historical data in existing OMOP-CDM databases, primarily focusing on National Early Warning Score (NEWS) variables. NEWS is an early warning system used to assess a patient's clinical condition, facilitating early detection and response to clinical deterioration in adult patients.

Methods: The three-phase approach to the ML framework (Figure 1) is designed with a focus on adaptability, allowing for fast technical iterations and extensibility for future enhancements (e.g., additional variables).

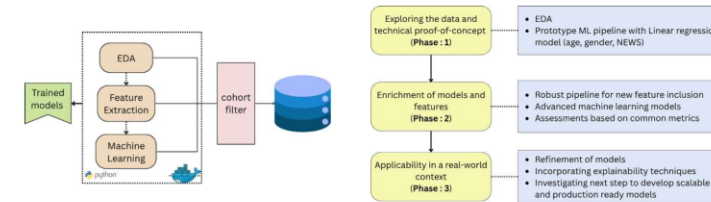


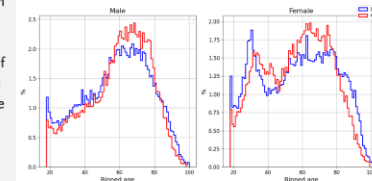
Figure 1: The workflow of the framework (left) and the three-phased approach of the project (right).

Results: The same patient selection criteria are applied to the JYZ and UZA datasets to compare overall distribution during Exploratory Data Analysis (EDA). Due to differences in patient populations and the hospitals' nature (regional vs. university), the patient characteristics are expected to differ. An example comparison is shown in Figure 2.

Insights from EDA have helped to assess data quality of NEWS variables and to inform the initial cohort selection:

- (1) Patients with at least one visit with more than one NEWS above 18 years of age
- (2) Exclusion of pediatric and pregnant patients
- (3) NEWS data collected after April 1, 2021

Figure 2: The age at first NEWS measurement for adult patients having at least one visit with more than one NEWS measurement from the two hospitals, categorized by gender (Male/Female). The x-axis represents the age at the first NEWS measurement, while the y-axis shows the normalized count of NEWS occurrences. Patients from maternity ward will be excluded as the calculation differs between the hospitals.



Conclusion: As a summary, initial ML model is prepared for testing, and the development of a flexible ML framework is in progress. The framework has a modular design, which decouples feature extraction and engineering from ML model training, enhancing adaptability and enabling support for diverse data models beyond OMOP CDM.

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#OHDSISocialShowcase This Week

Wednesday

DARWIN EU® - Latest trends in use of Attention-Deficit Hyperactivity Disorder (ADHD) Medications among children and adult in five European countries

(Xintong Li, Edward Burn, Yuchen Guo, Agustina Giuliadori Picco, Anna Palomar Cros, Antonella Delmestri, Isabella Kaczmarczyk, James Brash, Katia Verhamme, Mees Mosseveld, Talita Duarte Salles)

DARWIN EU® - Latest trends in use of Attention-Deficit Hyperactivity Disorder (ADHD) Medications among children and adult in five European countries

Xintong Li¹, Yuchen Guo¹, Agustina Giuliadori Picco², Anna Palomar Cros², Antonella Delmestri³, Wai Yi Man⁴, Isabella Kaczmarczyk⁵, James Brash⁶, Katia Verhamme⁶, Mees Mosseveld⁶, Talita Duarte Salles⁶, Daniel Prieto Alhambra⁶, Edward Burn¹

BACKGROUND

Over the past few decades, the diagnosis of ADHD has increased worldwide, especially among female and adults. Use of medications to treat ADHD globally, but trends vary across different countries, reflecting diverse healthcare practices, cultural attitudes, and availability of treatments.

OBJECTIVES

To provide updated trends in the prevalence and incidence use of ADHD medications in children and adults across Europe from 2010 to 2023.

METHODS

Data sources:

- Belgium (IQVIA LPD Belgium)
- Germany (IQVIA DA Germany)
- Netherlands (IPCI)
- Spain (SIDIAP)
- UK (CPRD GOLD)

Population:

aged ≥ 3 years,
1 year visibility in database

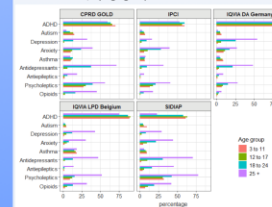
Analysis:

- period prevalence
- incidence rates
- Proportion patient covered
- Stratified by:
 - Sex, age group
 - children (aged 2–11 years)
 - adolescents (12–17 years)
 - young adults (18–24 years)
 - adults (≥25 years)

Table 1. Characteristics of incident ADHD medication user

	IQVIA LPD Belgium	IQVIA DA Germany	IPCI Netherlands	SIDIAP Spain	CPRD GOLD UK
Country	Belgium	Germany	Netherlands	Spain	UK
N person	4,689	46,414	51,796	64,039	31,229
N records	5,805	52,901	61,946	76,952	34,397
Age, Median [Q25-Q75]	19 [13-29]	14 [10-24]	20 [13-33]	14 [10-23]	15 [10-24]
Age group, N (%)					
3 to 11	1,024 (18%)	17,756 (34%)	12,005 (19%)	25,883 (34%)	12,025 (35%)
12 to 17	1,556 (27%)	15,795 (30%)	14,629 (24%)	25,492 (33%)	8,994 (26%)
18 to 24	1,417 (24%)	6,309 (12%)	11,537 (19%)	6,957 (9%)	5,193 (15%)
25 to 150	1,808 (31%)	13,041 (25%)	23,775 (38%)	18,620 (24%)	8,185 (24%)
Female, N (%)	2,074 (36%)	15,403 (29%)	24,826 (40%)	25,131 (33%)	9,797 (28%)

Figure 1. Selected comorbidities and medication use any time prior to ADHD medication use, by age group

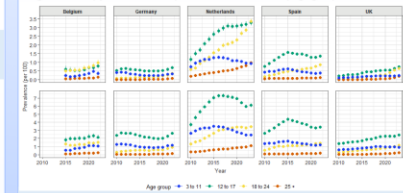


Characteristics of ADHD medication initiators showed increased prevalence of psychiatric conditions and previously used psycholeptic medications use by age.

RESULTS

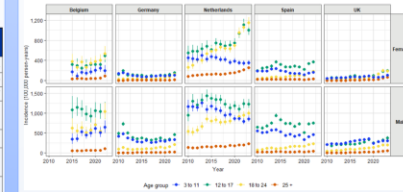
The overall period prevalence of ADHD medication use increased in all countries during the study period. The UK showed the largest relative increase, over threefold (0.12% in 2010 to 0.39% in 2023), followed by the Netherlands, with more than a twofold increase (0.67% to 1.56%).

Figure 2. Yearly prevalence of any ADHD medication use by age group and sex



Prevalence of ADHD medication uses among adults increased substantially in all countries, particularly among females. In the UK, prevalence among adults aged >25 increased over twenty-fold in females and 1551% in males (both from 0.01% in 2010 to ~0.20% in 2023).

Figure 3. Yearly incidence of any ADHD medication use by age-group and sex



Among adults, the incidence rates of ADHD medication use increased in male and female in all five countries. The discrepancy between male and female was less substantial. There were more adult female initiator than male since 2021 in the Netherlands and since 2022 in the UK.

After one year of medication initiation, 14.9%, 16.0%, 43.9% and 30.8% patient were covered by treatment in Germany, the Netherlands, Spain, and the UK respectively.

CONCLUSIONS

In adults, prevalence and incidence use ADHD medication increased by 4 – 20 times from 2010 to 2013, with the difference between males and females decreasing over the years.

Comorbidities and co-medications was common among user, and medication persistence was low.

Future study should focus on assess the safety and effectiveness of ADHD medication, particularly among adults and among people with psychiatric comorbidities or comedications.

DISCLOSURE

This presentation represents the views of the DARWIN EU® Coordination Centre only and cannot be interpreted as reflecting those of the European Medicines Agency or the European Medicines Regulatory Network.

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#OHDSISocialShowcase This Week

Thursday

DARWIN EU® - Prescription pattern of STOPP section K criteria medication in older adults with and without recurrent falls

(Akram Mendez, Gargi Jadhav, Marko Čavlina, Antonella Delmestri, Talita Duarte Salles, Agustina Giuliadori, Pero Ivanko, Antea Jezidžić, Isabella Kaczmarczyk, Toni Lehtonen, Irene Lopez, Tuomo Nieminen, Hezekiah Omulo, Marija Svajda, Tiina Wahlfors, Katia Verhamme, James Brash, Dina Vojinovic)



DARWIN EU® - Prescription pattern of STOPP section K criteria medication in older adults with and without recurrent falls
Akram Mendez¹, Gargi Jadhav¹, Marko Čavlina², Antonella Delmestri³, Talita Duarte Salles⁴, Agustina Giuliadori⁵, Pero Ivanko⁶, Antea Jezidžić⁷, Isabella Kaczmarczyk¹, Toni Lehtonen⁸, Irene Lopez⁹, Tuomo Nieminen¹⁰, Hezekiah Omulo¹¹, Marija Svajda¹², Tiina Wahlfors¹³, Katia Verhamme¹⁴, James Brash¹⁵, Dina Vojinovic¹⁶
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BACKGROUND

Falls in older adults are associated with hospitalisations and increased mortality. Risk factors for falls include inappropriate prescribing in older people, which is an important public health issue in a population where multimorbidity and polypharmacy are common.^{1,2} STOPP/START (version 3) is a physiological systems-based set of criteria that attempts to define clinically important and potentially inappropriate medication use.³ Section K of the STOPP criteria contains drug classes that are considered to increase falls risk in susceptible older people. However, the prevalence of potentially inappropriate medicine prescriptions from section K among people with recurrent falls is uncertain across Europe.


OBJECTIVES

This study aims to estimate prevalence and incidence rates of STOPP section K criteria drug classes use in individuals with and without recurrent falls, stratified by age and sex.

MATERIAL AND METHODS

Study design: A retrospective cohort study.

Data sources/settings:



All databases were previously mapped to the OMOP Common Data Model (CDM).

Study population: Study population included individuals aged 65 years and older, with at least 1 year of data visibility prior to becoming eligible for study inclusion. Categorisation was done on those with recurrent falls and those without recurrent falls.

Study period: 2013 - 2023.

Drugs of interest: Drug classes listed in STOPP section K criteria including benzodiazepines, antipsychotics, vasodilating drugs (nitrates, ACE inhibitors, ARB inhibitors, calcium channel blockers), hypnotic z-drugs, anti-epileptics, first generation antihistamines, opioids, antidepressants, alpha-blockers, centrally acting antihypertensives, and antimuscarinic drugs (indicated for overactive bladder).

Condition of interest: Recurrent falls (two or more falls within a period of 12 months or diagnosis of recurrent falls).

Data analysis: Annual incidence rates (expressed as the number of new users per 1,000 person-years) and annual period prevalence (expressed as number of users in the population at risk) of the use of drug classes belonging to the STOPP section K criteria were estimated in individuals aged 65 years and older, categorised into those with recurrent falls and those without recurrent falls. The statistical analysis was performed based on OMOP-CDM mapped data using the "IncidencePrevalence" R package. The results were also stratified by database, calendar year, age and sex.

RESULTS

The prevalence of STOPP section K criteria drug classes was similar or greater among individuals aged 65 years and older following their new diagnosis of recurrent falls compared to individuals aged 65 years and older without recurrent falls, across all data sources (Figure 1). Benzodiazepines, opioids, vasodilating drugs and antidepressants were the most frequently prescribed drug classes in both cohorts.

For instance, the prevalence of benzodiazepine use among older adults following their new diagnosis of recurrent falls ranged from 6% in IQVIA DA Germany to 23% in SIDAP in 2013 to 3% in IQVIA DA Germany and 18% in SIDAP by 2023. Most data sources demonstrated relatively stable trends with a slight decline over the study period. A similar pattern was observed among those without recurrent falls, with consistently lower prevalence.




Figure 1. Prevalence of STOPP section K criteria drug classes prescriptions in individuals aged 65 years and older, with and without recurrent falls, across the data sources during the study period.

The incidence rates of STOPP section K criteria drug class use followed similar trends as prevalence with rates being similar or greater in older adults following their new diagnosis of recurrent falls compared to those without recurrent falls. Both prevalence and incidence rates of STOPP section K criteria drug class use varied between age groups or sex among cohorts and drug classes.

CONCLUSIONS

STOPP section K criteria drug classes were prescribed at similar or even greater prevalence and incidence rates in individuals aged 65 years following a new diagnosis of recurrent falls compared to those without recurrent falls. The most commonly prescribed drug classes included vasodilating drugs, opioids, antidepressants and benzodiazepines, with variation in prevalence and incidence rates across the cohorts. These findings highlight the importance of identifying older adults with recurrent falls as a population at increased risk. This population may benefit from medication review. A comprehensive approach to medication management, with careful assessment of fall risk, is essential for improving patient safety and reducing consequences of falls and related complications.

REFERENCES

- Hamilton, H.J., P.F. Gallagher, and D. O'Mahony. Inappropriate prescribing and adverse drug events in older people. *BMC Geriatr*, 2009. 9: p. 5.
- Rochon, P.A., et al., Polypharmacy, inappropriate prescribing, and deprescribing in older people: through a sex and gender lens. *Lancet Healthy Longev*, 2021. 2(5): p. e209-e200.
- O'Mahony, D., et al., STOPP/START criteria for potentially inappropriate prescribing in older people: version 3. *Eur Geriatr Med*, 2023. 14(4): p. 625-632.

DISCLOSURE

This presentation represents the views of the DARWIN EU8 Coordination Centre only and cannot be interpreted as reflecting those of the European Medicines Agency or the European Medicines Regulatory Network.

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#OHDSISocialShowcase This Week

Friday

DARWIN EU® - Chondrosarcoma: patient demographics, treatments, and survival in the period 2010-2023

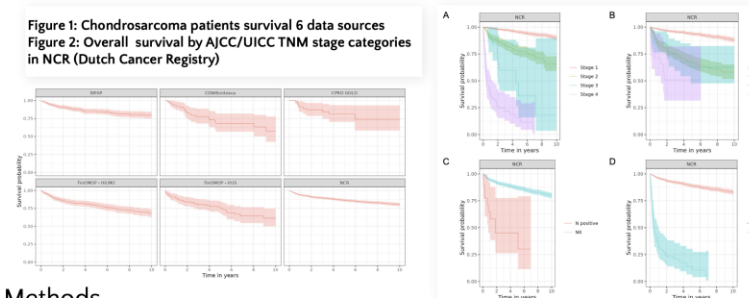
(**Anton Barchuk**, Cesar Barboza, Peter Prinsen, Jelle Evers, Vincent KY Ho, Michiel AJ van de Sande, Eric Fey, Kimmo Porkka, Anna Hammamais, Tiina Wahlfors, Tuomo Nieminen, Toni Lehtonen, Antonella Delmestri, Guillaume Verdy, Romain Griffier, Airam de Burgos-González, Ana Llorente-Garcia, Cristina Justo-Astorgano, Miguel-Angel Macia-Martinez, Katia Verhamme, Talita Duarte-Salles)

1. Fewer than 5% of all chondrosarcoma patients have records of medications.
2. Most patients present with early-stage, low-grade disease amenable to surgery.
3. The 10-year overall survival ranges from 58% to 80%.
4. Late-stage and high-grade chondrosarcoma is associated with poor survival.

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Background: Chondrosarcoma is a rare bone cancer with an estimated global incidence of around 1-5 per million per year. Studies indicate little progress in chondrosarcoma survival in recent periods. Chondrosarcoma's relative rarity and limited number of studies make it challenging to have a clear picture across Europe of the characteristics of these patients, the therapy they receive, and their overall survival.

Figure 1: Chondrosarcoma patients survival 6 data sources
Figure 2: Overall survival by AJCC/UICC TNM stage categories in NCR (Dutch Cancer Registry)



Methods

Data sources: Base de Datos para la Investigación Farmacoepidemiológica en el Ámbito Público (BIFAP), Spain; Clinical Data Warehouse of Bordeaux University Hospital (CDW/Bordeaux), France; Clinical Practice Research Datalink GOLD (CPRD GOLD), UK; Finnish Care Register for Health Care (FinOMOP - HILMO), Finland; Hospital District of Helsinki and Uusimaa (FinOMOP - HUS), Finland; Netherlands Cancer Registry (NCR), the Netherlands

Analysis: packages CohortSurvival (Kaplan-Meier) and PatientProfiles

Disclaimer: This study was funded by European Medicines Agency and performed via DARWIN EU®. The study funder was involved in revising the study protocol and the objectives and reviewing the study report including the results. This communication represents the views of the DARWIN EU® Coordination Centre only and cannot be interpreted as reflecting those of the European Medicines Agency or the European Medicines Regulatory Network. Data partners' role is only to execute code at their data source. These people do not have an investigator role.



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Where Are We Going?

**Any other announcements
of upcoming work, events,
deadlines, etc?**



Three Stages of The Journey

Where Have We Been?

Where Are We Now?

Where Are We Going?



Andrew Williams (1963-2025)





**The weekly OHDSI community call is held
every Tuesday at 11 am ET.**

Everybody is invited!

Links are sent out weekly and available at:
[ohdsi.org/community-calls-2025](https://www.ohdsi.org/community-calls-2025)