# Upcoming OHDSI Community Calls

<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
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</thead>
<tbody>
<tr>
<td>Oct. 19</td>
<td>Focus Topic: The LEGEND Project</td>
</tr>
<tr>
<td>Oct. 26</td>
<td>Trick or Treat</td>
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<tr>
<td>Nov. 9</td>
<td>Demos: Tools for Adoption of OHDSI Data Standards</td>
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<td>Nov. 16</td>
<td>Open Network Studies</td>
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<td>Nov. 23</td>
<td>History of OHDSI</td>
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<td>Nov. 30</td>
<td>Collaborator Showcase Presentations</td>
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Three Stages of The Journey

Where Have We Been?
Where Are We Now?
Where Are We Going?
## Upcoming Workgroup Calls

<table>
<thead>
<tr>
<th>Date</th>
<th>Time (ET)</th>
<th>Meeting</th>
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<tbody>
<tr>
<td>Tuesday</td>
<td>1 pm</td>
<td>Common Data Model</td>
</tr>
<tr>
<td>Tuesday</td>
<td>2 pm</td>
<td>Health Equity</td>
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<tr>
<td>Tuesday</td>
<td>3 pm</td>
<td>OMOP CDM Oncology – Outreach/Research Subgroup</td>
</tr>
<tr>
<td>Wednesday</td>
<td>9 am</td>
<td>Vaccine Vocabulary</td>
</tr>
<tr>
<td>Wednesday</td>
<td>10 am</td>
<td>OMOP CDM Oncology – Development Subgroup</td>
</tr>
<tr>
<td>Wednesday</td>
<td>1 pm</td>
<td>Data Quality Dashboard</td>
</tr>
<tr>
<td>Wednesday</td>
<td>7 pm</td>
<td>Medical Imaging</td>
</tr>
<tr>
<td>Thursday</td>
<td>12 pm</td>
<td>HADES</td>
</tr>
<tr>
<td>Thursday</td>
<td>1 pm</td>
<td>OMOP CDM Oncology – CDM/Vocabulary Subgroup</td>
</tr>
<tr>
<td>Friday</td>
<td>1 pm</td>
<td>Phenotype Development and Evaluation</td>
</tr>
<tr>
<td>Monday</td>
<td>10 am</td>
<td>GIS-Geographic Information System</td>
</tr>
<tr>
<td>Monday</td>
<td>11:30 am</td>
<td>Pharmacovigilance Evidence Investigation (PEI)</td>
</tr>
<tr>
<td>Tuesday</td>
<td>9 am</td>
<td>OMOP CDM Oncology – Genomic Subgroup</td>
</tr>
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</table>

[www.ohdsi.org/upcoming-working-group-calls](http://www.ohdsi.org/upcoming-working-group-calls)
Get Access To Different Teams/WGs/Chapters

Welcome to OHDSI!

The Observational Health Data Sciences and Informatics (or OHDSI, pronounced “Odyssey”) program is a multi-stakeholder, interdisciplinary, collaborative to bring out the value of health data through large-scale analytics. All our solutions are open-source.

OHDSI has established an international network.

Our 2020 OHDSI Global Symposium brought together a global research community for 18 hours of open science, international collaboration and community fun. The day included research presentations from community members, panels that brought together leaders from major healthcare organizations, as well as network sessions, the annual collaborator.

5. Select the workgroups you want to join (you can refer to the WIKI for work group objectives www.ohdsi.org/web/wiki/doku.php?id=projects:overview)

- XTILAS
- Clinical Trials
- Common Data Model
- Data Quality Dashboard Development
- Early-stage Researchers
- Education Work Group
- Electronic Health Record (EHR) ETL
- Geographic Information System (GIS)
- HADES Health Analytics Data-to-Evidence Suite
- Health Equity
- Latin America
- Medical Devices
- Natural Language Processing
- OHDSI APAC
- OHDSI APAC Steering Committee
- OHDSI Steering Committee
- Oncology
- Patient-Generated Health Data
- Pharmacovigilliance Evidence Investigation
- Phenotype Development and Evaluation
- Population-Level Effect Estimation / Patient-Level Prediction
- Psychiatry
- Registry (formerly AI Biobank)
- Surgery and Perioperative Medicine
- Vaccine Safety
- Vaccine Vocabulary
- Women of OHDSI

6. Select the chapter(s) you want to join

- Africa
- Australia
- China
- Europe
- Japan
- Korea
- Singapore
- Taiwan

7. Select the studies you want to join

- HERA-Health Equity Research Assessment
- PIONEER for Prostate Cancer (study under closed)
- SCRUMA (SARS-CoV-2 Large-scale Longitudinal Analyses)
Get Access To Different Teams/WGs/Chapters

5. Select the workgroups you want to join (you can refer to the WIKI for work group objectives
- [ ] XTLAS
- [ ] Clinical Trials
- [ ] Common Data Model
- [ ] Data Quality Dashboard Development
- [ ] Early-stage Researchers
- [ ] Education Work Group
- [ ] Electronic Health Record (EHR) ETL
- [ ] Geographic Information System (GIS)
- [ ] HADES Health Analytics Data-to-Evidence Suite
- [ ] Health Equity
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- [ ] Medical Devices
- [ ] Natural Language Processing
- [ ] OHDSI APAC
- [ ] OHDSI APAC Steering Committee
- [ ] OHDSI Steering Committee
- [ ] Oncology
- [ ] Patient-Generated Health Data
- [ ] Pharmacovigilance Evidence Investigation

6. Select the chapter(s) you want to join
- [ ] African
- [ ] Australia
- [ ] China
- [ ] Europe
- [ ] Japan
- [ ] Korea
- [ ] Singapore
- [ ] Taiwan

7. Select the studies you want to join
- [ ] MESA-Health Data Research Assessment
- [ ] PIONEER for Prostate Cancer (study is now ended)
- [ ] SOLA (SARS-Cov-2 Large-scale Longitudinal Analysis)
<table>
<thead>
<tr>
<th>Nov 18 (APAC time zone)</th>
<th>Contents</th>
<th>Speaker(s)</th>
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<tbody>
<tr>
<td>Morning</td>
<td>OHDSI State of the Community</td>
<td>George Hripcsak/Patrick Ryan</td>
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<tr>
<td></td>
<td>OHDSI APAC State of the Community</td>
<td>Mui Van Zandt</td>
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<td></td>
<td>EHDEN</td>
<td>Peter Rijnbeek</td>
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<td>FHIR and OHDSI Collaboration</td>
<td>Christian Reich</td>
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<td>APAC Chapter vision for 2022</td>
<td>APAC chapter leaders</td>
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<tr>
<td>Break</td>
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<td>Afternoon</td>
<td>Networking Session</td>
<td>All</td>
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Next CBER Best Seminar Series

**Topic:** CBIR BEST Initiative Seminar Series - Exploring Vaccine Safety Datalink COVID vaccine rapid cycle analysis (RCA) methods

**Description:** Background: The CBIR BEST Initiative Seminar Series is designed to share and discuss recent research of relevance to ongoing and future surveillance activities of CBIR regulated products, namely biologics. The series focuses on safety and effectiveness of biologics including vaccines, blood components, blood-derived products, tissues and advanced therapies. The seminars will provide information on characteristics of biologics, required infrastructure, study designs, and analytic methods utilized for pharmacovigilance and pharmacoeconomic/biologic studies of biologics. They will also cover information regarding potential data sources, informatics challenges and requirements, utilization of real-world data and evidence, and risk-benefit analysis for biologic products. The length of each session may vary, and the presenters will be invited from outside FDA. Please see the details below for our upcoming seminar. Anyone can register and join for free. Stay tuned for more details and additional webinars during the year.

**Topic:** Exploring Vaccine Safety Datalink COVID vaccine rapid cycle analysis (RCA) methods

**Description:** We will review statistical methods used in observational studies of the safety and effectiveness of COVID-19 vaccines. Topics will include:
- How to compare recent vaccinees with concurrent comparators (unvaccinated or less recently vaccinated) and
- with comparators who are not concurrent (historical rates or self-controls) to make inferences about outcome rates
- that would be expected among vaccinees had they not been vaccinated
- Methods for estimating risk ratios
- How to examine change in vaccine effectiveness (waning) or vaccine safety over time-since-vaccination
- Sequential tests

**Presenter:** Nicola P. Klein, MD, PhD

**Time:** Oct 20, 2021 11:00 AM in Eastern Time (US and Canada)
Prediction of early acute readmission after colorectal cancer surgery using only clinical preoperative variables.

**INTRO**
Early explored readmission following colorectal cancer surgery is a significant economic burden to the health care system and may delay patient recovery and influence chemotherapy onset. Identifying patients at high risk of readmission when planning the surgical and oncological treatment is of high value, as preoperative training or intensive postoperative monitoring can be planned.

**METHODS**
A DNN was built using data from the Danish colorectal cancer group’s national database (COCC), containing clinical data from all colorectal cancer surgeries since 2001. COCC data was enriched with information about readmission from the Danish National Patient registry (DNPR). AtlasTool v.6.0 was used to build a patient-level prediction model using ML methods and outcomes. The target cohort was colorectal cancer patients undergoing surgery with time of readmission after surgery up to 30 days. Predictors in the final model included age, sex, gender, race, Charlson comorbidity index, smoking history, smoking status, diabetes, hypertension, chronic renal failure, cancer type, procedure, and admission domain. Any time prior to surgery was included in the model. Controls were selected for specific clinical scales (e.g., ASA score).

**RESULTS**
- 14,924 patients underwent colorectal cancer surgery between 2001 and 2016. The incidence of unplanned 30-day readmission was 18.43% (±6.04%).
- 16 variables were included in the model.
- Using only preoperative variables, the prediction model had a c-index of 0.689 (95% CI: 0.657-0.712) and an AUROC of 0.802. Calibration was measured acceptable with a Brier score of 0.16.

**PREVENTIVE CLINICAL USE OF THE PREDICTION MODEL**
The patient’s treatment trajectory can often include a multidisciplinary team conference when planning the surgical and oncological treatment. According to the model, up to 30% of patients may be at risk for readmission. Identifying high-risk patients may improve preoperative training or intensive postoperative monitoring or delayed discharge.

**PERSPECTIVES**
Evaluating the DNN with further phenomenology from the CRC setting could be of substantial benefit for identifying the clinicians in the decision-making process.

**ACCURATE PREDICTION**
Accurate prediction of early readmission may assist the multidisciplinary team in the decision-making of the patients’ treatment trajectory.

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**Prediction of early acute readmission after colorectal cancer surgery using only clinical preoperative variables**

*Authors: Johan Clausen, Andreas Weinberger Rosen, Karoline Bendix Bräuner, Mikail Gögenur, Viviane Annabelle Lin, Eldar Allakhverdiiev, Julie Sparholt Walbech, Ismail Gögenur*
Lightning Talk!

#OHDSISocialShowcase This Week

Detecting PTSD and self-harm among US Veterans using positive unlabeled learning

Authors: Praveen Kumar, Nicolas R. Lauve, Sharon E. Davis, Sharidan K. Parr, Daniel Park, Michael E. Matheny, Gerardo Villarreal, George Uhl, Yiliang Zhu, Mauricio Tohen, Douglas J. Perkins, Christophe G. Lambert (presenter)

Christophe G. Lambert, PhD
Center for Global Health, Division of Translational Informatics, Department of Internal Medicine, University of New Mexico Health Sciences Center, Albuquerque, New Mexico, USA

Co-Authors
Praveen Kumar; Nicolas R. Lauve; Sharon E. Davis; Sharidan K. Parr; Daniel Park; Michael E. Matheny; Gerardo Villarreal; George Uhl; Yiliang Zhu; Mauricio Tohen; Douglas J. Perkins; Christophe G. Lambert

TUESDAY
Treatment Patterns: An R package to analyze treatment patterns of a study population of interest

**Authors:** Aniek F. Markus, Peter R. Rijnbeek, Jan A. Kors, Katia Verhamme

**Wednesday**

How to perform a treatment patterns study in 5 steps:

1. **Define target and event cohorts**
2. **Specify baseline characteristics of interest**
3. **Specify settings to construct treatment pathways**
4. **Execute study**
5. **Check out results**

**RESULTS**

- The R package TreatmentPatterns creates compact plots (see Figure 2) of the number of people treated, average duration of event cohorts, and number of people with chronic diseases (e.g., diabetes, hypertension, and depression) per treatment pathway.

**CONCLUSION**

- The tool is intended to make the analysis of treatment patterns more accessible, more standardized, and more transparent.
- We hope it directly contributes to the accumulation of knowledge on real world treatment patterns across disease domains.

R package TreatmentPatterns can be downloaded from OHDSI. **Vignette**

- Package manual
- Example tutorial
- Reference package

**Figure 1. Summary of decisions to construct individual treatment pathways.**

**Figure 2. Example sunburst plot.**

Aniek F. Markus, MS; Jan A. Kors, PhD; Peter R. Rijnbeek, PhD; Katia M.C. Verhamme, PhD
There are challenges in deriving higher-level Radiation Oncology treatment Events from CPT codes with the level of detail recommended by ASTRO.

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<tr>
<th>Radiation oncology procedure</th>
<th>Derivable from CPT</th>
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<tr>
<td>Modality</td>
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<tr>
<td>External beam radiation therapy (EBRT)</td>
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</tr>
<tr>
<td>Protons</td>
<td>X</td>
</tr>
<tr>
<td>Photons (LINAC)</td>
<td>X</td>
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<tr>
<td>Photons (tumor source)</td>
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<tr>
<td>Neutrons</td>
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<td>Brachytherapy</td>
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<tr>
<td>Low dose rate</td>
<td>X</td>
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<tr>
<td>High dose rate</td>
<td>X</td>
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<tr>
<td>Intraoperative radiotherapy</td>
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<td>Orthovoltage</td>
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<tr>
<td>Technique</td>
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<td>Physicist planning</td>
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<tr>
<td>Scanning beam intensity modulated proton therapy</td>
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<td>Scanning beam multi-field optimization</td>
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<td>Scanning beam single-field optimization</td>
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<td>2-dimensional (2D)</td>
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<td>Intensity modulated radiation therapy (IMRT)</td>
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<td>Intracavitary stereotactic</td>
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<td>Irradiated</td>
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<td>Unirradiated</td>
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<tr>
<td>Intraoperative</td>
<td>X</td>
</tr>
</tbody>
</table>

**References/Citations**
2. Cancer Therapy Online Table: Cancer ResearchNetwork (CRN).

**Thursday**

Representation of High-Level Radiation Oncology Treatment Events from CPT Codes

Authors: Michael Gurley, Asieh Golozar, Rimma Belenkaya, Tatyana Sandler
All Genes Lead to ROMOPOmics

Authors: Nicholas Giangreco, Salvatore G Volpe, Meghana Tandon, Kamileh Narsinh, Ben Busby
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?
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