



# Welcome To OHDSI

**OHDSI Community Call**  
**June 7, 2022 • 11 am ET**



# Upcoming OHDSI Community Calls

Date	Topic
June 14	OHDSI Scholarship (Publications)
June 21	10-Minute Tutorials
June 28	European Symposium Recap
July 5	NO MEETING
July 12	New Adopter Introductions and Q&A
July 19	Workgroup Updates
July 26	CDM Update Process



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# June 14: OHDSI Publications in 2022

**Analysis of Dual Combination Therapies Used in Treatment of Hypertension in a Multinational Cohort**

Presenter: **Yuan Lu**



**Factors Influencing Background Incidence Rate Calculation: Systematic Empirical Evaluation Across an International Network of Observational Databases**

Presenter: **Anna Ostropolets**



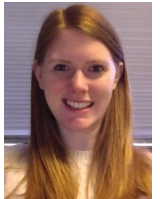
**Logistic regression models for patient-level prediction based on massive observational data: Do we need all data?**

Presenter: **Henrik John**



**Learning patient-level prediction models across multiple healthcare databases: evaluation of ensembles for increasing model transportability**

Presenter: **Jenna Reps**



**Prior-Preconditioned Conjugate Gradient Method for Accelerated Gibbs Sampling in “Large n, Large p” Bayesian Sparse Regression**

Presenter: **Aki Nishimura**





# Three Stages of The Journey

**Where Have We Been?**

**Where Are We Now?**

**Where Are We Going?**





# OHDSI Shoutouts!



Congratulations to the team of **Azza Shoaibi, Gowtham Rao, Erica Voss, Anna Ostropolets, Miguel Angel Mayer, Juan Manuel Ramírez-Anguita, Filip Maljković, Biljana Carević, Scott Horban, Daniel R. Morales, Talita Duarte-Salles, Clement Fraboulet, Tanguy Le Carrou, Spiros Denaxas, Vaclav Papez, Luis H. John, Peter R. Rijnneek, Evan Minty, Thamir M. Alshammari, Rupa Makadia, Clair Blacketer, Frank DeFalco, Anthony Sena, Marc Suchard, Daniel Prieto-Alhambra and Patrick Ryan** on the publication of **Phenotype Algorithms for the Identification and Characterization of Vaccine-Induced Thrombotic Thrombocytopenia in Real World Data: A Multinational Network Cohort Study** in Drug Safety.

Drug Safety  
<https://doi.org/10.1007/s40264-022-01187-y>

ORIGINAL RESEARCH ARTICLE



## Phenotype Algorithms for the Identification and Characterization of Vaccine-Induced Thrombotic Thrombocytopenia in Real World Data: A Multinational Network Cohort Study

Azza Shoaibi<sup>1,2</sup> · Gowtham A. Rao<sup>1,2</sup> · Erica A. Voss<sup>1,2</sup> · Anna Ostropolets<sup>2,3</sup> · Miguel Angel Mayer<sup>4</sup> · Juan Manuel Ramírez-Anguita<sup>4</sup> · Filip Maljković<sup>5</sup> · Biljana Carević<sup>6</sup> · Scott Horban<sup>7</sup> · Daniel R. Morales<sup>7</sup> · Talita Duarte-Salles<sup>8</sup> · Clement Fraboulet<sup>9</sup> · Tanguy Le Carrou<sup>10</sup> · Spiros Denaxas<sup>11</sup> · Vaclav Papez<sup>11</sup> · Luis H. John<sup>12</sup> · Peter R. Rijnneek<sup>12</sup> · Evan Minty<sup>13</sup> · Thamir M. Alshammari<sup>2,14</sup> · Rupa Makadia<sup>1,2</sup> · Clair Blacketer<sup>1,2</sup> · Frank DeFalco<sup>1,2</sup> · Anthony G. Sena<sup>1,2</sup> · Marc A. Suchard<sup>2,15</sup> · Daniel Prieto-Alhambra<sup>16</sup> · Patrick B. Ryan<sup>1,2</sup>

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### Abstract

**Introduction** Vaccine-induced thrombotic thrombocytopenia (VITT) has been identified as a rare but serious adverse event associated with coronavirus disease 2019 (COVID-19) vaccines.

**Objectives** In this study, we explored the pre-pandemic co-occurrence of thrombosis with thrombocytopenia (TWT) using 17 observational health data sources across the world. We applied multiple TWT definitions, estimated the background rate of TWT, characterized TWT patients, and explored the makeup of thrombosis types among TWT patients.

**Methods** We conducted an international network retrospective cohort study using electronic health records and insurance claims data, estimating background rates of TWT amongst persons observed from 2017 to 2019. Following the principles of existing VITT clinical definitions, TWT was defined as patients with a diagnosis of embolic or thrombotic arterial or venous events and a diagnosis or measurement of thrombocytopenia within 7 days. Six TWT phenotypes were considered, which varied in the approach taken in defining thrombosis and thrombocytopenia in real world data.

**Results** Overall TWT incidence rates ranged from 1.62 to 150.65 per 100,000 person-years. Substantial heterogeneity exists across data sources and by age, sex, and alternative TWT phenotypes. TWT patients were likely to be men of older age with various comorbidities. Among the thrombosis types, arterial thrombotic events were the most common.

**Conclusion** Our findings suggest that identifying VITT in observational data presents a substantial challenge, as implementing VITT case definitions based on the co-occurrence of TWT results in large and heterogeneous incidence rate and in a cohort of patients with baseline characteristics that are inconsistent with the VITT cases reported to date.



# OHDSI Shoutouts!



**Any shoutouts from the community? Please share and help promote and celebrate OHDSI work!**

Have a study published? Please send to [sachson@ohdsi.org](mailto:sachson@ohdsi.org) so we can share during this call and on our social channels.  
Let's work together to promote the collaborative work happening in OHDSI!





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# Upcoming Workgroup Calls



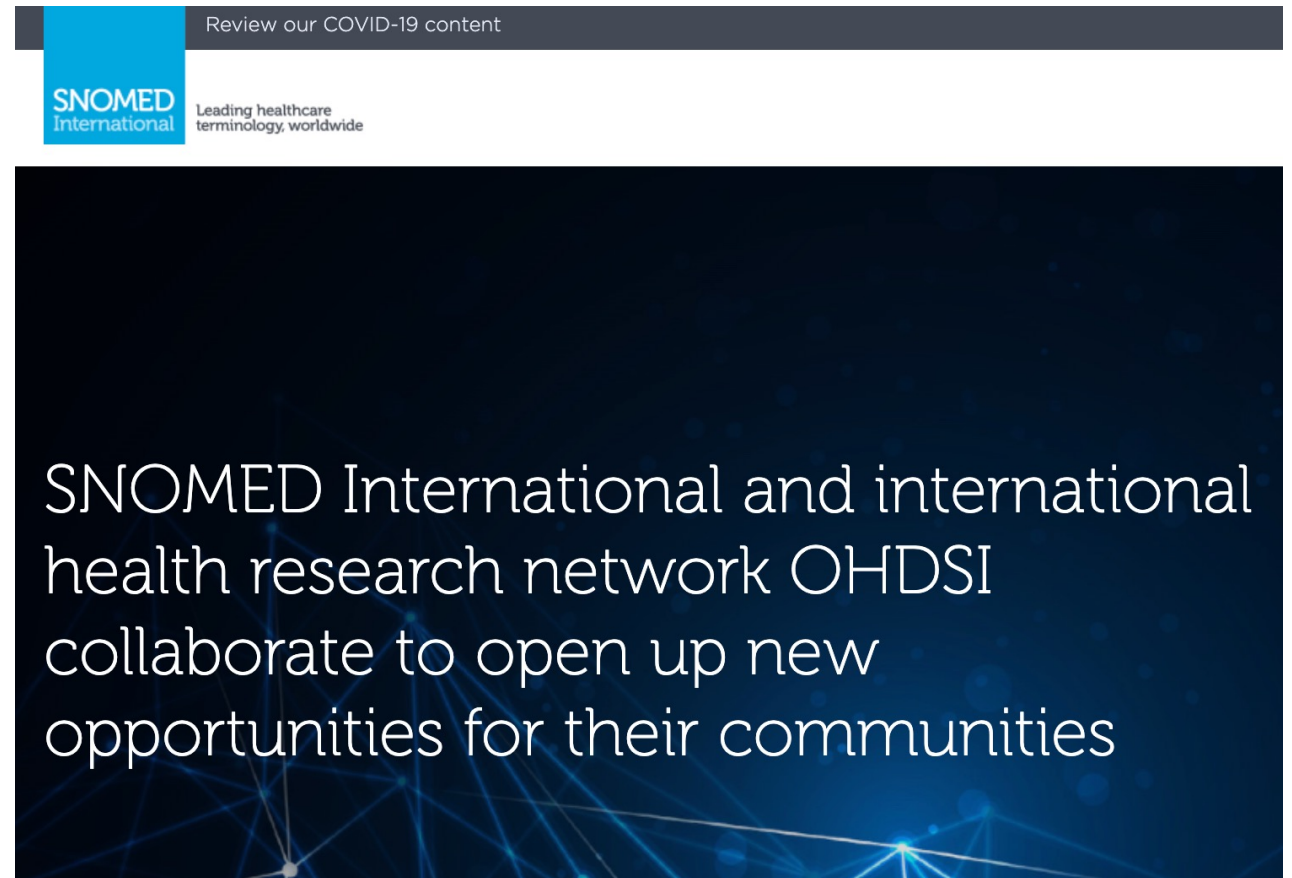
Date	Time (ET)	Meeting
Wednesday	10 am	FHIR and OMOP Digital Quality Measurements Subgroup (ZOOM)
Wednesday	2 pm	Natural Language Processing
Thursday	12 pm	FHIR and OMOP Oncology Subgroup
Thursday	1 pm	OMOP CDM Oncology Vocabulary/Development Subgroup
Thursday	6 pm	FHIR and OMOP Terminologies Subgroup
Friday	9 am	GIS-Geographic Information System Development
Friday	10 am	Phenotype Development and Evaluation
Friday	10:30 am	Clinical Trials
Friday	10 pm	China Chapter
Monday	8 am	Early-Stage Researchers
Monday	4 pm	Eye Care & Vision Research

[www.ohdsi.org/upcoming-working-group-calls](http://www.ohdsi.org/upcoming-working-group-calls)



# SNOMED, OHDSI Formalize Relationship

**OHDSI** and **SNOMED International** have formalized their long-time relationship with a **five-year collaborative agreement** that will benefit both of their user communities.





# June Newsletter Is Now Available



## The Journey Newsletter (June 2022)

The latest OHDSI Newsletter reflects on the DARWIN EU Initiative, highlights network studies, looks at the upcoming OHDSI 2022 collaborator showcase and more. [#JoinTheJourney](#)

### June Update Video Podcast

Patrick Ryan and Craig Sachson reflect on the DARWIN EU presentation led by Peter Rijnbeek and the goals for this initiative, the most recent leadership summit and new ways workgroup leads are attempting to keep their groups active and productive, and the collaborator showcase at the 2022 OHDSI Global Symposium. (If video does not appear, please click 'View this email in your browser')

## Community Updates

### Where Have We Been?

- Peter Rijnbeek led a detailed and exciting presentation on DARWIN EU during a May community call, which included information about the initiative's mission, vision and five-year plan, the process for conducting studies, information about data sources used by DARWIN EU, the role of the Erasmus University coordinating center, and how OHDSI tools, including the OMOP Common Data Model, data standards and best practices can and will impact this initiative. You can learn more about DARWIN EU later in this newsletter.
- OHDSI network studies continue around the world, and six of them (including four from our Asia-Pacific collaborators) were presented to the community earlier this month. Learn about each of them below and decide if you can contribute to any of this research.

### Where Are We Now?

- The [2022 Collaborator Showcase](#) returns this October at the Global Symposium, which means we will be able to learn from each other and network in person. The collaborator showcase allows our community members to highlight and share their work around data standards, methods research, open-source development and/or clinical applications through poster presentations, software demos and lightning talks. If you are interested, please [submit your brief report](#) before the June 24 (8 pm ET) deadline!
- The first in-person OHDSI event since the start of the pandemic will take place this month (June 24-26) during the OHDSI European Symposium. The Steam Ship Rotterdam in the Netherlands will host the event, with the main symposium set for Friday, June 24, and two days of workshops and tutorials to follow. For more information, [please visit the symposium homepage](#).

### Where Are We Going?

- Registration for [the 2022 OHDSI Symposium](#), which will be held Oct. 14-16 at the Bethesda North Marriott Hotel & Conference Center, is now open. The main conference will be held Friday, Oct. 14, while a full-day tutorial for community newcomers entitled "[An Introductory Journey From Data To Evidence](#)" will be held Saturday, Oct. 15. Workgroup activities will be held throughout Oct. 15-16, and [more information is available here](#). You can register for any and all activities now.

## DARWIN EU Initiative — How OHDSI Will Assist In Delivering RWE & Supporting Regulatory Decision-Making Across Europe

By 2025 the use of Real-World Evidence will have been enabled and the value will have been established across the spectrum of regulatory use cases

- European Medicines Regulatory Network (EMRN) strategy to 2025 -

What analyses and studies will DARWIN EU deliver?

What with DARWIN EU?

Earlier this year, the European Medicines Agency (EMA) announced the Data Analysis and Real World Interrogation Network (DARWIN EU) initiative to support the ability to deliver real-world evidence from across Europe on diseases, populations and the uses and performance of medicines.

## May Publications

Fatemeh Amrollahi, Supreeth P Shashikumar, Angela Meier, Lucila Ohno-Machado, Shamim Nemati, Gabriel Wardi, [Inclusion of social determinants of health improves sepsis readmission prediction models](#), *Journal of the American Medical Informatics Association*, 2022; ocac060, doi.org/10.1093/jamia/ocac060

Reese, J.T., Coleman, B., Chan, L. [et al. NSAID use and clinical outcomes in COVID-19 patients: a 38-center retrospective cohort study](#). *Viral J* 19, 84 (2022). <https://doi.org/10.1186/s12985-022-01813-2>

Edward Burn, Talita Duarte-Salles, Sergio Fernandez-Bertolin, Carlen Reyes, Kristin Kostka, Antonella Delmestri, Peter Rijnbeek, Katia Verhamme, Daniel Prieto-Alhambra, [Venous or arterial thrombosis and deaths among COVID-19 cases: a European network cohort study](#). *The Lancet Infectious Diseases*, 2022, doi.org/10.1016/S1473-3099(22)00223-7

Jin Ge, W. Ray Kim, Jennifer Lai, and Allison Kwong, ["Beyond MELD" – Emerging strategies and technologies for improving mortality prediction, organ allocation and outcomes in liver transplantation](#), *Journal of Hepatology*, 2022, doi.org/10.1016/j.jhep.2022.03.003

Reps, J.M., Williams, R.D., Schuemie, M.J. [et al. Learning patient-level prediction models across multiple healthcare databases: evaluation of ensembles for increasing model transportability](#). *BMC Med Inform Decis Mak* 22, 142 (2022). doi.org/10.1186/s12911-022-01879-6

Bathelt F, Reinecke I, Peng Y, Henke E, Weidner J, Bartos M, Gött R, Waltemath D, Engelmann K, Schwarz PE, Sedlmayr M. [Opportunities of Digital Infrastructures for Disease Management—Exemplified on COVID-19-Related Change in Diagnosis Counts for Diabetes-Related Eye Diseases](#). *Nutrients*. 2022; 14(10):2016. <https://doi.org/10.3390/nu14102016>

Elisa Henke, Ines Reinecke, Michele Zoch, Martin Sedlmayr, Franziska Bathelt, [Towards the Improvement of Clinical Guidelines Based on Real World Data](#), *Studies in Health Technology and Informatics*, Vol. 294, doi: 10.3233/SHTI220505



# #OHDSI2022 Collaborator Showcase

We are less than three weeks away from the submission deadline for the 2022 OHDSI Global Symposium. All submissions for poster presentations, software demos and/or lightning talks are due no later than 8pm (EST) on **Friday, June 24**.

[www.ohdsi.org/ohdsi2022collaboratorshowcase](http://www.ohdsi.org/ohdsi2022collaboratorshowcase)



# CBER BEST Seminar Series Postponed

The CBER Best Seminar Series is being rescheduled moving forward.

Please be on the lookout for more information on when it will resume and who will be added to the schedule.





# 2022 OHDSI Symposium

Registration is OPEN for **#OHDSI2022!**

The 2022 OHDSI Symposium will be held Oct. 14-16 at the Bethesda North Marriott Hotel & Conference Center.

**Friday, Oct. 14: Main Conference**

**Saturday, Oct. 15: All-Day Tutorial**

**Saturday, Oct. 15-Sunday Oct. 16: Workgroup Activities**

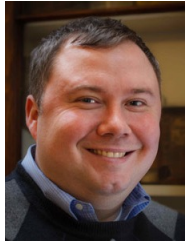
[www.ohdsi.org/ohdsi2022symposium](http://www.ohdsi.org/ohdsi2022symposium)





# An Introductory Journey From Data To Evidence

OHDSI2022 Tutorial • Saturday, Oct. 15 • Bethesda, Md.



**The OHDSI Journey:  
Where Are We Going?**

**Patrick Ryan**



**OMOP Common Data  
Model and Vocabulary**

**Clair Blacketer**



**ETL – A Source Database  
Into OMOP CDM**

**Melanie Philofsky**



**Creating Cohort  
Definitions**

**Asieh Golozar**



**Phenotype Evaluations**

**Gowtham Rao**



**Characterization**

**Kristin Kostka**



**Estimation**

**Martijn Schuemie**



**Prediction**

**Jenna Reps**



**The OHDSI Journey: Where  
Do We Go From Here?**

**George Hripcsak**



# Job Opening

There is a new opening for a Postdoctoral Data Scientist within Dani Prieto-Alhambra's team at the University of Oxford.

This person would be involved with the work happening around both DARWIN EU and EHDEN.

The application deadline is June 27, and more information and the application link will be posted on the community calls page.



## Postdoctoral Data Scientist

**Nuffield Department of Orthopaedics, Rheumatology and Musculoskeletal Sciences, Botnar Research Centre, Windmill Road, Oxford**

We have an exciting opportunity for Postdoctoral Data Scientist to join a Pharmaco- and Device epidemiology research group led by Professor Daniel Prieto-Alhambra at the Botnar Research Centre, NDORMS, University of Oxford. The NDORMS Pharmaco- and Device epidemiology research group is involved in a number of national and international studies exploring the conditions of use (adherence, compliance, off and on-label use) of a number of licensed drugs, devices, and vaccines for the prevention and treatment of human disease in 'real world' (routine practice) conditions.

As a Postdoctoral Data Scientist you will develop analysis plans, protocols, ethical (and similar panel) submissions, governance and regulatory submissions as required for ongoing and future studies. You will generate and analyse OMOP-mapped real world health data assets, adapt existing and develop new research methodologies and materials. You will carry out collaborative research projects with colleagues in partner institutions and report research findings in the form of conference abstracts at national and international conferences.

You will hold a Doctoral (or be near completion) degree in informatics/information technology, engineering, statistics, biostatistics, mathematics, health data sciences or a related field. Demonstrable advanced skills and expertise in R programming, advanced skills in programming in Python, SQL, or similar languages and ability to work well within multi-disciplinary teams and independently are essential. Experience in propensity score/s, instrumental variable/s, and/or other methods to adjust for confounding for indication in pharmaco-epidemiological studies, experience in prediction modelling and good track record of peer reviewed scientific publications are desirable.

This is a full-time fixed-term appointment for 2 years.

The closing date for this position is 12 noon on 27 June 2022. You will be required to upload a CV and supporting statement as part of your online application

Contact Person : HR Team, NDORMS

Vacancy ID : 158193

Contact Phone :

Closing Date & Time : 27-Jun-2022 12:00

Pay Scale : STANDARD GRADE 7

Contact Email : [hr@ndorms.ox.ac.uk](mailto:hr@ndorms.ox.ac.uk)

Salary (£) : Grade 7: £33,309 - £40,927 p.a.





# Where Are We Going?

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





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