



Asia-Pacific (APAC) Regional Updates

OHDSI Community Call
July 29, 2025 • 11 am ET





Jamie Weaver: 1981-2025





Upcoming Community Calls

Date	Topic
July 29	Asia-Pacific Regional Updates
Aug. 5	No Meeting
Aug. 12	Newcomer Introductions
Aug. 19	Jamie Weaver Tribute
Aug. 26	Large-Language Model Innovations in OHDSI
Sept. 2	Standardized Vocabulary Summer Refresh Update
Sept. 9	Global Symposium Preview



Three Stages of The Journey

Where Have We Been?

Where Are We Now?

Where Are We Going?





OHDSI Shoutouts!



Congratulations to the team of **Samuel Trezena, Daniella Reis Barbosa Martelli, Paulo Rogério Ferreti Bonan, Edgard Graner, Lívia Maria Ferreira Sobrinho, Faizan Alawi, Ricardo D Coletta, and Hercílio Martelli-Júnior** on the publication of Knowledge and attitudes about rare genetic diseases among practitioners of oral medicine/pathology in Brazil: a cross-sectional study in *Frontiers in Oral Health*.

frontiers | Frontiers in Oral Health

TYPE Original Research
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Check for updates

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Knowledge and attitudes about rare genetic diseases among practitioners of oral medicine/pathology in Brazil: a cross-sectional study

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Introduction: This study aimed to analyze the knowledge and attitudes of Brazilian Oral Medicine and Pathology (OM/OP) specialists about genetic diseases.

Methods: A cross-sectional and descriptive study was conducted with Brazilian OM/OP specialists, using a pre-structured online formulary. Statistical analyses were performed using Statistical Package for the Social Sciences (SPSS®). The questionnaire was sent to 273 specialists, members of the Brazilian Society of Stomatology and Oral Pathology (SOBEP).

Results: A total of 58 (21.2%) OM/OP specialists responded to the questionnaire. Most of the participants (67.2%) have declared attending theoretical courses on diagnosing and genetic testing for genetic diseases. Furthermore, 79.3% of participants reported that there are barriers to integration between the fields of Medical Genetics and OM/OP. Longer time working as a PhD was associated with knowledge of lesions predictive of genetic diseases ($P < 0.05$). Dental abnormalities and the presence of tumors, along with Gorlin-Goltz (nevoid basal cell carcinoma syndrome) and Gardner syndromes and neurofibromatosis, were the most frequently reported conditions and recalled by the responders of the survey.

Conclusions: There is limited integration between Medical Genetics and OM/OP. However, there is considerable knowledge about oral manifestations as indicators of genetic diseases among OM/OP experts.



OHDSI Shoutouts!



Congratulations to the team of **Aasiyah Rashan, Daniel P Püttmann, Nicolette F de Keizer, Dave A Dongelmans, Ronald Cornet, Otavio Ranzani, Wangari Waweru-Siika, Matthew Smith, Steve Harris, Abi Beane, Ferishta Bakhshi-Raiez; Collaboration for Research, Implementation and Training in Critical Care—Asia and Africa Investigators, and the Dutch National Intensive Care Registry** on the publication of **Using the Observational Medical Outcomes Partnership Common Data Model for a multi-registry intensive care unit benchmarking federated analysis: lessons learned in JAMIA Open.**

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<https://doi.org/10.1093/jamiaopen/oaf052>
Research and Applications



Research and Applications

Using the Observational Medical Outcomes Partnership Common Data Model for a multi-registry intensive care unit benchmarking federated analysis: lessons learned

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A. Rashan and D.P. Püttmann are joint first authors of this work.

Abstract

Objective: Federated analysis is a method that allows data analysis to be performed on similar datasets without exchanging any data, thus facilitating international research collaboration while adhering to strict privacy laws. This study aimed to evaluate the feasibility of using federated analysis to benchmark mortality in 2 critical care quality registry databases converted to the Observational Medical Outcomes Partnership (OMOP) Common Data Model (CDM), describing challenges to and recommendations for performing federated analysis on data transformed to OMOP CDM.

Materials and Methods: To identify as many challenges as possible and to be able to complete the benchmarking phase, a 2-step approach was taken during implementation. The first step was a naive implementation to allow challenges to surface naturally; the second step was developing solutions for the encountered challenges. Expected patient mortality risk was calculated by applying the Acute Physiology and Chronic Health Evaluation II (APACHE II) model to data from OMOP CDM databases containing adult ICU encounters between July 1, 2019 and December 31, 2022. An analysis script was developed to calculate comparable, registry level standardized mortality ratios. Challenges were recorded and categorized into predefined categories: "data preparation," "data analysis plan," and "data interpretation." Challenges specific to the OMOP CDM were further categorized using published steps from an existing generic harmonization process.

Results: A total of 7 challenges were identified, 4 of which were related to data preparation, 1 to data analysis, and 1 to data interpretation. Out of all 7 challenges, 4 stemmed from decisions made during the implementation of OMOP CDM. Several recommended solutions were distilled from the naive approach.

Discussion: Federated analysis facilitated by a CDM is a feasible option for critical care quality registries. However, future analysis is influenced by decisions made during the CDM implementation process. Thus, prior publication of data dictionaries and the use of metadata to communicate data handling and data source classification during CDM implementation will improve the efficiency and accuracy of subsequent analysis.



OHDSI Shoutouts!



Congratulations to the team of
**Clair Blacketer, Frank J DeFalco,
Mitchell M Conover, Patrick B
Ryan, Martijn J Schuemie, and
Peter R Rijnbeek** on the
publication of **Evaluation of the
impact of defining observable
time in real-world data on
outcome incidence in JAMIA.**

Journal of the American Medical Informatics Association, 2025, 1–11
<https://doi.org/10.1093/jamia/ocaf119>
Research and Applications



Research and Applications

Evaluation of the impact of defining observable time in real-world data on outcome incidence

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Patrick B. Ryan, PhD^{1,3,4}, **Martijn J. Schuemie**, PhD^{1,5}, **Peter R. Rijnbeek** , PhD^{1,2}

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Abstract

Objective: In real-world data (RWD), defining the observation period—the time during which a patient is considered observable—is critical for estimating incidence rates (IRs) and other outcomes. Yet, in the absence of explicit enrollment information, this period must often be inferred, introducing potential bias.

Materials and Methods: This study evaluates methods for defining observation periods and their impact on IR estimates across multiple database types. We applied 3 methods for defining observation periods: (1) a persistence + surveillance window approach, (2) an age- and gender-adjusted method based on time between healthcare events, and (3) the min/max method. These were tested across 11 RWD databases, including both enrollment-based and encounter-based sources. Enrollment time was used as the reference standard in eligible databases. To assess the impact on epidemiologic results, we replicated a prior study of adverse event incidence, comparing IRs and calculating mean squared error between methods.

Results: Incidence rates decreased as observation periods lengthened, driven by increases in the person-time denominator. The persistence + surveillance method produced estimates closest to enrollment-based rates when appropriately balanced. The min/max approach yielded inconsistent results, particularly in encounter-based databases, with greater error observed in databases with longer time spans.

Discussion: These findings suggest that assumptions about data completeness and population observability significantly affect incidence estimates. Observation period definitions substantially influence outcome measurement in RWD studies.

Conclusion: Standardized, transparent approaches are necessary to ensure valid, reproducible results—especially in databases lacking defined enrollment.

Key words: observation period; real-world data; incidence rates; data standardization; data quality.



OHDSI Shoutouts!






Congratulations to the team of
Vinícius João de Barros Vanzin,
Dilvan de Abreu Moreira, Ricardo
Marcondes Marcacini on the
publication of **LLM-based**
approaches for automated
vocabulary mapping between
SIGTAP and **OMOP CDM** concepts
in *Artificial Intelligence in Medicine*.



Artificial Intelligence in Medicine
Volume 168, October 2025, 103204



LLM-based approaches for automated vocabulary mapping between SIGTAP and OMOP CDM concepts

[Vinícius João de Barros Vanzin](#) , [Dilvan de Abreu Moreira](#) ,
[Ricardo Marcondes Marcacini](#) 

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<https://doi.org/10.1016/j.artmed.2025.103204>

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Highlights

- Terminology mapping improves information exchange among medical systems.
- LLM-based approaches map Brazilian medical terms to international concepts.
- Semantic similarity aids in connecting medical terms effectively.
- Experimental results reveal promising accuracy, with superior LLM agent performance.
- LLM-based methods decrease manual effort, enabling focus on challenging cases.



Three Stages of The Journey

Where Have We Been?

Where Are We Now?

Where Are We Going?





Upcoming Workgroup Calls



Date	Time (ET)	Meeting
Tuesday	12 pm	ATLAS
Wednesday	10 am	Surgery and Perioperative Medicine
Wednesday	10 am	Women of OHDSI
Friday	10 am	GIS—Geographic Information System
Friday	11:30 am	Steering
Monday	9 am	Vaccine Vocabulary
Monday	10 am	Africa Chapter
Monday	10 am	Getting Started Subgroup
Tuesday	9:30 am	CDM Survey



2025 UK Symposium

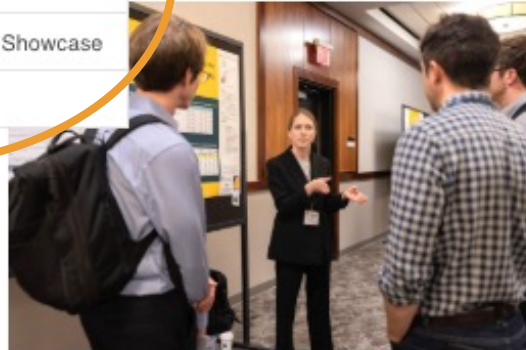
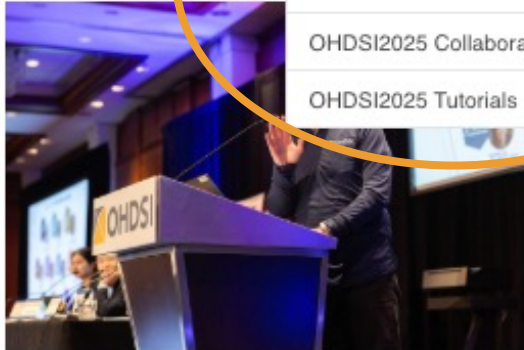
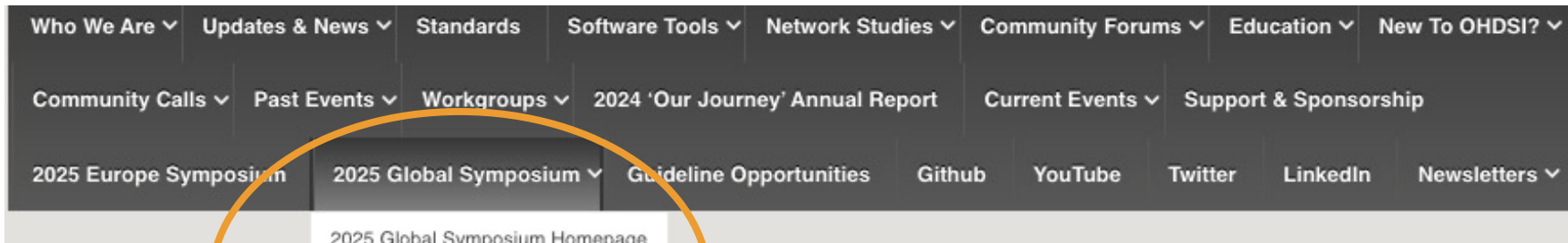
The 2025 OHDSI UK Symposium will be held Sept. 26 in London.

Registration is now open!





Global Symposium: Oct. 7-9



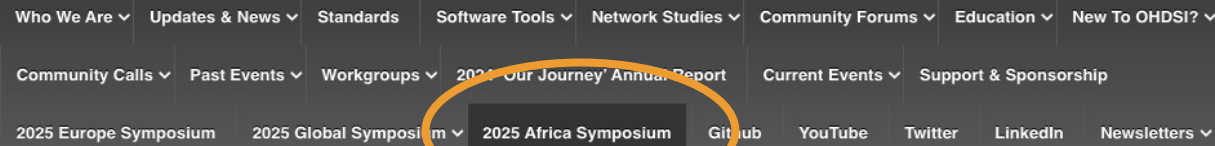
2025 OHDSI Global Symposium

Oct. 7-9 • New Brunswick, N.J. • Hyatt Regency Hotel

There is nothing quite like the OHDSI Global Symposium, which welcomes hundreds of collaborators around the world who believe in the shared mission of improving health by empowering a community to collaboratively generate the evidence that promotes better health decisions and better care. We can't wait to return for our biggest event of the year this October in New Brunswick, N.J.



Africa Symposium: Nov. 10-12



Join Us At The Inaugural OHDSI Africa Symposium

Nov. 10-12, 2025 • Joint Clinical Research Centre (JCRC) & Mestil Hotel Kampala



The inaugural OHDSI Africa Symposium will be held in Kampala at the Joint Clinical Research Centre (JCRC) and Mestil Hotel. Our community is delighted to introduce a new face-to-face opportunity in Africa, where OHDSI is growing at an exciting pace. We hope you will join us for this historical moment.

The first OHDSI Africa symposium will be hosted by JCRC and will begin with a dedicated one-day training course at JCRC, followed by a two-day main conference at Mestil hotel. Below are some important dates for you to save to your calendar:

Collaborator Showcase

- Submissions deadline: September 10
- Submissions review: September 11-30
- Notification of acceptance: October 5

Symposium

- Tutorial: November 10 at JCRC
- Main conference: November 11-12 at Mestil Hotel

Register Me for the 2025 OHDSI Africa Symposium!



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#JoinTheJourney



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2025 APAC Symposium

The 2025 OHDSI APAC Symposium will be held Dec. 6-7 in Shanghai, China.

Information on registration and abstract deadline will be posted when available.





The Center for Advanced Healthcare Research Informatics (CAHRI) at Tufts Medicine welcomes:



Tiffany Callahan, PhD

Senior Machine Learning Research Scientist at SandboxAQ

'Agentic Mixture-of-Workflows for Multi-Modal Chemical Search'

July 31, 2025, 11am-12pm EDT

Virtually via [Zoom](#)

Please contact Marty Alvarez at malvarez2@tuftsmedicalcenter.org for calendar invite or questions.

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#OHDSISocialShowcase This Week

Monday

Comparative Analysis of the Natural History and Outcomes of Early-Onset and Late-Onset Colorectal Cancer

(**Rita Rb-Silva**, Danielle Newby, Catarina Alves Rodrigues, Yomi Okegunna, Ping Wu, Audrius Dulskas, Linnea Schumann)

Insights into **age-specific treatment responses** in patients with **colorectal cancer** may inform future clinical guidelines and **optimize therapeutic decision-making**.

Comparative Analysis of the Natural History and Outcomes of Early-Onset and Late-Onset Colorectal Cancer

Background:

- Colorectal cancer (CRC) is the 3rd most commonly diagnosed cancer and the 2nd leading cause of cancer-related death worldwide.
- Early-onset CRC (EOCRC), diagnosed before age 50, is rising rapidly.
- By 2030, EOCRC could account for 1 in 4 rectal cancers and 10% of colon cancers.
- EOCRC may involve more aggressive tumor biology compared to late-onset CRC (LOCRC), but outcomes remain poorly defined.
- There is an urgent need for real-world evidence (RWE) to inform age-specific management strategies.

Figure 1: Inclusion Criteria

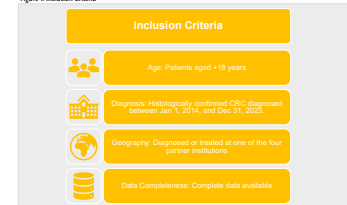
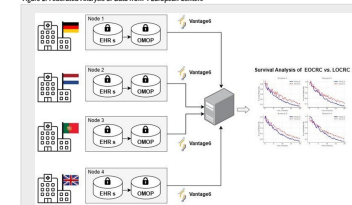


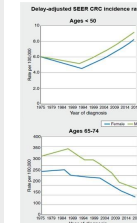
Figure 2: Federated Analysis of Data from 4 European Centers



Methods

- Retrospective CRC-patient cohort, federated data analysis using Vantage6
- Data from 4 European partner institutions (GER, NL, UK, PT)
- Patients aged 18+ years diagnosed with histologically confirmed colorectal cancer between 2014 and 2023
- Primary objectives:**
 - Definition of clinical phenotypes
 - Characterization and comparison of treatment patterns for EOCRC vs. LOCRC
 - Assessment of survival outcomes
- Secondary objectives:**
 - Sepsis incidence analysis
 - Treatment response analysis

Figure 3: Trend in SEER CRC age-adjusted incidence rates, 1975-2019. (Adapted from Cancer (Bosch, 2022) 2019:538-550)



Expected Results: The analysis will describe clinical patterns and survival outcomes in patients with early-onset and late-onset colorectal cancer. It will compare treatment strategies between both groups and examine the incidence of sepsis across the cohorts.



Rita Rb-Silva, Danielle Newby, Catarina Alves Rodrigues, Yomi Okegunna, Ping Wu, Audrius Dulskas, Linnea Schumann





Trends in the incidence of large and medium vessel occlusion acute ischemic stroke: a population-based study protocol

 ohdsi



#OHDSISocialShowcase This Week

Wednesday

Retrospective impact of varying uptake of heart failure risk factors treatments: a cross-sectional study protocol using primary care and hospital data

(**Mário Santos**, Rita Lopes, Rita Luz, Tiago Taveira-Gomes)

Retrospective impact of varying uptake of heart failure risk factors treatments: a cross-sectional study protocol using primary care and hospital data

Mário Santos¹, Rita Lopes², Rita Luz³, Tiago Taveira-Gomes^{4,5,6}

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Background: In Portugal, heart failure (HF) is a leading cause of hospitalizations and death, with a prevalence of 4.36% in adults and over 16% in those aged 80¹. Chronic kidney disease, type 2 diabetes mellitus and obesity are key risk factors for incident HF². Randomized controlled trials (RCTs) such as SELECT, EMPA-KIDNEY and FIGARO-DKD have shown the efficacy of various pharmacological treatments (empagliflozin, semaglutide and finerenone) in reducing cardiovascular events, including HF³⁻⁵.

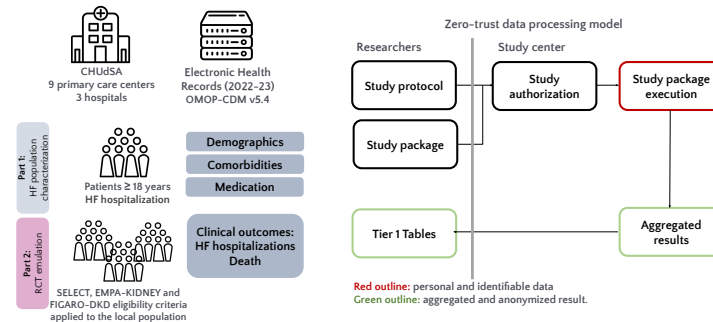
Aims: Evaluate the incidence of HF hospitalizations

Characterize the affected population

Emulate the referred RCTs, assessing the potential benefit of each treatment in the local context

Methods

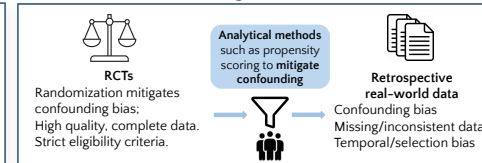
Observational retrospective cohort study to be conducted at Centro Hospitalar Universitário de Santo António (CHUDSA), Porto, Portugal.



Expected Results

Estimate the potential impact of empagliflozin, semaglutide and finerenone therapies on HF hospitalizations within a local population in Porto.

Limitations & Strengths



Conclusion: The Portuguese population has a high burden of heart failure and could benefit from improved clinical outcomes by initiating treatment with semaglutide, empagliflozin or finerenone. Estimating this benefit requires rigorous methodology and high-quality real-world data to emulate relevant RCTs.



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#OHDSISocialShowcase This Week

Thursday

New Psychoactive Substances in the Autonomous Region of Madeira: a cohort study protocol

(**Licínio Santos**, Margarida Drummond Borges, Bruna R. Gouveia, Rita Lopes, Rita Luz, Tiago Taveira-Gomes)

New psychoactive substances in the Autonomous Region of Madeira: a cohort study protocol

Licínio Santos¹, Margarida Drummond Borges², Bruna R. Gouveia^{3,4}, Rita Lopes⁵, Rita Luz⁶, Tiago Taveira-Gomes^{5,7,8,9}

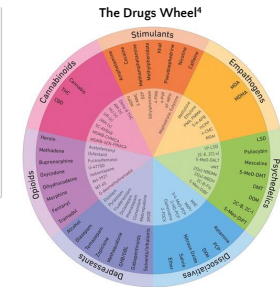
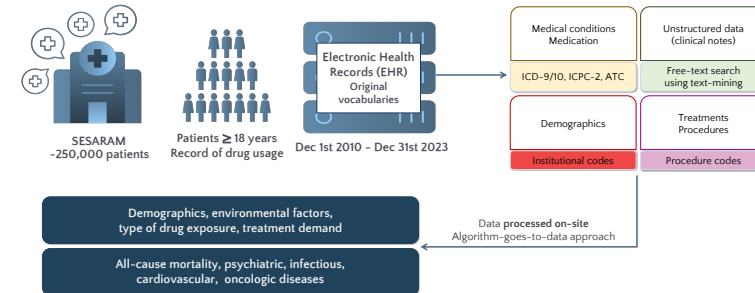
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³Regional Directorate of Health of Madeira, Funchal, Portugal
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Background: New psychoactive substances (NPS) pose serious health risks (overdose, infectious diseases, mental health disorders, and injuries from drug-related incidents), and are an emerging public health concern due to increasing global use¹⁻³. Difficulties in assessing NPS use hinder effective interventions, especially with unreliable self-reported data.

We aim to characterize the prevalence and incidence of NPS usage to better understand and address this growing concern.

Methods

Observational retrospective cohort study to be conducted at Madeira's Regional Health Service (SESARAM), Portugal.



Expected Results

- What **types of substances** are involved?
- What is the **dimension of drug use** in Madeira?
- Is it aligned with the prevalence range shown by the European Drug Report⁹?
- Who is affected, what types of patterns of use are involved?
- Where is the problem occurring and how is it evolving over time?

Limitations & Strengths

Challenge

Possible underestimation of NPS use.

Our fix

Use of original vocabularies and free-text searches to enhance local NPS detection.

Conclusion: By using **real-world data** and applying a **tailored analytical approach**, this study can provide important insights into NPS use in Madeira, supporting the development of public health policies, prevention strategies, treatment planning, and future research.



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#OHDSISocialShowcase This Week

Friday

Associations between sedation, analgesia practices and complications in ventilated patients: A Protocol of a 10-year Real-World Observational Study

(**Raúl Cordeiro**, Rita Lopes, Rita Luz, Cristina Jácome, Tiago Taveira-Gomes)

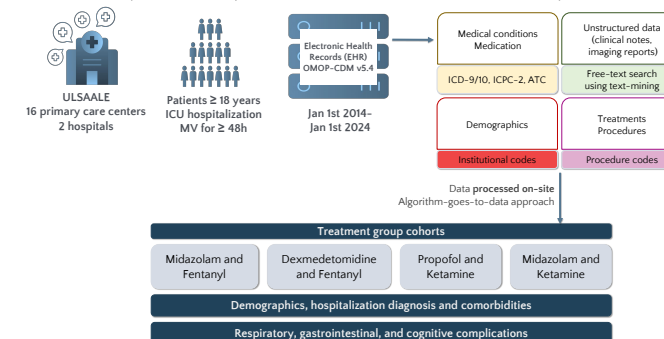
Associations between sedation, analgesia practices and complications in ventilated patients: a protocol of a 10-year real-world observational study

Raúl Cordeiro^{1,2,3}, Rita Lopes⁴, Rita Luz⁴, Cristina Jácome^{4,5}, Tiago Taveira-Gomes^{3,5,6,7}
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⁵Department of Community Medicine, Health Information and Decision, Faculty of Medicine, University of Porto, Porto, Portugal
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Background: Sedation and analgesia are essential for comfort and improved outcomes in critically ill ventilated patients but can lead to complications that prolong mechanical ventilation (MV) and Intensive Care Unit (ICU) stay^{1,2}. We aim to assess the incidence of respiratory, gastrointestinal, and cognitive complications associated with sedatives and opioids, and to explore their relationship with MV duration.

Methods

Observational retrospective cohort study to be conducted at Unidade Local de Saúde do Alto Alentejo (ULSAALE), Portugal.



Expected Results

- Patients receiving **midazolam and fentanyl** are expected to have **longer mechanical ventilation**, higher rates of respiratory depression/ infections and delirium, and increased gastrointestinal issues, resulting in a **longer ICU stay**^{3,4}.
- The **dexmedetomidine and fentanyl** group is anticipated to experience **shorter mechanical ventilation**, lower delirium risk, and a **shorter ICU length of stay**^{3,4}.

Limitations & Strengths

- Challenge** Key complications hide in free-text EHR notes.
- Our fix** Expression-based algorithms, co-designed with clinicians, to unlock this vital data.
- Power Up 1** Primary care data enables a comprehensive characterization of patient history.
- Power Up 2** Rich ICU data allows deep dives into sedation impacts.

Conclusion: This study highlights the value of **integrating real-world health records with text mining** to analyze complex critical care outcomes. Findings may inform **safer, evidence-based sedation and analgesia practices** for critically ill ventilated patients.



References

1. Pearson SD, Patel BE. Evolving targets for sedation during mechanical ventilation. *Curr Opin Crit Care* 2020; 26: 47-53.
2. Thompson R, et al. Adult sedation and analgesia in intensive critical care units: A systematic review and evidence based guideline. *Ann Med Surg* 2021; 66: 102356.
3. Weir LJ, et al. A comparison of dexmedetomidine and midazolam for sedation in patients with mechanical ventilation in ICU: A systematic review and meta-analysis. *PLoS One* 2023; 18:e0294292.
4. Crickhank M, et al. Alpha-2 agonists for sedation of mechanically ventilated adults in intensive care units: a systematic review. *Health Technol Assess* 2016; 20: v-xi, 1-117.





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?





July 29: Asia-Pacific Mid-Year Updates



Evelyn Goh

PhD Student, National Univ. of Singapore

Singapore



Keiko Asao

President, Kappa Medical K.K.

Japan



Swetha Jakkuva

Real World Evidence Lead, Global Value Web

India



Max Natthawut Adulyanukosol

Deputy Director of Siriraj Informatics and Data Innovation, Mahidol Univ.

Thailand



Seng Chan You

Assistant Professor, National Univ. of Singapore

Korea



Phan Thanh-Phuc

Data Science Professional, Univ. Medical Center

Vietnam



Jason Hsu

Professor, Taipei Medical University

Tawian



Hui Lu

Distinguished Professor, Shanghai Jiao Tong Univ.

China

Vulcan FHIR to OMOP Implementation Guide

*** Ballot Participation ***



Davera Gabriel

Vulcan FHIR to OMOP IG Project Co-Lead

Jean Duteau

HL7 Technical Steering Committee Chair

Biomedical Research & Regulation Work Group Co-Chair

Vulcan FHIR to OMOP IG Project Technical Lead





Vulcan FHIR to OMOP Implementation Guide Ballot

What is it?

How can I help?



What is an HL7 Ballot?

- HL7 is an ANSI-accredited Standards Development Organization (SDO)
- Formal process to validate an “Authoritative” Standard
- Balloting ensures stakeholder feedback = Quality Control



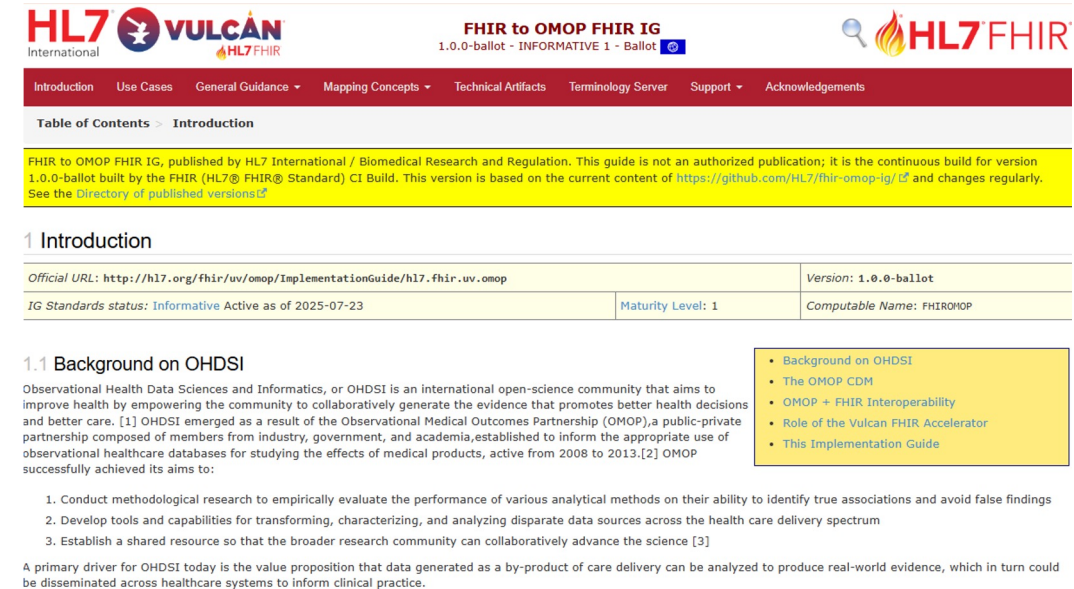
FHIR to OMOP IG has completed a major milestone
by “going to ballot” in September 2025 cycle





What is the FHIR to OMOP Implementation Guide?

- Culmination of 2+ years of conference calls
 - Detailed review of prior FHIR to OMOP transformations
- Scope: Common Core EHR data
- A “primer” for FHIR to OMOP implementers
- Foundation for **FHIR** → **OMOP** transforms



The screenshot shows the homepage of the HL7 FHIR to OMOP Implementation Guide. The header includes the HL7 International and VULCAN HL7 FHIR logos, the title "FHIR to OMOP FHIR IG", and the version "1.0.0-ballot - INFORMATIVE 1 - Ballot". A navigation menu contains links for Introduction, Use Cases, General Guidance, Mapping Concepts, Technical Artifacts, Terminology Server, Support, and Acknowledgements. Below the menu is a "Table of Contents" section with a link to the Introduction. A yellow banner provides a disclaimer: "FHIR to OMOP FHIR IG, published by HL7 International / Biomedical Research and Regulation. This guide is not an authorized publication; it is the continuous build for version 1.0.0-ballot built by the FHIR (HL7® FHIR® Standard) CI Build. This version is based on the current content of https://github.com/HL7/fhir-omop-ig/ and changes regularly. See the Directory of published versions!" The main content area is titled "1 Introduction" and includes a table with metadata: Official URL (http://hl7.org/fhir/uv/omop/ImplementationGuide/hl7.fhir.uv.omop), Version (1.0.0-ballot), IG Standards status (Informative Active as of 2025-07-23), Maturity Level (1), and Computable Name (FHIR-OMOP). Below this is section "1.1 Background on OHDSI", which describes the Observational Health Data Sciences and Informatics community and lists three aims: 1. Conduct methodological research to empirically evaluate the performance of various analytical methods on their ability to identify true associations and avoid false findings; 2. Develop tools and capabilities for transforming, characterizing, and analyzing disparate data sources across the health care delivery spectrum; 3. Establish a shared resource so that the broader research community can collaboratively advance the science. A final paragraph states: "A primary driver for OHDSI today is the value proposition that data generated as a by-product of care delivery can be analyzed to produce real-world evidence, which in turn could be disseminated across healthcare systems to inform clinical practice." A sidebar on the right contains a list of links: Background on OHDSI, The OMOP CDM, OMOP + FHIR Interoperability, Role of the Vulcan FHIR Accelerator, and This Implementation Guide.



<https://build.fhir.org/ig/HL7/fhir-omop-ig/>



A Primer for FHIR to OMOP (F2O) Implementers

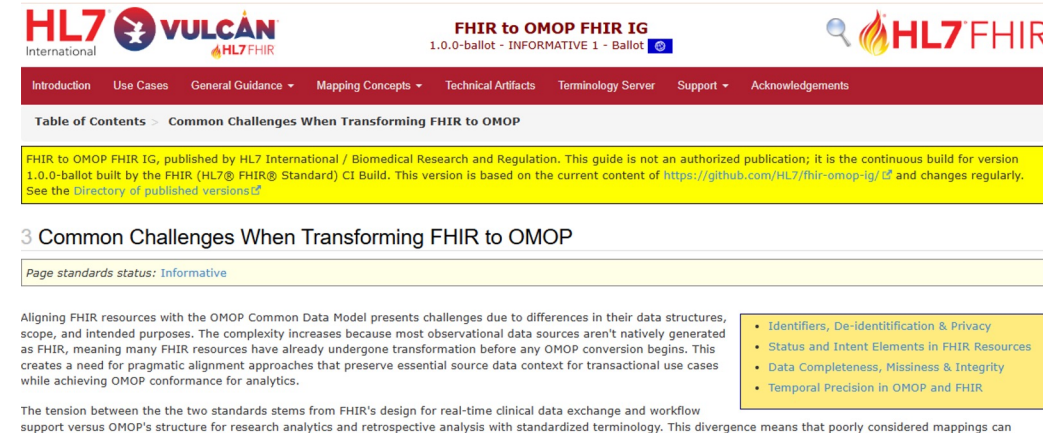
- General Guidance
- Best Practices
- Considerations
 - *customizable to individual implementations*

• Concept Mapping Principles & Patterns

5 Coded Field Mapping Principles

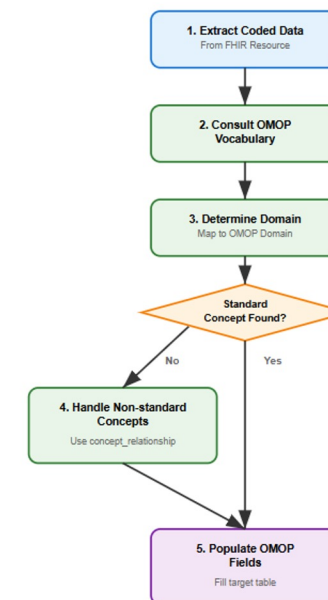
Page standards status: Informative

Unlike purely schema-to-schema transformations, transforming FHIR to OMOP requires evaluation of the concepts coded in the source data to determine and assign appropriate representation in a target OMOP database. This means that FHIR resources contained in profiles such as "IPA-Condition" or "IPA-Observation" may or may not generate records on a target OMOP domain table bearing the same or similar names, such as "condition_occurrence" and "observation." Rather, the concepts represented in the FHIR resource determine the appropriate transformation targets, and each must be evaluated on a case-by-case basis. FHIR coded source data transformation to OMOP often do follow patterns where similar data sources are processed through a common series of steps to populate an OMOP target database. This standardized approach lowers the decision burden for ETL developers and ensures consistent handling of coded clinical information across diverse healthcare datasets.



The screenshot shows the HL7 FHIR to OMOP FHIR IG website. The header includes the HL7 International and VULCAN HL7 FHIR logos, the title "FHIR to OMOP FHIR IG 1.0.0-ballot - INFORMATIVE 1 - Ballot", and a search icon. The navigation bar lists: Introduction, Use Cases, General Guidance, Mapping Concepts, Technical Artifacts, Terminology Server, Support, and Acknowledgements. A "Table of Contents" link is followed by "Common Challenges When Transforming FHIR to OMOP". A yellow banner contains a disclaimer: "FHIR to OMOP FHIR IG, published by HL7 International / Biomedical Research and Regulation. This guide is not an authorized publication; it is the continuous build for version 1.0.0-ballot built by the FHIR (HL7® FHIR® Standard) CI Build. This version is based on the current content of <https://github.com/HL7/fhir-omop-ig/> and changes regularly. See the [Directory of published versions](#)." Below this, the section "3 Common Challenges When Transforming FHIR to OMOP" is shown with a "Page standards status: Informative" label. The main text discusses the challenges of aligning FHIR resources with the OMOP Common Data Model. A yellow box on the right lists four challenges: Identifiers, De-identification & Privacy; Status and Intent Elements in FHIR Resources; Data Completeness, Missiness & Integrity; and Temporal Precision in OMOP and FHIR. A concluding sentence states: "The tension between the the two standards stems from FHIR's design for real-time clinical data exchange and workflow support versus OMOP's structure for research analytics and retrospective analysis with standardized terminology. This divergence means that poorly considered mappings can".

FHIR to OMOP Concept Transformation Base Pattern



FHIR to OMOP Technical Artifacts

- FHIR Logical Models
 - for OMOP CDM Tables
- FHIR Structure Maps
 - in FHIR Mapping Language
- Connectathon Validation Package
- Echidna FHIR Terminology Server Guidance

Key Elements Table		Differential Table	Snapshot Table	Statistics/References	All
Name	Flags	Card.	Type	Description & Constraints	Filter: <input type="text"/>
ConditionOccurrence		0..*	Base	Condition Occurrence OMOP Table Instances of this logical model can be the target of a Reference	
condition_occurrence_id		1..1	integer	Condition Occurrence Identifier	
person_id		1..1	Reference(Person OMOP Table)	Person	
condition_concept_id		1..1	code	Condition	
condition_start_date		1..1	date	Condition Start Date	
condition_start_datetime		0..1	dateTime	Condition Start Datetime	
condition_end_date		0..1	date	Condition End Date	
condition_end_datetime		0..1	dateTime	Condition End Datetime	
condition_type_concept_id		1..1	code	Condition Type	
condition_status_concept_id		0..1	code	Condition Status	
stop_reason		0..1	string	Stop Reason	
provider_id		0..1	Reference(Provider OMOP Table)	Provider	

```
/// url = 'http://hl7.org/fhir/uv/omop/StructureMap/AllergyMap'  
/// name = 'AllergyMap'  
/// title = 'Mapping Allergy resource to Observation OMOP Domain'  
/// status = 'draft'  
  
uses "http://hl7.org/fhir/StructureDefinition/AllergyIntolerance" alias Allergy as source  
uses "http://hl7.org/fhir/uv/omop/StructureDefinition/Observation" alias ObservationTable as target  
  
group Observation(source src : Allergy, target tgt : ObservationTable) {  
  src.code as s -> tgt then {  
    s.coding as sc -> tgt then {  
      sc.code -> tgt.observation_concept_id, tgt.observation_source_value, tgt.observation_source_concept_id;  
    };  
  };  
  // src.id as id -> tgt.observation_id = cast(id, "integer");  
  src.onset : dateTime as osd -> tgt.observation_date = cast(osd, 'date'), tgt.observation_datetime = osd; // src.patient as s -> tgt then {  
  src.reaction as s -> tgt then {  
    s.manifestation as sman -> tgt then {  
      sman.concept as smanc -> tgt then {  
        smanc.coding as sc -> tgt then {  
          sc.code -> tgt.value_as_concept_id, tgt.value_source_value;  
        };  
      };  
    };  
  };  
};
```

ECHIDNA SYSTEMS

^ K

CodeSystem

Get available CodeSystems GET

Lookup code in any CodeSystem by URL (GET) GET

Lookup code in any CodeSystem by URL (POST) POST

Lookup code in specific CodeSystem instance by ID (GET) GET

v0.10.1 OAS 3.1.0

OMOP FHIR Terminology Server

[Download OpenAPI Document](#)



How can you help?

- **We need your feedback !!**

- Did we achieve our target to develop a foundation: a F2O primer?
- Can the IG be improved?

- What do you need to do?

- **Join the ballot pool**
- **Vote & provide comments**





HL7 September Cycle Ballot Key Dates

Ballot Pool Registration (Required): July 7 - August 7, 2025

Official Ballot Period: August 8 - September 8, 2025

***Important: Registration during the July 7 - August 7 window is mandatory.
Only registered participants can submit ballot comments and vote on
comments.***

HL7 Working Group Meeting: September 13-19, 2025 (Pittsburgh)

WGM Ballot Reconciliation Kick-off: Wednesday September 17, 2025
@ Biomedical Research & Regulation (BR&R) Working Group



How do I learn about HL7 Membership & Members?

- HL7 Organizational Members have voting “seats”
 - Designated members at your organization can join / participate as your proxy
 - Membership not required, individual participation available for a fee
 - See: <https://www.hl7.org/BallotDesktop/index.cfm?view=home>
- **How to Check if Your Company is an HL7 Member**
- **How to Find Your Organization's HL7 Representative**

Instructions here: <http://bit.ly/4obJRqm>





Questions? Reach out to us!

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**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**