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August  
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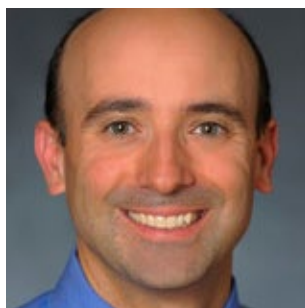


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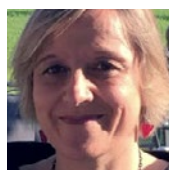
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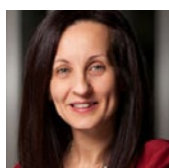
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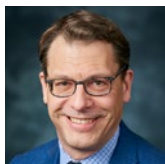


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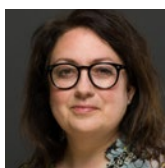
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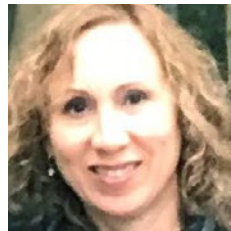
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McGill University

University of Massachusetts Medical  
School, Clinical and Populations Health  
Research PhD Program

University of North Carolina at Chaple  
Hill, Dept of Epidemiology, Gillings  
School of Public Health

## EMERGING LEADER AWARD

Christopher Rentsch

## INDUCTION OF ISPE FELLOWS

Kourtney Davis, FISPE  
Solomon Iyasu, FISPE  
Carol Koro, FISPE  
Stephane Lanes, FISPE

Deborah Layton, FISPE  
Jennifer Lund, FISPE  
Annalisa Rubino, FISPE

Meredith Smith, FISPE  
Shirley Wang, FISPE  
Bjorn Wettermark, FISPE

## ANDREW McAFEE AWARD

*For the best abstract submitted from a researcher or student living in a developing country*

Comparing the Risk of Venous Thromboembolism in Rheumatoid Arthritis Patients receiving Tofacitinib and TNF Inhibitors in Taiwan  
Chin-Yao Shen

## JOHN SNOW AWARD

Comparative Risk of Hospitalization for Heart Failure Among Patients with Xanthine Oxidase Inhibitors and Uricosuric Agents  
Fang-Ju Lin

## BEST METHODS ABSTRACT

(STUDENT)

Characterizing Imbalance in the Tails of the Propensity Score Distribution  
Bethany DiPret

## BEST DRUG UTILIZATION

RESEARCH ABSTRACT (STUDENT)

Prior Opioid Tolerance Among New Users of Transdermal Fentanyl in Taiwan, 2011-2018  
Chih-Wan Lin

## STANLEY A. EDLAVITCH AWARD (STUDENT)

Use of Low-Dose Quetiapine and the Risk of Major Adverse Cardiovascular Events  
Mikkel Hoejlund

## ISPE-PDS ROLAND D. MANN AWARD FIRST PRIZE

In Utero Opioid Exposure and Risk of Infection in Childhood: A Multinational Nordic Cohort Study  
Milada Mahic | Sonia Hernandez-Diaz | Millie Wood | Helle Kieler  
Ingvild Odsbu | Metter Norgarrd | Buket Ozturk | Brian Bateman  
Vidar Hjellvik | Svetlana Skurtveit | Marte Handal

## HONORABLE MENTIONS

Bias in Case-Crossover Studies of Medications Due to Persistent Use: A Simulation Study

Katsiaryna Bykov | Shirley Wang | Jesper Hallas  
Anton Pottegård | Malcom McClure | Joshua Gagne

Time-related Biases in Pharmacoepidemiology

Samy Suissa | Sophie Dell'Aniello

The Impact of Generic Aromatase Inhibitors on Initiation, Adherence and Persistence Among Women with Breast Cancer: Applying Multi-State Models to Understand the Dynamics of Adherence

Aaron Winn | Nicole Fergerstrom | Liliana Pezzin  
Purushottam Lund | Joan Neuner

Outcome Misclassification: Impact, Usual Practice in Pharmacoepidemiology Database Studies and an Online Aid to Correct

Gillian Hall | Stephan Lanes | Kaatj Bollaerts  
Xiaofeng Zhou | Germano Ferreira | Rosa Gini

Gastrointestinal Bleeding Risk with Rivaroxaban vs Aspirin in Atrial Fibrillation: A Multinational Study

Laura Fanning | Ian Wong | Esther Chan | Xue Li  
Pajaree Mongkhon | Kenneth Man | Li Wei | Wai Leung  
Peteris Darzins | Simon Bell | Jenni Ilomaki | Wallis Lau

# Schedule at-a-Glance

## MONDAY, AUGUST 23

8:00 - 10:00 AM  
PLENARY

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10:00 - 11:30 AM  
CONCURRENT  
WORKSHOPS

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11:45 AM - 1:30 PM  
CONCURRENT ORAL  
PRESENTATIONS

---

1:45 - 3:30 PM  
CONCURRENT ORAL  
PRESENTATIONS

---

3:30 - 5:00 PM  
CONCURRENT  
WORKSHOPS

---

5:30 - 7:30 PM  
LIGHTNING  
PRESENTATIONS

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8:00 - 9:30 PM  
PLENARY *REPEATED*

## TUESDAY, AUGUST 24

8:15 - 10:00 AM  
PLENARY

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10:00 - 11:30 AM  
CONCURRENT  
WORKSHOPS

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11:45 AM - 1:15 PM  
CONCURRENT  
WORKSHOPS

---

1:45 - 3:30 PM  
CONCURRENT ORAL  
PRESENTATIONS

---

3:30 - 4:45 PM  
SPOTLIGHT  
POSTERS

---

5:15 - 6:30 PM  
SPOTLIGHT  
POSTERS

---

6:45 - 7:45 PM  
LIGHTNING  
PRESENTATIONS

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8:00 - 9:30 PM  
PLENARY *REPEATED*

## WEDNESDAY, AUGUST 25

8:15 - 10:00 AM  
PLENARY

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10:00 - 11:30 AM  
CONCURRENT  
WORKSHOPS

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11:45 AM - 1:30 PM  
CONCURRENT ORAL  
PRESENTATIONS

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1:45 - 2:45 PM  
ANNUAL MEMBER  
MEETING & AWARDS  
CEREMONY

---

3:00 - 6:00 PM  
CONCURRENT ORAL  
PRESENTATIONS

---

6:00 - 6:30 PM  
CLOSING CEREMONY

---

8:00 - 9:30 PM  
PLENARY *REPEATED*

# Program Schedule

M O N D A Y , A U G U S T 2 3

All times in US Eastern

8:00 - 8:30 AM

## WELCOME SESSION

Olaf Klungel – *President, International Society for Pharmacoepidemiology*

Syd Phillips – *Chair, ICPE Scientific Program Committee*

8:30 - 10:00 AM

## PLENARY

**Diversity, Equity, and Inclusion in Pharmacoepidemiology – The Role of Caste in Drug Utilization, Safety, and Therapeutic Risk Management**

### SPEAKERS

Whitney Robinson – *University of North Carolina at Chapel Hill*

Folakemi Odedina – *Mayo Clinic*

Macarius Donneyoung – *The Ohio State University*

John Jackson – *Johns Hopkins*

10:00 - 11:30 AM

## WORKSHOP / CONCURRENT

**Big Data in Health and Bioethics: A Call for a Comprehensive, Multi-Disciplinary, ISPE Position**

Benefit-Risk Assessment, Communication, and Evaluation (BRACE)

### PRESENTERS

Edward Bortnichak – *Pharmacoepidemiology, Center for Observational and Real-World Evidence (CORE), Merck & Co., Inc.*

Solomon Iyasu – *Merck & Co. Inc.*

Patrick Ryan – *Janssen Research & Development*

Ameet Sarpatwari – *Division of Pharmacoepidemiology and Pharmacoeconomics, Department of Medicine, Brigham and Women's Hospital and Harvard Medical School*

Peter Arlett – *European Medicines Agency*

10:00 - 11:30 AM

## WORKSHOP / CONCURRENT

**Outcome Measurements for External Comparator Arms: New Opportunities for Epidemiology Methods Application and Development**

Methods in Pharmacoepidemiology

### PRESENTERS

Joan Largent – *IQVIA*

Emily Brouwer – *Janssen*

Cynthia Girman – *CERobs Consulting, LLC*

Christen Gray – *AstraZeneca*

Michele Jonsson Funk – *University of North Carolina at Chapel Hill*

Robert Glynn – *Harvard T. H. Chan School of Public Health*

### CO-AUTHORS

Dimitri Bennett – *Takeda*

Kueiyu Joshua Lin – *Brigham and Women's Hospital*

Daniela Moga – *Department of Pharmacy Practice and Science, College of Pharmacy, University of Kentucky*

Sabina Nduaguba – *University of Florida*

Mary Prince Panaccio – *Research Outcomes Innovations*

Xuerong Wen – *University of Rhode Island, College of Pharmacy*

Richard Wyss – *Division of Pharmacoepidemiology and Pharmacoeconomics, Department of Medicine, Brigham and Women's Hospital and Harvard Medical School, Boston, Massachusetts, USA*

Hongbo Yuan – *Canadian Agency for Drugs and Technologies in Health*

Huifeng Yun – *Department of Epidemiology, University of Alabama at Birmingham*




  
**ICPE 2022**
  
**August 24-28, 2022**
  
**COPENHAGEN, DENMARK**
  
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# Program Schedule

10:00 - 11:30 AM

## WORKSHOP / CONCURRENT

**Polypharmacy: Problems and Solutions for Its Methodologic Challenges in Real-World Data**  
Methods in Pharmacoepidemiology

### PRESENTERS

Amy Justice – US Department of Veterans Affairs  
Christopher Rentsch – London School of Hygiene & Tropical Medicine; US Department of Veterans Affairs  
Kirsha Gordon – VA CT Healthcare System  
Jonathon Romero – Oak Ridge National Laboratory  
Jordan Guillot – Université de Bordeaux  
Vincent Lo Re – Center for Pharmacoepidemiology Research and Training, Center for Clinical Epidemiology and Biostatistics, Department of Biostatistics, Epidemiology, and Informatics, Perelman School of Medicine, University of Pennsylvania, USA

10:00 - 11:30 AM

## WORKSHOP / CONCURRENT

**Real World Data in the Era of COVID-19: The Devil in the Details. An ISPE RWE Task Force/ COVID-19 Workgroup Symposium**

### PRESENTERS

Montse Soriano Gabarro – Bayer AG  
Dana Teltsch – Apellis  
Mugdha Gokhale – Center for Observational and Real-world Evidence (CORE), Merck Research Laboratories  
Paul Petraro – Head, RWE Analytic CoE, Boehringer-Ingelheim  
Jeremy Rassen – Aetion, Inc.  
Stephan Lanes – HealthCore Inc.  
Soko Setoguchi – RWJ Medical School, Center for Pharmacoepidemiology and Treatment Science (PETS), Institute for Health, Health Care Policy and Aging Research  
Daniel Prieto-Alhambra – Centre for Statistics in Medicine (CSM), Nuffield Department of Orthopaedics, Rheumatology and Musculoskeletal Sciences (NDROMS), University of Oxford, UK

11:45 AM - 1:30 PM

## ORAL SESSIONS / CONCURRENT

**Confusion, Falls, and Fractures**

Geriatric Pharmacoepidemiology  
**Risk of Falls Following the Initiation of Antihypertensives in the Elderly: A Self-Controlled Case Series in the UK**

### PRESENTING AUTHOR

Annika Jödicke – Pharmaco- and Device Epidemiology, Centre for Statistics in Medicine, Nuffield Department of Orthopaedics, Rheumatology and Musculoskeletal Sciences, University of Oxford, UK

### CO-AUTHORS

Eng Hooi (Cheryl) Tan – Nuffield Department of Orthopaedics, Rheumatology and Musculoskeletal Sciences, University of Oxford, UK

Danielle Robinson – Pharmaco- and Device Epidemiology, Centre for Statistics in Medicine, Nuffield Department of Orthopaedics, Rheumatology and Musculoskeletal Sciences, University of Oxford, UK

Antonella Delmestri – Center for Statistics in Medicine, NDORMS, University of Oxford, UK

Daniel Prieto-Alhambra – Centre for Statistics in Medicine (CSM), Nuffield Department of Orthopaedics, Rheumatology and Musculoskeletal Sciences (NDROMS), University of Oxford, UK

---

Geriatric Pharmacoepidemiology  
**Uncontrolled Pain and Risk for Depression and Behavioral Symptoms in Patients with Dementia**

### PRESENTING AUTHOR

Yu-Jung Wei – University of Florida College of Pharmacy

### CO-AUTHOR

Almut Winterstein – Department of Pharmaceutical Outcomes and Policy and Center for Drug Evaluation and Safety, College of Pharmacy, University of Florida

# Program Schedule

Geriatric Pharmacoepidemiology  
**Use of Medications with Anticholinergic and Sedative Properties and Fall-Related Fractures Among Older Adults**

PRESENTING AUTHOR

**Shahar Shmuel** – Department of Epidemiology, Gillings School of Global Public Health, University of North Carolina at Chapel Hill, Chapel Hill, NC, USA

CO-AUTHORS

**Virginia Pate** – Department of Epidemiology, Gillings School of Global Public Health, University of North Carolina at Chapel Hill, Chapel Hill, NC, USA

**Marc Pepin** – Durham VA Geriatric Research Education and Clinical Center (GRECC), Durham, NC, USA

**Janine Bailey** – Durham VA Geriatric Research Education and Clinical Center (GRECC), Durham, NC, USA

**Yvonne Golightly** – Department of Epidemiology, Gillings School of Global Public Health, University of North Carolina at Chapel Hill, Chapel Hill, NC USA

**Laura Hanson** – Sheps Center for Health Services Research, University of North Carolina at Chapel Hill, Chapel Hill, NC, USA

**Til Stürmer** – Department of Epidemiology, University of North Carolina at Chapel Hill, NC, USA

**Rebecca Naumann** – Department of Epidemiology, Gillings School of Global Public Health, University of North Carolina at Chapel Hill, Chapel Hill, NC, USA

**Danijela Gnjidic** – Sydney Pharmacy School, Faculty of Medicine and Health, The University of Sydney, Australia

**Jennifer Lund** – Department of Epidemiology, University of North Carolina at Chapel Hill, NC, USA

Geriatric Pharmacoepidemiology  
**Bisphosphonate Use and Risk of Severe Acute Kidney Injury: A Self-Controlled Case Series in Frail Elderly Patients in the UK**

PRESENTING AUTHOR

**Annika Jödicke** – Pharmaco- and Device Epidemiology, Centre for Statistics in Medicine, Nuffield Department of Orthopaedics, Rheumatology and Musculoskeletal Sciences, University of Oxford, Oxford, UK

CO-AUTHORS

**Tetsuro Oda** – Department of Medical Statistics, London School of Hygiene and Tropical Medicine, Keppel Street, London, UK

**Danielle Robinson** – Pharmaco- and Device Epidemiology, Centre for Statistics in Medicine, Nuffield Department of Orthopaedics, Rheumatology and Musculoskeletal Sciences, University of Oxford, Oxford, UK

**Antonella Delmestri** – Center for Statistics in Medicine, NDORMS, University of Oxford, Oxford, UK

**Ruth Keogh** – Department of Medical Statistics, London School of Hygiene and Tropical Medicine, Keppel Street, London, UK

**Daniel Prieto-Alhambra** – Centre for Statistics in Medicine (CSM), Nuffield Department of Orthopaedics, Rheumatology and Musculoskeletal Sciences (NDORMS), University of Oxford, Oxford, UK

Geriatric Pharmacoepidemiology  
**Risk of Delirium Associated with Antimuscarinics in Older Adults: A Case-Time-Control Study**

PRESENTING AUTHOR

**Prasad Nishtala** – University of Bath

**11:45 AM - 1:30 PM**

**ORAL SESSIONS / CONCURRENT**

**COVID-19 Epidemiology: Risk Factors, Drug Exposures, and Outcomes**

Disease Epidemiology/Clinical Course

**Severe Obesity is a Risk Factor for Mortality in Patients with COVID-19**

PRESENTING AUTHOR

**Aisling Caffrey** – Infectious Diseases Research Program, Providence Veterans Affairs Medical Center, Providence, RI, USA

CO-AUTHORS

**Jennifer Liao** – Infectious Diseases Research Program, Providence Veterans Affairs Medical Center, Providence, RI, USA

**Virshali Lopes** – Infectious Diseases Research Program, Providence Veterans Affairs Medical Center, Providence, RI, USA

**Kerry LaPlante** – Infectious Diseases Research Program, Providence Veterans Affairs Medical Center, Providence, RI, USA

# Program Schedule

Disease Epidemiology/Clinical Course  
**Predictors of Critical Care, Mechanical Ventilation, and Mortality Among Hospitalized Patients with COVID-19 in an Electronic Health Record Database**

PRESENTING AUTHOR

**Andrea Chomistek** – Optum

CO-AUTHORS

**Caihua Liang** – Optum

**Michael Doherty** – Optum

**Robin Clifford** – Optum

**Rachel Ogilvie** – Optum

**Robert Gately** – Optum

**Jennifer Song** – Optum

**Cheryl Enger** – Optum, Boston, MA, USA

**Nancy Lin** – Health Catalyst

**Florence Wang** – Optum

**John Seeger** – Epidemiology, Optum, Boston, MA, USA

Disease Epidemiology/Clinical Course  
**Utilizing the National COVID Cohort Collaborative (N3C) to Evaluate Risk of Serious Outcomes with COVID-19 Among Chronically Immunosuppressed Persons**

PRESENTING AUTHOR

**Kathleen Andersen** – Johns Hopkins Bloomberg School of Public Health

CO-AUTHORS

**Emaan Rashidi** – Johns Hopkins Bloomberg School of Public Health

**Huijun An** – Johns Hopkins University

**Hemalkumar Mehta** – Johns Hopkins University

**Derek Ng** – Johns Hopkins Bloomberg School of Public Health

**Brian Garibaldi** – Johns Hopkins Medicine

**Jodi Segal** – Johns Hopkins University

**G. Caleb Alexander** – Johns Hopkins Center for Drug Safety and Effectiveness

Disease Epidemiology/Clinical Course  
**Incidence and Risk Factors for COVID-Related Urgent Medical Visits Among US Patients Diagnosed With COVID-19 in the Outpatient Setting**

CO-AUTHORS

**Wenhui Wei** – Regeneron Pharmaceuticals, Inc., Tarrytown, NY, USA

**Scott Mellis** – Regeneron Pharmaceuticals, Inc., Tarrytown, NY, USA

**Gregory Geba** – Regeneron Pharmaceuticals, Inc., Tarrytown, NY, USA

**Sumathi Sivapalasingam** – Regeneron Pharmaceuticals, Inc., Tarrytown, NY, USA

PRESENTING AUTHOR

**Jessica Jalbert** – Regeneron Pharmaceuticals, Inc., Tarrytown, NY, USA

Disease Epidemiology/Clinical Course  
**Chronic Diseases, Health Conditions and Risk of COVID-19-Related Hospitalization and in-Hospital Mortality During the First Wave of the Epidemic in France: A Cohort Study of 66 Million People**

PRESENTING AUTHOR

**Laura Semenzato** – EPI-PHARE Scientific Interest Group in Epidemiology of Health Products from the French National Agency for the Safety of Medicines and Health Products and the French National Health Insurance

CO-AUTHORS

**Jérémie Botton** – EPI-PHARE Scientific Interest Group in Epidemiology of Health Products from the French National Agency for the Safety of Medicines and Health Products and the French National Health Insurance

**Jérôme Drouin** – EPI-PHARE Scientific Interest Group in Epidemiology of Health Products from the French National Agency for the Safety of Medicines and Health Products and the French National Health Insurance

**François Cuenot** – EPI-PHARE Scientific Interest Group in Epidemiology of Health Products from the French National Agency for the Safety of Medicines and Health Products and the French National Health Insurance

**Rosemary Dray-Spira** – EPI-PHARE, Epidemiology of Health Products (French National Agency for the Safety of Medicines and Health Products [ANSM], and French National Health Insurance [CNAM]), Saint-Denis, France

**Alain Weill** – French National Health Insurance Fund (Assurance Maladie)

**Mahmoud Zureik** – EPI-PHARE, Epidemiology of Health Products (French National Agency for the Safety of Medicines and Health Products, and French National Health Insurance)

# Program Schedule

Drug Effectiveness

## Convalescent Plasma Therapy and Mortality Among US Veterans Hospitalized with Non-Severe COVID-19: An Observational Analysis Emulating a Target Trial

PRESENTING AUTHOR

**Katherine Kurgansky** – MAVERIC, VA Boston Healthcare System

CO-AUTHORS

**Kelly Cho** – MAVERIC, VA Boston Healthcare System

**Sarah Keithly** – Seattle Epidemiologic Research and Information Center; VA Healthcare System

**Arin Madenci** – Harvard T.H. Chan School of Public Health

**Hanna Gerlovin** – MAVERIC; VA Boston Healthcare System

**Helen Wellman** – MAVERIC; VA Boston Healthcare System

**Annie Doubleday** – Seattle Epidemiologic Research and Information Center; VA Healthcare System

**Eva Thomas** – Seattle Epidemiologic Research and Information Center; VA Healthcare System

**Yojin Park** – MAVERIC; VA Boston Healthcare system

**Yuk-Lam Ho** – VA Boston Healthcare System

**Jonathan Sugimoto** – Seattle Epidemiologic Research and Information Center; VA Healthcare System

**Kathryn Moore** – Seattle Epidemiologic Research and Information Center; VA Healthcare System

**Alexander Peterson** – Seattle Epidemiologic Research and Information Center; VA Healthcare System

**Constance Hoag** – MAVERIC; VA Boston Healthcare System

**Kalpna Gupta** – Veterans Administration Boston Healthcare System

**Karen Jeans** – Department of Veterans Affairs Office of Research and Development

**Molly Klote** – Department of Veterans Affairs Office of Research and Development

**Rachel Ramoni** – Department of Veterans Affairs Office of Research and Development

**Grant Huang** – Department of Veterans Affairs Office of Research and Development

**Juan Casas** – MAVERIC; VA Boston Healthcare System

**David Gagnon** – MAVERIC; VA Boston Healthcare System

**Miguel Hernán** – Departments of Epidemiology and Biostatistics, Harvard T.H. Chan School of Public Health

**Nicholas Smith** – Seattle Epidemiologic Research and Information Center; Department of Veterans Affairs

**J. Michael Gaziano** – MAVERIC; VA Boston Healthcare System

11:45 AM - 1:30 PM

## ORAL SESSIONS / CONCURRENT

### Drug Utilization in Pain and Musculoskeletal Conditions

Drug Utilization Research

#### Utilization of Non-Pharmacologic Pain Therapies Among Primary Care Physicians in the United States: A Cross-Sectional Survey

PRESENTING AUTHOR

**James Heyward** – Johns Hopkins Center for Drug Safety and Effectiveness

CO-AUTHORS

**Kathryn Foti** – Johns Hopkins Center for Drug Safety and Effectiveness

**Matthew Tajanlangit** – Johns Hopkins Center for Drug Safety and Effectiveness

**Kristin Meek** – Johns Hopkins Center for Drug Safety and Effectiveness

**Christopher Jones** – Centers for Disease Control and Prevention

**Andrew Kolodny** – Brandeis University

**G. Caleb Alexander** – Johns Hopkins Center for Drug Safety and Effectiveness

Drug Utilization Research

#### Prevalence of Osteoporosis and Its Treatment Among Women ≥50 in NHANES: 1999-2018

PRESENTING AUTHOR

**Sophie Mayer** – Department of Epidemiology, University of North Carolina at Chapel Hill

CO-AUTHORS

**Leah McGrath** – NoviSci, Inc.

**Min Kim** – Center for Observational Research, Amgen

**Michele McDermott** – Center for Observational Research, Amgen

**M. Alan Brookhart** – NoviSci, Inc.

# Program Schedule

## Drug Utilization Research Serum Vitamin D Levels and Incident Prescription Opioid Use Among Opioid-Naïve Patients

PRESENTING AUTHOR

**Casey Choong** – Department of Epidemiology, Richard M. Fairbanks School of Public Health, Indiana University, Indianapolis, IN

CO-AUTHORS

**Zuoyi Zhang** – Indiana University School of Medicine, Indianapolis, IN

**Yiqing Song** – Department of Epidemiology, Richard M. Fairbanks School of Public Health, Indiana University, Indianapolis, IN

**Brian Dixon** – Department of Epidemiology, IU Fairbanks School of Public Health

**Jiali Han** – Department of Epidemiology, Richard M. Fairbanks School of Public Health, Indiana University, Indianapolis, IN

**Xin Li** – Department of Epidemiology, Richard M. Fairbanks School of Public Health, Indiana University, Indianapolis, IN

## Biologics/Biosimilars Discontinuation Rate of Tofacitinib is Similar When Compared to TNF Inhibitors in Rheumatoid Arthritis Patients: Data from A Rheumatoid Arthritis Cohort

PRESENTING AUTHOR

**Mohammad Movahedi** – Toronto General Hospital Research Institute, Univeristy Health Network, Toronto, ON

CO-AUTHORS

**Angela Cesta** – Toronto General Hospital Research Institute, Univeristy Health Network, Toronto, ON

**Xiuying Li** – Toronto General Hospital Research Institute, Univeristy Health Network, Toronto, ON

**Edward Keystone** – Department of Medicine, University of Toronto, Toronto, ON

**Claire Bombardier** – Toronto General Hospital Research Institute, Univeristy Health Network, Toronto, ON

**OBRI Investigators** - Toronto Genral Hospital Research Institute, University Health Network, Toronto, ON

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# Program Schedule

Drug Utilization Research  
**Primary Care Physicians' Preparedness to Treat Opioid Use Disorder in the United States: A Cross-Sectional Survey**

PRESENTING AUTHOR

**Kathryn Foti** – Johns Hopkins Center for Drug Safety and Effectiveness

CO-AUTHOR

**James Heyward** – Johns Hopkins Center for Drug Safety and Effectiveness

**Matthew Tajanlangit** – Johns Hopkins Center for Drug Safety and Effectiveness

**Kristin Meek** – Johns Hopkins Center for Drug Safety and Effectiveness

**Christopher Jones** – Centers for Disease Control and Prevention

**Andrew Kolodny** – Brandeis University

**G. Caleb Alexander** – Johns Hopkins Center for Drug Safety and Effectiveness

11:45 AM - 1:30 PM

## ORAL SESSIONS / CONCURRENT

### Heterogeneity in Methods

Methods in Pharmacoepidemiology  
**A New Method to Estimate the Total Cohort Size for Patient Recruitment in Self-Controlled Case Series Study**

PRESENTING AUTHOR

**Ling Li** – Pfizer, Inc.

CO-AUTHORS

**Stephen E. Schachterle** – Pfizer, Inc.

**Charles Wentworth** – Pfizer, Inc.

**Heather Rubino** – Pfizer, Inc.

**Ann Madsen** – Pfizer, Inc.

**Xiaofeng Zhou** – Pfizer, Inc.

Methods in Pharmacoepidemiology  
**Sessa Empirical Estimator (SEE): A Data-Driven Method for Predicting the Duration of Pharmacological Prescriptions in Secondary Data Sources.**

PRESENTING AUTHOR

**Maurizio Sessa** – Pharmacovigilance Research Center, Department of Drug Design and Pharmacology, University of Copenhagen

Methods in Pharmacoepidemiology  
**Graphical Representation of an Array of Quantitative Bias Analysis Scenarios for Differential Outcome Misclassification**

PRESENTING AUTHOR

**J. Bradley Layton** – RTI Health Solutions

CO-AUTHORS

**Ryan Ziemiecki** – RTI Health Solutions

**Heather E. Danysh** – RTI Health Solutions

**Charles Gaber** – University of North Carolina at Chapel Hill

**Alicia Gilsean** – RTI Health Solutions

**Catherine Johannes** – RTI Health Solutions

Methods in Pharmacoepidemiology  
**The Performance of Different Strategies to Manage Confounding in Cardinality Matching for Medical Device Epidemiology: A Simulation Study**

PRESENTING AUTHOR

**Mike Du** – University of Oxford

CO-AUTHORS

**Sara Khalid** – University of Oxford

**Daniel Prieto-Alhambra** – Centre for Statistics in Medicine (CSM), Nuffield Department of Orthopaedics, Rheumatology and Musculoskeletal Sciences (NDROMS), University of Oxford, Oxford, UK

**Victoria Strauss** – University of Oxford

Methods in Pharmacoepidemiology  
**Use of Linked Databases for Improved Confounding Control: Considerations for Potential Selection Bias**

PRESENTING AUTHOR

**Jenny Sun** – Harvard Medical School and Harvard Pilgrim Health Care Institute

CO-AUTHOR

**Sengwee Toh** – Harvard Medical School and Harvard Pilgrim Health Care Institute

Methods in Pharmacoepidemiology  
**A Systematic Approach Towards Missing Lab Data in Electronic Health Records: A Case Study in Non-Small Cell Lung Cancer and Multiple Myeloma**

CO-AUTHORS

**Janick Weberpals** – Real World Data Collaborations, Personalized Healthcare Data Science, F. Hoffmann-La Roche, Basel, Switzerland

**Arjun Sondhi** – Flatiron Health, Inc., New York City, NY, USA

**Chengsheng Jiang** – Flatiron Health, Inc., New York City, NY, USA

**Prakirthi Yerram** – Flatiron Health, Inc., New York City, NY, USA

# Program Schedule

**Michael Taylor** – Real World Data Collaborations, Personalized Healthcare Data Science, Genentech Inc., South San Francisco, CA, USA

**Meghna Samant** – Flatiron Health, Inc., New York City, NY, USA

PRESENTING AUTHOR

**Sarah Cherng** – Flatiron Health, Inc., New York City, NY, USA

11:45 AM - 1:30 PM

## ORAL SESSIONS / CONCURRENT

### Pregnancy: Wood for the trees

Pregnancy and Lactation

**Implication of Maternal Continuous Enrollment on Stillbirth Gestational Age Distributions and Maternal Characteristics in Medicaid Enrollees**

PRESENTING AUTHOR

**Thuy Thai** – Department of Pharmaceutical Outcomes and Policy and Center for Drug Evaluation and Safety, College of Pharmacy, University of Florida

CO-AUTHORS

**Sonja Rasmussen** – College of Medicine, University of Florida

**Nicole Smolinski** – Department of Pharmaceutical Outcomes and Policy, College of Pharmacy, University of Florida

**Sabina Nduaguba** – University of Florida

**Yanmin Zhu** – Brigham and Women's Hospital, Division of Pharmacoepidemiology and Pharmacoeconomics

**Brian Bateman** – Brigham and Women's Hospital, Division of Pharmacoepidemiology and Pharmacoeconomics

**Krista Huybrechts** – Brigham and Women's Hospital, Division of Pharmacoepidemiology and Pharmacoeconomics

**Sonia Hernandez-Diaz** – Harvard T.H. Chan School of Public Health

**Almut Winterstein** – Department of Pharmaceutical Outcomes and Policy and Center for Drug Evaluation and Safety, College of Pharmacy, University of Florida

Pregnancy and Lactation

**Feasibility of Using Healthcare Utilization Data to Identify Neurodevelopmental Disorders for Transgenerational Pharmacoepidemiology**

PRESENTING AUTHOR

**Loreen Straub** – Brigham and Women's Hospital, Division of Pharmacoepidemiology and Pharmacoeconomics

CO-AUTHORS

**Brian Bateman** – Brigham and Women's Hospital, Division of Pharmacoepidemiology and Pharmacoeconomics

**Sonia Hernandez-Diaz** – Harvard T.H. Chan School of Public Health

**Elizabeth Suarez** – Brigham and Women's Hospital, Division of Pharmacoepidemiology and Pharmacoeconomics

**Cassandra York** – Brigham and Women's Hospital, Division of Pharmacoepidemiology and Pharmacoeconomics

**Yanmin Zhu** – Brigham and Women's Hospital, Division of Pharmacoepidemiology and Pharmacoeconomics

**Helen Mogun** – Brigham and Women's Hospital, Division of Pharmacoepidemiology and Pharmacoeconomics

**Krista Huybrechts** – Brigham and Women's Hospital, Division of Pharmacoepidemiology and Pharmacoeconomics

Pregnancy and Lactation

**Validating an Optimized Live Birth Gestational Age Algorithm in a Nationwide Medicaid Sample and Quantifying the Misclassification of Exposure due to Estimated Gestational Age**

PRESENTING AUTHOR

**Yanmin Zhu** – Brigham and Women's Hospital, Division of Pharmacoepidemiology and Pharmacoeconomics

CO-AUTHORS

**Thuy Thai** – Department of Pharmaceutical Outcomes and Policy and Center for Drug Evaluation and Safety, College of Pharmacy, University of Florida

**Brian Bateman** – Brigham and Women's Hospital, Division of Pharmacoepidemiology and Pharmacoeconomics

**Sonia Hernandez-Diaz** – Harvard T.H. Chan School of Public Health

**Loreen Straub** – Brigham and Women's Hospital, Division of Pharmacoepidemiology and Pharmacoeconomics

**Jessica Franklin** – Optum

**Kathryn Gray** – Division of Maternal-Fetal Medicine, Department of Obstetrics and Gynecology, Brigham and Women's Hospital and Harvard Medical School

**Almut Winterstein** – Department of Pharmaceutical Outcomes and Policy and Center for Drug Evaluation and Safety, College of Pharmacy, University of Florida

**Lockwood Taylor** – Center for Drug Evaluation and Research, United States Food and Drug Administration

**Rita Ouellet-Hellstrom** – Center for Drug Evaluation and Research, United States Food and Drug Administration

**Yong Ma** – Center for Drug Evaluation and Research, United States Food and Drug Administration

**Yandong Qiang** – Center for Drug Evaluation and Research, United States Food and Drug Administration

**Wei Hua** – Center for Drug Evaluation and Research, United States Food and Drug Administration

**Krista Huybrechts** – Brigham and Women's Hospital, Division of Pharmacoepidemiology and Pharmacoeconomics

# Program Schedule

Pregnancy and Lactation

## Statistical Power for Use of Tree-Based Scan Statistics for Surveillance of Infant Outcomes Following Maternal Perinatal Medication Use

PRESENTING AUTHOR

**Elizabeth Suarez** - Brigham and Women's Hospital, Division of Pharmacoepidemiology and Pharmacoeconomics

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**Michael Nguyen** - Office of Surveillance and Epidemiology, Center for Drug Evaluation and Research, US Food and Drug Administration, Silver Spring, MD, USA

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**Yueqin Zhao** - Office of Biostatistics, Center for Drug Evaluation and Research, FDA, Silver Spring, MD, USA

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**Monica Munoz** - Division of Pharmacovigilance, Center for Drug Evaluation and Research, US Food and Drug Administration; Silver Spring, MD, USA

**Jane Liedtka** - Division of Pediatric and Maternal Health, Center for Drug and Evaluation Research, US Food and Drug Administration, Silver Spring, MD, USA

**Abby Anderson** - Division of Urology, Obstetrics and Gynecology, Center for Drug and Evaluation Research, US Food and Drug Administration, Silver Spring, MD, USA

**Wei Liu** - Division of Epidemiology, Center for Drug and Evaluation Research, US Food and Drug Administration, Silver Spring, MD

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**Talia Menzin** - Department of Population Medicine, Harvard Pilgrim Health Care Institute and Harvard Medical School, Boston, MA, USA

**Jennifer Noble** - Department of Population Medicine, Harvard Pilgrim Health Care Institute and Harvard Medical School, Boston, MA, USA

**Judith Maro** - Department of Population Medicine, Harvard Pilgrim Health Care Institute and Harvard Medical School, Boston, MA, USA

Pregnancy and Lactation

## Use of Tree-Based Scan Statistics for Surveillance of Infant Outcomes Following Maternal Perinatal Medication Use: A Propensity Score Matched Case Study

PRESENTING AUTHOR

**Elizabeth Suarez** - Brigham and Women's Hospital, Division of Pharmacoepidemiology and Pharmacoeconomics

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**Wei Liu** - Division of Epidemiology, Center for Drug and Evaluation Research, US Food and Drug Administration, Silver Spring, MD, USA

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**Talia Menzin** - Department of Population Medicine, Harvard Pilgrim Health Care Institute and Harvard Medical School, Boston, MA, USA

**Jennifer Noble** - Department of Population Medicine, Harvard Pilgrim Health Care Institute and Harvard Medical School, Boston, MA, USA

**Judith Maro** - Department of Population Medicine, Harvard Pilgrim Health Care Institute and Harvard Medical School, Boston, MA, USA

# Program Schedule

Pregnancy and Lactation

## Fertility Rates in Women with Psoriasis and Psoriatic Arthritis: A Population-Based Cohort Study

PRESENTING AUTHOR

**Teng-Chou Chen** – Centre for Pharmacoepidemiology and Drug Safety, Division of Pharmacy and Optometry, School of Health Sciences, Faculty of Biology, Medicine and Health, University of Manchester, UK

CO-AUTHORS

**Ireny Iskandar** – Centre for Occupational and Environmental Health, Division of Population Health, Health Services Research and Primary Care, School of Health Sciences, Faculty of Biology, Medicine and Health, University of Manchester, UK

**Rosa Parisi** – Division of Informatics, Imaging and Data Sciences, Manchester Academic Health Sciences Centre, School of Health Sciences, Faculty of Biology, Medicine and Health, University of Manchester, UK

**Matthias Pierce** – Centre for Women's Mental Health, University of Manchester, UK

**Elise Kleyn** – Centre for Dermatology Research, Manchester Academic Health Science Centre, NIHR Manchester Biomedical Research Centre, Division of Musculoskeletal and Dermatological Sciences, University of Manchester, UK

**Christopher Griffiths** – Dermatology Centre, Salford Royal NHS Foundation Trust, Manchester Academic Health Science Centre, University of Manchester, UK

**Darren Ashcroft** – Centre for Pharmacoepidemiology and Drug Safety, Division of Pharmacy and Optometry, School of Health Sciences, University of Manchester, Manchester, UK

Pediatric Pharmacoepidemiology

## Filled Prescriptions for Opioids Among Children and Adolescents – A Nationwide Study from 2010 to 2018

PRESENTING AUTHOR

**Aleksi Hamina** – University of Oslo

CO-AUTHORS

**Marte Handal** – Department of Mental Disorders, Norwegian Institute of Public Health, Oslo, Norway

**Olav Fredheim** – Norwegian University of Science and Technology

**Thomas Clausen** – University of Oslo

**Li-Chia Chen** – Centre for Pharmacoepidemiology and Drug Safety, Division of Pharmacy and Optometry, School of Health Sciences, Faculty of Biology, Medicine and Health, University of Manchester

**Svetlana Skurtveit** – Department of Mental Disorders, Norwegian Institute of Public Health, Oslo, Norway

Drug Utilization Research

## Trends and Outcomes of Serious Complications Associated with Non-Fatal Opioid Overdoses in Ontario, Canada

PRESENTING AUTHOR

**Sophie Kitchen** – Unity Health Toronto

CO-AUTHORS

**Daniel McCormack** – ICES

**Daniel Werb** – Unity Health Toronto

**Alexander Caudarella** – Unity Health Toronto

**Diana Martins** – Unity Health Toronto

**Flora Matheson** – Unity Health Toronto

**Tara Gomes** – Unity Health Toronto

1:45 – 3:30 PM

## ORAL SESSIONS / CONCURRENT

### Opioids:

### A Globally Trending Topic

Drug Utilization Research

## Trends in Long-Term Use of Prescribed Opioids in Norway 2010-2019

PRESENTING AUTHOR

**Ingvild Odsbu** – Department of Mental Disorders, Norwegian Institute of Public Health, Oslo, Norway

CO-AUTHORS

**Marte Handal** – Department of Mental Disorders, Norwegian Institute of Public Health, Oslo, Norway

**Vidar Hjellvik** – Department of Chronic Diseases and Ageing, Norwegian Institute of Public Health, Oslo, Norway

**Svetlana Skurtveit** – Department of Mental Disorders, Norwegian Institute of Public Health, Oslo, Norway



# Program Schedule

Drug Utilization Research

## Geographic Variation in the Use of Gabapentinoids and Opioids for Pain in a Commercially Insured Population in the United States

PRESENTING AUTHOR

**Danni Zhao** – Division of Epidemiology, Department of Population and Quantitative Health Sciences, University of Massachusetts Medical School

CO-AUTHORS

**Jonggyu Baek** – Division of Biostatistics and Health Services Research, Department of Population and Quantitative Health Sciences, University of Massachusetts Medical School

**Anne Hume** – University of Rhode Island

**Anthony Nunes** – Division of Epidemiology, Department of Population and Quantitative Health Services, University of Massachusetts Medical School

**Matthew Alcusky** – Division of Epidemiology, Department of Population and Quantitative Health Services, University of Massachusetts Medical School

**Kate Lapane** – Division of Epidemiology, Department of Population and Quantitative Health Services, University of Massachusetts Medical School

Drug Utilization Research

## Trajectories of Pregabalin Use and Their Association with Longitudinal Changes in Opioid and Benzodiazepine Daily Dose

PRESENTING AUTHOR

**Andrea Schaffer** – Centre for Big Data Research in Health, UNSW Sydney

CO-AUTHORS

**Jonathan Brett** – Centre for Big Data Research in Health, University of New South Wales

**Nicholas Buckley** – Biomedical Informatics and Digital Health, University of Sydney

**Sallie-Anne Pearson** – Centre for Big Data Research in Health, University of New South Wales

Drug Utilization Research

## Prior Opioid Tolerance Among New Users of Transdermal Fentanyl in Taiwan, 2011-2018

PRESENTING AUTHOR

**Chih-Wan Lin**

CO-AUTHORS

**Yu-Chun Chiu** – Taiwan Drug Relief Foundation, Taipei, Taiwan

**Wei-I Huang** – Taiwan Drug Relief Foundation, Taipei, Taiwan

**Pi-Hui Chao** – Taiwan Drug Relief Foundation, Taipei, Taiwan

**Wen-Wen Chen** – Taiwan Drug Relief Foundation, Taipei, Taiwan

**Fei-Yuan Hsiao** – Graduate Institute of Clinical Pharmacy, National Taiwan University, Taipei, Taiwan

1:45 - 3:30 PM

ORAL SESSIONS / CONCURRENT

## Pregnancy: Pick-n-mix

Pregnancy and Lactation

## Prescription Medication Use and Baseline Health Status of Women with Live Birth Deliveries in a National Data Network: The Sentinel Distributed Database Mother-Infant Linkage Table

PRESENTING AUTHOR

**Elizabeth Suarez** – Brigham and Women's Hospital, Division of Pharmacoepidemiology and Pharmacoeconomics

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**Catherine Corey** – Office of Surveillance and Epidemiology, Center for Drug Evaluation and Research, U.S. Food and Drug Administration, Silver Spring, MD, USA

Pregnancy and Lactation

## Increasing Prescriptions of Misoprostol Dispensed Before Delivery in Belgium (2003-2017): Evidence from Healthcare Administrative Database

PRESENTING AUTHOR

**Lionel Larcin** – Centre de recherche Epidémiologie, Biostatistiques, Recherche Clinique, School of Public Health, Université Libre de Bruxelles (U.L.B.), Bruxelles, Belgium

CO-AUTHORS

**Murielle Lona** – Agence Intermutualiste (IMA), Bruxelles, Belgium

**Güngör Karakaya** – Agence Intermutualiste (IMA), Bruxelles, Belgium

**Christine Damase-Michel** – Université de Toulouse, UPS, CHU Toulouse, INSERM, CERPOP: SPHERE, CIC 1436, Toulouse

**Fati Kirakoya-Samadoulougou** – Centre de Recherche Epidémiologie, Biostatistiques, Recherche Clinique, School of Public Health, Université Libre de Bruxelles (U.L.B.), Bruxelles, Belgium

# Program Schedule

## Pregnancy and Lactation Effects of Gadolinium-Enhanced MRI Exposure During Pregnancy on Neonatal Intensive Care Unit Admission

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**Thuy Thai** – Department of Pharmaceutical Outcomes and Policy and Center for Drug Evaluation and Safety, College of Pharmacy, University of Florida

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**Nicole Smolinski** – Department of Pharmaceutical Outcomes and Policy, College of Pharmacy, University of Florida

**Xi Wang** – Department of Pharmaceutical Outcomes and Policy, College of Pharmacy, University of Florida

**Leyla Sahin** – US Food and Drug Administration

**Kate Gelperin** – Division of Epidemiology, Office of Pharmacovigilance and Epidemiology, Food and Drug Administration

**Steven Bird** – Division of Epidemiology, Office of Pharmacovigilance and Epidemiology, Food and Drug Administration

**Ira Krefting** – Division of Imaging and Radiation Medicine, Office of New Drugs, Food and Drug Administration

**Sonja Rasmussen** – College of Medicine, University of Florida

**Almut Winterstein** – Department of Pharmaceutical Outcomes and Policy and Center for Drug Evaluation and Safety, College of Pharmacy, University of Florida

## Pregnancy and Lactation Proton Pump Inhibitors in Pregnancy and Risk of Preeclampsia: A Nationwide Cohort Study of 1.9 Million Pregnancies

PRESENTING AUTHOR

**Ahhyung Choi** – School of Pharmacy, Sungkyunkwan University

CO-AUTHORS

**Yunha Noh** – School of Pharmacy, Sungkyunkwan University

**So-Hee Park** – School of Pharmacy, Sungkyunkwan University

**Seung-Ah Choe** – Department of Preventive Medicine, Korea University College of Medicine

**Ju-Young Shin** – School of Pharmacy, Sungkyunkwan University (SKKU)

## Pregnancy and Lactation Validity of ICD-10 Z3A Codes for Estimating Date of Last Menstrual Period

PRESENTING AUTHOR

**Andrea Chomistek** – Optum

CO-AUTHORS

**Kelesitse Phiri** – GlaxoSmithKline

**Jenna Calderbank** – Optum

**Michael Doherty** – Optum

**Stephanie Chiuve** – AbbVie

**Brenda Hinman-McIlroy** – AbbVie

**Michael Snabes** – AbbVie, Inc.

**John Seeger** – Epidemiology, Optum, Boston, MA, USA

## Pregnancy and Lactation COVID-19 Pharmacotherapy During Pregnancy: International Registry of Coronavirus Exposure in Pregnancy (IRCEP)

PRESENTING AUTHOR

**Sonia Hernandez-Diaz** – Harvard T.H. Chan School of Public Health

CO-AUTHORS

**Louisa Smith** – Harvard TH Chan School of Public Health

**Diego Wyszynski** – Registry

1:45 - 3:30 PM

ORAL SESSIONS / CONCURRENT

## The Aging Heart

Benefit-Risk Assessment, Communication, and Evaluation (BRACE)

## Risk of Myocardial Infarction, Stroke or Death in New Users of Intravitreal Aflibercept vs New Users of Intravitreal Ranibizumab: A Nationwide Cohort Study

PRESENTING AUTHOR

**Sophie Billioti de Gage** – EPI-PHARE, Epidemiology of Health Products (French National Agency for the Safety of Medicines and Health Products, and French National Health Insurance)

CO-AUTHORS

**Marion Bertrand** – EPI-PHARE, Epidemiology of Health Products (French National Agency for the Safety of Medicines and Health Products, and French National Health Insurance)

**Mahmoud Zureik** – EPI-PHARE, Epidemiology of Health Products (French National Agency for the Safety of Medicines and Health Products, and French National Health Insurance)

# Program Schedule

Geriatric Pharmacoepidemiology  
**Statin Discontinuation and Risk of Cardiovascular Events in Older People: A Population-Based Cohort Study in Denmark**

PRESENTING AUTHOR

Wade Thompson – University of Southern Denmark

CO-AUTHORS

Lucas Morin – Inserm CIC 1431, Clinical Investigation Unit, University Hospital of Besançon

Dorte Ejg Jarbøl – University of Southern Denmark

Jacob Andersen – University of Southern Denmark

Martin Ernst – University of Southern Denmark

Jesper Nielsen – University of Southern Denmark

Peter Haastrup – University of Southern Denmark

Morten Schmidt – Aarhus University Hospital

Anton Pottegård – University of Southern Denmark

Geriatric Pharmacoepidemiology  
**Assessment of Co-Medication Quality in Older Colorectal Cancer Patients at Hospital Discharge After Tumor Surgery and Its Associations with Chemotherapy-Related Adverse Drug Reactions and 5-Year Survival**

PRESENTING AUTHOR

Li-Ju Chen – Division of Clinical Epidemiology and Aging Research, German Cancer Research Center (DKFZ)

CO-AUTHOR

Ben Schöttker – Division of Clinical Epidemiology and Aging Research, German Cancer Research Center (DKFZ)

Geriatric Pharmacoepidemiology  
**Comparative Risk of Cardiac Arrhythmias Associated with Acetylcholinesterase Inhibitor Use**

PRESENTING AUTHOR

Yichang Huang – University of Waterloo, School of Pharmacy

CO-AUTHORS

John-Michael Gamble – School of Pharmacy, University of Waterloo

David Juurlink – Department of Medicine, University of Toronto

Mhd. Wasem Alsabbagh – School of Pharmacy, University of Waterloo

Geriatric Pharmacoepidemiology  
**Risk of Cardiotoxicity Associated with Fluoropyrimidine-Based Chemotherapy Among Older Colorectal Cancer Patients: A New User Cohort Study**

PRESENTING AUTHOR

Chao Li – Auburn University

CO-AUTHORS

Chiahung Chou – Auburn University

Surachat Ngorsuraches – Auburn University

Li Chen – Indiana University

Jingjing Qian – Auburn University

1:45 - 3:30 PM

ORAL SESSIONS / CONCURRENT

**Trials and Errors**

Methods in Pharmacoepidemiology  
**Using Randomized Trial Data to Estimate Effects of Complex Treatment Regimens in Real-World Patients**

PRESENTING AUTHOR

Michael Webster-Clark – University of North Carolina at Chapel Hill

CO-AUTHORS

Jennifer Lund – Department of Epidemiology, University of North Carolina at Chapel Hill

Hanna Sanoff – University of North Carolina at Chapel Hill  
 Department of Medicine

Til Stürmer – Department of Epidemiology, University of North Carolina at Chapel Hill

Daniel Westreich – University of North Carolina at Chapel Hill

Alexander Keil – University of North Carolina at Chapel Hill

Methods in Pharmacoepidemiology  
**A Plasmode Simulation of Covariate Misclassification and Transportability**

PRESENTING AUTHOR

Michael Webster-Clark – University of North Carolina at Chapel Hill

CO-AUTHOR

Jessie Edwards – Department of Epidemiology, University of North Carolina at Chapel Hill

# Program Schedule

Methods in Pharmacoepidemiology  
**The Effect of the Anticholinergic Properties of Antidepressants on the Incidence of Dementia: A Target Trial Emulation**

PRESENTING AUTHOR

Joan Forns – RTI Health Solutions

CO-AUTHORS

Jaume Aguado – RTI Health Solutions

Elena Rivero-Ferrer – RTI Health Solutions

Estel Plana – RTI Health Solutions

Barbra Dickerman – Harvard T.H. Chan School of Public Health

Xabier Garcia de Albeniz – RTI Health Solutions

Methods in Pharmacoepidemiology  
**Stable Balancing Weights for Unanchored Matching-Adjusted Indirect Comparisons and Targeting External Control Arm Estimands**

PRESENTING AUTHOR

Stephen Johnston – Johnson & Johnson

CO-AUTHORS

Harikumar Dwarakanathan – Mu Sigma

Jason Waggoner – Johnson & Johnson

Michael Schwiers – Johnson & Johnson

Sanjoy Roy – Johnson & Johnson

Paul Coplan – Johnson & Johnson

Methods in Pharmacoepidemiology  
**Linear Mixed Model and Multistate Markov Model to Compare Changes in Clinical Measurements Over Time. A Blood Pressure Example.**

CO-AUTHORS

Arthur Allignol - Merck KGaA, Darmstadt, Germany

Emmanuelle Boutmy - Merck KGaA Darmstadt, Germany

Thilo hohenberger - Merck KGaA, Darmstadt, Germany

Ulrike Hostalek - Merck KGaA, Darmstadt, Germany

PRESENTING AUTHOR

Caroline Foch - Merck KGaA Darmstadt, Germany

Methods in Pharmacoepidemiology  
**Rank-Based Weighting for Balancing on Median Baseline Characteristics in Matching Adjusted Indirect Comparisons (MAIC)**

PRESENTING AUTHOR

Shirley Liao – Biogen

CO-AUTHORS

Carl de Moor – Biogen

Angela D Paradis – Biogen

Justin Bohn – Biogen

Changyu Shen – Biogen

Gabrielle Simoneau – Biogen

Fabio Pellegrini – Biogen

1:45 - 3:30 PM

ORAL SESSIONS / CONCURRENT

Vaccines

Vaccines

**Evaluation of the Potential Confounding Effect of Shingles on the Risk of Guillain-Barré Syndrome After Vaccination with the Recombinant Zoster Vaccine**

PRESENTING AUTHOR

Francois Haguinet – GSK

CO-AUTHORS

Paola Pirrotta – GSK

Vincent Bauchau – GSK

# Program Schedule

Vaccines

## Sensitivity Analysis of Design Choices for Estimating Incidence Rates of Adverse Events of Special Interest in Vaccine Safety

PRESENTING AUTHOR

**Anna Ostropelets** – Department of Biomedical Informatics, Columbia University Irving Medical Center

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**Rupa Makadia** – Janssen Research and Development

**Gowtham Rao** – Janssen Research and Development

**Martijn Schuemie** – Janssen Research and Development

**Anthony Sena** – Janssen Research and Development

**Azza Shoaibi** – Janssen Research and Development

**Talita Duarte-Salles** – Fundació Institut Universitari per a la recerca a l'Atenció Primària de Salut Jordi Gol i Gurina (IDIAPJGol)

**Patrick Ryan** – Janssen Research & Development

**Daniel Prieto-Alhambra** – Centre for Statistics in Medicine (CSM), Nuffield Department of Orthopaedics, Rheumatology and Musculoskeletal Sciences (NDROMS), University of Oxford, Oxford, UK

**George Hripcsak** – Department of Biomedical Informatics, Columbia University Irving Medical Center

Vaccines

## Effectiveness of Influenza Vaccination in Healthy Children: A Population-Based Investigation

PRESENTING AUTHOR

**Anna Cantarutti** – Unit of Biostatistics, Epidemiology and Public Health, Department of Statistics and Quantitative Methods, University of Milano-Bicocca, Milan, Italy

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**Elisa Barbieri** – Division of Paediatric Infectious Diseases - Department for Woman and Child's Health – University of Padua

**Fabio Didone'** – Department of Statistics and Quantitative Methods, Division of Biostatistics, Epidemiology and Public Health, University of Milano-Bicocca, Milan, Italy

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- Survey Research
- External Control Arms for Clinical Trials

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# Program Schedule

**Giovanni Corrao** – *Unit of Biostatistics, Epidemiology and Public Health, Department of Statistics and Quantitative Methods, University of Milano-Bicocca, Milan, Italy*

**Carlo Giaquinto** – *Division of Pediatric Infectious Diseases, Department for Woman and Child Health, University of Padua, Padua, Italy*

Vaccines

## Background Incidence Rates of Adverse Events of Special Interest for COVID-19 Vaccine Monitoring

PRESENTING AUTHOR

**Corinne Willame** – *Department Datascience & Biostatistics, University Medical Center Utrecht*

CO-AUTHORS

**Rosa Gini** – *Agenzia regionale di sanità della Toscana, Osservatorio di epidemiologia, Florence, Italy*

**Ainara Mira-Iglesias** – *Fisabio*

**Tania Schink** – *Leibniz Institute for Prevention Research and Epidemiology – BIPS GmbH*

**Patrick Souverein** – *Division of Pharmacoepidemiology and Clinical Pharmacology, Utrecht Institute for Pharmaceutical Sciences, Utrecht University*

**Lei Wang** – *Aarhus*

**Elisa Barbieri** – *Division of Paediatric Infectious Diseases - Department for Woman and Child's Health - University of Padua*

**Claudia Bartolini** – *Agenzia Regionale di Sanità della Toscana*

**Olga Paoletti** – *Agenzia Regionale di Sanità della Toscana*

**Nicolas Thurin** – *Univ. Bordeaux, INSERM CIC-P 1401, Bordeaux PharmacoEpi, Bordeaux*

**Luca Stona** – *Penta Foundation*

**Carlos Vergara-Hernández** – *Fisabio*

**Vera Ehrenstein** – *Department Of Clinical Epidemiology, Aarhus University, Aarhus, Denmark*

**Mar Martin** – *aemps*

**Airam de Burgos** – *aemps*

**Reimar Thomsen** – *Department of Clinical Epidemiology, Aarhus University, Aarhus, Denmark*

**Maria Aragon** – *Fundació Institut Universitari per a la Recerca a l'Atenció Primària de Salut Jordi Gol i Gurina (IDIAPJGol), Barcelona, Spain*

**Felipe Villalobos** – *Fundació Institut Universitari per a la recerca a l'Atenció Primària de Salut Jordi Gol i Gurina (IDIAPJGol), Barcelona, Spain*

**Meritxell Pallejà-Millán** – *Fundació Institut Universitari per a la recerca a l'Atenció Primària de Salut Jordi Gol i Gurina (IDIAPJGol), Barcelona, Spain*

**Bonaventura Bolibar** – *Fundació Institut Universitari per a la Recerca a l'Atenció Primària de Salut Jordi Gol i Gurina (IDIAPJGol), Barcelona, Spain*

**Olaf Klungel** – *President, International Society for Pharmacoepidemiology*

**Daniel Weibel** – *Department Datascience & Biostatistics, University Medical Center Utrecht*

**Miriam Sturkenboom** – *Department Datascience & Biostatistics, University Medical Center Utrecht*

Vaccines

## Vaccination and Acute Flares in Multiple Sclerosis: A Nationwide Case-Crossover Study Using the French SNDS Health Care Databases

PRESENTING AUTHOR

**Lamiae Grimaldi-Bensouda** – *APHP Paris-Saclay University*

CO-AUTHORS

**Yann Hamon** – *Re-Meds France*

**Philippe Attias** – *Re-Meds France*

**Tom Duchemin** – *Re-Meds France*

**Lucien Abenheim** – *London School of Hygiene & Tropical Medicine*

**Yola Moride** – *Faculty of Pharmacy, Université de Montréal, Montreal, QC, Canada*

3:30 - 5:00 PM

## WORKSHOP / CONCURRENT

### COVID-19 Confidential: Enabling Trust In COVID-19 Research with Fit for Purpose Real-World Data

Methods in Pharmacoepidemiology

PRESENTERS

**Nicolle Gatto** – *Aetion, Inc.*

**Jessica Franklin** – *Optum*

**Elizabeth Garry** – *Aetion, Inc.*

**David Martin** – *Moderna*

**Aloka Chakravarty** – *Food and Drug Administration*

**Jeremy Rassen** – *Aetion, Inc.*

# Program Schedule

3:30 - 5:00 PM

## WORKSHOP / CONCURRENT

### Drug Utilization Research in Africa: Challenges and Potential Solutions

Drug Utilization Research

#### PRESENTERS

**Maribel Salas** – Clinical Safety and Pharmacovigilance, Daiichi Sankyo Inc Basking Ridge, NJ and CCEB/CPeRT, University of Pennsylvania Perelman School of Medicine

**Johanita Burger** – Medicine Usage in South Africa (MUSA), North-West University

**Laura Horne** – Clinical Safety and Pharmacovigilance, Daiichi Sankyo Inc Basking Ridge

**Johanna Meyer** – Division of Public Health Pharmacy and Management, School of Pharmacy, Sefako Makgatho Health Sciences University

**Ilse Truter** – Nelson Mandela University

Disease Epidemiology/Clinical Course

### Comparing Outcomes in Trial-Eligible vs Real-World COVID-19 Patients: The Case of Invasive Mechanical Ventilation

#### PRESENTING AUTHOR

**Ashley Martinez** – Department of Population Medicine, Harvard Medical School and Harvard Pilgrim Health Care Institute

#### CO-AUTHORS

**Silvia Perez-Vilar** – Office of Surveillance and Epidemiology, Center for Drug Evaluation and Research, US Food and Drug Administration

**Mayura Shinde** – Department of Population Medicine, Harvard Medical School and Harvard Pilgrim Health Care Institute

**Maria Kempner** – Department of Population Medicine, Harvard Medical School and Harvard Pilgrim Health Care Institute

**Joy Kolonoski** – Department of Population Medicine, Harvard Medical School and Harvard Pilgrim Health Care Institute

**Sarah Dutcher** – Office of Surveillance and Epidemiology, Center for Drug Evaluation and Research, US Food and Drug Administration

**Brian Kit** – Office of Surveillance and Epidemiology, Center for Drug Evaluation and Research, US Food and Drug Administration

3:30 - 5:00 PM

## WORKSHOP / CONCURRENT

### Triangulating the Truth: State-of-the-Art Sensitivity Analyses for Observational Research

Methods in Pharmacoepidemiology

#### PRESENTERS

**Marianne Cunningham** – Glaxosmithkline

**Ian Douglas** – London School of Hygiene & Tropical Medicine

**Jeremy Brown** – London School of Hygiene and Tropical Medicine

**Sonia Hernandez-Diaz** – Harvard T.H. Chan School of Public Health

**Daina Esposito** – Boston University School of Public Health

**Wilhelmine Meerhaus** – Glaxosmithkline

Disease Epidemiology/Clinical Course

### Outpatient-Identified COVID-19 and Subsequent Hospitalized Thrombotic Events

#### PRESENTING AUTHOR

**Silvia Perez-Vilar** – Office of Surveillance and Epidemiology, Center for Drug Evaluation and Research, US Food and Drug Administration

#### CO-AUTHORS

**Ashley Martinez** – Department of Population Medicine, Harvard Medical School and Harvard Pilgrim Health Care Institute

**Mayura Shinde** – Department of Population Medicine, Harvard Medical School and Harvard Pilgrim Health Care Institute

**Maria Kempner** – Department of Population Medicine, Harvard Medical School and Harvard Pilgrim Health Care Institute

**Joy Kolonoski** – Department of Population Medicine, Harvard Medical School and Harvard Pilgrim Health Care Institute

**Sarah Dutcher** – Office of Surveillance and Epidemiology, Center for Drug Evaluation and Research, US Food and Drug Administration

**Brian Kit** – Office of Surveillance and Epidemiology, Center for Drug Evaluation and Research, US Food and Drug Administration

5:30 - 6:30 PM

## LIGHTNING SESSION 1

Disease Epidemiology/Clinical Course

### Use of Remdesivir for COVID-19 in the Real World: An Analysis of US Electronic Medical Records

#### PRESENTING AUTHOR

**Julius Asubonteng** – Gilead Science, Inc.

#### CO-AUTHORS

**Sara Haredasht** – Gilead Science, Inc.

**Seth Kuranz** – Trinetx, Inc.

**Anand Chokkalingam** – Gilead Science, Inc.

# Program Schedule

## Disease Epidemiology/Clinical Course Patients Tell All: Using a Direct-to-Patient Community Registry to Understand Patient Burden of COVID-19

PRESENTING AUTHOR

Emma Brinkley – IQVIA

CO-AUTHORS

Christina Mack – IQVIA

Natalia Petruski-Ivleva – IQVIA

Matthew Reynolds – IQVIA

Alison Bourke – IQVIA

Kalyani Hawaldar – IQVIA

Nancy Dreyer – IQVIA

## Methods in Pharmacoepidemiology Marginal Structural Models with Latent Class Growth Modeling of Time-varying Treatment

CO-AUTHORS

Awa Diop – Department of Social and Preventive Medicine, Laval University

Denis Talbot – Department of Social and Preventive Medicine, Laval University

PRESENTING AUTHOR

Caroline Sirois – Faculty of pharmacy, Laval University

## Methods in Pharmacoepidemiology Residual Bias and Indirect Covariate Balance in an Applied Comparison of Large-Scale Propensity Score and Cardinality Matching

PRESENTING AUTHOR

Stephen Fortin – Janssen, Research and Development

CO-AUTHORS

Stephen Johnston – Johnson & Johnson

Martijn Schuemie – Janssen Research and Development

## Methods in Pharmacoepidemiology Characterizing Imbalance in the Tails of the Propensity Score Distribution

PRESENTING AUTHOR

Bethany DiPrete – Injury Prevention Research Center, University of North Carolina at Chapel Hill

CO-AUTHORS

Cynthia Girman – CERobs Consulting, LLC

Panagiotis Mavros – Janssen Pharmaceutical Companies of J&J

Alexander Breskin – Novartis Inc.

M. Alan Brookhart – Novartis, Inc.

## Methods in Pharmacoepidemiology High-Dimensional Propensity Score Approaches in Stata Using the Hdps Suite of Commands

PRESENTING AUTHOR

John Tazare – London School of Hygiene & Tropical Medicine

CO-AUTHORS

Liam Smeeth – London School of Hygiene & Tropical Medicine

Stephen Evans – London School of Hygiene & Tropical Medicine

Ian Douglas – London School of Hygiene & Tropical Medicine

Elizabeth Williamson – London School of Hygiene & Tropical Medicine

## Drug Utilization Research Patterns of Antibiotic Prescription Among Adult Outpatients in Italy

PRESENTING AUTHOR

Federica Galimberti – Department of Pharmacological and Biomolecular Sciences, Epidemiology and Preventive Pharmacology Service (SEFAP), University of Milan, via Balzaretti 9, 20133, Milan, Italy

CO-AUTHORS

Elena Olmastroni – Department of Pharmacological and Biomolecular Sciences, Epidemiology and Preventive Pharmacology Service (SEFAP), University of Milan, via Balzaretti 9, 20133, Milan, Italy

Francesco Casizzi – Department of Pharmacological and Biomolecular Sciences, Epidemiology and Preventive Pharmacology Service (SEFAP), University of Milan, via Balzaretti 9, 20133, Milan, Italy

Manuela Casula – Department of Pharmacological and Biomolecular Sciences, Epidemiology and Preventive Pharmacology Service (SEFAP), University of Milan, via Balzaretti 9, 20133, Milan, Italy

Alberico Catapano – Department of Pharmacological and Biomolecular Sciences, Epidemiology and Preventive Pharmacology Service (SEFAP), University of Milan, via Balzaretti 9, 20133, Milan, Italy

Elena Tragni – Department of Pharmacological and Biomolecular Sciences, Epidemiology and Preventive Pharmacology Service (SEFAP), University of Milan, via Balzaretti 9, 20133, Milan, Italy

# Program Schedule

Drug Utilization Research  
**Determinants of Antimalarial Prescription Patterns Among Health Care Providers in Public Health Facilities in Uasin Gishu County, Kenya**

PRESENTING AUTHOR

**Henry Amdany** – *Moi university*

CO-AUTHORS

**Wendy O'Meara** – *Moi university*

**Gabriel kigen** – *Moi university*

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Drug Utilization Research  
**Co-Utilization of Opioids and Non-Benzodiazepine Sedative Hypnotics in U.S. Ambulatory Care Visits, 2006-2016**

PRESENTING AUTHOR

**Razanne Oueini** – *Department of Pharmaceutical Outcomes and Policy, College of Pharmacy, University of Florida*

CO-AUTHORS

**Juan Hincapie-Castillo** – *Department of Pharmaceutical Outcomes and Policy, College of Pharmacy, University of Florida*

**Scott Vouri** – *Department of Pharmaceutical Outcomes and Policy, College of Pharmacy, University of Florida*

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Drug Utilization Research  
**Early Uptake of New Molecular Entities Approved in 2017 in a Multisite National US Healthcare Data Network**

PRESENTING AUTHOR

**Sruthi Adimadhyam** – *Department of Population Medicine, Harvard Medical School and Harvard Pilgrim Health Care Institute*

CO-AUTHORS

**Andrew Simon** – *Department of Population Medicine, Harvard Medical School and Harvard Pilgrim Health Care Institute*

**Catherine Corey** – *Office of Surveillance and Epidemiology, Center for Drug Evaluation and Research, U.S. Food and Drug Administration*

**Michael Nguyen** – *Office of Surveillance and Epidemiology, Center for Drug Evaluation and Research, US Food and Drug Administration, Silver Spring, MD*

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Drug Effectiveness  
**Comparative Effectiveness of Bevacizumab vs Cetuximab in Patients with Metastatic Colorectal Cancer**

PRESENTING AUTHOR

**Yi-Chia Su** – *Department of Pharmacy, Kaohsiung Veterans General Hospital*

CO-AUTHORS

**Yea-Huei Kao Yang** – *Clinical Pharmacy and Pharmaceutical Sciences, National Cheng Kung University, Tainan, Taiwan*

**Chih-Chien Wu** – *Division of Colorectal Surgery, Department of Surgery, Kaohsiung Veterans General Hospital*

**Chien-Chou Su** – *Institute of Clinical Pharmacy and Pharmaceutical Sciences, College of Medicine, National Cheng Kung University*

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Drug Effectiveness  
**Efficacy-Effectiveness Gap for Standard First-Line Treatment of Metastatic Non-Small Cell Lung Cancer Among Patients with Barriers to Care**

PRESENTING AUTHOR

**Rohit Ojha** – *JPS Center for Outcomes Research*

CO-AUTHORS

**Yan Lu** – *JPS Center for Outcomes Research*

**Kalyani Narra** – *JPS Oncology & Infusion Center*

**Rachel Meadows** – *JPS Center for Outcomes Research*

**Aaron Gehr** – *JPS Center for Outcomes Research*

**Bassam Ghabach** – *JPS Oncology & Infusion Center*

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Drug Effectiveness  
**Acute Kidney Injury in Patients with Atrial Fibrillation Treated with Rivaroxaban or Warfarin: A Population-Based Study in the United Kingdom**

PRESENTING AUTHOR

**Antonio González Pérez** – *Spanish Centre for Pharmacoepidemiologic Research*

CO-AUTHORS

**Yanina Balabanova** – *Bayer AG*

**María Saez** – *Spanish Centre for Pharmacoepidemiologic Research*

**Gunnar Brobert** – *Bayer AB*

**Luis Alberto García Rodríguez** – *CEIFE (Centro Español de Investigación Farmacoepidemiológica)*

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# Program Schedule

Drug Effectiveness

## Long-Acting Insulin Analogs Versus Intermediate-Acting Insulin and the Risk of Major Adverse Cardiovascular Events Among Patients with Type 2 Diabetes in the United Kingdom

PRESENTING AUTHOR

**Vanessa Brunetti** – Department of Epidemiology, Biostatistics and Occupational Health, McGill University, Montreal, Quebec, CA

CO-AUTHORS

**Oriana Yu** – Department of Endocrinology, Jewish General Hospital, Montreal, Quebec, CA

**Robert Platt** – Department of Epidemiology, Biostatistics and Occupational Health, McGill University, Montreal, Quebec, CA

**Kristian Filion** – Department of Epidemiology, Biostatistics and Occupational Health, McGill University, Montreal, Quebec, CA

6:30 - 7:30 PM

## LIGHTNING SESSION 2

Drug Utilization Research

## Changes in Purchases of Intensive Care Medicines During COVID-19 in Developed vs Developing Countries

PRESENTING AUTHOR

**Katherine Callaway** – University of Pittsburgh School of Medicine

CO-AUTHORS

**Mina Tadrous** – Women's College Research Institute, Women's College Hospital

**Sandra Kane-Gill** – University of Pittsburgh School of Pharmacy

**Ian Barbash** – University of Pittsburgh School of Medicine, Division of Pulmonary, Allergy and Critical Care Medicine

**Katie Suda** – University of Pittsburgh School of Medicine

Methods in Pharmacoepidemiology

## Collider Bias in COVID-19 Studies: Explaining the Smoking Paradox

PRESENTING AUTHOR

**Natalia Petruski-Ivleva** – IQVIA

CO-AUTHORS

**Alice Joules** – IQVIA

**Michael Warner** – IQVIA

**Patrick Long** – IQVIA

**Aidan Cooper** – IQVIA

**Nancy Dreyer** – IQVIA

Health Economics/Outcomes Research

## The Prevalence of Hyperkalemia and Associated Clinical Characteristics and Outcomes Among Hospitalized COVID-19 Patients

PRESENTING AUTHOR

**Rena Moon** – Premier Applied Sciences, Premier, Inc.

CO-AUTHORS

**Abiy Agiro** – AstraZeneca Payer Evidence

**Ning Rosenthal** – Premier Applied Sciences, Premier, Inc.

**Harold Brown** – Premier Applied Sciences, Premier, Inc.

**Randall Legg** – AstraZeneca Payer Medical

**Alpesh Amin** – University of California, Irvine

Pharmacovigilance

## Off-Label Use of Potential Pharmacological Treatment for COVID-19: An Intensive Pharmacovigilance in Peru

PRESENTING AUTHOR

**L. Yesenia Rodriguez** – ESSALUD

CO-AUTHORS

**Héctor Garavito** – ESSALUD

**Enrique Cachay** – ESSALUD

**Gisela Alva** – ESSALUD

**Paola Fernández** – ESSALUD

**Tania Solis** – ESSALUD

**Liz Veramendi** – ESSALUD

**Juan Aldave** – ESSALUD

**Violeta Saromo** – ESSALUD

Methods in Pharmacoepidemiology

## Identification and Characterization of Fistulizing Crohn's Disease in EHR Using Structured and Unstructured Data

PRESENTING AUTHOR

**Carrie Huisingsh** – AbbVie

CO-AUTHORS

**Yizhou Ye** – AbbVie

**Lani Wegrzyn** – AbbVie

# Program Schedule

Methods in Pharmacoepidemiology  
**Validation of Diagnosis Algorithms for Melanoma and Nonmelanoma Skin Cancer Among Patients with Parkinson's Disease in the United States Medicare Database**

PRESENTING AUTHOR

Catherine Saltus – RTI Health Solutions

CO-AUTHORS

Sigal Kaplan – Teva Pharmaceuticals Ltd

Mark Gordon – Teva Branded Pharmaceutical Products R&D, Inc.

Brian Calingaert – RTI Health Solutions

Elizabeth Andrews – RTI Health Solutions

James Kaye – RTI Health Solutions

Catherine Johannes – RTI Health Solutions

Methods in Pharmacoepidemiology  
**An Algorithm to Derive Response and Progression Status Based on International Myeloma Working Group Response Criteria for Patients with Multiple Myeloma in a Real-World Database**

PRESENTING AUTHOR

Tao Xu – F. Hoffmann-La Roche

CO-AUTHORS

Stefka Tyanova – F. Hoffmann-La Roche

Tarec Christoffer El-Galaly – F. Hoffmann-La Roche

Khaled Sarsour – Global Head Data Science, Genentech, Inc.

Wan-Jen Hong – Genentech, Inc.

Melissa Williamson – Genentech

Disease Epidemiology/Clinical Course  
**Identification of Serostatus in Rheumatoid Arthritis Using ICD-10 Diagnosis Codes**

PRESENTING AUTHOR

Hemin Lee – Brigham and Women's Hospital

CO-AUTHORS

Jeffrey Sparks – Brigham and Women's Hospital

Kazuki Yoshida – Brigham and Women's Hospital

Rishi Desai – Division of Pharmacoepidemiology and Pharmacoeconomics, Department of Medicine, Brigham and Women's Hospital and Harvard Medical School, Boston, Massachusetts, USA

Joan Landon – Brigham and Women's Hospital

Seoyoung Kim – Division of Pharmacoepidemiology and Pharmacoeconomics, Department of Medicine, Brigham and Women's Hospital and Harvard Medical School, Boston, Massachusetts, USA

Health Economics/Outcomes Research  
**Cost-Utility of Nivolumab for Treatment of Head and Neck Cancer from a Brazilian Public Health System Perspective**

PRESENTING AUTHOR

Gustavo Andreoli – Ministry of Health, Brazil

CO-AUTHORS

Daniel Curado – Ministry of Health of Brazil

Rosângela Gomes – Ministry of Health of Brazil

Dalila Gomes – Ministry of Health of Brazil

Joslaine de Nunes – Ministério da Saúde

Ricardo Fernandes – National Institute of Cancer, INCA, Brazil

Ivan Zimmermann – University of Brasília, UnB

Health Economics/Outcomes Research  
**SGLT2 inhibitors vs GLP-1 agonists: Comparative Progression of Renal Disease**

PRESENTING AUTHOR

Lauren Stevens – Humana Healthcare Research

CO-AUTHORS

Andy Bowe – Humana Healthcare Research

Phil Schwab – Humana Healthcare Research

Michael Tindal – Humana Pharmacy Solutions

Andrea Bloomfield – Humana Pharmacy Solutions

Health Economics/Outcomes Research  
**Comparison of Medication Adherence Between Initiators of a Multi-Drug Dispensing System and Users of Retail Pharmacy**

PRESENTING AUTHOR

Lauren Stevens – Humana Healthcare Research

CO-AUTHORS

Jeffrey Ellis – Humana Healthcare Research

Anita Desai-Naik – Humana Pharmacy Solutions

Lilian Ndehi – Humana Inc.

Andy Bowe – Humana Healthcare Research

# Program Schedule

## Health Economics/Outcomes Research Effects of Initiating a Multi-dose Drug Dispensing System on Medication Adherence

PRESENTING AUTHOR

Lauren Stevens – Humana Healthcare Research

CO-AUTHORS

Jeffrey Ellis – Humana Healthcare Research

Anita Desai-Naik – Humana Pharmacy Solutions

Lilian Ndehi – Humana Inc.

Andy Bowe – Humana Healthcare Research

## Disease Epidemiology/Clinical Course Prevalence of Myxoid /Round Cell Liposarcoma (MRCLS) Among Children and Adults in the United States

PRESENTING AUTHOR

Huifen Wang – GlaxoSmithKline

CO-AUTHORS

Lindsey Powers Happ – GlaxoSmithKline

Samantha St. Laurent – GlaxoSmithKline

Charlotte Carroll – GlaxoSmithKline

## Disease Epidemiology/Clinical Course Atopic Eczema Associated Fracture Risk and Oral Corticosteroids: A Population-Based Cohort Study

PRESENTING AUTHOR

Julian Matthewman – London School of Hygiene & Tropical Medicine

CO-AUTHORS

Kathryn Mansfield – London School of Hygiene & Tropical Medicine

Richard Silverwood – Centre for Longitudinal Studies, University College London

Amy Mulick – London School of Hygiene & Tropical Medicine

Daniel Prieto-Alhambra – Centre for Statistics in Medicine (CSM), Nuffield Department of Orthopaedics, Rheumatology and Musculoskeletal Sciences (NDROMS), University of Oxford, UK

Katherine Lowe – London School of Hygiene & Tropical Medicine

Liam Smeeth – London School of Hygiene & Tropical Medicine

Sinéad Langan – London School of Hygiene & Tropical Medicine

## Disease Epidemiology/Clinical Course Trends in Sexually Transmitted Infections in the United States Ambulatory Care Clinics from 2005 to 2016

PRESENTING AUTHOR

Ikenna Unigwe – Department of Pharmaceutical Outcomes and Policy, College of Pharmacy, University of Florida, Gainesville, FL, USA

CO-AUTHORS

Seonkyeong Yang – Department of Pharmaceutical Outcomes and Policy, College of Pharmacy, University of Florida

Hyun Jin Song – Department of Pharmaceutical Outcomes and Policy, College of Pharmacy, University of Florida

Wei-Hsuan Lo-Ciganic – Department of Pharmaceutical Outcomes and Policy, College of Pharmacy, University of Florida, Gainesville, Florida, USA

Robert Cook – College of Public Health and Health Professions, University of Florida, Gainesville, FL, USA

Haesuk Park – Department of Pharmaceutical Outcomes and Policy, College of Pharmacy, University of Florida, Gainesville, FL, USA

## Disease Epidemiology/Clinical Course Chemotherapy Relative Dose Intensity, Overall Survival, and Hematologic Toxicity in Solid-Tumor Cancer Patients: A Literature Review and Meta-Analysis

PRESENTING AUTHOR

Lauren Bylsma – EpidStrategies, A Division of ToxStrategies

CO-AUTHORS

Carrie Nielson – Amgen

Jon Fryzek – EpidStrategies, Rockville, MD, USA

Hossam Saad – Amgen

Jeffrey Crawford – Duke Cancer Institute

8:00 - 9:30 PM

## PLENARY

### Diversity, Equity, and Inclusion in Pharmacoepidemiology – The Role of Caste in Drug Utilization, Safety, and Therapeutic Risk Management

SPEAKERS

Whitney Robinson – University of North Carolina at Chapel Hill

Folakemi Odedina – Mayo Clinic

Macarius Donneyoung – The Ohio State University

John Jackson – Johns Hopkins

# Real-World Data for Chronic Diseases

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# Program Schedule

TUE

T U E S D A Y , A U G U S T 2 4

8:15 - 8:30 AM

## WELCOME RECEPTION

Syd Phillips  
*Chair, ICPE Scientific Program Committee*

8:30 - 10:00 AM

## PLENARY

**Communicating COVID-19  
Pharmacoepidemiological Research to Patients:  
Why is it Important? How Can We Do It?  
What are the Implications Now and for the Future?**

PRESENTING AUTHOR

Meredith Smith – *Alexion*

CO-AUTHORS

Priya Bahri – *European Medicines Agency*

Vincent Lo Re – *Center for Pharmacoepidemiology Research and Training, Center for Clinical Epidemiology and Biostatistics, Department of Biostatistics, Epidemiology, and Informatics, Perelman School of Medicine, University of Pennsylvania, Philadelphia, PA, USA*

Francois Houyez – *EURORDIS*

10:00 - 11:30 AM

## WORKSHOP / CONCURRENT

**From the Individual Through the Health System and Back: The Interdisciplinary Promise and Challenges of Digital Epidemiology for Improved Outcomes (An ISPE Digital Epidemiology SIG Endorsed Symposium)**

Informatics

PRESENTERS

Lisa Weiss – *Health Information Technology Lab*

Heidi Dohse – *Tour de Heart*

Dana Teltsch – *Apellis*

Nancy Dreyer – *IQVIA*

John Cai – *Merck*

Helga Gardarsdottir – *Division of Pharmacoepidemiology and Clinical Pharmacology, Utrecht Institute for Pharmaceutical Sciences, Utrecht University*

10:00 - 11:30 AM

## WORKSHOP / CONCURRENT

**How to Emulate a Target Trial to Study the Effects of Treatments for and During Pregnancy**  
Pregnancy and Lactation

PRESENTERS

Sonia Hernandez-Diaz – *Harvard T.H. Chan School of Public Health*

Sonja Swanson – *Department of Epidemiology, Erasmus MC*

Jennifer Yland – *Department of Epidemiology, Boston University School of Public Health*

Kristin Palmsten – *HealthPartners Institute*

10:00 - 11:30 AM

## WORKSHOP / CONCURRENT

**Lessons for Regulatory Decision-Making from Real-World Data Trial Emulation Results**  
Drug Effectiveness

PRESENTERS

Shirley Wang – *Brigham and Women's Hospital, Harvard Medical School*

Sebastian Schneeweiss – *Division of Pharmacoepidemiology and Pharmacoeconomics, Department of Medicine, Brigham and Women's Hospital and Harvard Medical School, Boston, MA, USA*

William Crown – *Brandeis University*

Joseph Ross – *Yale University*

Peter Arlett – *European Medicines Agency*

Kenneth Quinto – *US Food and Drug Administration*

Yoshiaki Uyama – *Pharmaceutical Devices and Medicines Agency*

10:00 - 11:30 AM

## WORKSHOP / CONCURRENT

**Methodological Approaches to Evaluating the Safety and Effectiveness of Multi-Dose Coronavirus Disease 2019 (COVID-19) Vaccines Series**  
Vaccines

PRESENTERS

Hui-Lee Wong – *CBER, Center for Biologics Evaluation and Research, U.S. Food and Drug Administration*

Xabier Garcia de Albeniz – *RTI Health Solutions*

Anne Mobley Butler – *Washington University in St. Louis*

Heather Whitaker – *Public Health England*

Marc Suchard – *University of California, Los Angeles*

# Program Schedule

11:45 AM - 1:15 PM

## WORKSHOP / CONCURRENT

### A Call for 'Environmental Pharmacoepidemiology': Medications, Global and Local Environments, and Health Outcomes

Methods in Pharmacoepidemiology

#### PRESENTERS

**Benjamin Bates** – Center for Pharmacoepidemiology and Treatment Science, Rutgers University, New Brunswick, NJ, US

**Sean Hennessy** – Center for Pharmacoepidemiology Research and Training, Center for Clinical Epidemiology and Biostatistics, University of Pennsylvania, Philadelphia, PA, US

**Michelle Bell** – School of the Environment, Yale University, New Haven, CT, US

**Paul Coplan** – Johnson & Johnson

**Rachel Nethery** – Department of Biostatistics, Harvard T.H. Chan School of Public Health

**Soko Setoguchi** – RWJ Medical School, Center for Pharmacoepidemiology and Treatment Science (PETS), Institute for Health, Health Care Policy and Aging Research

11:45 AM - 1:15 PM

## WORKSHOP / CONCURRENT

### Believability of Real-World Evidence (RWE) for Informed Regulatory Decisions

Methods in Pharmacoepidemiology

#### PRESENTERS

**Jacinthe Leclerc** – Université du Québec à Trois-Rivières

**Kimberly Brodovicz** – Boehringer Ingelheim

**Stephen Chang** – FDA

**Magdalene Assimon** – University of North Carolina School of Medicine

**Hisashi Urushihara** – Keio University

**Cynthia Girman** – CERobs Consulting, LLC

11:45 AM - 1:15 PM

## WORKSHOP / CONCURRENT

### New Frontiers in Computable Phenotyping for Medical Product Safety Evaluation

Methods in Pharmacoepidemiology

#### PRESENTERS

**Rishi Desai** – Division of Pharmacoepidemiology and Pharmacoeconomics, Department of Medicine, Brigham and Women's Hospital and Harvard Medical School, Boston, MA, USA

**David Carrell** – Kaiser Permanente Washington Health Research Institute

**Robert Ball** – FDA

**Katherine Liao** – Brigham and Women's Hospital

**Lindsay Collin** – Huntsman Cancer Institute, University of Utah, Salt Lake City, UT, USA

**Sebastian Schneeweiss** – Division of Pharmacoepidemiology and Pharmacoeconomics, Department of Medicine, Brigham and Women's Hospital and Harvard Medical School, Boston, MA, USA

11:45 AM - 1:15 PM

## WORKSHOP / CONCURRENT

### Using Real-World External Controls to Support Drug Approval: An Interactive Framework Using Oncology Trial and Real-World Data

Methods in Pharmacoepidemiology

#### PRESENTERS

**Laura Hester** – Janssen R&D, LLC

**Donna Rivera** – US Food and Drug Administration

**Jennifer Lund** – Department of Epidemiology, University of North Carolina at Chapel Hill

**Asieh Golozar** – Regeneron Pharmaceuticals

**Kourtney Davis** – Janssen R&D, LLC

**John Seeger** – Epidemiology, Optum, Boston, MA, USA

**Leah Sansbury** – GlaxoSmithKline

# Program Schedule

1:45 - 3:30 PM

## ORAL SESSIONS / CONCURRENT

### Pharmacovigilance, Safety End Points, and Potpourri

Rare Disease

#### The Association Between Bariatric Surgery and Dupuytren Disease: A Cohort Study from Swedish Nationwide Healthcare Registries

PRESENTING AUTHOR

**Theresa Burkard** – Department of Chemistry and Applied Biosciences, Institute of Pharmaceutical Sciences, ETH Zurich, Zurich, Switzerland

CO-AUTHORS

**Jennifer Lane** – Centre for Statistics in Medicine, Nuffield Department of Orthopaedics, Rheumatology, and Musculoskeletal Sciences, University of Oxford, Oxford, UK

**Dag Holmberg** – Upper Gastrointestinal Surgery, Department of Molecular medicine and Surgery, Karolinska Institute, Karolinska University Hospital, Stockholm, Sweden

**Andrea Burden** – Institute of Pharmaceutical Sciences, Department of Chemistry and Applied Biosciences, ETH Zurich, Zurich, Switzerland

**Dominic Furniss** – Centre for Statistics in Medicine, Nuffield Department of Orthopaedics, Rheumatology, and Musculoskeletal Sciences, University of Oxford, Oxford, UK

Pediatric Pharmacoepidemiology

#### Selective Serotonin Reuptake Inhibitors and the Risk of Type 2 Diabetes Mellitus in Youths

PRESENTING AUTHOR

**Thi Xuan Dai Cao** – Department of Epidemiology, Biostatistics, and Occupational Health, McGill University, Montreal, Québec, CA

CO-AUTHORS

**Christopher Filliter** – Centre for Clinical Epidemiology, Lady Davis Institute, Jewish General Hospital, Montreal, Québec, CA

**François Montastruc** – Department of Clinical and Medical Pharmacology and Regional Pharmacovigilance Centre, Faculty of Medicine and Toulouse University Hospital, Toulouse, France

**Oriana Hoi Yun Yu** – Centre for Clinical Epidemiology, Lady Davis Institute, Jewish General Hospital, Montreal, Québec, CA

**Emma Fergusson** – Oxford Health NHS Trust, Department of Psychiatry, Oxford University, Oxford, UK

**Soham Rej** – Department of Psychiatry, McGill University, Montreal, Québec, CA

**Laurent Azoulay** – Department of Epidemiology, Biostatistics, and Occupational Health, McGill University, Montreal, Québec, CA

**Christel Renoux** – Department of Epidemiology, Biostatistics, and Occupational Health, McGill University, Montreal, Québec, CA

Pharmacovigilance

#### Comparing the Risk of Venous Thromboembolism in Rheumatoid Arthritis Patients Receiving Tofacitinib and TNF Inhibitors in Taiwan

PRESENTING AUTHOR

**Chin-Yao Shen** – School of Pharmacy, Institute of Clinical Pharmacy and Pharmaceutical Sciences, College of Medicine, National Cheng Kung University, Tainan 701, Taiwan

CO-AUTHORS

**Tzu-Chi Liao** – School of Pharmacy, Institute of Clinical Pharmacy and Pharmaceutical Sciences, College of Medicine, National Cheng Kung University, Tainan 701, Taiwan

**Edward Chia-Cheng Lai** – School of Pharmacy, Institute of Clinical Pharmacy and Pharmaceutical Sciences, College of Medicine, National Cheng Kung University, Tainan 701, Taiwan

Pediatric Pharmacoepidemiology

#### Risk of Type 2 Diabetes Among Children Initiating Anticonvulsant Mood Stabilizers: Application of a Target Trial Approach

PRESENTING AUTHOR

**Jenny Sun** – Harvard Medical School and Harvard Pilgrim Health Care Institute

CO-AUTHORS

**Jessica Young** – University of North Carolina

**Aaron Sarvet** – Harvard Medical School and Harvard Pilgrim Health Care Institute

**Pi-i Debby Lin** – Harvard Medical School and Harvard Pilgrim Health Care Institute

**Sengwee Toh** – Harvard Medical School and Harvard Pilgrim Health Care Institute

**Jason Block** – Harvard Medical School and Harvard Pilgrim Health Care Institute

Safety End Points

#### Risk of Diabetic Ketoacidosis with Sodium-Glucose Transporter-2 Inhibitors Compared to Dipeptidyl Peptidase-4 (DPP4) Inhibitors and Sulfonylureas in Patients with Type 2 Diabetes

PRESENTING AUTHOR

**Dawwas Dawwas** – University of Pennsylvania

CO-AUTHOR

**Charles Leonard** – Center for Pharmacoepidemiology Research and Training, Center for Clinical Epidemiology and Biostatistics, University of Pennsylvania, Philadelphia, PA, US

**James Lewis** – University of Pennsylvania

# Program Schedule

Disease Epidemiology/Clinical Course  
**Comparable COVID-19 Outcomes with Current Use of GLP-1 Receptor Agonists, DPP-4 Inhibitors or SGLT-2 Inhibitors Among Patients with Diabetes Who Tested Positive for SARS-Cov-2**

PRESENTING AUTHOR

**Simone Bastrup Israelsen** – Center of Research and Disruption of Infectious Diseases, Department of Infectious Diseases, Copenhagen University Hospital, Amager and Hvidovre, Hvidovre, Denmark

CO-AUTHOR

**Anton Pottegård** – University of Southern Denmark

**Håkon Sandholdt** – Center of Research and Disruption of Infectious Diseases, Department of Infectious Diseases, Copenhagen University Hospital, Amager and Hvidovre, Hvidovre, Denmark

**Sten Madsbad** – Department of Endocrinology, Copenhagen University Hospital, Amager and Hvidovre, Hvidovre, Denmark

**Reimar Thomsen** – Department of Clinical Epidemiology, Aarhus University, Aarhus, Denmark

**Thomas Benfield** – Center of Research and Disruption of Infectious Diseases, Department of Infectious Diseases, Copenhagen University Hospital, Amager and Hvidovre, Hvidovre, Denmark

1:45 - 3:30 PM

## ORAL SESSIONS / CONCURRENT

### Thinning the Blood: The Role of Anticoagulation and COVID-19

Drug Utilization Research

**Heterogeneity and Temporal Variation in the Management of COVID-19: A Multinational Drug Utilisation Study Including 274,719 Hospitalised Patients from The United States of America, China, Spain, and South Korea**

PRESENTING AUTHORS

**Albert Prats-Urbe** – Pharmaco- and Device Epidemiology, Centre for Statistics in Medicine - Nuffield Department of Orthopaedics, Rheumatology, and Musculoskeletal Sciences, University of Oxford, UK

**Li Liu** – Nanfang Hospital, Southern Medical University, Guangzhou, China

CO-AUTHORS

**Anthony Sena** – Janssen Research and Development

**Lana Yin Hui Lai** – Division of Cancer Sciences, School of Medical Sciences, University of Manchester

**Waheed-UI-Rahman Ahmed** – Nuffield Department of Orthopaedics, Rheumatology, and Musculoskeletal Sciences, University of Oxford, Botnar Research Centre, Windmill Road, Oxford, OX3 7LD, UK

**Heba Alghoul** – Faculty of Medicine, Islamic University of Gaza, Palestine

**Osaid Alser** – Massachusetts General Hospital, Harvard Medical School, Boston, 02114, MA, USA

**Thamir Alshammari** – College of Pharmacy, Riyadh Elm University

**Carlos Areia** – Nuffield Department of Clinical Neurosciences, University of Oxford, Oxford, UK

**William Carter** – Data Science to Patient Value Program, University of Colorado Anschutz Medical Campus, Aurora, CO, USA

**Paula Casajust** – Real-World Evidence, Trial Form Support, Barcelona, Spain

**Dalia Dawoud** – National Institute for Health and Care Excellence (NICE), London, UK

**Asieh Golozar** – Regeneron Pharmaceuticals

**Jitendra Jonnagaddala** – School of Public Health and Community Medicine, UNSW Sydney

**Paras Mehta** – College of Medicine, The University of Arizona, Tucson, AZ, USA

**Gong Mengchun** – DHC Technologies Co. Ltd, Beijing, China

**Daniel Morales** – Division of Population Health and Genomics, University of Dundee, UK

**Fredrik Nyberg** – School of Public Health and Community Medicine, Institute of Medicine, Sahlgrenska Academy, University of Gothenburg, Gothenburg, Sweden

**Jose Posada** – Stanford University School of Medicine, Stanford, California, USA

**Martina Recalde** – Fundació Institut Universitari per a la recerca a l'Atenció Primària de Salut Jordi Gol i Gurina (IDIAPJGol), Barcelona, Spain

**Elena Roel** – Fundació Institut Universitari per a la recerca a l'Atenció Primària de Salut Jordi Gol i Gurina (IDIAPJGol), Barcelona, Spain

**Karishma Shah** – Nuffield Department of Orthopaedics, Rheumatology, and Musculoskeletal Sciences, University of Oxford, Botnar Research Centre, Windmill Road, Oxford, OX3 7LD, UK

**Nigam Shah** – Stanford University School of Medicine, Stanford, California, USA

**Lisa Schilling** – Data Science to Patient Value Program, University of Colorado Anschutz Medical Campus, Aurora, CO, USA

**Vignesh Subbian** – College of Engineering, The University of Arizona, Tucson, AZ, USA

**David Vizcaya** – Bayer Pharmaceuticals, Sant Joan Despí, Spain

**Lin Zhang** – School of Population Medicine and Public Health, Chinese Academy of Medical Sciences and Peking Union Medical College

**Ying Zhang** – DHC Technologies Co. Ltd, Beijing, China

**Hong Zhu** – Nanfang Hospital, Southern Medical University, Guangzhou, China

**Seng Chan You** – Department of Preventive Medicine and Public Health, Yonsei University College of Medicine, Seoul, Korea

**Peter Rijnbeek** – Department of Medical Informatics, Erasmus University Medical Center, Rotterdam, The Netherlands

# Program Schedule

**George Hripcsak** – Department of Biomedical Informatics, Columbia University Irving Medical Center

**Jennifer Lane** – Centre for Statistics in Medicine, Nuffield Department of Orthopaedics, Rheumatology, and Musculoskeletal Sciences, University of Oxford, Oxford, UK

**Edward Burn** – Centre for Statistics in Medicine (CSM), Nuffield Department of Orthopaedics, Rheumatology and Musculoskeletal Sciences (NDROMS), University of Oxford, Oxford, UK

**Christian Reich** – IQVIA - Real World Solutions

**Marc Suchard** – University of California, Los Angeles, CA, USA

**Talita Duarte-Salles** – Fundació Institut Universitari per a la Recerca a l'Atenció Primària de Salut Jordi Gol i Gurina (IDIAPJGol)

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**Patrick Ryan** – Janssen Research & Development

**Daniel Prieto-Alhambra** – Centre for Statistics in Medicine (CSM), Nuffield Department of Orthopaedics, Rheumatology and Musculoskeletal Sciences (NDROMS), University of Oxford, Oxford, UK

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Drug Utilization Research

## Real World Use of Anticoagulation Among Hospitalized Patients With COVID-19 in the United States

PRESENTING AUTHOR

**Benjamin Bates** – Center for Pharmacoepidemiology and Treatment Science, Rutgers University, New Brunswick, NJ, USA

CO-AUTHORS

**Eileen Lee** – Rutgers

**Nathaniel Kuhrt** – Rutgers, New Jersey Medical School

**Chang Xu** – Rutgers University, School of Public Health, Department of Biostatistics and Epidemiology

**Soko Setoguchi** – RWJ Medical School, Center for Pharmacoepidemiology and Treatment Science (PETS), Institute for Health, Health Care Policy and Aging Research

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Drug Effectiveness

## Safety and Effectiveness of Prophylactic Anticoagulation for Prevention of COVID-19 Mortality: A Nationwide Cohort Study of Hospitalised Patients in the US

PRESENTING AUTHOR

**Christopher Rentsch** – London School of Hygiene & Tropical Medicine; US Department of Veterans Affairs

CO-AUTHORS

**Joshua Beckman** – Vanderbilt University Medical Center and Vanderbilt Translational and Clinical Cardiovascular Research Center

**Laurie Tomlinson** – London School of Hygiene & Tropical Medicine

**Walid Gellad** – Division of General Internal Medicine, Department of Medicine, University of Pittsburgh

**Charles Alcorn** – University of Pittsburgh

**Farah Kidwai-Khan** – US Department of Veterans Affairs

**Melissa Skanderson** – US Department of Veterans Affairs

**Evan Brittain** – Vanderbilt University Medical Center and Vanderbilt Translational and Clinical Cardiovascular Research Center

**Joseph King, Jr.** – Yale School of Medicine

**Yuk-Lam Ho** – VA Boston Healthcare System

**Svetlana Eden** – Vanderbilt University School of Medicine

**Suman Kundu** – Vanderbilt University Medical Center

**Michael Lann** – University of Pittsburgh

**Robert Greevy, Jr.** – Vanderbilt University Medical Center

**P. Michael Ho** – US Department of Veterans Affairs

**Paul Heidenreich** – Stanford University School of Medicine

**Daniel Jacobson** – Oak Ridge National Laboratory

**Ian Douglas** – London School of Hygiene & Tropical Medicine

**Janet Tate** – US Department of Veterans Affairs

**Stephen JW Evans** – London School of Hygiene & Tropical Medicine

**David Atkins** – US Department of Veterans Affairs

**Amy Justice** – US Department of Veterans Affairs

**Matthew Freiberg** – Vanderbilt University Medical Center; US Department of Veterans Affairs

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Drug Effectiveness

## Anticoagulants and All-Cause Mortality Among Hospitalized COVID-19 Patients

PRESENTING AUTHOR

**Caihua Liang** – Optum

CO-AUTHORS

**Li Zhou** – Optum

**Michael Doherty** – Optum

**Robert Gately** – Optum

**Rachel Ogilvie** – Optum

**Andrea Chomistek** – Optum

**Florence Wang** – Optum

**John Seeger** – Epidemiology, Optum, Boston, MA, USA

**Jessica Franklin** – Optum

# Program Schedule

## Drug Utilization Research Use of Cardiovascular and Antidiabetic Drugs During COVID19 Epidemic in France

PRESENTING AUTHOR

Julien Bezin – University of Bordeaux, France

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Elodie Pambrun – University of Bordeaux, France

Anne Benard-Laribiere – University of Bordeaux, France

Pernelle Noize – University of Bordeaux, France

Marie Tournier – University of Bordeaux, France

Jean-Luc Faillie – University of Montpellier, France

Antoine Pariente – University of Bordeaux, France

## Drug Utilization Research Substantial Heterogeneity in the Management of Hospitalized Patient with COVID-19

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Aisling Caffrey – Infectious Diseases Research Program, Providence Veterans Affairs Medical Center, Providence, RI, USA

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Vrshali Lopes – Infectious Diseases Research Program, Providence Veterans Affairs Medical Center, Providence, RI, USA

Kerry LaPlante – Infectious Diseases Research Program, Providence Veterans Affairs Medical Center, Providence, RI, USA

1:45 - 3:30 PM

## ORAL SESSIONS / CONCURRENT

### Two Hearts Beat as One: Evidence for Cardiovascular Safety From Real World Data and Clinical Trials

Health Economics/Outcomes Research

### Comparative Risk of Hospitalization for Heart Failure Among Patients with Xanthine Oxidase Inhibitors and Uricosuric Agents

PRESENTING AUTHOR

Fang-Ju Lin – National Taiwan University

CO-AUTHORS

Yu-Hsin Wang – Graduate Institute of Clinical Pharmacy, College of Medicine, National Taiwan University, Taipei, Taiwan

Chien-Ning Hsu – Department of Pharmacy, Kaohsiung Chang Gung Memorial Hospital, Kaohsiung, Taiwan

Safety End Points

### Cardiovascular Risk in Users of Mirabegron Relative to Users of Antimuscarinic Treatments for Overactive Bladder: Findings from a Non-interventional, Real-World Data Safety Study

CO-AUTHORS

Veena Hoffman – Optum, Boston, MA, USA

Jesper Hallas – University of Southern Denmark, Odense, Denmark

Marie Linder – Centre for Pharmacoepidemiology, Karolinska Institutet, Stockholm, Sweden

Andrea Margulis – RTI Health Solutions, Barcelona, Spain

Brandon Suehs – Humana Healthcare Research, Louisville, KY, USA

Alejandro Arana – RTI Health Solutions, Barcelona, Spain

Cheryl Enger – Optum, Boston, MA, USA

Libby Horter – Humana Healthcare Research, Louisville, KY, USA

Ingvild Odsbu – Department of Mental Disorders, Norwegian Institute of Public Health, Oslo, Norway

Morten Olesen – University of Southern Denmark, Odense, Denmark

Susana Perez-Gutthann – RTI Health Solutions, Barcelona, Spain

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Nina Kristiansen – University of Southern Denmark, Odense, Denmark

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Stefan de Vogel – Astellas Pharma Europe B.V., Leiden, Netherlands

PRESENTING AUTHOR

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Safety End Points

### Use of Low-dose Quetiapine and the Risk of Major Adverse Cardiovascular Events

PRESENTING AUTHOR

Mikkel Højlund – Clinical Pharmacology, Pharmacy, and Environmental Medicine, Department of Public Health, University of Southern Denmark

CO-AUTHOR

Lars Christian Lund – Clinical Pharmacology, Pharmacy, and Environmental Medicine, Department of Public Health, University of Southern Denmark

Kjeld Andersen – Department of Psychiatry Odense, Mental Health Services Region of Southern Denmark

Christoph Correll – Department of Psychiatry, The Zucker Hillside Hospital

Jesper Hallas – University of Southern Denmark, Odense, Denmark

# Program Schedule

Benefit-Risk Assessment, Communication, and Evaluation (BRACE)

## Jak Inhibitors and the Risk of Cardiovascular and Venous Thromboembolism Events Among Patients with Rheumatoid Arthritis: A Network Meta-Analysis of Clinical Trials

PRESENTING AUTHOR

**Carlos Alves** – University of Coimbra, School of Pharmacy

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**Diogo Mendes** – UFC, Coimbra Regional Pharmacovigilance Unit, CHAD – Centre for Health Technology Assessment and Drug Research, AIBILI

**Francisco Batel Marques** – Faculty of Pharmacy, University of Coimbra

Drug Utilization Research

## Non-Adherence and Non-Persistence with Direct Oral Anticoagulants Increases the Risk of Stroke: Assessment in Three European Databases

PRESENTING AUTHOR

**Elisabeth Smits** – PHARMO Institute for Drug Outcomes Research, Utrecht, Netherlands

CO-AUTHORS

**Emily holthuis** – PHARMO Institute for Drug Outcomes Research, Utrecht, Netherlands

**Dominik Beier** – InGef - Institut für Angewandte Gesundheitsforschung Berlin GmbH, Berlin, Germany

**Dirk Enders** – InGef - Institut für angewandte Gesundheitsforschung Berlin GmbH, Berlin, Germany

**Rosa Gini** – Agenzia regionale di sanità della Toscana, Osservatorio di epidemiologia, Florence, Italy

**Claudia Bartolini** – Agenzia Regionale di Sanità della Toscana

**Giampiero Mazzaglia** – Center for Public Health Research (CESP), University of Milan, Bicocca, Milan, Italy

**Fernie Penning- van Beest** – PHARMO Institute for Drug Outcomes Research, Utrecht, Netherlands

**Georgios Spentzouris** – Daiichi-Sankyo Europe GmbH, Munich, Germany

**Ron Herings** – PHARMO Institute for Drug Outcomes Research, Utrecht, Netherlands

1:45 - 3:30 PM

## ORAL SESSIONS / CONCURRENT

### Validation and Algorithms: Getting the Present and Future Right

Methods in Pharmacoepidemiology

### Validity of Electronic Health Records-Based Measures for COVID-19 Hospitalization and Severe Outcomes

CO-AUTHORS

**Sharon Fuller** - Kaiser Permanente Washington Health Research Institute

**Kathy Gleason** - Kaiser Permanente Colorado, Institute for Health Research

**Rod Walker** – Kaiser Permanente Washington Health Research Institute

**Stephen Fortmann** – Kaiser Permanente Northwest, Center for Health Research

**Ladia Albertson-Junkans** – Kaiser Permanente Washington Health Research Institute

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**Lisa Temposky** – Kaiser Permanente Washington Health Research Institute

**Susan Shortreed** – Kaiser Permanente Washington Health Research Institute

**Elizabeth Bayliss** – Kaiser Permanente Colorado, Institute for Health Research

**Laura Harrington** – Kaiser Permanente Washington Health Research Institute

**Jennifer Kuntz** – Kaiser Permanente Northwest, Center for Health Research

**Lisa Pieper** – Kaiser Permanente Colorado, Institute for Health Research

**Jan Van Marter** – Kaiser Permanente Northwest, Center for Health Research

PRESENTING AUTHOR

**Sascha Dublin** – Kaiser Permanente Washington Health Research Institute

# Program Schedule

## Methods in Pharmacoepidemiology Death Documentation Lag in COVID-19 Electronic Health Record (EHR) Suggests Caution in Near-Real-Time Analysis

PRESENTING AUTHOR

**Corinne Brooks** – Center for Observational Research, Amgen, Inc.

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**Carolyn Brown** – Center for Observational Research, Amgen, Inc.

**Alvan Cheng** – Center for Observational Research, Amgen, Inc.

**Kimberly Roehl** – Center for Observational Research, Amgen, Inc.

**Fang He** – Center for Observational Research, Amgen, Inc.

**Ajit Londhe** – Center for Observational Research, Amgen, Inc.

**Junjie Ma** – Center for Observational Research, Amgen, Inc.

**John Page** – Center for Observational Research, Amgen, Inc.

**J. Michael Sprafka** – Center for Observational Research, Amgen, Inc.

**Jie Zhang** – Center for Observational Research, Amgen, Inc.

Informatics

## Shifting the Traditional Model of Analysing Downloaded Electronic Health Records to the Novel Open-Source Analytics Opensafely Platform

PRESENTING AUTHOR

**Angel Wong** – London School of Hygiene and Tropical Medicine

CO-AUTHORS

**Brian MacKenna** – University of Oxford

**Caroline Morton** – University of Oxford

**Anna Schultze** – London School of Hygiene and Tropical Medicine

**Alex Walker** – University of Oxford

**Krishnan Bhaskaran** – London School of Hygiene and Tropical Medicine

**Christopher Rentsch** – London School of Hygiene and Tropical Medicine; US Department of Veterans Affairs

**Elizabeth Williamson** – London School of Hygiene and Tropical Medicine

**Richard Croker** – University of Oxford

**Seb Bacon** – University of Oxford

**William Hulme** – University of Oxford

**Chris Bates** – The Phoenix Partnership

**Helen Curtis** – University of Oxford

**Amir Mehrkar** – University of Oxford

**David Evans** – University of Oxford

**Peter Inglesby** – University of Oxford

**Jonathan Cockburn** – The Phoenix Partnership

**Helen McDonald** – London School of Hygiene and Tropical Medicine

**Laurie Tomlinson** – London School of Hygiene and Tropical Medicine

**Rohini Mathur** – London School of Hygiene and Tropical Medicine

**Kevin Wing** – London School of Hygiene and Tropical Medicine

**Harriet Forbes** – London School of Hygiene and Tropical Medicine

**Rosalind Eggo** – London School of Hygiene and Tropical Medicine

**Ian Douglas** – London School of Hygiene and Tropical Medicine

**Stephen Evans** – London School of Hygiene and Tropical Medicine

**Liam Smeeth** – London School of Hygiene and Tropical Medicine

**Ben Goldacre** – University of Oxford

Methods in Pharmacoepidemiology

## Use of an EHR to Inform a Claims-Based Algorithm to Categorize Inpatient COVID-19 Severity

PRESENTING AUTHOR

**Elizabeth Garry** – Aetion, Inc

CO-AUTHORS

**Andrew Weckstein** – Aetion, Inc

**Kenneth Quinto** – US Food and Drug Administration

**Tamar Lasky** – US Food and Drug Administration

**Aloka Chakravarty** – Food and Drug Administration

**Sandy Leonard** – HealthVerity

**Sarah Vititoe** – Aetion, Inc

**Jeremy Rassen** – Aetion, Inc.

**Nicolle Gatto** – Aetion, Inc

Methods in Pharmacoepidemiology

## Categorization of COVID-19 Severity to Determine Mortality Risk

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**Elizabeth MGarry** – Aetion, Inc.

CO-AUTHORS

**Andrew Weckstein** – Aetion, Inc.

**Kenneth Quinto** – US Food and Drug Administration

**Marie Bradley** – Division of Epidemiology, Office of Surveillance and epidemiology, Center for Drug Evaluation and Research, US Food and Drug Administration

**Tamar Lasky** – US Food and Drug Administration

**Sandy Leonard** – HealthVerity

**Sarah Vititoe** – Aetion, Inc.

**Nicolle Gatto** – Aetion, Inc.

# Program Schedule

Disease Epidemiology/Clinical Course  
**Development and Validation of an Algorithm to Estimate the Risk of Severe Complications of COVID-19 to Prioritise Vaccination**

PRESENTING AUTHOR

**Ron Herings** – PHARMO Institute for Drug Outcomes Research, Utrecht, Netherlands

CO-AUTHORS

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**Bernard van der Zeijst** – Department of Medical Microbiology, Leiden University Medical Center, Leiden, Netherlands

**Amber van der Heijden** – Department of General Practice, Amsterdam UMC – Vrije Universiteit, Amsterdam Public Health, Amsterdam, Netherlands

**Koos van der Velden** – Department of Primary and Community Care, Academic Collaborative Center AMPHI, Integrated Health Policy, Radboud University Medical Center, Nijmegen, Netherlands

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**Martijn Heymans** – Department of Epidemiology & Data Science, Amsterdam UMC – Vrije Universiteit, Amsterdam Public Health, Amsterdam Cardiovascular Sciences, Amsterdam, Netherlands

**Reinier Herings** – Julius Center for Health Sciences and Primary Care, University Medical Center Utrecht, Utrecht, Netherlands

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**Petra Elders** – Department of General Practice, Amsterdam UMC – Vrije Universiteit, Amsterdam Public Health, Amsterdam, Netherlands

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# Program Schedule

1:45 - 3:30 PM

## ORAL SESSIONS / CONCURRENT

### You Gave the Kids What? International Use, Policies, and Outcomes in Pediatric Pharmacoepidemiology

Pediatric Pharmacoepidemiology  
**Early Life Antibiotic Exposure and Incident Chronic  
Diseases in Childhood**

PRESENTING AUTHOR

**Matthew Beier** – Rutgers, Robert Wood Johnson  
Medical School

CO-AUTHORS

**Soko Setoguchi** – RWJ Medical School, Center for  
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**Tobias Gerhard** – Rutgers University, PETS, Institute for Health,  
Health Care Policy and Aging Research, Ernest Mario School of  
Pharmacy

**Jason Roy** – Rutgers University, Department of Biostatistics and  
Epidemiology

**Avinash Gabbeta** – St. Christopher's Hospital for Children

**Brian Strom** – Rutgers Biomedical And Health Sciences, Rutgers  
University

**Martin Blaser** – Center for Advanced Biotechnology and Medicine,  
Rutgers University

**Daniel Horton** – Rutgers University

### Pediatric Pharmacoepidemiology **Antibiotic Prescribing in Children Aged 0–6 Years in Germany: Assessing Regional Variations and Potential Explanations Based on Claims Data**

PRESENTING AUTHOR

**Oliver Scholle** – Leibniz Institute for Prevention Research and  
Epidemiology - BIPS

CO-AUTHORS

**Marieke Asendorf** – Leibniz Institute for Prevention Research and  
Epidemiology - BIPS

**Christoph Buck** – Leibniz Institute for Prevention Research and  
Epidemiology - BIPS

**Susann Grill** – Leibniz Institute for Prevention Research and  
Epidemiology - BIPS

**Oliver Riedel** – Leibniz Institute for Prevention Research and  
Epidemiology - BIPS

**Ulrike Haug** – Leibniz-Institut für Präventionsforschung und  
Epidemiologie, Bremen, Germany

### Pediatric Pharmacoepidemiology **Prescribed Medicine Use in a Nationwide Sample of Australian Children: Extent of Off-Label Use**

PRESENTING AUTHOR

**Andrea Schaffer** – Centre for Big Data Research in Health,  
UNSW Sydney

CO-AUTHORS

**Natasha Nassar** – University of Sydney

**Claudia Bruno** – Centre for Big Data Research in Health, University  
of New South Wales

**Nicholas Buckley** – Biomedical Informatics and Digital Health,  
University of Sydney

**Rose Cairns** – University of Sydney

**Melisa Litchfield** – Centre for Big Data Research in Health,  
University of New South Wales

**Simon Paget** – University of Sydney

**Helga Zoega** – Centre for Big Data Research in Health,  
UNSW Sydney

**Sallie-Anne Pearson** – Centre for Big Data Research in Health,  
University of New South Wales

### Pediatric Pharmacoepidemiology **General Practitioner Prescribing Trends Among Pediatric Patients in the United Kingdom: 1998-2018**

PRESENTING AUTHOR

**Reem Masarwa** – McGill University

CO-AUTHORS

**Claire Lefebvre** – Department of Pediatrics, Centre Hospitalier  
Universitaire Ste-Justine, University of Montreal, Montreal,  
Quebec, CA

**Robert Platt** – Department of Epidemiology, Biostatistics and  
Occupational Health, McGill University, Montreal, Quebec, CA

**Kristian Filion** – Department of Epidemiology, Biostatistics and  
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# Program Schedule

## Drug Utilization Research Visualizing Inappropriate Antibiotic Use Following Otitis Media in Children in the United States

PRESENTING AUTHOR

Leah McGrath – *NoviSci, Inc.*

CO-AUTHORS

Jason Newland – *Washington University in St. Louis*

John Sahrman – *Washington University in St. Louis*

YinJiao Ma – *Washington University in St. Louis*

Anne Mobley Butler – *Washington University in St. Louis*

## Pediatric Pharmacoepidemiology Impact of Drug-Related Regulations on Codeine Use Among Children in Taiwan: A Nationwide Interrupted Time Series Analysis from 2005 to 2018

PRESENTING AUTHOR

Chih-Wan Lin

CO-AUTHORS

Yu-Jie Huang – *Taiwan Drug Relief Foundation, Taipei, Taiwan*

Wei-I Huang – *Taiwan Drug Relief Foundation, Taipei, Taiwan*

Pi-Hui Chao – *Taiwan Drug Relief Foundation, Taipei, Taiwan*

Wen-Wen Chen – *Taiwan Drug Relief Foundation, Taipei, Taiwan*

Fei-Yuan Hsiao – *Graduate Institute of Clinical Pharmacy, National Taiwan University, Taipei, Taiwan*

6:45 - 7:45 PM

## LIGHTNING SESSION 3

Benefit-Risk Assessment, Communication, and  
Evaluation (BRACE)

### Gender Differences in Valproic Acid Use for Approved Indications in the United States (2017-2018) – An Opportunity for Risk Mitigation?

PRESENTING AUTHOR

Nicole Smolinski – *Department of Pharmaceutical Outcomes and Policy, College of Pharmacy, University of Florida*

CO-AUTHORS

Amir Sarayani – *Department of Pharmaceutical Outcomes and Policy, University of Florida*

Almut Winterstein – *Department of Pharmaceutical Outcomes and Policy and Center for Drug Evaluation and Safety, College of Pharmacy, University of Florida*

Benefit-Risk Assessment, Communication, and  
Evaluation (BRACE)

### Missingness in Real World Data Submitted for Regulatory Decision-Making: Eastern Cooperative Oncology Group Performance Status Case Study

CO-AUTHORS

Cherise Wong – *Regeneron Pharmaceuticals*

Caitlin Knox – *Regeneron Pharmaceuticals*

Wenzhen Ge – *Regeneron Pharmaceuticals*

Ning Wu – *Regeneron Pharmaceuticals*

Andrea Marcus – *Regeneron Pharmaceuticals*

Jessica Jalbert – *Regeneron Pharmaceuticals, Inc., Tarrytown, NY, USA*

PRESENTING AUTHOR

Asieh Golozar – *Regeneron Pharmaceuticals*

Benefit-Risk Assessment, Communication, and  
Evaluation (BRACE)

### Association of Statin Use with Dry Eye Disease

PRESENTING AUTHOR

Yinxi Yu – *Department of Ophthalmology, Scheie Eye Institute, University of Pennsylvania Perelman School of Medicine*

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Vatinee Bunya – *Department of Ophthalmology, Scheie Eye Institute, University of Pennsylvania Perelman School of Medicine*

Brian VanderBeek – *Department of Ophthalmology, Scheie Eye Institute, University of Pennsylvania Perelman School of Medicine*

Disease Epidemiology/Clinical Course

### Birth Prevalence of Phenylalanine Hydroxylase Deficiency: A Systematic Literature Review and Meta-analysis

PRESENTING AUTHOR

Andrea Margulis – *RTI Health Solutions, Barcelona, Spain*

CO-AUTHORS

Kimberly Alexander – *BioMarin Pharmaceutical Inc.*

Pamela Foreman – *BioMarin Pharmaceutical Inc.*

Renee Shediak – *BioMarin Pharmaceutical Inc.*

Brian Calingaert – *RTI Health Solutions*

Abenah Harding – *RTI Health Solutions*

Manel Pladevall-Vila – *RTI Health Solutions*

Sarah Landis – *BioMarin (UK) Limited*

# Program Schedule

Methods in Pharmacoepidemiology  
**A New Analytic Tool for Interrupted Times Series Analysis to Assess the impact of FDA Regulatory Actions**

PRESENTING AUTHOR

**Christine Lu** – Department of Population Medicine at Harvard Medical School

CO-AUTHORS

**Laura Hou** – Department of Population Medicine at Harvard Medical School

**Joy Kolonoski** – Department of Population Medicine, Harvard Medical School and Harvard Pilgrim Health Care Institute

**Andrew Petrone** – Department of Population Medicine at Harvard Medical School

**Fang Zhang** – Department of Population Medicine at Harvard Medical School

**Catherine Corey** – Office of Surveillance and Epidemiology, Center for Drug Evaluation and Research, U.S. Food and Drug Administration

**Ting Ying Huang** – Department of Population Medicine at Harvard Medical School

**Marie Bradley** – Division of Epidemiology, Office of Surveillance and epidemiology, Center for Drug Evaluation and Research, US Food and Drug Administration

Methods in Pharmacoepidemiology  
**Use of Last Clinical Activity Date in Overall Survival Analysis with Real World Data**

PRESENTING AUTHOR

**Lu Chen** – Genentech, Inc.

CO-AUTHORS

**Otto Fajardo** – F. Hoffmann-La Roche Ltd.

**Melanie Huntley** – Genentech, Inc.

**Anne-Marie Meyer** – F. Hoffmann-La Roche Ltd.

**Michael Taylor** – Real World Data Collaborations, Personalized Healthcare Data Science, Genentech Inc., South San Francisco, CA, USA

Methods in Pharmacoepidemiology  
**Distinguishing Death from Disenrollment in Claims Data Using a Readily Implemented Machine Learning Algorithm**

PRESENTING AUTHOR

**Jessica Young** – University of North Carolina

CO-AUTHORS

**Frank Yoon** – IBM Watson Health

**Nabarun Dasgupta** – Injury Prevention Research Center, University of North Carolina at Chapel Hill

**Debra Irwin** – IBM Watson Health

**Kenneth Pack** – IBM Watson Health

**Toska Cooper** – University of North Carolina at Chapel Hill

**Shalu Shiv** – IBM Watson Health

**Sarah Bloemers** – IBM Watson Health

**Teresa Gibson** – IBM Watson Health

Methods in Pharmacoepidemiology  
**Development and Validation of Case-Finding Algorithms to Identify Prosthetic Joint Infections After Total Knee Arthroplasty**

PRESENTING AUTHOR

**Erica Weinstein** – Division of Infectious Diseases, Department of Medicine, Perelman School of Medicine, University of Pennsylvania, Philadelphia, PA, USA

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**Alisa Stephens-Shields** – Department of Biostatistics, Epidemiology and Informatics, Perelman School of Medicine, University of Pennsylvania, Philadelphia, PA, USA

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**Randi Silibovsky** – Division of Infectious Diseases, Department of Medicine, Perelman School of Medicine, University of Pennsylvania, Philadelphia, PA, USA

**Charles Nelson** – Department of Orthopaedic Surgery, Perelman School of Medicine, the University of Pennsylvania, Philadelphia, PA, USA

**Judith O'Donnell** – Division of Infectious Diseases, Department of Medicine, Perelman School of Medicine, University of Pennsylvania, Philadelphia, PA, USA

**Evelyn Hsieh** – VA Connecticut Health System, West Haven, CT, USA

**Jennifer Hanberg** – VA Connecticut Health System, West Haven, CT, USA

**Kathleen Akgun** – VA Connecticut Health System, West Haven, CT, USA

**Janet Tate** – US Department of Veterans Affairs

**Vincent Lo Re** – Center for Pharmacoepidemiology Research and Training, Center for Clinical Epidemiology and Biostatistics, Department of Biostatistics, Epidemiology, and Informatics, Perelman School of Medicine, University of Pennsylvania, Philadelphia, PA, USA

# Program Schedule

Drug Utilization Research  
**Analytical Enhancements in Kentucky's Drug Overdose Mortality Surveillance: Rapid Monitoring of Trends and Decedents' Recent Controlled Substance Prescription History**

PRESENTING AUTHOR

**GYeon Oh** – Department of Pharmacy Practice and Science, College of Pharmacy, University of Kentucky

CO-AUTHORS

**Patricia Freeman** – Department of Pharmacy Practice and Science, College of Pharmacy, University of Kentucky

**Candace Brancato** – Department of Biostatistics, College of Public Health, University of Kentucky

**Jana McAninch** – Office of Surveillance and Epidemiology, Center for Drug Evaluation and Research, U.S. Food and Drug Administration

**Alex Secora** – Office of Surveillance and Epidemiology, Center for Drug Evaluation and Research, U.S. Food and Drug Administration

**Candice Collins** – Office of Surveillance and Epidemiology, Center for Drug Evaluation and Research, U.S. Food and Drug Administration

**Nabarun Dasgupta** – Injury Prevention Research Center, University of North Carolina at Chapel Hill

**Svetla Slavova** – Department of Biostatistics, College of Public Health, University of Kentucky

Drug Utilization Research  
**Measuring Mental Health Prescribing Safety Indicators in UK Primary Care**

PRESENTING AUTHOR

**Wael Khawagi** – Taif University

CO-AUTHORS

**Douglas Steinke** – Centre for Pharmacoepidemiology and Drug Safety, Division of Pharmacy and Optometry, School of Health Sciences, University of Manchester, Manchester, UK

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**Alison Wright** – Centre for Pharmacoepidemiology and Drug Safety, Division of Pharmacy and Optometry, School of Health Sciences, University of Manchester, Manchester, UK

**Darren Ashcroft** – Centre for Pharmacoepidemiology and Drug Safety, Division of Pharmacy and Optometry, School of Health Sciences, University of Manchester, Manchester, UK

**Anthony Avery** – Division of Primary Care, School of Medicine, University of Nottingham, Nottingham, UK

**Richard Keers** – Centre for Pharmacoepidemiology and Drug Safety, Division of Pharmacy and Optometry, School of Health Sciences, University of Manchester, Manchester, UK

Pediatric Pharmacoepidemiology  
**Pediatric Off-Label Antipsychotic Use for Attention-Deficit/Hyperactivity Disorder: A Time-to-Event Analysis**

PRESENTING AUTHOR

**Haeyoung Lee** – University of Maryland Baltimore, School of Pharmacy

CO-AUTHORS

**Susan dosReis** – University of Maryland Baltimore, School of Pharmacy

**Chengchen Zhang** – University of Maryland Baltimore, School of Pharmacy

**Roderick Rose** – University of Maryland Baltimore, School of Social Work

Pediatric Pharmacoepidemiology  
**Antibiotics Overprescribing Patterns in Pediatric Primary Care in Italy: Findings from 2012-2018**

PRESENTING AUTHOR

**Elisa Barbieri** – Division of Paediatric Infectious Diseases, Department for Woman and Child's Health - University of Padua

CO-AUTHORS

**Costanza Di Chiara** – Division of Paediatric Infectious Diseases, Department for Woman and Child's Health - University of Padua

**Paola Costenaro** – Division of Paediatric Infectious Diseases, Department for Woman and Child's Health - University of Padua

**Anna Cantarutti** – Unit of Biostatistics, Epidemiology and Public Health, Department of Statistics and Quantitative Methods, University of Milano-Bicocca, Milan, Italy

**Carlo Giaquinto** – Division of Pediatric Infectious Diseases, Department for Woman and Child Health, University of Padua, Padua, Italy

**Daniele Dona'** – Division of Pediatric Infectious Diseases, Department for Woman and Child Health, University of Padua, Padua, Italy

# Program Schedule

## Informatics

### Temporal Effect in Real-World-Evidence for Randomized-Clinical-Trials

PRESENTING AUTHOR

Jue Hou – Harvard T.H. Chan School of Public Health

CO-AUTHOR

Rachel Zhao – University of British Columbia

Tianrun Cai – Brigham and Women's Hospital

Katherine Liao – Brigham and Women's Hospital

Thany Seyok – Brigham and Women's Hospital

Kumar Dahal – Brigham and Women's Hospital

Qianyu Yuan – Harvard T.H. Chan School of Public Health

Kai-Li Liaw – Pharmacoepidemiology, Center for Observational and Real-World Evidence (CORE), Merck & Co., Inc.

Claire Fox – Merck & Co., Inc.

Thomas Jemielita – Merck & Co., Inc.

Tianxi Cai – Harvard T.H. Chan School of Public Health

## Safety End Points

### The Risk of Melanoma with Rasagiline Compared with Other Antiparkinsonian Medications: A Retrospective Cohort Study in the United States Medicare Database

PRESENTING AUTHOR

Catherine Johannes – RTI Health Solutions

CO-AUTHORS

Catherine Saltus – RTI Health Solutions

James Kaye – RTI Health Solutions

Brian Calingaert – RTI Health Solutions

Sigal Kaplan – Teva Pharmaceuticals Ltd

Mark Gordon – Teva Branded Pharmaceutical Products R&D, Inc.

Elizabeth Andrews – RTI Health Solutions

## Biologics/Biosimilars

### Risk of Major Cardiovascular Event in Jak Inhibitor Treated Patients: Analysis of a National Claim Database

CO-AUTHORS

Amandine Gouverneur – CHU de Bordeaux, Pôle de santé publique, Service de pharmacologie – Univ. Bordeaux, Inserm, Bordeaux Population Health Research Center, pharmacoepidemiology team, UMR 1219, F-33000 Bordeaux, France

Jérôme Avouac – Université de Paris, Service de Rhumatologie, Hôpital Cochin, AP-HP/CUP, Paris

Clément Prati – University Hospital - CHU Minjoz, Rheumatology Unit, Besancon

Jean-Luc Cracowski – Université Grenoble Alpes, INSERM, HP2, Grenoble

Thierry Schaefferbeke – Department of Rheumatology, National Reference Center for Systemic Autoimmune Rare Diseases, Hopital Pellegrin, Bordeaux

Marie-Elise Truchetet - Department of Rheumatology, National Reference Center for Systemic Autoimmune Rare Diseases, Hopital Pellegrin, Bordeaux

PRESENTING AUTHOR

Antoine Pariente - Univ. Bordeaux, Inserm, Bordeaux Population Health Research Center, team PHARMACOEPIDEMIOLOGY, UMR 1219, F-33000 Bordeaux, France. University Hospital of Bordeaux, Clinical Pharmacology, F-33000 Bordeaux, France

8:00 - 9:30 PM

## PLENARY

### Communicating COVID-19 Pharmacoepidemiological Research to Patients: Why is it Important? How Can We Do It? What are the Implications Now and for the Future?

Benefit-Risk Assessment, Communication, and Evaluation (BRACE)

PRESENTING AUTHOR

Meredith Smith – Alexion

CO-AUTHORS

Priya Bahri – European Medicines Agency

Vincent Lo Re – Center for Pharmacoepidemiology Research and Training, Center for Clinical Epidemiology and Biostatistics, Department of Biostatistics, Epidemiology, and Informatics, Perelman School of Medicine, University of Pennsylvania, Philadelphia, Pennsylvania, USA

Francois Houyez – EURORDIS

# Program Schedule

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W E D N E S D A Y , A U G U S T 2 5

8:15 - 8:30 AM

## WELCOME RECEPTION

Syd Phillips  
*Chair, ICPE Scientific Program Committee*

8:30 - 10:00 AM

## PLENARY

**COVID-19 Vaccines:  
Timely Global Real-World Evidence**  
Vaccines

MODERATOR

J. Bradley Layton – *RTI Health Solutions*

SPEAKERS

Miriam Sturkenboom – *Department Datascience & Biostatistics,  
University Medical Center Utrecht*

Steven Anderson – *FDA/CBER*

Carla Talarico

Robert Chen – *Brighton Collaboration*

10:00 - 11:30 AM

## WORKSHOP / CONCURRENT

**Pediatric Infection with Severe Acute Respiratory  
Syndrome Coronavirus 2 (SARS-COV 2) and  
Potential Health Consequences (Submitted on  
Behalf of the ISPE RWE COVID-19 Workgroup)**  
Disease Epidemiology/Clinical Course

PRESENTER

Ann McMahon – *Office of Pediatric Therapeutics, Food and Drug  
Administration*

PRESENTERS

Susan Coffin – *Children's Hospital of Philadelphia*

David Kimberlin – *University of Alabama at Birmingham*

Montse Soriano Gabarro – *Bayer AG*

Jonathan Davis – *Tufts University Children's Hospital*

10:00 - 11:30 AM

## WORKSHOP / CONCURRENT

**Product Surveillance and Signal Management:  
Now is the Time for Methodologist Engagement!**  
Medical Devices

PRESENTERS

Mary Beth Ritchey – *Med Tech Epi*

Danica Marinac-Dabic – *FDA/CDRH*

Theodore Lystig – *Medtronic*

Paul Coplan – *Johnson & Johnson*

10:00 - 11:30 AM

## WORKSHOP / CONCURRENT

**RWE Blueprints: Decoding SPACE, SPIFD, Start-  
RWE, and Other Tools Promoting Principled  
Pharmacoepidemiology**  
Methods in Pharmacoepidemiology

PRESENTERS

Elizabeth Garry – *Aetion, Inc*

Nicolle Gatto – *Aetion, Inc*

Shirley Wang – *Brigham and Women's Hospital,  
Harvard Medical School*

Ulka Campbell – *Pfizer*

10:00 - 11:30 AM

## WORKSHOP / CONCURRENT

**Selection Matters: Addressing Biases in Linked  
Clinico-Genomic Data Sets**  
Methods in Pharmacoepidemiology

PRESENTERS

Katherine Panageas – *Memorial Sloan Kettering  
Cancer Center*

Kenneth Kehl – *Dana-Farber Cancer Institute,  
Harvard Medical Center*

Devin Incerti – *Genentech*

Til Stürmer – *Department of Epidemiology, University of North  
Carolina at Chapel Hill*

# Program Schedule

10:00 - 11:30 AM

## WORKSHOP / CONCURRENT

### Strategies for the Use of Real-World Data to Conduct COVID-19-Related Pharmacoepidemiology

Methods in Pharmacoepidemiology

#### PRESENTERS

**Vincent Lo Re** - Center for Pharmacoepidemiology Research and Training, Center for Clinical Epidemiology and Biostatistics, Department of Biostatistics, Epidemiology, and Informatics, Perelman School of Medicine, University of Pennsylvania, Philadelphia, PA, USA

**Noelle Cocoros** - Harvard Pilgrim Health Care Institute

**Candace Fuller** - Harvard Pilgrim Health Care Institute

**Wei Hua** - Center for Drug Evaluation and Research, United States Food and Drug Administration

**Silvia Perez-Vilar** - Office of Surveillance and Epidemiology, Center for Drug Evaluation and Research, US Food and Drug Administration

**Christopher Rudolf** - Volv Global SA

**Ron Herings** - PHARMO Institute for Drug Outcomes Research, Utrecht, Netherlands

Methods in Pharmacoepidemiology

### The Impact of Longitudinal Data-Completeness of Electronic Health Record (EHR) Data on Prognostic Risk Score Misclassification

#### PRESENTING AUTHOR

**Yinzhu Jin** - Division of Pharmacoepidemiology and Pharmacoeconomics, Department of Medicine, Brigham and Women's Hospital and Harvard Medical School, Boston, MA, USA

#### CO-AUTHORS

**Sebastian Schneeweiss** - Division of Pharmacoepidemiology and Pharmacoeconomics, Department of Medicine, Brigham and Women's Hospital and Harvard Medical School, Boston, MA, USA

**Dave Merola** - Division of Pharmacoepidemiology and Pharmacoeconomics, Department of Medicine, Brigham and Women's Hospital and Harvard Medical School

**Kueiyu Joshua Lin** - Brigham and Women's Hospital

11:45 AM - 1:30 PM

## ORAL SESSIONS / CONCURRENT

### Brains or Bytes? In Search of Patterns

Medical Devices

#### Leveraging Artificial Intelligence (AI) Technologies for Automated Identification of Total Knee Arthroplasty (TKA) Devices in Electronic Health Records

#### CO-AUTHORS

**Elham Sagheb** - Mayo Clinic

**Shi Yan** - Mayo Clinic

**Taghi Ramazanian** - Mayo Clinic

**Sunyang Fu** - Mayo Clinic

**Ahmad Tafti** - University of Southern Maine

**Sunghwan Sohn** - Mayo Clinic

#### PRESENTING AUTHOR

**Hilal Maradit Kremers** - Mayo Clinic

Methods in Pharmacoepidemiology

### Identifying Active Pregnancies Using ICD-10 Z3A Codes vs Completed Pregnancies Using Outcomes

#### PRESENTING AUTHOR

**Monica Bertoia** - Optum

#### CO-AUTHORS

**Li Zhou** - Optum

**Michael Doherty** - Optum

**Florence Wang** - Optum

**John Seeger** - Epidemiology, Optum, Boston, MA, USA

Rare Disease

### Prediction Algorithm for Identifying Patients with Fabry or Pompe Disease in Electronic Health Records

#### PRESENTING AUTHOR

**Ella Jansen** - PHARMO Institute for Drug Outcomes Research, Utrecht, Netherlands

#### CO-AUTHORS

**Lars Verkleij** - INSZO Instituut voor Zorgoptimalisatie

**Rich Colbaugh** - Volv Global SA

**Kristin Glass** - Volv Global SA

Methods in Pharmacoepidemiology

### Improving Methods of Identifying Anaphylaxis for Medical Product Safety Surveillance Using Natural Language Processing and Machine Learning

#### PRESENTING AUTHOR

**David Carrell** - Kaiser Permanente Washington Health Research Institute

#### CO-AUTHORS

**Susan Gruber** - Putnam Data Sciences

**James Floyd** - University of Washington Department of Epidemiology, Seattle, WA, USA

**Maralyssa Bann** - University of Washington

**Kara Cushing-Haugen** - Kaiser Permanente Washington Health Research Institute

**Ron Johnson** - Kaiser Permanente Washington Health Research Institute

# Program Schedule

Vina Graham – Kaiser Permanente Washington Health Research Institute

David Cronkite – Kaiser Permanente Washington Health Research Institute

Brian Hazlehurst – Kaiser Permanente Northwest

Andrew Felcher – Kaiser Permanente Northwest

Cosmin Bejan – Vanderbilt University Medical Center

Adee Kennedy – Harvard Pilgrim Health Care Institute

Mayura Shinde – Department of Population Medicine, Harvard Medical School and Harvard Pilgrim Health Care Institute

Sara Karami – US Food and Drug Administration

Yong Ma – Center for Drug Evaluation and Research, United States Food and Drug Administration

Danijela Stojanovic – Office of Surveillance and Epidemiology, Center for Drug Evaluation and Research, US Food and Drug Administration, Silver Spring, MD, USA

Yueqin Zhao – Office of Biostatistics, Center for Drug Evaluation and Research, FDA, Silver Spring, MD, USA

Robert Ball – FDA

Jennifer Nelson – Kaiser Permanente Washington Health Research Institute

## Methods in Pharmacoepidemiology Validation of an Algorithm to Identify Hormonal Contraceptive Exposure in a Large Integrated Health Care Delivery System Database

PRESENTING AUTHOR

Mary Anne Armstrong – Division of Research, Kaiser Permanente

CO-AUTHORS

Malini Chandra – Division of Research, Kaiser Permanente

Darios Getahun – Research and Evaluation, Kaiser Permanente Southern California

Michael Fassett – Kaiser Permanente Southern California

Jiaxiao Shi – Research and Evaluation, Kaiser Permanente Southern California

Amy Alabaster – Division of Research, Kaiser Permanente

Fagen Xie – Research and Evaluation, Kaiser Permanente Southern California

Vicki Chiu – Research and Evaluation, Kaiser Permanente Southern California

Theresa Im – Research and Evaluation, Kaiser Permanente Southern California

Federica Pisa – Medical Affairs & Pharmacovigilance, Bayer AG

Tina Raine-Bennett – Division of Research, Kaiser Permanente

11:45 AM - 1:30 PM

## ORAL SESSIONS / CONCURRENT

### COVID-19 Potpourri: Vaccines, Long Haulers, and the NFL

Vaccines

### Descriptive Epidemiology of Adverse Events of Special Interest for COVID-19 Vaccines Across 7 Countries and 4 Continents: A Multinational Network Cohort Study

PRESENTING AUTHOR

Xintong Li – Nuffield Department of Orthopaedics, Rheumatology, and Musculoskeletal Sciences, University of Oxford, Oxford, UK

CO-AUTHORS

Anna Ostropolets – Department of Biomedical Informatics, Columbia University Irving Medical Center

Rupa Makadia – Janssen Research and Development

Azza Shoaibi – Janssen Research and Development

Gowtham Rao – Janssen Research and Development

Anthony Sena – Janssen Research and Development

Martijn Schuemie – Janssen Research and Development

Eugenia Martinez-Hernandez – Neuroimmunology Unit, Neurology Department, Hospital Clínic of Barcelona

Sergio Fernández-Bertolín – Fundació Institut Universitari per a la Recerca a l'Atenció Primària de Salut Jordi Gol i Gurina (IDIAPJGol)

Talita Duarte-Salles – Fundació Institut Universitari per a la Recerca a l'Atenció Primària de Salut Jordi Gol i Gurina (IDIAPJGol)

Patrick Ryan – Janssen Research & Development

George Hripcsak – Department of Biomedical Informatics, Columbia University Irving Medical Center

Daniel Prieto-Alhambra – Centre for Statistics in Medicine (CSM), Nuffield Department of Orthopaedics, Rheumatology and Musculoskeletal Sciences (NDROMS), University of Oxford, Oxford, UK



# Program Schedule

Medical Devices

## Population Testing for COVID-19: Can a Rapid Antigen Test Rule Out Infection?

PRESENTING AUTHOR

Christina Mack – IQVIA

CO-AUTHORS

Michael Osterholm – Center for Infectious Disease Research and Policy, University of Minnesota, Minneapolis, Minnesota, USA

Erin Wasserman – IQVIA

Natalia Petruski-Ivleva – IQVIA

Deverick Anderson – Duke Center for Antimicrobial Stewardship and Infection Prevention, Duke University School of Medicine, Durham, NC, USA

Emily Myers – National Football League, New York City, NY, USA

Navdeep Singh – Eden Medical Center, Castro Valley, CA, USA

Patti Walton – Williamson Medical Center, Franklin, TN, USA

Gary Solomon – National Football League, New York, NY, USA

Christopher Hostler – Duke Center for Antimicrobial Stewardship and Infection Prevention, Duke University School of Medicine, Durham, NC, USA

Jimmie Mancell – Department of Medicine, University of Tennessee Health Science Center, Memphis, TN, USA

Allen Sills – National Football League, New York, NY, USA

Pharmacovigilance

## Impact of COVID-19 Social Distance Restrictions on Hospital Encounters Due to Injury by Poisoning or Toxicity of Medications or Non-Medicinal Substances

PRESENTING AUTHOR

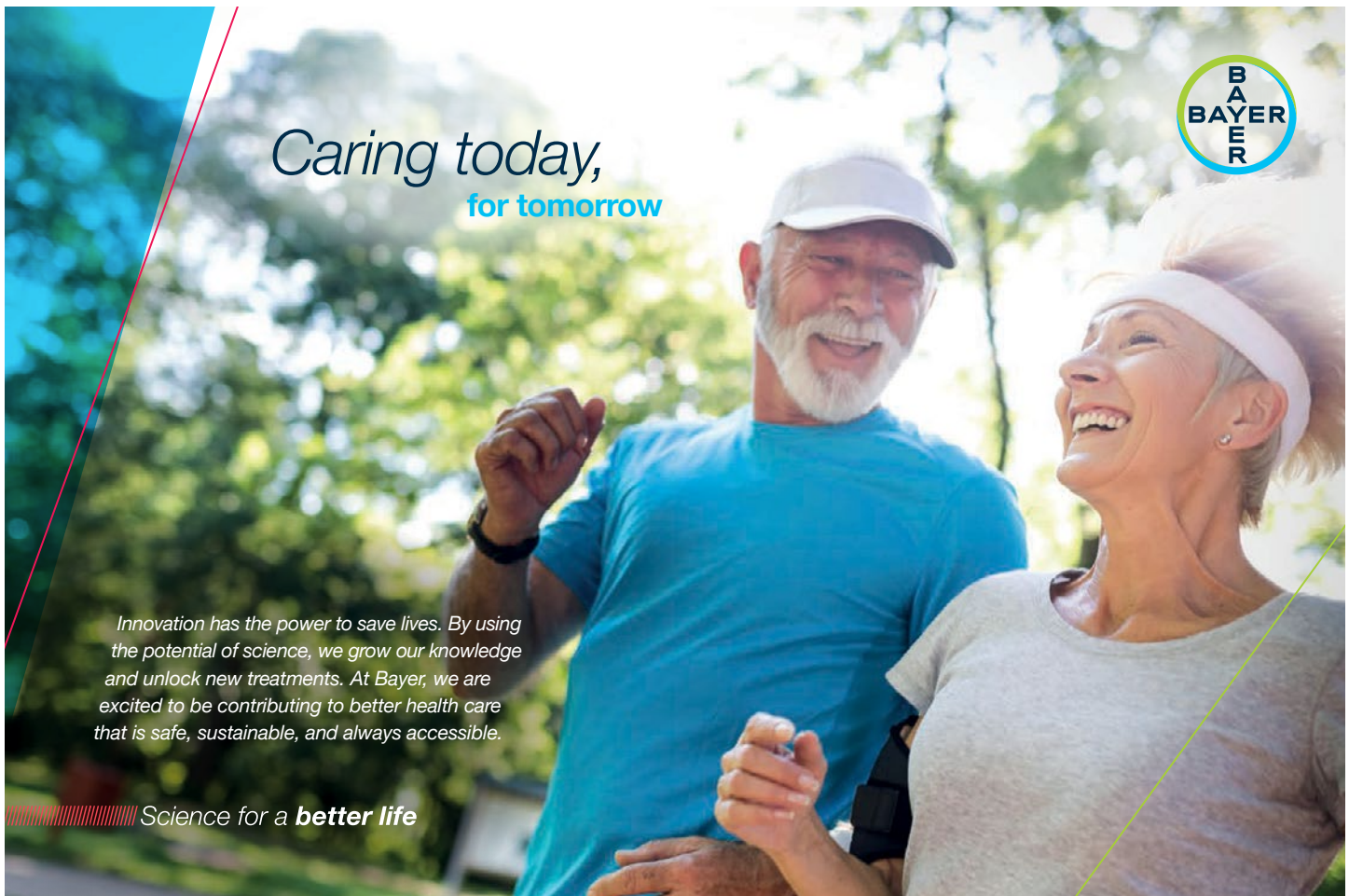
Qoua Her – Department of Epidemiology, Gillings School of Global Public Health, University of North Carolina at Chapel Hill, Chapel Hill, NC, USA

CO-AUTHORS

Jessica Young – University of North Carolina

Til Stürmer – Department of Epidemiology, University of North Carolina at Chapel Hill, NC, USA

Michele Jonsson Funk – University of North Carolina at Chapel Hill, NC, USA



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# Program Schedule

Disease Epidemiology/Clinical Course  
**Persistence of COVID-19 Symptoms 90 Days Post-Acute Infection: Insights from a Community-Based Registry**

PRESENTING AUTHOR

**Matthew Reynolds** – IQVIA

CO-AUTHORS

**Nancy Dreyer** – IQVIA

**Lisa Albert** – IQVIA

**Emma Brinkley** – IQVIA

**Damir Mohamed** – IQVIA

**Christina Mack** – IQVIA

Drug Utilization Research  
**Use of Hydroxychloroquine, Remdesivir, and Dexamethasone Among Adults Hospitalized with COVID-19 in the United States: Results from the National COVID Cohort Collaborative (N3C)**

PRESENTING AUTHOR

**Hemalkumar Mehta** – Johns Hopkins University

CO-AUTHORS

**Huijun An** – Johns Hopkins University

**Kathleen Andersen** – Johns Hopkins Bloomberg School of Public Health

**Omar Mansour** – Monumental Analytics, Baltimore, MD, USA

**Vithal Madhira** – Palila Software, Reno, NV, USA

**Emaan Rashidi** – Johns Hopkins Bloomberg School of Public Health

**Benjamin Bates** – Center for Pharmacoepidemiology and Treatment Science, Rutgers University, New Brunswick, NJ, USA

**Soko Setoguchi** – RWJ Medical School, Center for Pharmacoepidemiology and Treatment Science (PETS), Institute for Health, Health Care Policy and Aging Research

**Corey Joseph** – Johns Hopkins Bloomberg School of Public Health

**Paul Kocis** – Penn State Health, Milton S. Hershey Medical Center, Hershey, PA, USA

**Richard Moffitt** – Stony Brook University, Stony Brook, NY, USA

**Tellen Bennett** – University of Colorado School of Medicine, University of Colorado, Aurora, CO, USA

**Christopher Chute** – Johns Hopkins University

**Brian Garibaldi** – Johns Hopkins Medicine

**G. Caleb Alexander** – Johns Hopkins Center for Drug Safety and Effectiveness

Drug Utilization Research  
**COVID-19 in Children: Treatment Patterns in the Real-World Hospital Setting**

PRESENTING AUTHOR

**Lawrence Rasouliyan** – OMNY Health

CO-AUTHORS

**Vikas Kumar** – OMNY Health

**Stacey Long** – OMNY Health

**Mitesh Rao** – OMNY Health

11:45 AM - 1:30 PM

## ORAL SESSIONS / CONCURRENT

**Fast and Furious: Driving Down the Clinical Course of Disease Epidemiology**

Disease Epidemiology/Clinical Course  
**Impact of Non-Alcoholic Steatohepatitis (NASH) Case Definition on Population Characteristics Identified in a US Claims Database**

PRESENTING AUTHOR

**Kerrin Gallagher** – HealthCore

CO-AUTHORS

**Daina Esposito** – Boston University School of Public Health

**Aziza A. Jamal-Allial** – HealthCore, Inc.

**Simo Du** – HealthCore, Inc.

**Yuval Patel** – Duke University

**Mindie Nguyen** – Stanford University

**Erik Ness** – Intercept Pharmaceuticals

**Thomas Capozza** – Intercept Pharmaceuticals, Inc.

**Lina Titievsky** – Intercept Pharmaceuticals

Disease Epidemiology/Clinical Course  
**The Effect of Epidural Steroid Injections on Fracture Risk Among Medicare Patients**

PRESENTING AUTHOR

**Huifeng Yun** – Department of Epidemiology, University of Alabama at Birmingham

CO-AUTHORS

**Ye Liu** – University of Alabama at Birmingham

**Jeffrey Curtis** – University of Alabama at Birmingham

**Kenneth Saag** – Division of Clinical Immunology and Rheumatology

**Katherine Haseltine** – HSS hospital

**Emily Stein** – HSS hospital

# Program Schedule

Medical Devices

## Persistence of Anticoagulation After Receiving Transcatheter Left Atrial Appendage Occlusion vs Oral Anticoagulants for Stroke Prevention in Atrial Fibrillation

PRESENTING AUTHOR

**Kueiyu Joshua Lin** – Brigham and Women's Hospital

CO-AUTHORS

**Daniel Singer** – Department of Medicine, Massachusetts General Hospital, Harvard Medical School

**Sushama Kattinakere Sreedhara** – Division of Pharmacoepidemiology and Pharmacoeconomics, Department of Medicine, Brigham and Women's Hospital, Harvard Medical School

**Krista Huybrechts** – Brigham and Women's Hospital, Division of Pharmacoepidemiology and Pharmacoeconomics

**Sebastian Schneeweiss** – Division of Pharmacoepidemiology and Pharmacoeconomics, Department of Medicine, Brigham and Women's Hospital and Harvard Medical School, Boston, MA, USA

Methods in Pharmacoepidemiology

## Longitudinal Adherence Trajectories to Biologic Disease Modifying Anti-Rheumatic Drugs in Tuscany, Italy

PRESENTING AUTHOR

**Sabrina Giometto** – Unit of Medical Statistics, Department of Clinical and Experimental Medicine, University of Pisa

CO-AUTHORS

**Irma Convertino** – Unit of Pharmacology and Pharmacovigilance, Department of Clinical and Experimental Medicine, University of Pisa

**Marco Tuccori** – Unit of Pharmacology and Pharmacovigilance, Department of Clinical and Experimental Medicine, University of Pisa; Unit of Adverse Drug Reactions Monitoring, University Hospital of Pisa, Pisa, Italy

**Rosa Gini** – Agenzia regionale di sanità della Toscana, Osservatorio di epidemiologia, Florence, Italy

**Massimiliano Cazzato** – Unit of Rheumatology, University Hospital of Pisa, Pisa, Italy

**Giulia Valdiserra** – Unit of Pharmacology and Pharmacovigilance, Department of Clinical and Experimental Medicine, University of Pisa

**Emiliano Cappello** – Unit of Pharmacology and Pharmacovigilance, Department of Clinical and Experimental Medicine, University of Pisa

**Sara Ferraro** – Unit of Pharmacology and Pharmacovigilance, Department of Clinical and Experimental Medicine, University of Pisa

**Silvia Tillati** – Unit of Medical Statistics, Department of Clinical and Experimental Medicine, University of Pisa, Pisa, Italy

**Marco Fornili** – Unit of Medical Statistics, Department of Clinical and Experimental Medicine, University of Pisa, Pisa, Italy

**Claudia Bartolini** – Agenzia regionale di sanità della Toscana

**Olga Paoletti** – Agenzia regionale di sanità della Toscana

**Giuseppe Turchetti** – Institute of Management, Scuola Superiore Sant'Anna, Pisa, Italy

**Leopoldo Trieste** – Institute of Management, Scuola Superiore Sant'Anna, Pisa, Italy

**Valentina Lorenzoni** – Institute of Management, Scuola Superiore Sant'Anna, Pisa, Italy

**Corrado Blandizzi** – Unit of Pharmacology and Pharmacovigilance, Department of Clinical and Experimental Medicine, University of Pisa; Unit of Adverse Drug Reactions Monitoring, University Hospital of Pisa, Pisa, Italy

**Marta Mosca** – Unit of Rheumatology, University Hospital of Pisa, Pisa, Italy

**Ersilia Lucenteforte** – Unit of Medical Statistics, Department of Clinical and Experimental Medicine, University of Pisa

Disease Epidemiology/Clinical Course

## Incidence Rates of Select Outcomes Among Patients With Non-Alcoholic Steatohepatitis (NASH) and Evidence of Fibrosis and Cirrhosis

PRESENTING AUTHOR

**Monica Bertoia** – Optum

CO-AUTHORS

**Erik Ness** – Intercept Pharmaceuticals

**Thomas Capozza** – Intercept Pharmaceuticals, Inc.

**Lina Titievsky** – Intercept Pharmaceuticals

**John Seeger** – Epidemiology, Optum, Boston, MA, USA

Disease Epidemiology/Clinical Course

## Hyperthyroidism and Breast Cancer Recurrence and Mortality: A Danish Population-based Cohort Study

PRESENTING AUTHOR

**Rikke Noergaard Pedersen** – Department of Clinical Epidemiology, Aarhus University

CO-AUTHORS

**Line Libergreen** – Department of Clinical Epidemiology, Aarhus University

**Anders Kjærsgaard** – Department of Clinical Epidemiology, Aarhus University Hospital

**Deirdre Cronin-Fenton** – Department of Clinical Epidemiology, Aarhus University Hospital, Aarhus, Denmark

# Program Schedule

11:45 AM - 1:30 PM

## ORAL SESSIONS / CONCURRENT

### Impact of Disparities and Stigma on Drug Access and Utilization

Drug Utilization Research

#### Disparities in Hepatitis C Treatment in the Era of Direct-Acting Antivirals Among Arizona Medicaid Beneficiaries

PRESENTING AUTHOR

**Hyun Jin Song** – Department of Pharmaceutical Outcomes and Policy, College of Pharmacy, University of Florida

CO-AUTHORS

**Ching-Yuan Chang** – Department of Pharmaceutical Outcomes and Policy, College of Pharmacy, University of Florida

**Xinyi Jiang** – Department of Pharmaceutical Outcomes and Policy, College of Pharmacy, University of Florida

**Debbie Wilson** – Department of Pharmaceutical Outcomes and Policy, College of Pharmacy, University of Florida

**Wei-Hsuan Lo-Ciganic** – Department of Pharmaceutical Outcomes and Policy, College of Pharmacy, University of Florida, Gainesville, FL, USA

**Haesuk Park** – Department of Pharmaceutical Outcomes and Policy, College of Pharmacy, University of Florida, Gainesville, FL, USA

Drug Utilization Research

#### Sources of Racial/Ethnic Disparities in Antidepressant Treatment: Analysis of the Medical Expenditure Panel Survey Data

PRESENTING AUTHOR

**Macarius Donneyong** – The Ohio State University

CO-AUTHOR

**Teng-Jen Chang** – The Ohio State University

Drug Utilization Research

#### Do Medicare Part D Low-Income Subsidies Narrow Disparities in Orally-Administered Antimyeloma Therapy Initiation?

PRESENTING AUTHOR

**Shelley Jazowski** – University of North Carolina at Chapel Hill

CO-AUTHORS

**Cleo Samuel-Ryals** – University of North Carolina at Chapel Hill

**William Wood** – University of North Carolina at Chapel Hill

**Leah Zullig** – Duke University School of Medicine

**Justin Trogdon** – University of North Carolina at Chapel Hill

**Stacie Dusetzina** – Vanderbilt University School of Medicine

Health Economics/Outcomes Research

#### Impact of Race, Ethnicity, and Sex on Treatment of Non-Valvular Atrial Fibrillation

CO-AUTHORS

**Larry Jackson, II** – Duke University Medical Center

**Diane Francis** – Johnson & Johnson Medical Devices, Health Economics and Market Access

**Sonia Maccioni** – Johnson & Johnson Medical Devices, Health Economics and Market Access

**Vincent Thomas** – Biosense Webster

**Jennifer Wood** – Johnson & Johnson, Medical Device Epidemiology and Real-World Data Sciences

**Guy Cafri** – Johnson & Johnson, Medical Device Epidemiology and Real-World Data Sciences

**Rahul Khanna** – Johnson & Johnson, Medical Device Epidemiology and Real-World Data Sciences

**Charlene Wong** – Johnson & Johnson, Medical Device Epidemiology and Real-World Data Sciences

**Jonathan Piccini** – Duke University Medical Center

**Daniel Friedman** – Yale School of Medicine

PRESENTING AUTHOR

**Neloufar Rahai** – Johnson & Johnson, Medical Device Epidemiology and Real-World Data Sciences

Drug Utilization Research

#### The Impact of Sex on The Quality of Medication Treatment in Patients with Type 2 Diabetes

PRESENTING AUTHOR

**Martina Ambroz** – Department of Clinical Pharmacy and Pharmacology, University of Groningen, University Medical Center Groningen, Groningen, Netherlands

CO-AUTHOR

**Marit Geelink** – Department of Clinical Pharmacy and Pharmacology, University of Groningen, University Medical Center Groningen, Groningen, Netherlands

**Kirsten Smits** – Department of Dentistry - Quality and Safety of Oral Healthcare, Radboud University Medical Center, Radboud Institute for Health Sciences, Nijmegen, Netherlands

**Sieta de Vries** – University of Groningen, University Medical Center Groningen, Department of Clinical Pharmacy and Pharmacology, Netherlands

**Petra Denig** – University Medical Center Groningen

# Program Schedule

## Drug Utilization Research Changes in Buprenorphine Utilization During the COVID-19 Pandemic in the US

PRESENTING AUTHOR

**Lindsey Hammerslag** – Institute for Pharmaceutical Outcomes and Policy, College of Pharmacy, University of Kentucky

CO-AUTHORS

**Svetla Slavova** – Department of Biostatistics, College of Public Health, University of Kentucky

**Jeffery Talbert** – Institute for Biomedical Informatics, College of Medicine, University of Kentucky

**Sharon Walsh** – College of Medicine, University of Kentucky

**Michelle Lofwall** – College of Medicine, University of Kentucky

**Patricia Freeman** – Department of Pharmacy Practice and Science, College of Pharmacy, University of Kentucky

11:45 AM - 1:30 PM

### ORAL SESSIONS / CONCURRENT

## Look Who's Talking Now: Capturing Patient and Provider Perspectives in Health Data

Health Economics/Outcomes Research

### Participant Engagement and Adherence in an Arthritis Power Real-World Study to Capture Smartwatch and Patient-Reported Outcome Data Among Rheumatoid Arthritis Patients

PRESENTING AUTHOR

**Jeffrey Curtis** – University of Alabama at Birmingham

CO-AUTHORS

**Benjamin Nowell** – Global Healthy Living Foundation

**Cassie Clinton** – Division of Clinical Immunology and Rheumatology, University of Alabama at Birmingham

**Fenglong Xie** – University of Alabama at Birmingham

**Jessica Boles** – Global Healthy Living Foundation

**Laura Stradford** – Global Healthy Living Foundation

**Shilpa Venkatachalam** – Global Healthy Living Foundation

**Justin Owensby** – University of Alabama at Birmingham

**D. Curtis** – Global Healthy Foundation

**K. Gavigan** – Global Healthy Foundation

**I. Lipkovich** – Eli Lilly and Company Indianapolis, IN

**S.K. Nolot** – Eli Lilly and Company Indianapolis, IN

**V.S. Haynes** – Eli Lilly and Company Indianapolis, IN

## Drug Utilization Research Ranitidine and Other Histamine2-Receptor Antagonists – A Rapid Response Drug Utilisation Study Using Electronic Health Care Data from Six European Countries

PRESENTING AUTHOR

**Katia Verhamme** – Department of Medical Informatics, Erasmus University Medical Center, Rotterdam, Netherlands

CO-AUTHORS

**Maria de Ridder** – Department of Medical Informatics, Erasmus University Medical Center, Rotterdam

**Christian Reich** – IQVIA, Real World Solutions

**Talita Duarte-Salles** – Fundació Institut Universitari per a la Recerca a l'Atenció Primària de Salut Jordi Gol i Gurina (IDIAPJGol)

**Tom Seinen** – Department of Medical Informatics, Erasmus University Medical Center, Rotterdam

**Peter Rijnbeek** – Department of Medical Informatics, Erasmus University Medical Center, Rotterdam, Netherlands

Health Economics/Outcomes Research

## The Friends of Cancer Research Real World Data (RWD) Pilot 2.0 Collaboration: Implementation of Standardized Methodological Approaches for Evaluation of Oncology RWD

PRESENTING AUTHOR

**Donna Rivera** – US Food and Drug Administration

CO-AUTHORS

**Henry Henk** – Optum Labs

**Elizabeth Garrett-Mayer** – ASCO

**Mark Walker** – ConcertAI

**Joseph Wagner** – IQVIA

**Emily Valice** – Kaiser Permanente

**Connor Sweetnam** – Syapse

**Elad Sharon** – National Cancer Institute

**Lori Sakoda** – Kaiser Permanente

**Nicholas Robert** – Ontada

**Ruth Pe Benito** – Tempus

**Yanina Natanzon** – ConcertAI

**Larry Kushi** – Kaiser Permanente

**Monika Izano** – Syapse

**Rebecca Honnold** – Tempus

**Eric Hansen** – COTA

**Janet Espirito** – Ontada

**Lindsey Enewold** – National Cancer Institute

**Jennifer Christian** – IQVIA

**Suanna Bruinooge** – American Society of Clinical Oncology

**Marley Boyd** – Ontada

# Program Schedule

Andrew Belli – COTA

Laura Lasiter – Friends of Cancer Research

Jeff Allen – Friends of Cancer Research

Health Economics/Outcomes Research

## Cost-Effectiveness of Systematic Treatments for Metastatic Castration-Sensitive Prostate Cancer: An Economic Evaluation Based on Network Meta-Analysis

PRESENTING AUTHOR

Lin Wang – Department of Epidemiology, Johns Hopkins University Bloomberg School of Public Health

CO-AUTHORS

Jeromie Ballreich – Department of Health Policy and Management, Johns Hopkins University Bloomberg School of Public Health

Hwanhee Hong – Duke Clinical Research Institute, Duke University

G. Caleb Alexander – Johns Hopkins Center for Drug Safety and Effectiveness

Channing Paller – The Sidney Kimmel Comprehensive Cancer Center, Johns Hopkins University School of Medicine

Health Economics/Outcomes Research

## Telemedicine Use Among U.S. Patients with Cancer During the COVID-19 Pandemic

PRESENTING AUTHOR

Lu Chen – Genentech, Inc.

CO-AUTHORS

Carlos Flores Avile – Genesis Research

Palak Kundu – Genentech, Inc.

Aaron Cohen – Flatiron Health

Amy Webster – Flatiron Health

Rebecca Rohrer – Flatiron Health

Michael Taylor – Real World Data Collaborations, Personalized Healthcare Data Science, Genentech Inc., South San Francisco, CA, USA

Drug Effectiveness

## Physician and Patient Reported Effectiveness Outcomes are similar in Tofacitinib and TNF Inhibitors in Rheumatoid Arthritis Patients: Data from a Rheumatoid Arthritis Registry in Canada

PRESENTING AUTHOR

Mohammad Movahedi – Toronto General Hospital Research Institute, University Health Network, Toronto, ON

CO-AUTHORS

Angela Cesta – Toronto General Hospital Research Institute, University Health Network, Toronto, ON

Xiuying Li – Toronto General Hospital Research Institute, University Health Network, Toronto, ON

Edward Keystone – Department of Medicine, University of Toronto, Toronto, ON

Claire Bombardier – Toronto General Hospital Research Institute, University Health Network, Toronto, ON

OBRI Investigators – Toronto General Hospital Research Institute, University Health Network, Toronto, ON

11:45 AM - 1:30 PM

## ORAL SESSIONS / CONCURRENT

### Pregnancy: Beyond Opioids

Pregnancy and Lactation

## First Trimester Exposure to Buprenorphine Compared to Methadone for Treatment of Opioid Use Disorders and the Risk of Congenital Malformations

PRESENTING AUTHOR

Elizabeth Suarez – Brigham and Women's Hospital, Division of Pharmacoepidemiology and Pharmacoeconomics

CO-AUTHORS

Krista Huybrechts – Brigham and Women's Hospital, Division of Pharmacoepidemiology and Pharmacoeconomics

Sonia Hernandez-Diaz – Harvard T.H. Chan School of Public Health

Loreen Straub – Brigham and Women's Hospital, Division of Pharmacoepidemiology and Pharmacoeconomics

Yanmin Zhu – Brigham and Women's Hospital, Division of Pharmacoepidemiology and Pharmacoeconomics

Helen Mogun – Brigham and Women's Hospital, Division of Pharmacoepidemiology and Pharmacoeconomics

Brian Bateman – Brigham and Women's Hospital, Division of Pharmacoepidemiology and Pharmacoeconomics

# Program Schedule

Pregnancy and Lactation  
**Characteristics of Initial Postpartum Opioid Prescribing and Risks of Serious Opioid-Related Events After Cesarean Delivery**

PRESENTING AUTHOR

**Andrew Wiese** – Vanderbilt University Medical Center

CO-AUTHORS

**Sarah Osmundson** – Vanderbilt University Medical Center

**Edward Mitchell, Jr.** – Vanderbilt University Medical Center

**Margaret Adgent** – Vanderbilt University Medical Center

**Sharon Phillips** – Vanderbilt University Medical Center

**Stephen Patrick** – Vanderbilt University School of Medicine

**Andrew Spieker** – Vanderbilt University Medical Center

**Carlos Grijalva** – Vanderbilt University Medical Center

Pregnancy and Lactation  
**Prescription Opioid Type and the Risk of Neonatal Opioid Withdrawal Syndrome**

PRESENTING AUTHOR

**Daina Esposito** – Boston University School of Public Health

CO-AUTHORS

**Brian Bateman** – Brigham and Women's Hospital, Division of Pharmacoepidemiology and Pharmacoeconomics

**Martha Werler** – Boston University School of Public Health

**Loreen Straub** – Brigham and Women's Hospital, Division of Pharmacoepidemiology and Pharmacoeconomics

**Helen Mogun** – Brigham and Women's Hospital, Division of Pharmacoepidemiology and Pharmacoeconomics

**Sonia Hernandez-Diaz** – Harvard T.H. Chan School of Public Health

**Samantha Parker** – Boston University School of Public Health

**Krista Huybrechts** – Brigham and Women's Hospital, Division of Pharmacoepidemiology and Pharmacoeconomics

Pregnancy and Lactation  
**Benzodiazepine Use in the First Trimester and Risk of Congenital Malformations: A Nationwide Cohort Study in South Korea**

PRESENTING AUTHOR

**Yunha Noh** – School of Pharmacy, Sungkyunkwan University

CO-AUTHORS

**Hyesung Lee** – School of Pharmacy, Sungkyunkwan University

**Ahhyung Choi** – School of Pharmacy, Sungkyunkwan University

**Dong-Sook Kim** – Department of Research, Health Insurance Review & Assessment Service

**Ju-Young Shin** – School of Pharmacy, Sungkyunkwan University

Pregnancy and Lactation  
**Comparative Safety of In-Utero Exposure to Buprenorphine Combined with Naloxone vs Buprenorphine Monoproduct with Respect to Congenital Malformations**

PRESENTING AUTHOR

**Loreen Straub** – Brigham and Women's Hospital, Division of Pharmacoepidemiology and Pharmacoeconomics

CO-AUTHORS

**Krista Huybrechts** – Brigham and Women's Hospital, Division of Pharmacoepidemiology and Pharmacoeconomics

**Sonia Hernandez-Diaz** – Harvard T.H. Chan School of Public Health

**Elizabeth Suarez** – Brigham and Women's Hospital, Division of Pharmacoepidemiology and Pharmacoeconomics

**Yanmin Zhu** – Brigham and Women's Hospital, Division of Pharmacoepidemiology and Pharmacoeconomics

**Helen Mogun** – Brigham and Women's Hospital, Division of Pharmacoepidemiology and Pharmacoeconomics

**Brian Bateman** – Brigham and Women's Hospital, Division of Pharmacoepidemiology and Pharmacoeconomics

Pregnancy and Lactation  
**Prenatal Analgesic Opioid Exposure and Risk of ADHD in Childhood**

PRESENTING AUTHOR

**Johanne Naper Trønnes** – Department of Pharmacy, Faculty of Mathematics and Natural Sciences, University of Oslo, Oslo, Norway

CO-AUTHORS

**Angela Lupattelli** – Department of Pharmacy, Faculty of Mathematics and Natural Sciences, University of Oslo, Oslo, Norway

**Marte Handal** – Department of Mental Disorders, Norwegian Institute of Public Health, Oslo, Norway

**Svetlana Skurtveit** – Department of Mental Disorders, Norwegian Institute of Public Health, Oslo, Norway

**Eivind Ystrom** – Department of Mental Disorders, Norwegian Institute of Public Health, Oslo, Norway

**Hedvig Nordeng** – PharmacoEpidemiology and Drug Safety Research Group, Department of Pharmacy, and PharmaTox Strategic Initiative, Faculty of Mathematics and Natural Sciences, University of Oslo

# Program Schedule

1:45 - 2:45 PM

## ANNUAL MEETING OF ISPE MEMBERS & 2021 AWARDS CEREMONY

- Call to Order; President's Report | Olaf Klungel, FISPE – *President*
- Financial Report | Wei Zhou, FISPE – *Vice-President/Finance*
- Strategic Plan 2020-2024 update | Vincent Lo Re, FISPE – *Chair, Strategic Planning Committee*
- New Business
- Awards Ceremony
- ISPE Board Transition

### RETIRING OFFICERS & DIRECTORS

Almut Winterstein, FISPE – *Immediate Past President*  
Pia Caduff – *Director*  
Vera Ehrenstein – *Director*  
Chieko Ishiguro – *Director*  
Malcolm Maclure – *Director*  
Darren Toh, FISPE – *Director*

### INSTALLATION OF NEW DIRECTORS

Jennifer Lund, FISPE – *Academic (Americas)*  
Daniel Prieto-Alhambra, FISPE – *Academic (Europe/Africa)*  
Hongbo Yuan – *Government/Regulator (Americas)*  
Yoshiaki Uyama – *Government/Regulator (Asia/Pacific)*  
Stine Hasling Mogensen – *Government/Regulator (Europe/Africa)*

### INSTALLATION OF 2021-2022 OFFICERS

Vincent Lo Re, FISPE – *President*  
Tobias Gerhard, FISPE – *President-elect*  
Olaf Klungel, FISPE – *Immediate Past President*  
Wei Zhou, FISPE – *Vice-President/Finance*  
Caitlin Knox – *Vice President/Finance-elect*

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- | New approach to hybrid pregnancy safety studies: approved by EMA |
- | Risk minimization studies: presentation to EMA, publications and novel hybrid design |

### LEADER IN EUROPEAN SINGLE AND MULTI-COUNTRY DATABASE AND REGISTRY STUDIES

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- | Simulation for residual confounding in cohort study - *Lancet 2021*, with global media coverage |

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# Program Schedule

3:00 - 4:30 PM

## ORAL SESSIONS / CONCURRENT

### From Patient to Policy Impact: Benefit-Risk Assessment, Communication, and Evaluation (BRACE) SIG

Benefit-Risk Assessment, Communication, and Evaluation (BRACE)

#### Impact of FDA's Regulatory Actions on the Quality of REMS Survey Methodology Protocols (2007-2020)

PRESENTING AUTHOR

**Samuel Ewusie** – *ORISE Fellow, Division of Risk Management, FDA*

CO-AUTHORS

**Janifer Quick** – *Division of Risk Management, FDA*

**Elaine Morrato** – *Parkinson School of Public Health, Loyola University Chicago*

**Gita Toyserkani** – *Division of Risk Management, FDA*

Drug Utilization Research

### Influence of Drug Safety Advisories on Drug Utilization: An International Interrupted Time Series and Meta-Analysis Study

PRESENTING AUTHOR

**Richard Morrow** – *Department of Anesthesiology, Pharmacology & Therapeutics, University of British Columbia*

CO-AUTHORS

**Barbara Mintzes** – *School of Pharmacy, Faculty of Medicine and Health and Charles Perkins Centre, University of Sydney*

**Patrick Souverein** – *Division of Pharmacoepidemiology and Clinical Pharmacology, Utrecht Institute for Pharmaceutical Sciences, Utrecht University*

**Marie De Bruin** – *Division of Pharmacoepidemiology and Clinical Pharmacology, Utrecht Institute for Pharmaceutical Sciences, Utrecht University*

**Elizabeth Roughead** – *Clinical and Health Sciences, University of South Australia*

**Joel Lexchin** – *Faculty of Health, York University*

**Anna Kemp-Casey** – *Clinical and Health Sciences, University of South Australia*

**Lorri Puil** – *Department of Anesthesiology, Pharmacology & Therapeutics, University of British Columbia*

**Ingrid Sketris** – *College of Pharmacy, Dalhousie University  
Dee Mangin, (MBCbB (Otago), DPH (Otago), FRNZCGP (NZ)),  
Department of Family Medicine, McMaster University*

**Christine Hallgreen** – *Copenhagen Centre for Regulatory Science, Department of Pharmacy, Faculty of Health and Medical Sciences, University of Copenhagen*

**Sallie-Anne Pearson** – *Centre for Big Data Research in Health, University of New South Wales*

**Ruth Lopert** – *Department of Health Policy and Management, George Washington University*

**Lisa Bero** – *School of Medicine and Colorado School of Public Health, University of Colorado Anschutz Medical Campus*

**Richard Ofori-Asenso** – *Copenhagen Centre for Regulatory Science, Department of Pharmacy, Faculty of Health and Medical Sciences, University of Copenhagen*

**Danijela Grnjidic** – *Sydney Pharmacy School, Faculty of Medicine and Health, The University of Sydney, Sydney, AU*

**Ameet Sarpatwari** – *Division of Pharmacoepidemiology and Pharmacoeconomics, Department of Medicine, Brigham and Women's Hospital and Harvard Medical School*

**Colin Dormuth** – *Department of Anesthesiology, Pharmacology & Therapeutics, University of British Columbia*

Benefit-Risk Assessment, Communication, and Evaluation (BRACE)

### Preferences Concerning Drug Safety Communication of Hospital-Based Specialist in the Netherlands

PRESENTING AUTHOR

**Esther de Vries** – *University of Groningen, University Medical Center Groningen, Department Clinical Pharmacy and Pharmacology, Groningen, Netherlands*

CO-AUTHORS

**Elisabeth Bakker** – *University of Groningen, University Medical Center Groningen, Department Clinical Pharmacy and Pharmacology, Groningen, Netherlands*

**Petra Denig** – *University Medical Center Groningen*

**Peter Mol** – *University of Groningen, University Medical Center Groningen, Department of Clinical Pharmacy and Pharmacology, Netherlands*

Benefit-Risk Assessment, Communication, and Evaluation (BRACE)

### Regulatory Approval of Phentermine/Topiramate for Obesity Management and Off-Label Use of Topiramate: A Fairytale for Drug Repurposing and a Maze for Risk Mitigation

PRESENTING AUTHOR

**Amir Sarayani** – *Department of Pharmaceutical Outcomes and Policy, University of Florida*

CO-AUTHORS

**William Donahoo** – *College of Medicine, University of Florida*

**Christian Hampf** – *US Food and Drug Administration*

**Joshua Brown** – *Department of Pharmaceutical Outcomes and Policy, College of Pharmacy, University of Florida*

**Almut Winterstein** – *Department of Pharmaceutical Outcomes and Policy and Center for Drug Evaluation and Safety, College of Pharmacy, University of Florida*

# Program Schedule

Benefit-Risk Assessment, Communication, and Evaluation (BRACE)

## What Matters to Patients When Considering Treatments for Prevention of Rheumatoid Arthritis: A Preference Study in the United Kingdom, Germany, and Romania

PRESENTING AUTHOR

Rachael DiSantostefano – Janssen R&D, LLC

CO-AUTHORS

Marie Falahee – Institute of Inflammation and Ageing, College of Medical and Dental Sciences, University of Birmingham, Birmingham, UK

Gwenda Simons – Institute of Inflammation and Ageing, College of Medical and Dental Sciences, University of Birmingham, Birmingham, UK

Matthias Englbrecht – Freelance Data Scientist, Eckental, Germany

Christine Radawski – Eli Lilly and Company

Karim Raza – Institute of Inflammation and Ageing, College of Medical and Dental Sciences, University of Birmingham, Birmingham, UK

Jorien veldwijk – School of Health Policy & Management, Erasmus University Rotterdam, Rotterdam, Netherlands

3:00 - 4:30 PM

## ORAL SESSIONS / CONCURRENT

### MedTech Globetrotting – Assisting Medical Devices Effects in the Real World

Medical Devices

## Real-World Epidemiologic and Genetic Evidence Synthesis Reveals the Sex-Dependent Role of GNAS SNPs in Hip Arthroplasty Related Periprosthetic Osteolysis

CO-AUTHORS

Wei-Lun Alterovitz – US Food and Drug Administration

Lam Phuc Vinh Nguyen – US Food and Drug Administration

John Dougherty – US Food and Drug Administration

Elaine Thompson – US Food and Drug Administration

Hussein Ezzeldin – US Food and Drug Administration

Luis Santana-Quintero – US Food and Drug Administration

Konstantinos Karagiannis – US Food and Drug Administration

Vahan Simonyan – US Food and Drug Administration

Yasameen Azarbaijani – US Food and Drug Administration

Marina Kondratovich – US Food and Drug Administration

Danica Marinac-Dabic – FDA/CDRH

Mark Walderhaug – US Food and Drug Administration

Richard Forshee – FDA/CBER

PRESENTING AUTHOR

Yelizaveta Torosyan – US Food and Drug Administration

Medical Devices

## The Association Between Bariatric Surgery and Carpal Tunnel Syndrome: A Cohort Study from Swedish Nationwide Healthcare Registries

CO-AUTHORS

Jennifer Lane – Centre for Statistics in Medicine, Nuffield Department of Orthopaedics, Rheumatology, and Musculoskeletal Sciences, University of Oxford, Oxford, UK

Dag Holmberg – Upper Gastrointestinal Surgery, Department of Molecular medicine and Surgery, Karolinska Institute, Karolinska University Hospital, Stockholm, Sweden

Andrea Burden – Institute of Pharmaceutical Sciences, Department of Chemistry and Applied Biosciences, ETH Zurich, Zurich, Switzerland

Dominic Furniss – Centre for Statistics in Medicine, Nuffield Department of Orthopaedics, Rheumatology, and Musculoskeletal Sciences, University of Oxford, Oxford, UK

PRESENTING AUTHOR

Theresa Burkard – Department of Chemistry and Applied Biosciences, Institute of Pharmaceutical Sciences, ETH Zurich, Zurich, Switzerland

Medical Devices

## Comparison of 10- and 15-Year Outcomes of Bioprosthetic and Mechanical Aortic Valve Replacement in Patients Aged Under 65 Years: Australian Study Using Linked Data for 4,704 Patients

PRESENTING AUTHOR

Oluwadamisola Sotade – Centre for Big Data Research in Health, UNSW

CO-AUTHORS

Michael Falster – Centre for Big Data Research in Health, UNSW

Sallie-Anne Pearson – Centre for Big Data Research in Health, University of New South Wales

Louisa Jorm – Centre for Big Data Research in Health, UNSW

Art Sedrakyan – Weill Cornell Medicine

# Program Schedule

Medical Devices

## Sex-Differences in Risk of Early Revision After Primary Total Knee Arthroplasty

PRESENTING AUTHOR

Suvekshya Aryal – Weill Cornell Medicine

CO-AUTHORS

Per-Henrik Randsborg – Hospital for Special Surgery

Danica Marinac-Dabic – FDA/CDRH

Xinyan Zheng – Weill Cornell Medicine

Jialin Mao – Weill Cornell Medicine

Amanda Chen – Weill Cornell Medicine

Vincent Devlin – US Food and Drug Administration

Raquel Peat – US Food and Drug Administration

Art Sedrakyan – Weill Cornell Medicine

Medical Devices

## The Association Between Bariatric Surgery and Cataract: A Cohort Study from Swedish Nationwide Healthcare Registries

PRESENTING AUTHOR

Theresa Burkard – Department of Chemistry and Applied Biosciences, Institute of Pharmaceutical Sciences, ETH Zurich, Zurich, Switzerland

CO-AUTHORS

Dag Holmberg – Upper Gastrointestinal Surgery, Department of Molecular medicine and Surgery, Karolinska Institute, Karolinska University Hospital, Stockholm, Sweden

Farhad Hafezi – ELZA Institute, Dietikon, Switzerland

Andrea M. Burden, PhD – Institute of Pharmaceutical Sciences, Department of Chemistry and Applied Biosciences, ETH Zurich, Zurich, Switzerland

Medical Devices

## Comparative Patient Characteristics of Transcatheter Left Atrial Appendage Occlusion vs Oral Anticoagulants for Stroke Prevention in Atrial Fibrillation

PRESENTING AUTHOR

Kueiyu Joshua Lin – Brigham and Women's Hospital

CO-AUTHORS

Daniel Singer – Department of Medicine, Massachusetts General Hospital, Harvard Medical School

Sushama Kattinakere Sreedhara – Division of Pharmacoepidemiology and Pharmacoeconomics, Department of Medicine, Brigham and Women's Hospital, Harvard Medical School

Krista Huybrechts – Brigham and Women's Hospital, Division of Pharmacoepidemiology and Pharmacoeconomics

Sebastian Schneeweiss – Division of Pharmacoepidemiology and Pharmacoeconomics, Department of Medicine, Brigham and Women's Hospital and Harvard Medical School, Boston, MA, USA

3:00 - 4:30 PM

## ORAL SESSIONS / CONCURRENT

### Psychotropics: Bitter Pills to Swallow in Pregnancy

Pregnancy and Lactation

### Prenatal Antiseizure Medication Exposure and Risk of Autism and Intellectual Disability. SCAN-AED: A Nordic Cohort Study

PRESENTING AUTHOR

Marte-Helene Bjørk – Bergen Epilepsy Research Group, Department of Clinical Medicine, University of Bergen

CO-AUTHORS

Helga Zoega – Centre for Big Data Research in Health, UNSW Sydney

Maarit Leinonen – Finnish Institute for Health and Welfare

Jacqueline Ohen – Norwegian Institute of Public Health

Julie Dreier – Department of Clinical Medicine, University of Bergen

Kari Furu – Norwegian Institute of Public Health

Nils Erik Gilhus – Bergen Epilepsy Research Group, Department of Clinical Medicine, University of Bergen

Mika Gissler – Finnish Institute for Health and Welfare

Óskar Hálfðánarson – Centre of Public Health Sciences, Faculty of Medicine, University of Iceland

Jannicke Igland – BIOS. Department of Global Public Health and Primary Care, University of Bergen

Yuelian Sun – National Centre for Register-Based Research, Department of Economics and Business Economics, Aarhus BSS, Aarhus University

Torbjörn Tomson – Department of Clinical Neuroscience, Karolinska Institutet

Silje Alvestad – National Center for Epilepsy, Oslo University Hospital

Jakob Christensen – National Centre for Register-Based Research, Department of Economics and Business Economics, Aarhus BSS, Aarhus University

# Program Schedule

Pregnancy and Lactation

## The Comparative Safety of Antiseizure Medication Polytherapy vs Valproate in Pregnancy and Risk of Major Congenital Malformations

PRESENTING AUTHOR

Jacqueline Cohen – Norwegian Institute of Public Health

CO-AUTHORS

Silje Alvestad – National Center for Epilepsy, Oslo University Hospital

Elizabeth Suarez – Brigham and Women's Hospital, Division of Pharmacoepidemiology and Pharmacoeconomics

Andrea Schaffer – Centre for Big Data Research in Health, UNSW Sydney

Randi Selmer – Norwegian Institute of Public Health, Oslo, Norway

Alys Havard – Centre for Big Data Research in Health, UNSW Sydney

Brian Bateman – Brigham and Women's Hospital, Division of Pharmacoepidemiology and Pharmacoeconomics

Helga Zoega – Centre for Big Data Research in Health, UNSW Sydney

Helle Kieler – Centre for Pharmacoepidemiology, Karolinska Institutet

Ingvild Odsbu – Department of Mental Disorders, Norwegian Institute of Public Health, Oslo, Norway

Krista Huybrechts – Brigham and Women's Hospital, Division of Pharmacoepidemiology and Pharmacoeconomics

Lars Kjerpeseth – Norwegian Institute of Public Health

Loreen Straub – Brigham and Women's Hospital, Division of Pharmacoepidemiology and Pharmacoeconomics

Maarit Leinonen – Finnish Institute for Health and Welfare

Marte-Helene Bjørk – Bergen Epilepsy Research Group, Department of Clinical Medicine, University of Bergen

Mette Nørgaard – Department of Clinical Epidemiology, University of Aarhus

Mika Gissler – Finnish Institute for Health and Welfare

Sinna Ulrichsen – Department of Clinical Epidemiology, University of Aarhus

Sonia Hernandez-Diaz – Harvard T.H. Chan School of Public Health

Torbjörn Tomson – Department of Clinical Neuroscience, Karolinska Institutet

Kari Furu – Norwegian Institute of Public Health

Pregnancy and Lactation

## Antidepressant Use During Pregnancy and the Risk of Neurodevelopmental Disorders in Children

PRESENTING AUTHOR

Elizabeth Suarez – Brigham and Women's Hospital, Division of Pharmacoepidemiology and Pharmacoeconomics

CO-AUTHORS

Brian Bateman – Brigham and Women's Hospital, Division of Pharmacoepidemiology and Pharmacoeconomics

Sonia Hernandez-Diaz – Harvard T.H. Chan School of Public Health

Loreen Straub – Brigham and Women's Hospital, Division of Pharmacoepidemiology and Pharmacoeconomics

Yanmin Zhu – Brigham and Women's Hospital, Division of Pharmacoepidemiology and Pharmacoeconomics

Helen Mogun – Brigham and Women's Hospital, Division of Pharmacoepidemiology and Pharmacoeconomics

Krista Huybrechts – Brigham and Women's Hospital, Division of Pharmacoepidemiology and Pharmacoeconomics

Pregnancy and Lactation

## The Impact of In-Utero Antipsychotic Drug Exposure on Congenital Malformations: An International Cohort Study

PRESENTING AUTHOR

Krista Huybrechts – Brigham and Women's Hospital, Division of Pharmacoepidemiology and Pharmacoeconomics

CO-AUTHORS

Loreen Straub – Brigham and Women's Hospital, Division of Pharmacoepidemiology and Pharmacoeconomics

Pär Karlsson – Centre for Pharmacoepidemiology, Department of Medicine, Solna, Karolinska Institutet, Karolinska University Hospital, Stockholm, Sweden

Laura Pazzagli – Centre for Pharmacoepidemiology, Karolinska Institutet, Stockholm, Sweden

Sonia Hernandez-Diaz – Harvard T.H. Chan School of Public Health

Jacqueline Cohen – Norwegian Institute of Public Health

Brian Bateman – Brigham and Women's Hospital, Division of Pharmacoepidemiology and Pharmacoeconomics

Randi Selmer – Norwegian Institute of Public Health, Oslo, Norway

Elizabeth Suarez – Brigham and Women's Hospital, Division of Pharmacoepidemiology and Pharmacoeconomics

Kari Furu – Norwegian Institute of Public Health

Mette Nørgaard – Department of Clinical Epidemiology, University of Aarhus

Mika Gissler – Finnish Institute for Health and Welfare

Maarit Leinonen – Finnish Institute for Health and Welfare

Helga Zoega – Centre for Big Data Research in Health, UNSW Sydney

Helle Kieler – Centre for Pharmacoepidemiology, Karolinska Institutet

# Program Schedule

Pregnancy and Lactation

## The Impact of In-Utero Antipsychotic Exposure on Neurodevelopmental Disorders in Children

PRESENTING AUTHOR

**Loreen Straub** – Brigham and Women's Hospital, Division of Pharmacoepidemiology and Pharmacoeconomics

CO-AUTHORS

**Brian Bateman** – Brigham and Women's Hospital, Division of Pharmacoepidemiology and Pharmacoeconomics

**Sonia Hernandez-Diaz** – Harvard T.H. Chan School of Public Health

**Elizabeth Suarez** – Brigham and Women's Hospital, Division of Pharmacoepidemiology and Pharmacoeconomics

**Cassandra York** – Brigham and Women's Hospital, Division of Pharmacoepidemiology and Pharmacoeconomics

**Yanmin Zhu** – Brigham and Women's Hospital, Division of Pharmacoepidemiology and Pharmacoeconomics

**Helen Mogun** – Brigham and Women's Hospital, Division of Pharmacoepidemiology and Pharmacoeconomics

**Krista Huybrechts** – Brigham and Women's Hospital, Division of Pharmacoepidemiology and Pharmacoeconomics

**3:00 - 4:30 PM**

Presentation Time: 4:30 PM - 6:00 PM

### ORAL SESSIONS / CONCURRENT

## Application of Pharmacoepidemiologic Study Designs for Research Across the Cancer Continuum

Safety End Points

### Proton Pump Inhibitors and Risk of Gastric Cancer: A Population-based Cohort Study

PRESENTING AUTHOR

**Devin Abrahami** – McGill University

CO-AUTHORS

**Emily McDonald** – Division of Internal Medicine, Department of Medicine, McGill University Health Centre, Montreal, CA

**Mireille Schnitzer** – Faculté de Pharmacie, University of Montreal

**Alan Barkun** – McGill University Health Centre

**Samy Suissa** – Departments of Epidemiology and Biostatistics, Faculty of Medicine, McGill University, Montreal, CA

**Laurent Azoulay** – Department of Epidemiology, Biostatistics, and Occupational Health, McGill University, Montreal, Québec, CA

Drug Effectiveness

## Efficacy and Safety of Treatments for Nonmetastatic Castration-Resistant Prostate Cancer: A Matching-Adjusted Indirect Comparison and Network Meta-Analysis

PRESENTING AUTHOR

**Lin Wang** – Department of Epidemiology, Johns Hopkins University Bloomberg School of Public Health

CO-AUTHORS

**Channing Paller** – The Sidney Kimmel Comprehensive Cancer Center, Johns Hopkins University School of Medicine

**Hwanhee Hong** – Duke Clinical Research Institute, Duke University

**Otis Brawley** – The Sidney Kimmel Comprehensive Cancer Center, Johns Hopkins University School of Medicine

**G. Caleb Alexander** – Johns Hopkins Center for Drug Safety and Effectiveness

Safety End Points

## Comparative Safety of Conjugated Estrogens/ Bazedoxifene (CE/BZA) vs Estrogen/Progestin Combination Hormone Therapy (EP): A Multi-Database Cohort Study

PRESENTING AUTHOR

**Sarah Hoffman** – HealthCore, Inc.

CO-AUTHORS

**Samuel Governor** – Research Operations, HealthCore, Inc.

**Kimberly Daniels** – Safety & Epidemiology, HealthCore, Inc.

**Ryan Seals** – Optum

**Najat JZiyadeh** – Optum

**Florence Wang** – Optum

**Dingwei Dai** – CVS Health Clinical Trial Services (fka Healthagen)

**Cheryl McMahill-Walraven** – CVS Health Clinical Trial Services (formerly known as Healthagen), an affiliate of Aetna

**Patty Shuminski** – CVS Health Clinical Trial Services (fka Healthagen)

**Vera Frajzyngier** – Boehringer Ingelheim

**Xiaofeng Zhou** – Pfizer, Inc.

**Rongjun Shen** – Pfizer, Inc.

**Nicole Fournakis** – Research Operations, HealthCore, Inc.

**Daniel Beachler** – Safety & Epidemiology, HealthCore, Inc.

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# Program Schedule

Methods in Pharmacoepidemiology

## Risk of Malignancies in Newly Treated Patients with Disease-Modifying Drugs for Multiple Sclerosis: Assessment According to Cohort and Nested-Case Control Approaches

PRESENTING AUTHOR

**Pauline Bosco-Lévy** – Bordeaux PharmacoEpi, INSERM CIC1401, Université de BORDEAUX

CO-AUTHORS

**Emmanuelle Boutmy** – Merck KGaA Darmstadt, Germany

**Angela Grelaud** – Bordeaux PharmacoEpi, INSERM CIC1401, Université de BORDEAUX

**Meritxell Sabidó** – Global Epidemiology, Merck KGaA Darmstadt, Germany

**Pauline Diez** – Bordeaux PharmacoEpi, INSERM CIC1401, Université de BORDEAUX

**Clémentine Lacueille** – Bordeaux PharmacoEpi, INSERM CIC1401, Université de BORDEAUX

**Régis Lassalle** – Bordeaux PharmacoEpi, INSERM CIC1401, Université de BORDEAUX

**Caroline Foch** – Merck KGaA Darmstadt, Germany

**Cécile Droz-Perroteau** – Univ. Bordeaux, INSERM CIC-P 1401, Bordeaux PharmacoEpi, 33000 Bordeaux, France

Safety End Points

## Vitamin K Antagonists and Risk of Myelodysplastic Syndrome: A Nationwide Cohort Study in Atrial Fibrillation Patients

PRESENTING AUTHOR

**Anke Neumann** – EPI-PHARE, Epidemiology of Health Products (French National Agency for the Safety of Medicines and Health Products, and French National Health Insurance)

CO-AUTHORS

**Marie-Joelle Jabagi** – EPI-PHARE, Epidemiology of Health Products (French National Agency for the Safety of Medicines and Health Products, and French National Health Insurance)

**Mahmoud Zureik** – EPI-PHARE, Epidemiology of Health Products (French National Agency for the Safety of Medicines and Health Products, and French National Health Insurance)

Safety End Points

## Use of Proton Pump Inhibitors and Risk of Pancreatic Adenocarcinoma: A Case-Control Study Based on the French National Health Data System (SNDS)

PRESENTING AUTHOR

**Marion Lassalle** – EPI-PHARE, Epidemiology of Health Products (French National Agency for the Safety of Medicines and Health Products [ANSM], and French National Health Insurance [CNAM]), Saint-Denis, France

CO-AUTHORS

**Thien Le Tri** – EPI-PHARE, Epidemiology of Health Products (French National Agency for the Safety of Medicines and Health Products [ANSM], and French National Health Insurance [CNAM]), Saint-Denis, France

**Pauline Afchain** – APHP, Hôpital Saint Antoine, Medical Oncology Department, Paris, France

**Marine Camus-Duboc** – Sorbonne Université, Centre de Recherche Saint Antoine, UMRS-938, Paris, France

**Julien Kirchgessner** – Sorbonne Université, INSERM, Institut Pierre Louis d'Epidémiologie et de Santé Publique, Paris, France

**Mahmoud Zureik** – EPI-PHARE, Epidemiology of Health Products (French National Agency for the Safety of Medicines and Health Products, and French National Health Insurance)

**Rosemary Dray-Spira** – EPI-PHARE, Epidemiology of Health Products (French National Agency for the Safety of Medicines and Health Products [ANSM], and French National Health Insurance [CNAM]), Saint-Denis, France

4:30 - 6:00 PM

## ORAL SESSIONS / CONCURRENT

### Just How Well Does it Work in Real Life?

Drug Effectiveness

## Calibrating Real-World Evidence Studies Against Randomized Trials: Treatment Effectiveness of Infliximab in Inflammatory Bowel Disease

PRESENTING AUTHOR

**Julien Kirchgessner** – Sorbonne Université, INSERM, Institut Pierre Louis d'Epidémiologie et de Santé Publique, Paris, France

CO-AUTHORS

**Rishi Desai** – Division of Pharmacoepidemiology and Pharmacoeconomics, Department of Medicine, Brigham and Women's Hospital and Harvard Medical School, Boston, MA, USA

**Maria Schneeweiss** – Division of Pharmacoepidemiology and Pharmacoeconomics, Department of Medicine, Brigham and Women's Hospital and Harvard Medical School, Boston, MA, USA

**Laurent Beaugerie** – Sorbonne Université, INSERM, Institut Pierre Louis d'Epidémiologie et de Santé Publique, AP-HP, Hôpital Saint-Antoine, Department of gastroenterology, Paris, France

**Seoyoung Kim** – Division of Pharmacoepidemiology and Pharmacoeconomics, Department of Medicine, Brigham and Women's Hospital and Harvard Medical School, Boston, MA, USA

**Sebastian Schneeweiss** – Division of Pharmacoepidemiology and Pharmacoeconomics, Department of Medicine, Brigham and Women's Hospital and Harvard Medical School, Boston, MA, USA

# Program Schedule

Drug Effectiveness

## Shorter Drug Holiday After 3 or More Years of Risedronate vs Alendronate is Important to Maintain Osteoporotic Fracture Protection

PRESENTING AUTHOR

**Kaleen Hayes** – University of Toronto Dalla Lana School of Public Health, Toronto, Ontario, CA

CO-AUTHORS

**Kevin Brown** – University of Toronto Dalla Lana School of Public Health, Toronto, Ontario, CA

**Angela Cheung** – Department of Medicine, University Health Network, University of Toronto, Toronto, Ontario, CA

**David Juurlink** – Department of Medicine, University of Toronto, Toronto, Ontario, CA

**Suzanne Cadarette** – Leslie Dan Faculty of Pharmacy, University of Toronto, Toronto, Ontario, CA

Drug Effectiveness

## Cardiovascular Effectiveness of SGLT-2 Inhibitors vs Metformin as First-Line Treatment for Type 2 Diabetes

PRESENTING AUTHOR

**HoJin Shin** – Division of Pharmacoepidemiology and Pharmacoeconomics, Department of Medicine, Brigham and Women's Hospital and Harvard Medical School

CO-AUTHORS

**Sebastian Schneeweiss** – Division of Pharmacoepidemiology and Pharmacoeconomics, Department of Medicine, Brigham and Women's Hospital and Harvard Medical School, Boston, MA, USA

**Robert Glynn** – Harvard T. H. Chan School of Public Health

**Elisabetta Patorno** – Division of Pharmacoepidemiology and Pharmacoeconomics, Department of Medicine, Brigham and Women's Hospital and Harvard Medical School

Drug Effectiveness

## Effect of SGLT-2 Inhibitors on eGFR in Type 2 Diabetes with Different Baseline Renal Functions: A Multi-Center Study

CO-AUTHORS

**Fang-Ju Lin** – National Taiwan University

**Chi-Chuan Wang** – School of Pharmacy, College of Medicine, National Taiwan University, Taipei, Taiwan

**Chien-Ning Hsu** – Department of Pharmacy, Kaohsiung Chang Gung Memorial Hospital, Kaohsiung, Taiwan

**Chen-Yi Yang** – Institute of Clinical Pharmacy and Pharmaceutical Sciences, College of Medicine, National Cheng Kung University, Tainan, Taiwan

**Chih-Yuan Wang** – College of Medicine, National Taiwan University, Taipei, Taiwan

PRESENTING AUTHOR

**Huang-Tz Ou** – Institute of Clinical Pharmacy and Pharmaceutical Sciences, College of Medicine, National Cheng Kung University, Tainan, Taiwan

Drug Effectiveness

## Comparative Effectiveness of Empagliflozin in Reducing Total Cardiovascular Events in the Empagliflozin Comparative Effectiveness and Safety (EMPRISE) Study

PRESENTING AUTHOR

**Rishi Desai** – Division of Pharmacoepidemiology and Pharmacoeconomics, Department of Medicine, Brigham and Women's Hospital and Harvard Medical School, Boston, MA, USA

CO-AUTHORS

**Robert Glynn** – Harvard T. H. Chan School of Public Health

**Brendan Everett** – Brigham and Women's Hospital

**Sebastian Schneeweiss** – Division of Pharmacoepidemiology and Pharmacoeconomics, Department of Medicine, Brigham and Women's Hospital and Harvard Medical School, Boston, MA, USA

**Deborah Wexler** – Brigham and Women's Hospital

**Anouk Derauz Luyet** – Boehringer-Ingelheim

**Ola Vedin** – Boehringer-Ingelheim

**Kimberly Brodovicz** – Boehringer Ingelheim

**Ajinkya Pawar** – Sanofi

**Elisabetta Patorno** – Division of Pharmacoepidemiology and Pharmacoeconomics, Department of Medicine, Brigham and Women's Hospital and Harvard Medical School

Drug Effectiveness

## Initiation of Sodium-Glucose Co-Transporter 2 Inhibitors and Progression of Renal Disease Among Patients with Type-2 Diabetes: A Population-Based Cohort Study

PRESENTING AUTHOR

**Wajd Alkabbani** – School of Pharmacy, University of Waterloo

CO-AUTHORS

**Arsene Zongo** – Faculty of Pharmacy, Université Laval

**Dean Eurich** – School of Public Health, University of Alberta

**Baiju Shah** – Department of Medicine, University of Toronto

**Jasjeet Minhas-Sandhu** – School of Public Health, University of Alberta

**Mhd. Wasem Alsabbagh** – School of Pharmacy, University of Waterloo

**John-Michael Gamble** – School of Pharmacy, University of Waterloo

# Program Schedule

4:30 - 6:00 PM

## ORAL SESSIONS / CONCURRENT

### Pregnancy: Diabetes and a Surprise

Pregnancy and Lactation

#### Characteristics and Outcomes of Pregnancies in Women with Heart Failure: A Retrospective Cohort Study in the Sentinel System

PRESENTING AUTHOR

**Yan Li** – Office of Surveillance and Epidemiology, Center for Drug Evaluation and Research, U.S. Food and Drug Administration

CO-AUTHORS

**Austin Cosgrove** – Department of Population Medicine, Harvard Medical School and Harvard Pilgrim Health Care Institute

**Efe Eworuke** – Office of Surveillance and Epidemiology, Center for Drug Evaluation and Research, U.S. Food and Drug Administration

**Catherine Corey** – Office of Surveillance and Epidemiology, Center for Drug Evaluation and Research, U.S. Food and Drug Administration

**Joy Kolonoski** – Department of Population Medicine, Harvard Medical School and Harvard Pilgrim Health Care Institute

**Mayura Shinde** – Department of Population Medicine, Harvard Medical School and Harvard Pilgrim Health Care Institute

Pregnancy and Lactation

#### Metformin and Risk of Adverse Pregnancy Outcomes Among Pregnant Women with Gestation Diabetes in the United Kingdom: A Population-Based Cohort Study

PRESENTING AUTHOR

**Ya-Hui Yu** – McGill University

CO-AUTHORS

**Robert Platt** – Department of Epidemiology, Biostatistics and Occupational Health, McGill University, Montreal, Quebec, CA

**Oriana Hoi Yun Yu** – Centre for Clinical Epidemiology, Lady Davis Institute, Jewish General Hospital, Montreal, Québec, CA

**Kristian Filion** – Department of Epidemiology, Biostatistics and Occupational Health, McGill University, Montreal, Quebec, CA

Pregnancy and Lactation

#### The Role of Propensity Score Matching in Claims-Based Studies for Achieving Comparability in Hba1c Levels Between Treatments in Pregnant Women with Type 2 Diabetes

PRESENTING AUTHOR

**Carolyn Cesta** – Karolinska Institutet

CO-AUTHORS

**Sonia Hernandez-Diaz** – Harvard T.H. Chan School of Public Health

**Brian Bateman** – Brigham and Women's Hospital, Division of Pharmacoepidemiology and Pharmacoeconomics

**Krista Huybrechts** – Brigham and Women's Hospital, Division of Pharmacoepidemiology and Pharmacoeconomics

**Ellen Seely** – Harvard Medical School

**Elisabetta Patorno** – Division of Pharmacoepidemiology and Pharmacoeconomics, Department of Medicine, Brigham and Women's Hospital and Harvard Medical School

Pregnancy and Lactation

#### Balance of Unmeasured Covariates After Propensity Score Matching Based on Measurable Covariates in Perinatal Pharmacoepidemiologic Studies

PRESENTING AUTHOR

**Anmin Zhu** – Brigham and Women's Hospital, Division of Pharmacoepidemiology and Pharmacoeconomics

CO-AUTHORS

**Thuy Thai** – Department of Pharmaceutical Outcomes and Policy and Center for Drug Evaluation and Safety, College of Pharmacy, University of Florida

**Sonia Hernandez-Diaz** – Harvard T.H. Chan School of Public Health

**Brian Bateman** – Brigham and Women's Hospital, Division of Pharmacoepidemiology and Pharmacoeconomics

**Loreen Straub** – Brigham and Women's Hospital, Division of Pharmacoepidemiology and Pharmacoeconomics

**Kathryn Gray** – Division of Maternal-Fetal Medicine, Department of Obstetrics and Gynecology, Brigham and Women's Hospital and Harvard Medical School

**Almut Winterstein** – Department of Pharmaceutical Outcomes and Policy and Center for Drug Evaluation and Safety, College of Pharmacy, University of Florida

**Lockwood Taylor** – Center for Drug Evaluation and Research, United States Food and Drug Administration

**Rita Ouellet-Hellstrom** – Center for Drug Evaluation and Research, United States Food and Drug Administration

**Yong Ma** – Center for Drug Evaluation and Research, United States Food and Drug Administration

**Yandong Qiang** – Center for Drug Evaluation and Research, United States Food and Drug Administration

**Wei Hua** – Center for Drug Evaluation and Research, United States Food and Drug Administration

**Krista Huybrechts** – Brigham and Women's Hospital, Division of Pharmacoepidemiology and Pharmacoeconomics

# Program Schedule

Pregnancy and Lactation  
**Development and Validation of ICD-10 Claims-Based Algorithms for Pregnancy and Infant Outcomes**

PRESENTING AUTHOR

Andrea Chomistek – Optum

CO-AUTHORS

Kelesitse Phiri – GlaxoSmithKline

Jenna Calderbank – Optum

Michael Doherty – Optum

Stephanie Chiuve – AbbVie

Brenda Hinman-McIlroy – AbbVie

Michael Snabes – AbbVie, Inc

John Seeger – Epidemiology, Optum, Boston, MA, USA

Pregnancy and Lactation  
**Metformin vs Insulin in Early Pregnancy and Risk of Congenital Malformations**

PRESENTING AUTHOR

Lars Kjerpeseth – Norwegian Institute of Public Health

CO-AUTHORS

Carolyn Cesta – Karolinska Institutet

Anders Engeland – University of Bergen

Kari Furu – Norwegian Institute of Public Health

Mika Gissler – Finnish Institute for Health and Welfare

Hanne Gulseth – Norwegian Institute of Public Health

Øystein Karlstad – Norwegian Institute of Public Health

Helle Kieler – Centre for Pharmacoepidemiology, Karolinska Institutet

Maarit Leinonen – Finnish Institute for Health and Welfare

Mette Nørgaard – Department of Clinical Epidemiology, University of Aarhus

Laura Pazzagli – Centre for Pharmacoepidemiology, Karolinska Institutet, Stockholm, Sweden

Randi Selmer – Norwegian Institute of Public Health, Oslo, Norway

Helga Zoega – Centre for Big Data Research in Health, UNSW Sydney

Jacqueline Cohen – Norwegian Institute of Public Health

4:30 - 6:00 PM

**ORAL SESSIONS / CONCURRENT**

**PS I love you, XXII**

Methods in Pharmacoepidemiology  
**Evaluating When Effect Estimates Change After Propensity Score Trimming Because of Differing Effect Measure Modifier Distributions**

PRESENTING AUTHOR

Michael Webster-Clark – University of North Carolina at Chapel Hill

CO-AUTHORS

Michele Jonsson Funk – University of North Carolina at Chapel Hill

Jennifer Lund – Department of Epidemiology, University of North Carolina at Chapel Hill

Robert Glynn – Harvard T. H. Chan School of Public Health

Til Stürmer – Department of Epidemiology, University of North Carolina at Chapel Hill

Alan Kinlaw – UNC Eshelman School of Pharmacy

Methods in Pharmacoepidemiology  
**Optimization-Based Stable Balancing Weights vs Generalized Boosted Modeling for Propensity Score Weighting**

PRESENTING AUTHOR

Stephen Johnston – Johnson & Johnson

CO-AUTHORS

Luo Li – Johnson & Johnson

Harikumar Dwarakanathan – Mu Sigma

David Wei – Johnson & Johnson

Pragya Rai – Johnson & Johnson

Paul Coplan – Johnson & Johnson

Methods in Pharmacoepidemiology  
**Controlling for Differential Regression to the Mean Using Summary Measures of Pre-Treatment Laboratory Values in Propensity Scores**

PRESENTING AUTHOR

Chase Latour – University of North Carolina at Chapel Hill

CO-AUTHORS

Leah McGrath – Novartis, Inc.

Alexander Breskin – Novartis, Inc.

Ying Yu – Novartis, Inc.

M. Alan Brookhart – Novartis, Inc.

# Program Schedule

Medical Devices

## An Evaluation of Direct and Propensity Score Matching vs Propensity Score Stratification for Confounding Adjustment in Primary Total Hip Arthroplasty

PRESENTING AUTHOR

Abhishek Chitnis – *Johnson & Johnson*

CO-AUTHORS

Jack Mantel – *DePuy Synthes*

Juan Daccach – *Johnson & Johnson*

Prerna Kothari – *Mu-Sigma*

Jill Ruppenkamp – *Johnson & Johnson*

Paul Coplan – *Johnson & Johnson*

Chantal Holy – *Johnson & Johnson*

Methods in Pharmacoepidemiology

## Disease Risk Score as Alternative to Propensity Score Under Multiple Confounders and High Prevalence of Outcome: A Simulation Study Motivated by the Emergence of Multiple Repurposed Medicines During the COVID-19 Pandemic

PRESENTING AUTHOR

Yuchen Guo – *University of Oxford*

CO-AUTHORS

Sara Khalid – *University of Oxford*

Victoria Strauss – *University of Oxford*

M Sanni Ali – *London School of Hygiene & Tropical Medicine*

Daniel Prieto-Alhambra – *Centre for Statistics in Medicine (CSM), Nuffield Department of Orthopaedics, Rheumatology and Musculoskeletal Sciences (NDROMS), University of Oxford, Oxford, UK*

Methods in Pharmacoepidemiology

## Cardinality Matching vs Propensity Score Matching in Multiple Sclerosis

PRESENTING AUTHOR

Nicholas Belviso – *Biogen*

CO-AUTHORS

Gabrielle Simoneau – *Biogen*

Bora Youn – *Biogen*

Fabio Pellegrini – *Biogen*

Changyu Shen – *Biogen*

Carl de Moor – *Biogen*

6:00 - 6:30 PM

### CLOSING CEREMONY

SPEAKERS

Syd Phillips – *Chair, ICPE Scientific Program Committee*

Anton Pottegård – *University of Southern Denmark*

Jesper Hallas – *University of Southern Denmark*

8:00 - 9:30 PM

### PLENARY

## COVID-19 Vaccines: Timely Global Real-World Evidence Vaccines

MODERATOR

J. Bradley Layton – *RTI Health Solutions*

SPEAKERS

Miriam Sturkenboom – *Department DataScience & Biostatistics, University Medical Center Utrecht*

Steven Anderson – *FDA/CBER*

Carla Talarico – *Moderna*

Robert Chen – *Brighton Collaboration*

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# Symposia/Workshops

## WORKSHOP

Benefit-Risk Assessment, Communication, and Evaluation (BRACE)

**Big Data in Health and Bioethics: A Call for a Comprehensive, Multi-Disciplinary, ISPE Position**

### PRESENTERS

Xavier Kurz – European Medicines Agency

Edward Bortnichak – Merck & Co., Inc.

Solomon Iyasu – Merck & Co. Inc.

Patrick Ryan – Janssen Research & Development

Ameet Sarpatwari – Division of Pharmacoepidemiology and Pharmacoeconomics, Department of Medicine, Brigham and Women's Hospital and Harvard Medical School

### AUTHOR

Peter Arlett – European Medicines Agency

Methods in Pharmacoepidemiology  
**Outcome Measurements for External Comparator Arms: New Opportunities for Epidemiology Methods Application and Development**

### PRESENTERS

Joan Largent – IQVIA

Emily Brouwer – Janssen

Cynthia Girman – CERobs Consulting, LLC

Christen Gray – AstraZeneca

Michele Jonsson Funk – University of North Carolina at Chapel Hill

Robert Glynn – Harvard T. H. Chan School of Public Health

### CO-AUTHORS

Dimitri Bennett – Takeda

Kueiyu Joshua Lin – Brigham and Women's Hospital

Daniela Moga – Department of Pharmacy Practice and Science, College of Pharmacy, University of Kentucky

Sabina Nduaguba – University of Florida

Mary Prince Panaccio – Research Outcomes Innovations

Xuerong Wen – University of Rhode Island, College of Pharmacy

Richard Wyss – Division of Pharmacoepidemiology and Pharmacoeconomics, Department of Medicine, Brigham and Women's Hospital and Harvard Medical School, Boston, MA, USA

Hongbo Yuan – Canadian Agency for Drugs and Technologies in Health

Huifeng Yun – Department of Epidemiology, University of Alabama at Birmingham

Methods in Pharmacoepidemiology  
**Polypharmacy: Problems and Solutions for its Methodologic Challenges in Real-World Data**

### PRESENTERS

Amy Justice – US Department of Veterans Affairs

Christopher Rentsch – London School of Hygiene & Tropical Medicine; US Department of Veterans Affairs

Kirsha Gordon – VA CT Healthcare System

Jonathon Romero – Oak Ridge National Laboratory

Jordan Guillot – Université de Bordeaux

Vincent Lo Re – Center for Pharmacoepidemiology Research and Training, Center for Clinical Epidemiology and Biostatistics, Department of Biostatistics, Epidemiology, and Informatics, Perelman School of Medicine, University of Pennsylvania, Philadelphia, PA, USA

Disease Epidemiology/Clinical Course  
**Real World Data in the Era of COVID-19: The Devil in the Details. An ISPE RWE Task Force/ COVID-19 Workgroup Symposium**

### PRESENTERS

Montse Soriano Gabarro – Bayer AG

Dana Teltsch – Apellis

Mugdha Gokhale – Center for Observational and Real-world Evidence (CORE), Merck Research Laboratories

Paul Petraro – Head, RWE Analytic CoE, Boehringer-Ingelheim

Jeremy Rassen – Aetion, Inc.

Stephan Lanes – HealthCore Inc

Soko Setoguchi – RWJ Medical School, Center for Pharmacoepidemiology and Treatment Science (PETS), Institute for Health, Health Care Policy and Aging Research

Daniel Prieto-Alhambra – Centre for Statistics in Medicine (CSM), Nuffield Department of Orthopaedics, Rheumatology and Musculoskeletal Sciences (NDROMS), University of Oxford, Oxford, UK

# Symposia/Workshops



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## WORKSHOP

Methods in Pharmacoepidemiology  
**COVID-19 Confidential: Enabling Trust in COVID-19 Research with Fit for Purpose Real-World Data**

### PRESENTERS

Nicolle Gatto – *Aetion, Inc.*  
Jessica Franklin – *Optum*

Elizabeth Garry – *Aetion, Inc.*  
David Martin – *Moderna*

Aloka Chakravarty – *Food and Drug Administration*  
Jeremy Rassen – *Aetion, Inc.*

Drug Utilization Research  
**Drug Utilization Research in Africa:  
Challenges and Potential Solutions**

### PRESENTERS

Maribel Salas – *Clinical Safety and Pharmacovigilance, Daiichi Sankyo Inc Basking Ridge, NJ and CCEB/CPeRT, University of Pennsylvania Perelman School of Medicine*

Johanita Burger – *Medicine Usage in South Africa (MUSA), North-West University*

Laura Horne – *Clinical Safety and Pharmacovigilance, Daiichi Sankyo Inc Basking Ridge*

Johanna Meyer – *Division of Public Health Pharmacy and Management, School of Pharmacy, Sefako Makgatho Health Sciences University*

Ilse Truter – *Nelson Mandela University*

Methods in Pharmacoepidemiology  
**Triangulating the Truth: State-of-the-Art Sensitivity  
Analyses for Observational Research**

### PRESENTERS

Marianne Cunningham – *Glaxosmithkline*

Ian Douglas – *London School of Hygiene & Tropical Medicine*

Jeremy Brown – *London School of Hygiene and Tropical Medicine*

Sonia Hernandez-Diaz – *Harvard T.H. Chan School of Public Health*

Daina Esposito – *Boston University School of Public Health*

Wilhelmine Meerhaus – *Glaxosmithkline*

# Symposia/Workshops

## WORKSHOP

Informatics

**From the Individual Through the Health System and Back: The Interdisciplinary Promise and Challenges of Digital Epidemiology for Improved Outcomes (An ISPE Digital Epidemiology SIG Endorsed Symposium)**

PRESENTERS

Lisa Weiss – Health Information Technology Lab

Heidi Dohse – Tour de Heart

Dana Teltsch – Apellis

Nancy Dreyer – IQVIA

John Cai – Merck

Helga Gardarsdottir – Division of Pharmacoepidemiology and Clinical Pharmacology, Utrecht Institute for Pharmaceutical Sciences, Utrecht University

Pregnancy and Lactation

**How to Emulate a Target Trial to Study the Effects of Treatments for and During Pregnancy**

PRESENTERS

Sonia Hernandez-Diaz – Harvard T.H. Chan School of Public Health

Sonja Swanson – Department of Epidemiology, Erasmus MC

Jennifer Yland – Department of Epidemiology, Boston University School of Public Health

Kristin Palmsten – HealthPartners Institute

Drug Effectiveness

**Lessons for Regulatory Decision-Making from Real-World Data Trial Emulation Results**

PRESENTERS

Shirley Wang – Brigham and Women's Hospital, Harvard Medical School

Sebastian Schneeweiss – Division of Pharmacoepidemiology and Pharmacoeconomics, Department of Medicine, Brigham and Women's Hospital and Harvard Medical School, Boston, MA, USA

William Crown – Brandeis University

Joseph Ross – Yale University

Peter Arlett – European Medicines Agency

Kenneth Quinto – US Food and Drug Administration

Yoshiaki Uyama – Pharmaceutical Devices and Medicines Agency

Vaccines

**Methodological Approaches to Evaluating the Safety and Effectiveness of Multi-Dose Coronavirus Disease 2019 (COVID-19) Vaccines Series**

PRESENTERS

Hui-Lee Wong – CBER, Center for Biologics Evaluation and Research, U.S. Food and Drug Administration

Xabier Garcia de Albeniz – RTI Health Solutions

Anne MobleyButler – Washington University in St. Louis

Heather Whitaker – Public Health England

Marc Suchard – University of California, Los Angeles

## WORKSHOP

Methods in Pharmacoepidemiology

**A Call for 'Environmental Pharmacoepidemiology': Medications, Global and Local Environments, and Health Outcomes**

PRESENTERS

Benjamin Bates – Rutgers Robert Wood Johnson Medical School

Sean Hennessy – Center for Pharmacoepidemiology Research and Training, Center for Clinical Epidemiology and Biostatistics, University of Pennsylvania, Philadelphia, PA, USA

Michelle Bell – School of the Environment, Yale University, New Haven, CT, USA

Paul Coplan – Johnson & Johnson

Rachel Nethery – Department of Biostatistics, Harvard T.H. Chan School of Public Health

Soko Setoguchi – RWJ Medical School, Center for Pharmacoepidemiology and Treatment Science (PETS), Institute for Health, Health Care Policy and Aging Research

Methods in Pharmacoepidemiology

**Believability of Real-World Evidence (RWE) for Informed Regulatory Decisions**

PRESENTERS

Jacinthe Leclerc – Universite du Quebec a Trois-Rivieres

Kimberly Brodovicz – Boehringer Ingelheim

Stephen Chang – FDA

Magdalene Assimon – University of North Carolina School of Medicine

Hisashi Urushihara – Keio University

Cynthia Girman – CERobs Consulting, LLC

# Symposia/Workshops

## Methods in Pharmacoepidemiology New Frontiers in Computable Phenotyping for Medical Product Safety Evaluation

### PRESENTERS

**Rishi Desai** – Division of Pharmacoepidemiology and Pharmacoeconomics, Department of Medicine, Brigham and Women's Hospital and Harvard Medical School, Boston, MA, USA

**David Carrell** – Kaiser Permanente Washington Health Research Institute

**Robert Ball** – FDA

**Katherine Liao** – Brigham and Women's Hospital

**Lindsay Collin** – Huntsman Cancer Institute, University of Utah, Salt Lake City, UT, USA

**Sebastian Schneeweiss** – Division of Pharmacoepidemiology and Pharmacoeconomics, Department of Medicine, Brigham and Women's Hospital and Harvard Medical School, Boston, MA, USA

## Methods in Pharmacoepidemiology Using Real-World External Controls to Support Drug Approval: An Interactive Framework Using Oncology Trial and Real-World Data

### PRESENTERS

**Laura Hester** – Janssen R&D, LLC

**Donna Rivera** – US Food & Drug Administration

**Jennifer Lund** – Department of Epidemiology, University of North Carolina at Chapel Hill

**Asieh Golozar** – Regeneron Pharmaceuticals

**Kourtney Davis** – Janssen R&D, LLC

**John Seeger** – Optum Epidemiology

**Leah Sansbury** – GlaxoSmithKline

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<b>Block 2</b> (February)	Introduction to Pharmacovigilance
<b>Block 3</b> (April)	Intermediate Pharmacoepi/Pharmacovigilance
<b>Block 4</b> (October)	Real-World Evidence in Pharmacoepidemiology

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# Symposia/Workshops

## WORKSHOP

Disease Epidemiology/Clinical Course

**Pediatric Infection with Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-COV 2) and Potential Health Consequences (Submitted on behalf of the ISPE RWE COVID-19 Workgroup)**

PRESENTERS

**Ann McMahon** – Office of Pediatric Therapeutics, Food and Drug Administration

**Susan Coffin** – Children's Hospital of Philadelphia

**David Kimberlin** – University of Alabama at Birmingham

**Montse Soriano Gabarro** – Bayer AG

**Jonathan Davis** – Tufts University Children's Hospital

Medical Devices

**Product Surveillance and Signal Management: Now is the Time for Methodologist Engagement!**

PRESENTERS

**Mary Beth Ritchey** – Med Tech Epi

**Danica Marinac-Dabic** – FDA/CDRH

**Theodore Lystig** – Medtronic

**Paul Coplan** – Johnson & Johnson

Methods in Pharmacoepidemiology

**RWE Blueprints: Decoding SPACE, SPIFD, Start-RWE, and Other Tools Promoting Principled Pharmacoepidemiology**

PRESENTERS

**Elizabeth Garry** – Aetion, Inc.

**Nicolle Gatto** – Aetion, Inc.

**Shirley Wang** – Brigham and Women's Hospital, Harvard Medical School

**Ulka Campbell** – Pfizer, Inc.

Methods in Pharmacoepidemiology

**Selection Matters: Addressing Biases in Linked**

## Clinico-Genomic Data Sets

PRESENTERS

**Katherine Panageas** – Memorial Sloan Kettering Cancer Center

**Kenneth Kehl** – Dana-Farber Cancer Institute, Harvard Medical Center

**Devin Incerti** – Genentech

**Til Stürmer** – Department of Epidemiology, University of North Carolina at Chapel Hill

Methods in Pharmacoepidemiology

**Strategies for the Use of Real-World Data to Conduct COVID-19-Related Pharmacoepidemiology**

PRESENTERS

**Vincent Lo Re** – Center for Pharmacoepidemiology Research and Training, Center for Clinical Epidemiology and Biostatistics, Department of Biostatistics, Epidemiology, and Informatics, Perelman School of Medicine, University of Pennsylvania, Philadelphia, PA, USA

**Noelle Cocoros** – Harvard Pilgrim Health Care Institute

**Candace Fuller** – Harvard Pilgrim Health Care Institute

**Wei Hua** – Center for Drug Evaluation and Research, United States Food and Drug Administration

**Silvia Perez-Vilar** – Office of Surveillance and Epidemiology, Center for Drug Evaluation and Research, US Food and Drug Administration

# Oral Presentations

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# Oral Presentations

## BENEFIT-RISK ASSESSMENT, COMMUNICATION, AND EVALUATION (BRACE)

### Impact of FDA's Regulatory Actions on the Quality of Reims Survey Methodology Protocols (2007-2020)

Samuel Ewusie<sup>1</sup> | Janifer Quick<sup>2</sup> | Elaine Morrato<sup>3</sup>  
Gita Toyserkani<sup>2</sup>

<sup>1</sup>ORISE Fellow, Division of Risk Management, FDA; <sup>2</sup>Division of Risk Management, FDA; <sup>3</sup>Parkinson School of Public Health, Loyola University Chicago

### Jak Inhibitors and the Risk of Cardiovascular and Venous Thromboembolism Events Among Patients with Rheumatoid Arthritis: A Network Meta-analysis of Clinical Trials

Carlos Alves<sup>1</sup> | Ana Penedones<sup>2</sup> | Diogo Mendes<sup>2</sup>  
Francisco Batel Marques<sup>3</sup>

<sup>1</sup>University of Coimbra, School of Pharmacy; <sup>2</sup>UFC – Coimbra Regional Pharmacovigilance Unit, CHAD – Centre for Health Technology Assessment and Drug Research, AIBILI; <sup>3</sup>Faculty of Pharmacy, University of Coimbra

### Preferences Concerning Drug Safety Communication of Hospital-Based Specialist in the Netherlands

Esther de Vries<sup>1</sup> | Elisabeth Bakker<sup>1</sup> | Petra Denig<sup>2</sup>  
Peter Mol<sup>3</sup>

<sup>1</sup>University of Groningen, University Medical Center Groningen, Department Clinical Pharmacy and Pharmacology, Groningen, the Netherlands; <sup>2</sup>University Medical Center Groningen; <sup>3</sup>University of Groningen, University Medical Center Groningen, Department of Clinical Pharmacy and Pharmacology, The Netherlands

### Regulatory Approval of Phentermine/topiramate for Obesity Management and Off-label Use of Topiramate: A Fairytale for Drug Repurposing and a Maze for Risk Mitigation

Amir Sarayani<sup>1</sup> | William T. Donahoo<sup>2</sup> Christian Hampf<sup>3</sup>  
Joshua D Brown<sup>4</sup> | Almut G Winterstein<sup>5</sup>

<sup>1</sup>University of Florida Department of Pharmaceutical Outcomes and Policy; <sup>2</sup>College of Medicine, University of Florida; <sup>3</sup>US Food and Drug Administration; <sup>4</sup>Department of Pharmaceutical Outcomes and Policy, College of Pharmacy, University of Florida; <sup>5</sup>Department of Pharmaceutical Outcomes and Policy and Center for Drug Evaluation and Safety, College of Pharmacy, University of Florida

### Risk of Myocardial Infarction, Stroke or Death in New Users of Intravitreal Aflibercept vs New Users of Intravitreal Ranibizumab: A Nationwide Cohort Study

Sophie Billioti de Gage<sup>1</sup> | Marion Bertrand<sup>2</sup>  
Mahmoud Zureik<sup>2</sup>

<sup>1</sup>French National Agency for Medicines and Health Products Safety; <sup>2</sup>EPI-PHARE, Epidemiology of Health Products (French National Agency for the Safety of Medicines and Health Products, and French National Health Insurance)

### What Matters to Patients When Considering Treatments for Prevention of Rheumatoid Arthritis: A Preference Study in the United Kingdom, Germany, and Romania

Rachael DiSantostefano<sup>1</sup> | Marie Falahee<sup>2</sup>  
Gwenda Simons<sup>2</sup> | Matthias Englbrecht<sup>3</sup>  
Christine Radawski<sup>4</sup> | Karim Raza<sup>2</sup> | Jorien veldwijk<sup>5</sup>

<sup>1</sup>Johnson & Johnson; <sup>2</sup>Institute of Inflammation and Ageing, College of Medical and Dental Sciences, University of Birmingham, Birmingham, UK; <sup>3</sup>Freelance Data Scientist, Eckental, Germany; <sup>4</sup>Eli Lilly and Company; <sup>5</sup>School of Health Policy & Management, Erasmus University Rotterdam, Rotterdam, The Netherlands

## BIOLOGICS / BIOSIMILARS

### Discontinuation Rate of Tofacitinib is Similar When Compared to TNF Inhibitors in Rheumatoid Arthritis Patients: Data from a Rheumatoid Arthritis Cohort

Mohammad Movahedi<sup>1</sup> | Angela Cesta<sup>2</sup> | Xiuying Li<sup>2</sup>; Edward Keystone<sup>3</sup> | Claire Bombardier<sup>2</sup> | OBRI Investigators<sup>4</sup>

<sup>1</sup>University Health Network (Toronto); <sup>2</sup>Toronto General Hospital Research Institute, University Health Network, Toronto, ON; <sup>3</sup>Department of Medicine, University of Toronto, Toronto, ON; <sup>4</sup>Toronto General Hospital Research Institute, University Health Network, Toronto, ON

# Oral Presentations

## DISEASE EPIDEMIOLOGY / CLINICAL COURSE

### Chronic Diseases, Health Conditions and Risk of COVID-19-related Hospitalization and In-hospital Mortality During the First Wave of the Epidemic in France: A Cohort Study of 66 Million People

Mahmoud Zureik<sup>1</sup> | Laura Semenzato<sup>2</sup> | Jérémie Botton<sup>2</sup>  
Jérôme Drouin<sup>2</sup> | François Cuenot<sup>2</sup> | Rosemary Dray-Spira<sup>3</sup>  
Alain Weill<sup>4</sup>

<sup>1</sup>EPI-PHARE, Epidemiology of Health Products (French National Agency for the Safety of Medicines and Health Products, and French National Health Insurance); <sup>2</sup>EPI-PHARE Scientific Interest Group in Epidemiology of Health Products from the French National Agency for the Safety of Medicines and Health Products and the French National Health Insurance; <sup>3</sup>EPI-PHARE, Epidemiology of Health Products (French National Agency for the Safety of Medicines and Health Products [ANSM], and French National Health Insurance [CNAM]), Saint-Denis, France; <sup>4</sup>French National Health Insurance Fund (Assurance Maladie)

### Comparable COVID-19 Outcomes with Current Use of GLP-1 Receptor Agonists, DPP-4 Inhibitors or SGLT-2 Inhibitors Among Patients with Diabetes Who Tested Positive for sars-cov-2

Simone Bastrup Israelsen<sup>1</sup> | Anton Pottegård<sup>2</sup>  
Håkon Sandholdt<sup>1</sup> | Sten Madsbad<sup>3</sup> | Reimar Thomsen<sup>4</sup>  
Thomas Benfield<sup>1</sup>

<sup>1</sup>Center of Research and Disruption of Infectious Diseases, Department of Infectious Diseases, Copenhagen University Hospital, Amager and Hvidovre, Hvidovre, Denmark; <sup>2</sup>University of Southern Denmark; <sup>3</sup>Department of Endocrinology, Copenhagen University Hospital, Amager and Hvidovre, Hvidovre, Denmark; <sup>4</sup>Department of Clinical Epidemiology, Aarhus University, Aarhus, Denmark

### Development and Validation of an Algorithm to Estimate the Risk of Severe Complications of COVID-19 to Prioritise Vaccination

Ron M.C. Herings<sup>1</sup> | Karin Swart<sup>1</sup> | Bernard van der Zeijst<sup>2</sup>  
Amber van der Heijden<sup>3</sup> | Koos van der Velden<sup>4</sup>  
Eric Hiddink<sup>5</sup> | Martijn Heymans<sup>6</sup> | Reinier Herings<sup>7</sup>  
Hein van Hout<sup>3</sup> | Joline Beulens<sup>6</sup> | Giel Nijpels<sup>3</sup>  
Petra Elders<sup>3</sup>

<sup>1</sup>PHARMO Institute; <sup>2</sup>Department of Medical Microbiology, Leiden University Medical Center, Leiden, the Netherlands; <sup>3</sup>Department of General Practice, Amsterdam UMC – Vrije Universiteit, Amsterdam Public Health, Amsterdam, the Netherlands; <sup>4</sup>Department of Primary and Community Care, Academic Collaborative Center AMPHI, Integrated Health Policy, Radboud University Medical Center, Nijmegen, the Netherlands; <sup>5</sup>Stichting Health Base, Houten, the Netherlands; <sup>6</sup>Department of Epidemiology & Data Science, Amsterdam UMC – Vrije Universiteit, Amsterdam Public Health, Amsterdam Cardiovascular Sciences, Amsterdam, the Netherlands; <sup>7</sup>Julius Center for Health Sciences and Primary Care, University Medical Center Utrecht, Utrecht, the Netherlands

### Hyperthyroidism and Breast Cancer Recurrence and Mortality: A Danish Population-based Cohort Study

Line Libergreen<sup>1</sup> | Rikke Noergaard Pedersen<sup>2</sup>  
Anders Kjærsgaard<sup>3</sup> | Deirdre Cronin-Fenton<sup>4</sup>

<sup>1</sup>Department of Clinical Epidemiology - Aarhus University;  
<sup>2</sup>Department of Clinical Epidemiology, Aarhus University Hospital;  
<sup>3</sup>Department of Clinical Epidemiology - Aarhus University Hospital;  
<sup>4</sup>Department of Clinical Epidemiology, Aarhus University Hospital, Aarhus, Denmark

### Impact of Non-alcoholic Steatohepatitis (NASH) Case Definition on Population Characteristics Identified in a US Claims Database

Kerrin Gallagher<sup>1</sup> | Daina B Esposito<sup>2</sup> | Aziza Jamal-allial<sup>1</sup>  
Simo Du<sup>3</sup> | Yuval Patel<sup>4</sup> | Mindie Nguyen<sup>5</sup> | Erik Ness<sup>6</sup>  
Thomas Capozza<sup>7</sup> | Lina Titievsky<sup>6</sup>

<sup>1</sup>HealthCore, Inc.; <sup>2</sup>Boston University School of Public Health;  
<sup>3</sup>HealthCore; <sup>4</sup>Duke University; <sup>5</sup>Stanford University; <sup>6</sup>Intercept Pharmaceuticals; <sup>7</sup>Intercept Pharmaceuticals, Inc.

### Incidence and Risk Factors for COVID-related Urgent Medical Visits Among US Patients Diagnosed with COVID-19 in the Outpatient Setting

Wenhui Wei<sup>1</sup> | Scott Mellis<sup>1</sup> | Gregory P Geba<sup>1</sup>  
Sumathi Sivapalasingam<sup>1</sup> | Jessica Jalbert<sup>2</sup>

<sup>1</sup>Regeneron Pharmaceuticals, Inc., Tarrytown, NY; <sup>2</sup>Regeneron Pharmaceuticals

### Incidence Rates of Select Outcomes Among Patients with Non-alcoholic Steatohepatitis (NASH) and Evidence of Fibrosis and Cirrhosis

Monica Bertoia<sup>1</sup> | Erik Ness<sup>2</sup> | Thomas Capozza<sup>3</sup>  
Lina Titievsky<sup>2</sup> | John D Seeger<sup>1</sup>

<sup>1</sup>Optum Epidemiology; <sup>2</sup>Intercept Pharmaceuticals; <sup>3</sup>Intercept Pharmaceuticals, Inc.

### Persistence of COVID-19 Symptoms 90 Days Post-acute Infection: Insights from a Community-based Registry

Matthew Reynolds<sup>1</sup>; Nancy A. Dreyer; Lisa Albert<sup>1</sup>; Emma Brinkley<sup>2</sup>; Damir Mohamed<sup>1</sup>; Christina Mack<sup>2</sup>

<sup>1</sup>IQVIA; <sup>2</sup>IQVIA

### Severe Obesity Is a Risk Factor for Mortality in Patients with COVID-19

Aisling Caffrey<sup>1</sup> | Jennifer Liao<sup>2</sup> | Vrishali Lopes<sup>3</sup>  
Kerry LaPlante<sup>3</sup>

<sup>1</sup>University of Rhode Island College of Pharmacy; <sup>2</sup>Department of Veterans Affairs; <sup>3</sup>Infectious Diseases Research Program, Providence Veterans Affairs Medical Center, Providence, RI, United States

# Oral Presentations

## DISEASE EPIDEMIOLOGY / CLINICAL COURSE

### The Effect of Epidural Steroid Injections on Fracture Risk Among Medicare Patients

Huifeng Yun<sup>1</sup> | Ye Liu<sup>2</sup> | Kenneth Saag<sup>3</sup> | Katherine Haseltine<sup>4</sup> | Emily Stein<sup>4</sup> | Jeffrey Curtis<sup>5</sup>

<sup>1</sup>Department of Epidemiology, University of Alabama at Birmingham; <sup>2</sup>University of Alabama at Birmingham; <sup>3</sup>Division of Clinical Immunology and Rheumatology; <sup>4</sup>HSS hospital; <sup>5</sup>University of Alabama Birmingham

### Utilizing the National COVID Cohort Collaborative (N3C) to Evaluate Risk of Serious Outcomes with COVID-19 Among Chronically Immunosuppressed Persons

Kayte Andersen<sup>1</sup> | Emaan S Rashidi<sup>2</sup> | Huijun An<sup>3</sup> | Hemalkumar B Mehta<sup>4</sup> | Derek Ng<sup>2</sup> | Brian Garibaldi<sup>5</sup> | Jodi Segal<sup>3</sup> | G. Caleb Alexander<sup>6</sup>

<sup>1</sup>JHSPH Center for Drug Safety & Effectiveness; <sup>2</sup>Johns Hopkins Bloomberg School of Public Health; <sup>3</sup>Johns Hopkins University; <sup>4</sup>Bloomberg School of Public Health, Johns Hopkins University; <sup>5</sup>Johns Hopkins Medicine; <sup>6</sup>Johns Hopkins Center for Drug Safety and Effectiveness

### Predictors of Critical Care, Mechanical Ventilation, and Mortality Among Hospitalized Patients with COVID-19 in an Electronic Health Record Database

Andrea Chomistek<sup>1</sup> | Caihua Liang<sup>2</sup> | Michael Doherty<sup>3</sup> | Robin Clifford<sup>3</sup> | Rachel Ogilvie<sup>1</sup> | Robert Gately<sup>3</sup> | Jennifer Song<sup>3</sup> | Cheryl Enger<sup>4</sup> | Nancy Lin<sup>5</sup> | Florence Wang<sup>3</sup> | John Seeger<sup>1</sup>

<sup>1</sup>Optum Epidemiology; <sup>2</sup>Pfizer Inc; <sup>3</sup>Optum; <sup>4</sup>Optum, Boston, MA, USA; <sup>5</sup>Health Catalyst

## DRUG EFFECTIVENESS

### Anticoagulants and All-Cause Mortality Among Hospitalized COVID-19 Patients

Caihua Liang<sup>1</sup> | Li Zhou<sup>2</sup> | Michael Doherty<sup>2</sup> | Robert Gately<sup>2</sup> | Rachel Ogilvie<sup>3</sup> | Andrea Chomistek<sup>3</sup> | Florence Wang<sup>2</sup> | John D Seeger<sup>3</sup> | Jessica Franklin<sup>2</sup>

<sup>1</sup>Pfizer Inc; <sup>2</sup>Optum; <sup>3</sup>Optum Epidemiology

### Calibrating Real-world Evidence Studies Against Randomized Trials: Treatment Effectiveness of Infliximab in Inflammatory Bowel Disease

Julien Kirchgesner<sup>1</sup> | Rishi J Desai<sup>2</sup> | Maria Schneeweiss<sup>3</sup> | Laurent Beaugerie<sup>4</sup> | Seoyoung Kim<sup>3</sup> | Sebastian Schneeweiss<sup>5</sup>

<sup>1</sup>Sorbonne Université, INSERM, Institut Pierre Louis d'Epidémiologie et de Santé Publique, Paris, France; <sup>2</sup>Harvard Medical School/Brigham & Women's Hospital; <sup>3</sup>BWH Div of Pharmacoepidemiology and Pharmacoeconomics; <sup>4</sup>Sorbonne Université, INSERM, Institut Pierre Louis d'Epidémiologie et de Santé Publique, AP-HP, Hôpital Saint-Antoine, Department of gastroenterology, Paris, France; <sup>5</sup>Division of Pharmacoepidemiology and Pharmacoeconomics, Department of Medicine, Brigham and Women's Hospital and Harvard Medical School, Boston, Massachusetts, USA

### Cardiovascular Effectiveness of SGLT-2 Inhibitors vs Metformin as First-line Treatment for Type 2 Diabetes

HoJin Shin<sup>1</sup> | Sebastian Schneeweiss<sup>2</sup> | Robert Glynn<sup>3</sup> | Elisabetta Patorno<sup>1</sup>

<sup>1</sup>Division of Pharmacoepidemiology and Pharmacoeconomics, Department of Medicine, Brigham and Women's Hospital and Harvard Medical School; <sup>2</sup>Division of Pharmacoepidemiology and Pharmacoeconomics, Department of Medicine, Brigham and Women's Hospital and Harvard Medical School, Boston, Massachusetts, USA; <sup>3</sup>Harvard T. H. Chan School of Public Health

### Comparative Effectiveness of Empagliflozin in Reducing Total Cardiovascular Events in the Empagliflozin Comparative Effectiveness and Safety (EMPRISE) Study

Rishi Desai<sup>1</sup> | Robert Glynn<sup>2</sup> | Brendan Everett<sup>3</sup> | Sebastian Schneeweiss<sup>4</sup> | Deborah Wexler<sup>3</sup> | Anouk Derauz Luyet<sup>5</sup> | Ola Vedin<sup>5</sup> | Kimberly Brodovicz<sup>6</sup> | Ajinkya Pawar<sup>7</sup> | Elisabetta Patorno<sup>8</sup>

<sup>1</sup>Harvard Medical School/Brigham & Women's Hospital; <sup>2</sup>Harvard T. H. Chan School of Public Health; <sup>3</sup>Brigham and Women's Hospital; <sup>4</sup>Division of Pharmacoepidemiology and Pharmacoeconomics, Department of Medicine, Brigham and Women's Hospital and Harvard Medical School, Boston, Massachusetts, USA; <sup>5</sup>Boehringer-Ingelheim; <sup>6</sup>Boehringer Ingelheim International GmbH; <sup>7</sup>Sanofi; <sup>8</sup>Division of Pharmacoepidemiology and Pharmacoeconomics, Department of Medicine, Brigham and Women's Hospital and Harvard Medical School

# Oral Presentations

## DRUG EFFECTIVENESS

### Convalescent Plasma Therapy and Mortality Among US Veterans Hospitalized with Non-severe COVID-19: An Observational Analysis Emulating a Target Trial

Katherine Kurgansky<sup>1</sup> | Kelly Cho<sup>2</sup> | Sarah Keithly<sup>3</sup>  
Arin L Madenci<sup>4</sup> | Hanna Gerlovin<sup>5</sup> | Helen Wellman<sup>5</sup> Annie  
Doubleday<sup>3</sup> | Eva Thomas<sup>3</sup> | Yojin Park<sup>6</sup> | Yuk-Lam Ho<sup>7</sup>  
Jonathan Sugimoto<sup>3</sup> | Kathryn Moore<sup>3</sup> | Alexander Peterson<sup>3</sup>  
Constance Hoag<sup>6</sup> | Kalpana Gupta<sup>8</sup> Karen Jeans<sup>9</sup> | Molly Klote<sup>9</sup>  
Rachel Ramoni<sup>9</sup> | Grant Huang<sup>9</sup> | Juan Casas<sup>5</sup> David Gagnon<sup>5</sup>  
Miguel Hernán<sup>10</sup> | Nicholas Smith<sup>11</sup> | J. Michael Gaziano<sup>5</sup>

<sup>1</sup>Massachusetts Veterans Epidemiology Research and Information Center, VA Boston Healthcare System; <sup>2</sup>MAVERIC, VA Boston Healthcare System; <sup>3</sup>Seattle Epidemiologic Research and Information Center; VA Healthcare System; <sup>4</sup>Harvard T.H. Chan School of Public Health; <sup>5</sup>MAVERIC; VA Boston Healthcare System; <sup>6</sup>MAVERIC; VA Boston Healthcare system; <sup>7</sup>VA Boston Healthcare System; <sup>8</sup>Veterans Administration Boston Healthcare System; <sup>9</sup>Department of Veterans Affairs Office of Research and Development; <sup>10</sup>Departments of Epidemiology and Biostatistics, Harvard T.H. Chan School of Public Health; <sup>11</sup>Seattle Epidemiologic Research and Information Center, Department of Veterans Affairs

### Effect of SGLT-2 Inhibitors on EGFR in Type 2 Diabetes with Different Baseline Renal Functions: A Multi-center Study

Fang-Ju Lin<sup>1</sup> | Chi-Chuan Wang<sup>2</sup> | Chien-Ning Hsu<sup>3</sup>  
Chen-Yi Yang<sup>4</sup> | Chih-Yuan Wang<sup>5</sup> | Huang-Tz Ou<sup>4</sup>

<sup>1</sup>National Taiwan University Hospital; <sup>2</sup>National Taiwan University; <sup>3</sup>Department of Pharmacy, Kaohsiung Chang Gung Memorial Hospital, Kaohsiung, Taiwan; <sup>4</sup>Institute of Clinical Pharmacy and Pharmaceutical Sciences, College of Medicine, National Cheng Kung University, Tainan, Taiwan; <sup>5</sup>College of Medicine, National Taiwan University, Taipei, Taiwan

### Efficacy and Safety of Treatments for Nonmetastatic Castration-resistant Prostate Cancer: A Matching-adjusted Indirect Comparison and Network Meta-analysis

Lin Wang<sup>1</sup> | Channing Paller<sup>2</sup> | Hwanhee Hong<sup>3</sup>  
Otis Brawley<sup>2</sup> | G. Caleb Alexander<sup>4</sup>

<sup>1</sup>Department of Epidemiology, Johns Hopkins University Bloomberg School of Public Health; <sup>2,3</sup>The Sidney Kimmel Comprehensive Cancer Center, Johns Hopkins University School of Medicine; <sup>3</sup>Duke Clinical Research Institute, Duke University; <sup>4</sup>Johns Hopkins Center for Drug Safety and Effectiveness

### Initiation of Sodium-glucose Co-transporter 2 Inhibitors and Progression of Renal Disease Among Patients with Type 2 Diabetes: A Population-based Cohort Study

Wajd Alkabbani<sup>1</sup> | Arsene Zongo<sup>2</sup> | Dean Eurich<sup>3</sup>  
Baiju Shah<sup>4</sup> | Jasjeet Minhas-Sandhu<sup>3</sup>

Mhd. Wasem Alsabbagh<sup>1</sup> | John-Michael Gamble<sup>1</sup>  
<sup>1</sup>School of Pharmacy, University of Waterloo; <sup>2</sup>Faculty of Pharmacy, Université Laval; <sup>3</sup>School of Public Health, University of Alberta; <sup>4</sup>Department of Medicine, University of Toronto

### Physician and Patient Reported Effectiveness Outcomes Are Similar in Tofacitinib and TNF Inhibitors in Rheumatoid Arthritis Patients: Data from a Rheumatoid Arthritis Registry in Canada

Mohammad Movahedi<sup>1</sup> | Angela Cesta<sup>2</sup> | Xiuying Li<sup>2</sup>  
Edward Keystone<sup>3</sup> | Claire Bombardier<sup>2</sup> | OBRI Investigators<sup>4</sup>

<sup>1</sup>University Health Network (Toronto); <sup>2</sup>Toronto General Hospital Research Institute, University Health Network, Toronto, ON; <sup>3</sup>Department of Medicine, University of Toronto, Toronto, ON; <sup>4</sup>Toronto General Hospital Research Institute, University Health Network, Toronto, ON

### Safety and Effectiveness of Prophylactic Anticoagulation for Prevention of COVID-19 Mortality: A Nationwide Cohort Study of Hospitalised Patients in the US

Christopher Rentsch<sup>1</sup> | Joshua Beckman<sup>2</sup>  
Laurie Tomlinson<sup>3</sup> | Walid Gellad<sup>4</sup> | Charles Alcorn<sup>5</sup>  
Farah Kidwai-Khan<sup>6</sup> | Melissa Skanderson<sup>6</sup> | Evan Brittain<sup>2</sup>  
Joseph King<sup>7</sup> | Yuk-Lam Ho<sup>8</sup> | Svetlana Eden<sup>9</sup>  
Suman Kundu<sup>10</sup> | Michael Lann<sup>5</sup> | Robert A Greevy<sup>10</sup>  
P. Michael Ho<sup>6</sup> | Paul Heidenreich<sup>11</sup> | Daniel Jacobson<sup>12</sup>  
Ian Douglas<sup>3</sup> | Janet Tate<sup>6</sup> | Stephen Evans<sup>3</sup> | David Atkins<sup>6</sup>  
Amy Justice<sup>13</sup> | Matthew Freiberg<sup>14</sup>

<sup>1</sup>London School of Hygiene and Tropical Medicine; <sup>2</sup>Vanderbilt University Medical Center and Vanderbilt Translational and Clinical Cardiovascular Research Center; <sup>3</sup>London School of Hygiene & Tropical Medicine; <sup>4</sup>Division of General Internal Medicine, Department of Medicine, University of Pittsburgh; <sup>5</sup>University of Pittsburgh; <sup>6</sup>US Department of Veterans Affairs; <sup>7</sup>Yale School of Medicine; <sup>8</sup>VA Boston Healthcare System; <sup>9</sup>Vanderbilt University School of Medicine; <sup>10</sup>Vanderbilt University Medical Center; <sup>11</sup>Stanford University School of Medicine; <sup>12</sup>Oak Ridge National Laboratory; <sup>13</sup>VA Connecticut Healthcare System West Haven; <sup>14</sup>Vanderbilt University Medical Center; US Department of Veterans Affairs

### Shorter Drug Holiday After 3 or More Years of Risedronate vs Alendronate Is Important to Maintain Osteoporotic Fracture Protection

Kaley Hayes | Kevin Brown<sup>1</sup> | Angela Cheung<sup>2</sup>  
David Juurlink<sup>3</sup> | Suzanne Cadarette<sup>4</sup>

<sup>1</sup>University of Toronto Dalla Lana School of Public Health, Toronto, Ontario, Canada; <sup>2</sup>Department of Medicine, University Health Network, University of Toronto, Toronto, Ontario, Canada; <sup>3</sup>Department of Medicine, University of Toronto; <sup>4</sup>Leslie Dan Faculty of Pharmacy, University of Toronto, Toronto, Ontario, Canada

### Changes in Buprenorphine Utilization During the COVID-19 Pandemic in the US

Lindsey Hammerslag<sup>1</sup> | Svetla Slavova<sup>2</sup> | Jeffery Talbert<sup>3</sup>  
Sharon Walsh<sup>4</sup> | Michelle Lofwall<sup>4</sup> | Patricia Freeman<sup>5</sup>

<sup>1</sup>Institute for Pharmaceutical Outcomes and Policy, College of Pharmacy, University of Kentucky; <sup>2</sup>Department of Biostatistics, College of Public Health, University of Kentucky; <sup>3</sup>Institute for Biomedical Informatics, College of Medicine, University of Kentucky; <sup>4</sup>College of Medicine, University of Kentucky; <sup>5</sup>University of Kentucky

# Oral Presentations

## DRUG UTILIZATION RESEARCH

### COVID-19 in Children: Treatment Patterns in the Real-world Hospital Setting

Lawrence Rasouliyan<sup>1</sup> | Vikas Kumar<sup>2</sup> | Stacey Long<sup>2</sup>  
Mitesh Rao<sup>2</sup>

<sup>1</sup>Lawrence Rasouliyan; <sup>2</sup>OMNY Health

### Disparities in Hepatitis C Treatment in the Era of Direct-acting Antivirals Among Arizona Medicaid Beneficiaries

Hyunjin Song<sup>1</sup> | Ching-Yuan Chang<sup>1</sup> | Xinyi Jiang<sup>2</sup>  
Debbie Wilson<sup>3</sup> | Wei-Hsuan Lo-Ciganic<sup>4</sup> | Haesuk Park<sup>5</sup>

<sup>1</sup>University of Florida College of Pharmacy; <sup>2</sup>Department of Pharmaceutical Outcomes and Policy, College of Pharmacy, University of Florida; <sup>3</sup>Department of Pharmaceutical Outcomes and Policy, College of Pharmacy, University of Florida; <sup>4</sup>Department of Pharmaceutical Outcomes and Policy, College of Pharmacy, University of Florida, Gainesville, Florida, USA; <sup>5</sup>University of Florida

### Do Medicare Part D Low-income Subsidies Narrow Disparities in Orally-administered Antimyeloma Therapy Initiation?

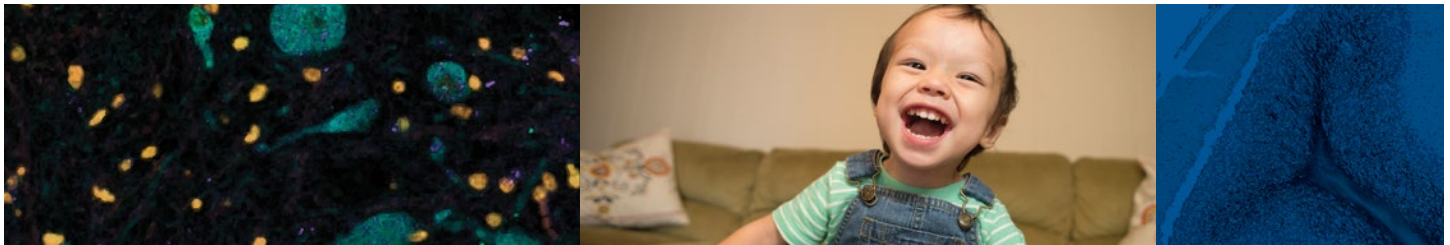
Shelley Jazowski<sup>1</sup> | Cleo Samuel-Ryals<sup>1</sup> | William Wood<sup>1</sup>  
Leah Zullig<sup>2</sup> | Justin Trogdon<sup>1</sup> | Stacie Dusetzina<sup>3</sup>

<sup>1</sup>University of North Carolina at Chapel Hill; <sup>2</sup>Duke University School of Medicine; <sup>3</sup>Vanderbilt University School of Medicine

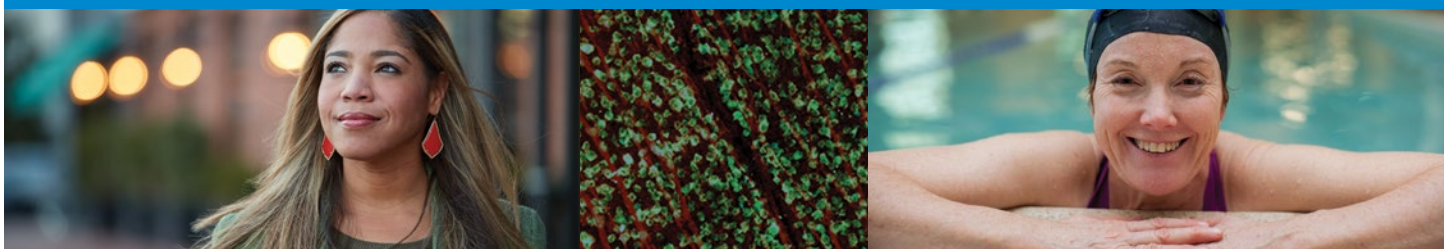
### Geographic Variation in the Use of Gabapentinoids and Opioids for Pain in a Commercially Insured Population in the United States

Danni Zhao | Jonggyu Baek<sup>1</sup> | Anne Hume<sup>2</sup>  
Anthony Nunes<sup>3</sup> | Matthew Alcusky<sup>3</sup> | Kate Lapane<sup>3</sup>

<sup>1</sup>Division of Biostatistics and Health Services Research, Department of Population and Quantitative Health Sciences, University of Massachusetts Medical School; <sup>2</sup>University of Rhode Island; <sup>3</sup>Division of Epidemiology, Department of Population and Quantitative Health Services, University of Massachusetts Medical School



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# Oral Presentations

## DRUG UTILIZATION RESEARCH

### Heterogeneity and Temporal Variation in the Management of COVID-19: A Multinational Drug Utilisation Study Including 274,719 Hospitalised Patients From, the United States of America, China, Spain, and South Korea

Albert Prats-Urbe<sup>1</sup> | Anthony Sena<sup>2</sup> | Lana Yin Hui Lai<sup>3</sup>  
Waheed-UI-Rahman Ahmed<sup>4</sup> | Heba Alghoul<sup>5</sup> | Osaid Alser<sup>6</sup>  
Thamir Alshammari<sup>7</sup> | Carlos Areia<sup>8</sup> | William Carter<sup>9</sup>  
Paula Casajust<sup>10</sup> | Dalia Dawoud<sup>11</sup> | Asieh Golozar<sup>12</sup>  
Jitendra Jonnagaddala<sup>13</sup> | Paras Mehta<sup>14</sup> | Gong  
Mengchun<sup>15</sup> Daniel Morales<sup>16</sup> | Fredrik Nyberg<sup>17</sup>  
Jose Posada<sup>18</sup> | Martina Recalde<sup>19</sup> | Elena Roel<sup>19</sup>  
Karishma Shah<sup>4</sup> | Nigam Shah<sup>18</sup> | Lisa Schilling<sup>9</sup> | Vignesh  
Subbian<sup>20</sup> | David Vizcaya<sup>21</sup> | Lin Zhang<sup>22</sup> | Ying Zhang<sup>15</sup>  
Hong Zhu<sup>23</sup> | Li Liu<sup>23</sup> | Seng Chan You<sup>24</sup> | Peter Rijnbeek<sup>25</sup>  
George Hripcsak<sup>26</sup> | Jennifer Lane<sup>27</sup> | Edward Burn<sup>28</sup>  
Christian Reich<sup>29</sup> | Marc Suchard<sup>30</sup> | Talita Duarte-Salles<sup>31</sup>  
Kristin Kostka<sup>32</sup> | Patrick Ryan<sup>33</sup> | Daniel Prieto-Alhambra<sup>28</sup>

<sup>1</sup>CSM, NDORMS, University of Oxford; <sup>2</sup>Janssen Research and Development; <sup>3</sup>Division of Cancer Sciences, School of Medical Sciences, University of Manchester; <sup>4</sup>Nuffield Department of Orthopaedics, Rheumatology, and Musculoskeletal Sciences, University of Oxford, Botnar Research Centre, Windmill Road, Oxford, OX3 7LD, UK; <sup>5</sup>Faculty of Medicine, Islamic University of Gaza, Palestine; <sup>6</sup>Massachusetts General Hospital, Harvard Medical School, Boston, 02114, Massachusetts, USA; <sup>7</sup>College of Pharmacy, Riyadh Elm University; <sup>8</sup>Nuffield Department of Clinical Neurosciences, University of Oxford, Oxford, UK; <sup>9</sup>Data Science to Patient Value Program, University of Colorado Anschutz Medical Campus, Aurora, CO, USA; <sup>10</sup>Real-World Evidence, Trial Form Support, Barcelona, Spain; <sup>11</sup>National Institute for Health and Care Excellence (NICE), London, U.K.; <sup>12</sup>Regeneron Pharmaceuticals; <sup>13</sup>School of Public Health and Community Medicine, UNSW Sydney; <sup>14</sup>College of Medicine, The University of Arizona, Tucson, AZ, USA; <sup>15</sup>DHC Technologies Co. Ltd, Beijing, China; <sup>16</sup>Division of Population Health and Genomics, University of Dundee, UK; <sup>17</sup>University of Gothenburg; <sup>18</sup>Stanford University School of Medicine, Stanford, California, USA; <sup>19</sup>Fundació Institut Universitari per a la recerca a l'Atenció Primària de Salut Jordi Gol i Gurina (IDIAPJGol), Barcelona, Spain; <sup>20</sup>College of Engineering, The University of Arizona, Tucson, AZ, USA; <sup>21</sup>Bayer Pharmaceuticals, Sant Joan Despí, Spain; <sup>22</sup>School of Population Medicine and Public Health, Chinese Academy of Medical Sciences and Peking Union Medical College; <sup>23</sup>Nanfeng Hospital, Southern Medical University, Guangzhou, China; <sup>24</sup>Department of Preventive Medicine and Public Health, Yonsei University College of Medicine, Seoul, Korea; <sup>25</sup>Department of Medical Informatics, Erasmus University Medical Center, Rotterdam, The Netherlands; <sup>26</sup>Department of Biomedical Informatics, Columbia University Irving Medical Center; <sup>27</sup>Centre for Statistics in Medicine, Nuffield Department of Orthopaedics, Rheumatology, and Musculoskeletal Sciences, University of Oxford, Oxford, UK; <sup>28</sup>Centre for Statistics in Medicine (CSM), Nuffield Department of Orthopaedics, Rheumatology and Musculoskeletal Sciences

(NDROMS), University of Oxford, Oxford, United Kingdom; <sup>29</sup>IQVIA - Real World Solutions; <sup>30</sup>University of California, Los Angeles; <sup>31</sup>Fundació Institut Universitari per a la recerca a l'Atenció Primària de Salut Jordi Gol i Gurina (IDIAPJGol); <sup>32</sup>Real World Solutions, IQVIA, 201 Broadway # 5, Cambridge, MA 02139 USA.; <sup>33</sup>Janssen Research & Development

### Influence of Drug Safety Advisories on Drug Utilization: An International Interrupted Time Series and Meta-analysis Study

Richard Morrow<sup>1</sup> | Barbara Mintzes<sup>2</sup> | Patrick Souverein<sup>3</sup>  
Marie De Bruin<sup>3</sup> | Elizabeth Roughead<sup>4</sup> | Joel Lexchin<sup>5</sup>  
Anna Kemp-Casey<sup>4</sup> | Lorri Pui<sup>1</sup> | Ingrid Sketris<sup>6</sup>  
Dee Mangin<sup>7</sup> | Christine Hallgreen<sup>8</sup> | Sallie-Anne Pearson<sup>9</sup>  
Ruth Lopert<sup>10</sup> | Lisa Bero<sup>11</sup> | Richard Ofori-Asenso<sup>12</sup>  
Danijela Gnjidic<sup>13</sup> | Ameet Sarpatwari<sup>14</sup> | Colin R. Dormuth<sup>1</sup>  
<sup>1</sup>Department of Anesthesiology, Pharmacology & Therapeutics, University of British Columbia; <sup>2</sup>School of Pharmacy, Faculty of Medicine and Health and Charles Perkins Centre, University of Sydney; <sup>3</sup>Division of Pharmacoepidemiology and Clinical Pharmacology, Utrecht Institute for Pharmaceutical Sciences, Utrecht University; <sup>4</sup>Clinical and Health Sciences, University of South Australia; <sup>5</sup>Faculty of Health, York University; <sup>6</sup>College of Pharmacy, Dalhousie University; <sup>7</sup>Department of Family Medicine, McMaster University; <sup>8</sup>Copenhagen Centre for Regulatory Science, Department of Pharmacy, Faculty of Health and Medical Sciences, University of Copenhagen; <sup>9</sup>Centre for Big Data Research in Health, University of New South Wales; <sup>10</sup>Department of Health Policy and Management, George Washington University; <sup>11</sup>School of Medicine and Colorado School of Public Health, University of Colorado Anschutz Medical Campus; <sup>12</sup>Copenhagen Centre for Regulatory Science, Department of Pharmacy, Faculty of Health and Medical Sciences, University of Copenhagen; <sup>13</sup>Sydney Pharmacy School, Faculty of Medicine and Health, The University of Sydney, Sydney, Australia; <sup>14</sup>Brigham and Women's Hospital, Harvard Medical School

### Non-adherence and Non-persistence with Direct Oral Anticoagulants Increases the Risk of Stroke: Assessment in Three European Databases

Emily Holthuis<sup>1</sup> | Elisabeth Smits<sup>2</sup> | Dominik Beier<sup>3</sup>  
Dirk Enders<sup>3</sup> | Rosa Gini<sup>4</sup> | Claudia Bartolini<sup>5</sup>  
Giampiero Mazzaglia<sup>6</sup> | Fernie Penning- van Beest<sup>7</sup>  
Georgios Spentzouris<sup>8</sup> | Ron Herings<sup>2</sup>  
<sup>1</sup>PHARMO Institute for Drug Outcomes Research, Utrecht, Netherlands; <sup>2</sup>PHARMO Institute; <sup>3</sup>InGef - Institut für angewandte Gesundheitsforschung Berlin GmbH, Berlin, Germany; <sup>4</sup>Agenzia regionale di sanità della Toscana, Osservatorio di epidemiologia, Florence, Italy; <sup>5</sup>ARS Toscana; <sup>6</sup>Center for Public Health Research (CESP), University of Milan - Bicocca, Milan, Italy; <sup>7</sup>PHARMO Institute for Drug Outcomes Research, Utrecht, the Netherlands; <sup>8</sup>Daiichi-Sankyo Europe GmbH, Munich, Germany

# Oral Presentations

## DRUG UTILIZATION RESEARCH

### Prevalence of Osteoporosis and Its Treatment Among Women $\geq 50$ in NHANES: 1999-2018

Sophie Mayer<sup>1</sup> | Leah McGrath<sup>2</sup> | Min Kim<sup>3</sup>  
Michele McDermott<sup>3</sup> | M. Alan Brookhart<sup>4</sup>

<sup>1</sup>University of North Carolina at Chapel Hill; <sup>2</sup>NoviSci; <sup>3</sup>Center for Observational Research, Amgen; <sup>4</sup>NoviSci, Inc.

### Primary Care Physicians' Preparedness to Treat Opioid Use Disorder in the United States: A Cross-sectional Survey

Kathryn Foti | James Heyward<sup>1</sup> | Matthew Tajanlangit<sup>2</sup>  
Kristin Meek<sup>2</sup> | Christopher Jones<sup>3</sup> | Andrew Kolodny<sup>4</sup>  
G. Caleb Alexander<sup>2</sup>

<sup>1</sup>Bloomberg School of Public Health, Johns Hopkins University;  
<sup>2</sup>Johns Hopkins Center for Drug Safety and Effectiveness; <sup>3</sup>Centers for Disease Control and Prevention; <sup>4</sup>Brandeis University

### Prior Opioid Tolerance Among New Users of Transdermal Fentanyl in Taiwan, 2011-2018

Chih-Wan Lin<sup>1</sup> | Yu-Chun Chiu<sup>2</sup> | Wei-I Huang<sup>2</sup>  
Pi-Hui Chao<sup>2</sup> | Wen-Wen Chen<sup>2</sup> | Fei-Yuan Hsiao<sup>3</sup>

<sup>1</sup>Graduate Institute of Clinical Pharmacy, College of Medicine, National Taiwan University; <sup>2</sup>Taiwan Drug Relief Foundation, Taipei, Taiwan; <sup>3</sup>Graduate Institute of Clinical Pharmacy, National Taiwan University, Taipei, Taiwan

### Ranitidine and Other histamine<sub>2</sub>-receptor Antagonists – A Rapid Response Drug Utilisation Study Using Electronic Health Care Data from Six European Countries

Katia M Verhamme<sup>1</sup> | Maria de Ridder<sup>2</sup> | Christian Reich<sup>3</sup>  
Talita Duarte-Salles<sup>4</sup> | Tom Seinen<sup>2</sup> | Peter R Rijnbeek<sup>5</sup>

<sup>1</sup>Erasmus University Medical Center; <sup>2</sup>Department of Medical Informatics, Erasmus University Medical Center, Rotterdam; <sup>3</sup>IQVIA – Real World Solutions; <sup>4</sup>Fundació Institut Universitari per a la recerca a l'Atenció Primària de Salut Jordi Gol i Gurina (IDIAPJGol); <sup>5</sup>Department of Medical Informatics, Erasmus University Medical Center, Rotterdam, The Netherlands

### Real World Use of Anticoagulation Among Hospitalized Patients with COVID-19 in the United States

Benjamin Bates<sup>1</sup> | Eileen Lee<sup>2</sup> | Nathaniel Kuhrt<sup>3</sup>  
Chang Xu<sup>4</sup> | Soko Setoguchi<sup>5</sup>

<sup>1</sup>Rutgers Robert Wood Johnson Medical School; <sup>2</sup>Rutgers; <sup>3</sup>Rutgers New Jersey Medical School; <sup>4</sup>Rutgers University, School of Public Health, Department of Biostatistics and Epidemiology; <sup>5</sup>RWJ Medical School, Center for Pharmacoepidemiology and Treatment Science (PETS), Institute for Health, Health Care Policy and Aging Research

### Serum Vitamin D Levels and Incident Prescription Opioid Use Among Opioid-Naïve Patients

Casey Choong<sup>1</sup> | Zuoyi Zhang<sup>2</sup> | Yiqing Song<sup>3</sup>  
Brian Dixon<sup>4</sup> | Jiali Han<sup>3</sup> | Xin Li<sup>3</sup>

<sup>1</sup>Indiana University Richard M. Fairbanks School of Public Health; <sup>2</sup>Indiana University School of Medicine, Indianapolis, IN; <sup>3</sup>Department of Epidemiology, Richard M. Fairbanks School of Public Health, Indiana University, Indianapolis, IN; <sup>4</sup>Department of Epidemiology, IU Fairbanks School of Public Health

### Sources of Racial/ethnic Disparities in Antidepressant Treatment: Analysis of the Medical Expenditure Panel Survey Data

Macarius Donneyong | Teng-Jen Chang  
The Ohio State University

### Substantial Heterogeneity in the Management of Hospitalized Patient with COVID-19

Aisling Caffrey<sup>1</sup> | Jennifer Liao<sup>2</sup> | Vrishali Lopes<sup>3</sup>  
Kerry LaPlante<sup>3</sup>

<sup>1</sup>University of Rhode Island College of Pharmacy; <sup>2</sup>Department of Veterans Affairs; <sup>3</sup>Infectious Diseases Research Program, Providence Veterans Affairs Medical Center, Providence, RI, United States

### The Impact of Sex on the Quality of Medication Treatment in Patients with Type 2 Diabetes

Marit Geelink<sup>1</sup> | Martina Ambroz<sup>2</sup> | Kirsten Smits<sup>3</sup>  
Sieta de Vries<sup>4</sup> | Petra Denig<sup>2</sup>

<sup>1</sup>Department of Clinical Pharmacy and Pharmacology, University of Groningen, University Medical Center Groningen, Groningen, The Netherlands; <sup>2</sup>University Medical Center Groningen; <sup>3</sup>Department of Dentistry – Quality and Safety of Oral Healthcare, Radboud University Medical Center, Radboud Institute for Health Sciences, Nijmegen, The Netherlands; <sup>4</sup>University of Groningen, University Medical Center Groningen, Department of Clinical Pharmacy and Pharmacology, The Netherlands

### Trajectories of Pregabalin Use and Their Association with Longitudinal Changes in Opioid and Benzodiazepine Daily Dose

Andrea Schaffer<sup>1</sup> | Jonathan Brett<sup>2</sup> | Nicholas Buckley<sup>3</sup>  
Sallie-Anne Pearson<sup>2</sup>

<sup>1</sup>University of New South Wales; <sup>2</sup>Centre for Big Data Research in Health, University of New South Wales; <sup>3</sup>Biomedical Informatics and Digital Health, University of Sydney

# Oral Presentations

## DRUG UTILIZATION RESEARCH

### Trends and Outcomes of Serious Complications Associated with Non-fatal Opioid Overdoses in Ontario, Canada

Sophie Kitchen<sup>1</sup> | Daniel McCormack<sup>2</sup> | Daniel Werb<sup>1</sup>  
Alexander Caudarella<sup>1</sup> | Diana Martins<sup>1</sup> | Flora Matheson<sup>1</sup>  
Tara Gomes<sup>1</sup>

<sup>1</sup>Unity Health Toronto; <sup>2</sup>ICES

### Trends in Long-term Use of Prescribed Opioids in Norway 2010-2019

Ingvild Odsbu<sup>1</sup> | Marte Handal<sup>2</sup> | Vidar Hjellvik<sup>3</sup>  
Svetlana Skurtveit<sup>1</sup>

<sup>1</sup>Department of Mental Disorders, Norwegian Institute of Public Health, Oslo, Norway; <sup>2</sup>Norwegian Institute of Public Health;

<sup>3</sup>Department of Chronic Diseases and Ageing, Norwegian Institute of Public Health, Oslo, Norway

### Use of Cardiovascular and Antidiabetic Drugs During COVID19 Epidemic in France

Julien Bezin<sup>1</sup> | Clément Mathieu<sup>2</sup> | Elodie Pambrun<sup>2</sup>  
Anne Benard-Laribiere<sup>2</sup> | Pernelle Noize<sup>3</sup> | Marie tournier<sup>4</sup>  
Jean-Luc Faillie<sup>5</sup> | Antoine Pariente<sup>6</sup>

<sup>1</sup>University of Bordeaux; <sup>2</sup>Univ. Bordeaux, Inserm, Bordeaux Population Health Research Center, team PHARMACOEPIDEMIOLOGY, UMR 1219, F-33000 Bordeaux, France; <sup>3</sup>Univ. Bordeaux, Inserm, Bordeaux Population Health Research Center, team PHARMACOEPIDEMIOLOGY, UMR 1219, University Hospital of Bordeaux, Clinical Pharmacology, F-33000 Bordeaux, France; <sup>4</sup>Univ. Bordeaux, Inserm, Bordeaux Population Health Research Center, team PHARMACOEPIDEMIOLOGY, UMR 1219, Hospital Charles Perrens, F-33000 Bordeaux, France;

<sup>5</sup>Department of Medical Pharmacology and Toxicology, CHU Montpellier University Hospital, Montpellier, France; Laboratory of Biostatistics, Epidemiology and Public Health (EA 2415), Faculty of Medicine, University of Montpellier, F-34295 Montpellier, France;

<sup>6</sup>INSERM

### Use of Hydroxychloroquine, Remdesivir, and Dexamethasone Among Adults Hospitalized with COVID-19 in the United States: results from the National COVID Cohort Collaborative (N3C)

Hemalkumar Mehta<sup>1</sup> | Huijun An<sup>2</sup> | Kayte Andersen<sup>3</sup>  
Omar Mansour<sup>4</sup> | Vithal Madhira<sup>5</sup> | Emaan S Rashidi<sup>6</sup>  
Benjamin Bates<sup>7</sup> | Soko Setoguchi<sup>8</sup> | Corey Joseph<sup>9</sup>  
Paul Kocis<sup>10</sup> | Richard Moffitt<sup>11</sup> | Tellen Bennett<sup>12</sup>  
Christopher Chute<sup>2</sup> | Brian Garibaldi<sup>13</sup> | G. Caleb Alexander<sup>14</sup>

<sup>1</sup>Bloomberg School of Public Health, Johns Hopkins University; <sup>2</sup>Johns Hopkins University; <sup>3</sup>JHSPH Center for Drug Safety & Effectiveness;

<sup>4</sup>Monumental Analytics, Baltimore, MD; <sup>5</sup>Palila Software, Reno, NV;

<sup>6</sup>Johns Hopkins Bloomberg School of Public Health; <sup>7</sup>Rutgers Robert Wood Johnson Medical School; <sup>8</sup>RWJ Medical School, Center for Pharmacoepidemiology and Treatment Science (PETS), Institute for Health, Health Care Policy and Aging Research; <sup>9</sup>Johns Hopkins Bloomberg School of Public;

<sup>10</sup>Penn State Health, Milton S. Hershey Medical Center, Hershey, PA; <sup>11</sup>Stony Brook University, Stony Brook, NY;

<sup>12</sup>University of Colorado School of Medicine, University of Colorado, Aurora, CO; <sup>13</sup>Johns Hopkins Medicine; <sup>14</sup>Johns Hopkins Center for Drug Safety and Effectiveness

<sup>12</sup>University of Colorado School of Medicine, University of Colorado, Aurora, CO; <sup>13</sup>Johns Hopkins Medicine; <sup>14</sup>Johns Hopkins Center for Drug Safety and Effectiveness

### Utilization of Non-pharmacologic Pain Therapies Among Primary Care Physicians in the United States: A Cross-sectional Survey

James Heyward<sup>1</sup> | Kathryn Foti | Matthew Tajanlangit<sup>2</sup>  
Kristin Meek<sup>2</sup> | Christopher Jones<sup>3</sup> | Andrew Kolodny<sup>4</sup>  
G. Caleb Alexander<sup>2</sup>

<sup>1</sup>Bloomberg School of Public Health, Johns Hopkins University;

<sup>2</sup>Johns Hopkins Center for Drug Safety and Effectiveness; <sup>3</sup>Centers for Disease Control and Prevention; <sup>4</sup>Brandeis University

### Visualizing Inappropriate Antibiotic Use Following Otitis Media in Children in the United States

Leah McGrath<sup>1</sup> | Jason Newland<sup>2</sup> | John Sahrman<sup>2</sup>  
YinJiao Ma<sup>2</sup> | Anne Mobley M Butler<sup>2</sup>

<sup>1</sup>NoviSci; <sup>2</sup>Washington University in St. Louis

# Oral Presentations

## GERIATRICS

### Assessment of Co-medication Quality in Older Colorectal Cancer Patients at Hospital Discharge After Tumor Surgery and Its Associations with Chemotherapy-related Adverse Drug Reactions and 5-year Survival

Li-Ju Chen | Ben Schöttker

*Division of Clinical Epidemiology and Aging Research, German Cancer Research Center (DKFZ)*

### Bisphosphonate Use and Risk of Severe Acute Kidney Injury: A Self-controlled Case Series in Frail Elderly Patients in the UK

Tetsuro Oda<sup>1</sup> | Annika Jodicke<sup>2</sup> | Danielle Robinson<sup>3</sup>

Antonella Delmestri<sup>4</sup> | Ruth Keogh<sup>1</sup>

Daniel Prieto-Alhambra<sup>5</sup>

*<sup>1</sup>Department of Medical Statistics, London School of Hygiene and Tropical Medicine, Keppel Street, London, UK; <sup>2</sup>Nuffield Department of Orthopaedics, Rheumatology, and Musculoskeletal Sciences, University of Oxford; <sup>3</sup>Pharmaco- and Device Epidemiology, Centre for Statistics in Medicine, Nuffield Department of Orthopaedics, Rheumatology and Musculoskeletal Sciences, University of Oxford, Oxford, UK; <sup>4</sup>Center for Statistics in Medicine, NDORMS, University of Oxford, Oxford, UK; <sup>5</sup>Centre for Statistics in Medicine (CSM), Nuffield Department of Orthopaedics, Rheumatology and Musculoskeletal Sciences (NDROMS), University of Oxford, Oxford, United Kingdom*

### Comparative Risk of Cardiac Arrhythmias Associated with Acetylcholinesterase Inhibitor Use

Yichang Huang<sup>1</sup> | John-Michael Gamble<sup>2</sup>

David Juurlink<sup>3</sup> | Mhd. Wasem Alsabbagh<sup>2</sup>

*<sup>1</sup>University of Waterloo; <sup>2</sup>School of Pharmacy, University of Waterloo; <sup>3</sup>Department of Medicine, University of Toronto*

### Risk of Cardiotoxicity Associated with Fluoropyrimidine-based Chemotherapy Among Older Colorectal Cancer Patients: A New User Cohort Study

Chao Li<sup>1</sup> | Chiahung Chou<sup>1</sup> | Surachat Ngorsuraches<sup>1</sup>

Li Chen<sup>2</sup> | Jingjing Qian<sup>1</sup>

*<sup>1</sup>Auburn University; <sup>2</sup>Indiana University*

### Risk of Delirium Associated with Antimuscarinics in Older Adults: A Case-time-control Study

Prasad Nishtala

*University of Bath*

### Risk of Falls Following the Initiation of Antihypertensives in the Elderly: A Self-controlled Case Series in the UK

Annika Jodicke<sup>1</sup> | Eng Hooi (Cheryl) Tan<sup>1</sup>

Danielle Robinson<sup>2</sup> | Antonella Delmestri<sup>3</sup>

Daniel Prieto-Alhambra<sup>4</sup>

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### Statin Discontinuation and Risk of Cardiovascular Events in Older People: A Population-based Cohort Study in Denmark

Wade Thompson<sup>1</sup> | Lucas Morin<sup>2</sup> | Dorte Ejg Jarbøl<sup>1</sup>

Jacob Andersen<sup>1</sup> | Martin Ernst<sup>1</sup> | Jesper Nielsen<sup>1</sup>

Peter Haastруп<sup>1</sup> | Morten Schmidt<sup>3</sup> | Anton Pottegård<sup>1</sup>

*<sup>1</sup>University of Southern Denmark; <sup>2</sup>Inserm CIC 1431, Clinical Investigation Unit, University Hospital of Besançon; <sup>3</sup>Aarhus University Hospital*

### Uncontrolled Pain and Risk for Depression and Behavioral Symptoms in Patients with Dementia

Yu-Jung "Jenny" Wei<sup>1</sup> | Almut Winterstein<sup>2</sup>

*<sup>1</sup>University of Florida; <sup>2</sup>Department of Pharmaceutical Outcomes and Policy and Center for Drug Evaluation and Safety, College of Pharmacy, University of Florida*

### Use of Medications with Anticholinergic and Sedative Properties and Fall-related Fractures Among Older Adults

Shahar Shmuel<sup>1</sup> | Virginia Pate<sup>2</sup> | Marc Pepin<sup>3</sup>

Janine Bailey<sup>3</sup> | Yvonne Golightly<sup>2</sup> | Laura Hanson<sup>4</sup>

Til Stürmer<sup>5</sup> | Rebecca Naumann<sup>2</sup> | Danijela Gnjidic<sup>6</sup>

Jennifer Lund<sup>5</sup>

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# Oral Presentations

## HEALTH ECONOMICS / OUTCOME RESEARCH

### Comparative Risk of Hospitalization for Heart Failure Among Patients with Xanthine Oxidase Inhibitors and Uricosuric Agents

Fang-Ju Lin<sup>1</sup> | Yu-Hsin Wang<sup>2</sup> | Chien-Ning Hsu<sup>3</sup>

<sup>1</sup>National Taiwan University Hospital; <sup>2</sup>Graduate Institute of Clinical Pharmacy, College of Medicine, National Taiwan University, Taipei, Taiwan; <sup>3</sup>Department of Pharmacy, Kaohsiung Chang Gung Memorial Hospital, Kaohsiung, Taiwan

### Cost-effectiveness of Systematic Treatments for Metastatic Castration-sensitive Prostate Cancer: An Economic Evaluation Based on Network Meta-analysis

Lin Wang<sup>1</sup> | Jeromie Ballreich<sup>2</sup> | Hwanhee Hong<sup>3</sup>

G. Caleb Alexander<sup>4</sup> | Channing Paller<sup>5</sup>

<sup>1</sup>Department of Epidemiology, Johns Hopkins University Bloomberg School of Public Health; <sup>2,3</sup>Department of Health Policy and Management, Johns Hopkins University Bloomberg School of Public Health; <sup>3</sup>Duke Clinical Research Institute, Duke University; <sup>4</sup>Johns Hopkins Center for Drug Safety and Effectiveness; <sup>5</sup>The Sidney Kimmel Comprehensive Cancer Center, Johns Hopkins University School of Medicine

### Impact of Race, Ethnicity, and Sex on Treatment of Non-valvular Atrial Fibrillation

Larry Jackson<sup>1</sup> | Diane Francis<sup>2</sup> | Sonia Maccioni<sup>2</sup>

Vincent Thomas<sup>3</sup> | Jennifer Wood<sup>4</sup> | Guy Cafri<sup>4</sup>

Rahul Khanna<sup>4</sup> | Charlene Wong<sup>4</sup> | Neloufar Rahai<sup>5</sup>

Jonathan Piccini<sup>1</sup> | Daniel Friedman<sup>6</sup>

<sup>1</sup>Duke University Medical Center; <sup>2</sup>Johnson & Johnson Medical Devices, Health Economics and Market Access; <sup>3</sup>Biosense Webster; <sup>4</sup>Johnson & Johnson, Medical Device Epidemiology and Real-World Data Sciences; <sup>5</sup>Johnson & Johnson; <sup>6</sup>Yale School of Medicine

### Participant Engagement and Adherence in an Arthritis-powered Real-world Study to Capture Smartwatch and Patient-reported Outcome Data Among Rheumatoid Arthritis Patients

Jeffrey Curtis<sup>1</sup> | Benjamin Nowell<sup>2</sup> | Cassie Clinton<sup>3</sup>

Fenglong Xie<sup>4</sup> | Jessica Boles<sup>5</sup> | Laura Stradford<sup>2</sup>;

Shilpa Venkatachalam<sup>2</sup> | Justin Owensby<sup>4</sup> | D Curtis<sup>6</sup>

K. Gavigan<sup>6</sup> | I. Lipkovich<sup>7</sup> | S.K. Nolot<sup>7</sup> | V.S. Haynes<sup>7</sup>

<sup>1</sup>University of Alabama Birmingham; <sup>2</sup>Global Healthy Living Foundation; <sup>3</sup>Division of Clinical Immunology and Rheumatology, University of Alabama at Birmingham; <sup>4</sup>University of Alabama at Birmingham; <sup>5</sup>Global Healthy Living Foundation; <sup>6</sup>Global Healthy Foundation; <sup>7</sup>Eli Lilly and Company Indianapolis, IN

### Telemedicine Use Among U.S. Patients with Cancer During the COVID-19 Pandemic

Lu Chen<sup>1</sup>; Carlos Flores Avile<sup>2</sup>; Palak Kundu<sup>3</sup>; Aaron B.

Cohen<sup>4</sup>; Amy Webster<sup>4</sup>; Rebecca Rohrer<sup>4</sup>; Michael Taylor<sup>5</sup>

<sup>1</sup>Genentech; <sup>2</sup>Genesis Research; <sup>3</sup>Genentech, Inc.; <sup>4</sup>Flatiron Health;

<sup>5</sup>Real World Data Collaborations, Personalized Healthcare Data Science, Genentech Inc., South San Francisco, CA, USA

### The Friends of Cancer Research Real World Data (RWD) Pilot 2.0 Collaboration: Implementation of Standardized Methodological Approaches for Evaluation of Oncology RWD

Donna Rivera<sup>1</sup> | Henry Henk<sup>2</sup> | Elizabeth Garrett-Mayer<sup>3</sup>

Mark Walker<sup>4</sup> | Joseph Wagner<sup>5</sup> | Emily Valice<sup>6</sup>

Connor Sweetnam<sup>7</sup> | Elad Sharon<sup>8</sup> | Lori Sakoda<sup>6</sup>

Nicholas Robert<sup>9</sup> | Ruth Pe Benito<sup>10</sup> | Anina Natanzon<sup>4</sup>

Larry Kushi<sup>6</sup> | Monika Izano<sup>7</sup> | Rebecca Honnold<sup>10</sup>

Eric Hansen<sup>11</sup> | Janet Espirito<sup>9</sup> | Lindsey Enewold<sup>8</sup>

Jennifer Christian<sup>5</sup> | Suanna Bruinooge<sup>12</sup> | Marley Boyd<sup>9</sup>

Andrew Belli<sup>11</sup> | Laura Lasiter<sup>13</sup> | Jeff Allen<sup>13</sup>

<sup>1</sup>US Food and Drug Administration; <sup>2</sup>Optum Labs; <sup>3</sup>ASCO;

<sup>4</sup>ConcertAI; <sup>5</sup>IQVIA; <sup>6</sup>Kaiser Permanente; <sup>7</sup>Syapse; <sup>8</sup>National Cancer Institute; <sup>9</sup>Ontada; <sup>10</sup>Tempus; <sup>11</sup>COTA; <sup>12</sup>American Society of Clinical Oncology; <sup>13</sup>Friends of Cancer Research

## INFORMATICS

### Shifting the Traditional Model of Analysing Downloaded Electronic Health Records to the Novel Open-source Analytics Opensafely Platform

Angel Wong<sup>1</sup> | Brian MacKenna<sup>2</sup> | Caroline Morton<sup>2</sup> | Anna Schultze | Alex Walker<sup>2</sup> | Krishnan Bhaskaran<sup>1</sup>

Christopher Tentsch<sup>1</sup> | Elizabeth Williamson<sup>1</sup> | Richard Croker<sup>2</sup> | Seb Bacon<sup>2</sup> | William Hulme<sup>2</sup> | Chris Bates<sup>3</sup> | Helen Curtis<sup>2</sup>

Amir Mehrkar<sup>2</sup> | David Evans<sup>2</sup> | Peter Inglesby<sup>2</sup> | Jonathan Cockburn<sup>3</sup> | Helen McDonald<sup>1</sup> | Laurie Tomlinson<sup>4</sup> | Rohini Mathur<sup>1</sup>

Kevin Wing<sup>1</sup> | Harriet Forbes<sup>5</sup> | Rosalind Eggo<sup>1</sup> | Ian Douglas<sup>4</sup> | Stephen Evans<sup>4</sup> | Liam Smeeth<sup>4</sup> | Ben Goldacre<sup>2</sup>

<sup>1</sup>London School of Hygiene and Tropical Medicine; <sup>2</sup>University of Oxford; <sup>3</sup>The Phoenix Partnership;

<sup>4</sup>London School of Hygiene & Tropical Medicine; <sup>5</sup>LSHTM

# Oral Presentations

## M E D I C A L   D E V I C E S

### An Evaluation of Direct and Propensity Score Matching vs Propensity Score Stratification for Confounding Adjustment in Primary Total Hip Arthroplasty

Abhishek Chitnis<sup>1</sup> | Jack Mantel<sup>2</sup> | Juan Daccach<sup>3</sup>  
Prerna Kothari<sup>4</sup> | Jill Ruppenkamp<sup>3</sup> | Paul Coplan<sup>3</sup>  
Chantal Holy<sup>3</sup>

<sup>1</sup>Johnson & Johnson; <sup>2</sup>DePuy Synthes; <sup>3</sup>Johnson & Johnson; <sup>4</sup>Mu-Sigma

### Comparative Patient Characteristics of Transcatheter Left Atrial Appendage Occlusion vs Oral Anticoagulants for Stroke Prevention in Atrial Fibrillation

Joshua Lin | Daniel Singer<sup>1</sup> |  
Sushama Kattinakere Sreedhara<sup>2</sup> | Krista F Huybrechts<sup>3</sup>  
Sebastian Schneeweiss<sup>4</sup>

<sup>1</sup>Department of Medicine, Massachusetts General Hospital, Harvard Medical School; <sup>2</sup>Brigham and Women's Hospital, Harvard Medical School; <sup>3</sup>Brigham and Women's Hospital, Division of Pharmacoepidemiology and Pharmacoeconomics; <sup>4</sup>Division of Pharmacoepidemiology and Pharmacoeconomics, Department of Medicine, Brigham and Women's Hospital and Harvard Medical School, Boston, Massachusetts, USA

### Comparison of 10- and 15-year Outcomes of Bioprosthetic and Mechanical Aortic Valve Replacement in Patients Aged Under 65 Years: Australian Study Using Linked Data for 4,704 Patients

Oluwadamisola Sotade<sup>1</sup> | Michael Falster<sup>1</sup>  
Sallie-Anne Pearson<sup>2</sup> | Louisa Jorm<sup>1</sup> | Art Sedrakyan<sup>3</sup>

<sup>1</sup>Centre for Big Data Research in Health, UNSW; <sup>2</sup>Centre for Big Data Research in Health, University of New South Wales; <sup>3</sup>Weill Cornell Medicine

### Leveraging Artificial Intelligence (AI) Technologies for Automated Identification of Total Knee Arthroplasty (TKA) Devices in Electronic Health Records

Elham Sagheb<sup>1</sup> | Shi Yan<sup>1</sup> | Taghi Ramazanian<sup>1</sup> | Sunyang Fu<sup>1</sup>  
Ahmad Tafti<sup>2</sup> | Sunghwan Sohn<sup>1</sup> | Hilal Maradit Kremers<sup>1</sup>

<sup>1</sup>Mayo Clinic; <sup>2</sup>University of Southern Maine

### Persistence of Anticoagulation After Receiving Transcatheter Left Atrial Appendage Occlusion vs Oral Anticoagulants for Stroke Prevention in Atrial Fibrillation

Joshua Lin | Daniel Singer<sup>1</sup>  
Sushama Kattinakere Sreedhara<sup>2</sup> | Krista Huybrechts<sup>3</sup>  
Sebastian Schneeweiss<sup>4</sup>

<sup>1</sup>Department of Medicine, Massachusetts General Hospital, Harvard Medical School; <sup>2</sup>Brigham and Women's Hospital, Harvard Medical School; <sup>3</sup>Brigham and Women's Hospital, Division of Pharmacoepidemiology and Pharmacoeconomics; <sup>4</sup>Division of Pharmacoepidemiology and Pharmacoeconomics, Department of Medicine, Brigham and Women's Hospital and Harvard Medical School, Boston, Massachusetts, USA

### Population Testing for COVID-19: Can a Rapid Antigen Test Rule out Infection?

Christina Mack<sup>1</sup> | Michael Osterholm<sup>2</sup> | Erin Wasserman<sup>3</sup>  
Natalia Petruski-Ivleva<sup>3</sup> | Deverick J Anderson<sup>4</sup>  
Emily Myers<sup>5</sup> | Navdeep Singh<sup>6</sup> | Patti Walton<sup>7</sup>  
Gary Solomon<sup>8</sup> | Christopher Hostler<sup>4</sup> | Jimmie Mancell<sup>9</sup>  
Allen K Sills<sup>8</sup>

<sup>1</sup>IQVIA; <sup>2</sup>Center for Infectious Disease Research and Policy, University of Minnesota, Minneapolis, Minnesota, USA; <sup>3</sup>IQVIA; <sup>4</sup>Duke Center for Antimicrobial Stewardship and Infection Prevention, Duke University School of Medicine, Durham, North Carolina, USA; <sup>5</sup>National Football League, New York City, New York, USA; <sup>6</sup>Eden Medical Center, Castro Valley, CA; <sup>7</sup>Williamson Medical Center, Franklin, TN; <sup>8</sup>National Football League, New York, New York; <sup>9</sup>Department of Medicine, University of Tennessee Health Science Center, Memphis, TN

### Real-world Epidemiologic and Genetic Evidence Synthesis Reveals the Sex-dependent Role of GNAS Snps in Hip Arthroplasty Related Periprosthetic Osteolysis

Wei-Lun Alterovitz<sup>1</sup> | Lam Phuc Vinh Nguyen<sup>1</sup>  
John Dougherty<sup>1</sup> | Elaine Thompson<sup>1</sup> | Hussein Ezzeldin<sup>1</sup>  
Luis Santana-Quintero<sup>1</sup> | Konstantinos Karagiannis<sup>1</sup>  
Vahan Simonyan<sup>1</sup> | Yasameen Azarbajani<sup>1</sup>  
Marina Kondratovich<sup>1</sup> | Danica Marinac-Dabic<sup>2</sup>  
Mark Walderhaug<sup>1</sup> | Richard Forshee<sup>3</sup>  
Yelizaveta Torosyan<sup>1</sup>

<sup>1</sup>US Food and Drug Administration; <sup>2</sup>FDA/CDRH; <sup>3</sup>FDA/CBER

### Sex-differences in Risk of Early Revision After Primary Total Knee Arthroplasty

Suvekshya Aryal<sup>1</sup> | Per-Henrik Randsborg<sup>2</sup>  
Danica Marinac-Dabic<sup>3</sup> | Xinyan Zheng<sup>4</sup> | Jialin Mao<sup>4</sup>  
Amanda Chen<sup>1</sup> | Vincent Devlin<sup>5</sup> | Raquel Peat<sup>5</sup>  
Art Sedrakyan<sup>4</sup>

<sup>1</sup>Weill Cornell Medical College; <sup>2</sup>Hospital for Special Surgery; <sup>3</sup>FDA/CDRH; <sup>4</sup>Weill Cornell Medicine; <sup>5</sup>US Food and Drug Administration

### The Association Between Bariatric Surgery and Carpal Tunnel Syndrome: A Cohort Study from Swedish Nationwide Healthcare Registries

Jennifer Lane<sup>1</sup> | Dag Holmberg<sup>2</sup> | Andrea Burden<sup>3</sup>  
Dominic Furniss<sup>1</sup> | Theresa Burkard<sup>3</sup>

<sup>1</sup>Centre for Statistics in Medicine, Nuffield Department of Orthopaedics, Rheumatology, and Musculoskeletal Sciences, University of Oxford, Oxford, UK; <sup>2</sup>Upper Gastrointestinal Surgery, Department of Molecular medicine and Surgery, Karolinska Institute, Karolinska University Hospital, Stockholm, Sweden; <sup>3</sup>ETH Zurich

# Oral Presentations

## M E D I C A L   D E V I C E S

### The Association Between Bariatric Surgery and Cataract: A Cohort Study from Swedish Nationwide Healthcare Registries

Theresa Burkard<sup>1</sup> | Dag Holmberg<sup>2</sup> | Farhad Hafezi<sup>3</sup> | Andrea M Burden<sup>1</sup>

<sup>1</sup>ETH Zurich; <sup>2</sup>Upper Gastrointestinal Surgery, Department of Molecular medicine and Surgery, Karolinska Institute, Karolinska University Hospital, Stockholm, Sweden; <sup>3</sup>ELZA Institute, Dietikon, Switzerland

## M E T H O D S   I N   P H A R M A C O E P I D E M I O L O G Y

### A New Method to Estimate the Total Cohort Size for Patient Recruitment in self-controlled Case Series Study

Ling Li<sup>1</sup> | Stephen Schachterle<sup>2</sup> | Charles Wentworth<sup>3</sup>  
Heather Rubino<sup>3</sup> | Ann Madsen<sup>2</sup> | Xiaofeng Zhou<sup>2</sup>

<sup>1</sup>HealthCore, Inc.; <sup>2</sup>Pfizer Inc.; <sup>3</sup>Pfizer Inc.

### A Plasmode Simulation of Covariate Misclassification and Transportability

Michael Andrew Webster-Clark<sup>1</sup> | Jessie K Edwards<sup>2</sup>

<sup>1</sup>UNC Gillings School of Global Public Health; <sup>2</sup>Department of  
Epidemiology, University of North Carolina at Chapel Hill

### A Systematic Approach Towards Missing Lab Data in Electronic Health Records: A Case Study in Non-small Cell Lung Cancer and Multiple Myeloma

Janick Georg Weberpals<sup>1</sup> | Arjun Sondhi<sup>2</sup>  
Chengsheng Jiang<sup>2</sup> | Prakirthi Yerram<sup>2</sup> | Michael Taylor<sup>3</sup>  
Meghna Samant<sup>2</sup> | Sarah T Cherng<sup>2</sup>

<sup>1</sup>F. Hoffmann-La Roche Ltd.; <sup>2</sup>Flatiron Health, Inc., New York City, NY,  
USA; <sup>3</sup>Real World Data Collaborations, Personalized Healthcare Data  
Science, Genentech Inc., South San Francisco, CA, USA

### Cardinality Matching vs Propensity Score Matching in Multiple Sclerosis

Nicholas Belviso | Gabrielle Simoneau | Bora Youn  
Fabio Pellegrini | Changyu Shen | Carl de Moor

Biogen

### Categorization of COVID-19 Severity to Determine Mortality Risk

Elizabeth Garry<sup>1</sup> | Andrew Weckstein<sup>1</sup> | Kenneth Quinto<sup>2</sup>  
Marie Bradley<sup>3</sup> | Tamar Lasky<sup>2</sup> | Sandy Leonard<sup>4</sup>  
Sarah Vititoe<sup>1</sup> | Nicolle M Gatto<sup>1</sup>

<sup>1</sup>Aetion, Inc.; <sup>2</sup>US Food and Drug Administration; <sup>3</sup>Division of  
Epidemiology, Office of Surveillance and epidemiology, Center for  
Drug Evaluation and Research, US Food and Drug Administration;  
<sup>4</sup>HealthVerity

### Controlling for Differential Regression to the Mean Using Summary Measures of Pre-treatment Laboratory Values in Propensity Scores

Chase Latour<sup>1</sup> | Leah McGrath<sup>2</sup> | Alexander Breskin<sup>3</sup>  
Ying Yu<sup>4</sup> | M. Alan Brookhart<sup>4</sup>

<sup>1</sup>University of North Carolina at Chapel Hill; <sup>2</sup>NoviSci; <sup>3</sup>NoviSci Inc.;  
<sup>4</sup>NoviSci, Inc.

### Death Documentation Lag in COVID-19 Electronic Health Record (EHR) Suggests Caution in Near-real- time Analysis

Ajit Londhe<sup>1</sup> | Jie Zhang<sup>2</sup> | Corinne Brooks<sup>2</sup>  
Carolyn Brown<sup>2</sup> | Alvan Cheng<sup>2</sup> | Kimberly Roehl<sup>2</sup>  
Fang He<sup>2</sup> | Junjie Ma | John H Page<sup>2</sup> | J. Michael Sprafka<sup>2</sup>

<sup>1</sup>Amgen Inc.; <sup>2</sup>Center for Observational Research, Amgen, Inc.

### Disease Risk Score as Alternative to Propensity Score Under Multiple Confounders and High Prevalence of Outcome: A Simulation Study Motivated by the Emergence of Multiple Repurposed Medicines During the COVID-19 Pandemic

Yuchen Guo<sup>1</sup> | Sara Khalid<sup>1</sup> | Victoria Strauss<sup>1</sup>  
M Sanni Ali<sup>2</sup> | Daniel Prieto-Alhambra<sup>3</sup>

<sup>1</sup>University of Oxford; <sup>2</sup>London School of Hygiene & Tropical  
Medicine; <sup>3</sup>Centre for Statistics in Medicine (CSM), Nuffield  
Department of Orthopaedics, Rheumatology and Musculoskeletal  
Sciences (NDROMS), University of Oxford, Oxford, United Kingdom

### Evaluating When Effect Estimates Change After Propensity Score Trimming Because of Differing Effect Measure Modifier Distributions

Michael Andrew Webster-Clark<sup>1</sup> | Michele Jonsson Funk<sup>2</sup>  
Jennifer Lund<sup>3</sup> | Robert Glynn<sup>4</sup> | Til Stürmer<sup>3</sup>  
Alan Kinlaw<sup>5</sup>

<sup>1</sup>UNC Gillings School of Global Public Health; <sup>2</sup>University of North  
Carolina at Chapel Hill; <sup>3</sup>Department of Epidemiology, University of  
North Carolina at Chapel Hill; <sup>4</sup>Harvard T. H. Chan School of Public  
Health; <sup>5</sup>UNC Eshelman School of Pharmacy

# Oral Presentations

## METHODS IN PHARMACOEPIDEMIOLOGY

### Graphical Representation of an Array of Quantitative Bias Analysis Scenarios for Differential Outcome Misclassification

J Bradley Layton<sup>1</sup> | Ryan Ziemiecki<sup>1</sup> | Heather Danysh<sup>1</sup>  
Charles Gaber<sup>2</sup> | Alicia Gilnsen<sup>1</sup>  
Catherine Bishop Johannes<sup>1</sup>  
<sup>1</sup>RTI Health Solutions; <sup>2</sup>University of North Carolina at Chapel Hill

### Identifying Active Pregnancies Using ICD-10 Z3A Codes vs Completed Pregnancies Using Outcomes

Monica Bertoia<sup>1</sup> | Li Zhou<sup>2</sup> | Michael Doherty<sup>2</sup>  
Florence Wang<sup>2</sup> | John Seeger<sup>1</sup>  
<sup>1</sup>Optum Epidemiology; <sup>2</sup>Optum

### Improving Methods of Identifying Anaphylaxis for Medical Product Safety Surveillance Using Natural Language Processing and Machine Learning

David Carrell<sup>1</sup> | Susan Gruber<sup>2</sup> | James Floyd<sup>3</sup>  
Maralyssa Bann<sup>4</sup> | Kara Cushing-Haugen<sup>1</sup> | Ron Johnson<sup>1</sup>  
Vina Graham<sup>1</sup> | David Cronkite<sup>1</sup> | Brian Hazlehurst<sup>5</sup>  
Andrew Felcher<sup>5</sup> | Cosmin Bejan<sup>6</sup> | Adee Kennedy<sup>7</sup>  
Mayura Shinde<sup>8</sup> | Sara Karami<sup>9</sup> | Yong Ma<sup>10</sup>  
Danijela Stojanovic<sup>11</sup> | Yueqin Zhao<sup>12</sup> | Robert Ball<sup>9</sup>  
Jennifer Nelson<sup>1</sup>  
<sup>1</sup>Kaiser Permanente Washington Health Research Institute;  
<sup>2</sup>Putnam Data Sciences; <sup>3</sup>University of Washington Department of Epidemiology, Seattle, WA; <sup>4</sup>University of Washington; <sup>5</sup>Kaiser Permanente Northwest; <sup>6</sup>Vanderbilt University Medical Center;  
<sup>7</sup>Harvard Pilgrim Health Care Institute; <sup>8</sup>Harvard Medical School; <sup>9</sup>US Food and Drug Administration; <sup>10</sup>Center for Drug Evaluation and Research, United States Food and Drug Administration; <sup>11</sup>Office of Surveillance and Epidemiology, Center for Drug Evaluation and Research, US Food and Drug Administration, Silver Spring, MD;  
<sup>12</sup>Office of Biostatistics, Center for Drug Evaluation and Research, FDA, Silver Spring, MD

### Linear Mixed Model and Multistate Markov Model to Compare Changes in Clinical Measurements over Time. a Blood Pressure Example

Emmanuelle Boutmy<sup>1</sup> | Arthur Allignol<sup>2</sup>  
Thilo Hohenberger<sup>2</sup> | Caroline Foch<sup>1</sup> | Ulrike Hostalek<sup>2</sup>  
<sup>1</sup>Merck KGaA Darmstadt, Germany; <sup>2</sup>Merck KGaA, Darmstadt, Germany

### Longitudinal Adherence Trajectories to Biologic Disease Modifying Anti-rheumatic Drugs in Tuscany, Italy

Sabrina Giometto<sup>1</sup> | Irma Convertino<sup>2</sup> | Marco Tuccori<sup>3</sup>  
Rosa Gini<sup>4</sup> | Massimiliano Cazzato<sup>5</sup> | Giulia Valdiserra<sup>6</sup>  
Emiliano Cappello<sup>6</sup> | Sara Ferraro<sup>7</sup> | Silvia Tillati<sup>8</sup>  
Marco Fornili<sup>9</sup> | Claudia C Bartolini<sup>10</sup> | Olga Paoletti<sup>11</sup>  
Giuseppe Turchetti<sup>12</sup> | Leopoldo Trieste<sup>12</sup>  
Valentina Lorenzoni<sup>13</sup> | Corrado Blandizzi<sup>14</sup>  
Marta Mosca<sup>5</sup> | Ersilia Lucenteforte<sup>1</sup>

<sup>1</sup>Unit of Medical Statistics, Department of Clinical and Experimental Medicine, University of Pisa; <sup>2</sup>UNIVERSITY OF PISA; <sup>3</sup>University Hospital of Pisa; <sup>4</sup>Agenzia regionale di sanità della Toscana, Osservatorio di epidemiologia, Florence, Italy; <sup>5</sup>Unit of Rheumatology, University Hospital of Pisa, Pisa, Italy; <sup>6</sup>Unit of Pharmacology and Pharmacovigilance, Department of Clinical and Experimental Medicine, University of Pisa; <sup>7</sup>University of Pisa; <sup>8</sup>Unit of Medical Statistics, Department of Clinical and Experimental Medicine, University of Pisa, Pisa, Italy; <sup>9</sup>Unit of Medical Statistics, Department of Clinical and Experimental Medicine, University of Pisa, Pisa, Italy; <sup>10</sup>ARS Toscana; <sup>11</sup>Agenzia regionale di sanità della Toscana; <sup>12</sup>Institute of Management, Scuola Superiore Sant'Anna, Pisa, Italy; <sup>13</sup>Institute of Management, Scuola Superiore Sant'Anna; <sup>14</sup>Unit of Pharmacology and Pharmacovigilance, Department of Clinical and Experimental Medicine, University of Pisa; Unit of Adverse Drug Reactions Monitoring, University Hospital of Pisa, Pisa, Italy

### Optimization-based Stable Balancing Weights vs Generalized Boosted Modeling for Propensity Score Weighting

Stephen Johnston<sup>1</sup> | Luo Li<sup>1</sup> | Harikumaran Dwarakanathan<sup>2</sup>  
David Wei<sup>1</sup> | Pragya Rai<sup>1</sup> | Paul Coplan<sup>1</sup>  
<sup>1</sup>Johnson & Johnson; <sup>2</sup>Mu Sigma

### Rank-based Weighting for Balancing on Median Baseline Characteristics in Matching Adjusted Indirect Comparisons (MAIC)

Shirley Liao | Carl de Moor | Angela D Paradis | Justin Bohn  
Changyu Shen | Gabrielle Simoneau | Fabio Pellegrini  
Biogen

### Risk of Malignancies in Newly Treated Patients with Disease-modifying Drugs for Multiple Sclerosis: Assessment According to Cohort and Nested-case Control Approaches

Pauline Bosco-Levy<sup>1</sup>; Emmanuelle Boutmy<sup>2</sup>; Angela Grelaud<sup>3</sup>; Meritxell Sabido Espin<sup>4</sup>; Pauline Diez<sup>3</sup>; Clémentine Lacueille<sup>3</sup>; Régis Lassalle<sup>3</sup>; Caroline Foch<sup>2</sup>; Cécile Droz-Perroteau<sup>5</sup>  
<sup>1</sup>Bordeaux PharmacoEpi; <sup>2</sup>Merck KGaA Darmstadt, Germany; <sup>3</sup>Bordeaux PharmacoEpi, INSERM CIC1401, Université de BORDEAUX; <sup>4</sup>Merck KGaA; <sup>5</sup>Univ. Bordeaux, INSERM CIC-P 1401, Bordeaux PharmacoEpi, 33000 Bordeaux, France

# Oral Presentations

## METHODS IN PHARMACOEPIDEMIOLOGY

### Sessa Empirical Estimator (SEE): A Data-driven Method for Predicting the Duration of Pharmacological Prescriptions in Secondary Data Sources

Maurizio Sessa  
*University of Copenhagen*

### Stable Balancing Weights for Unanchored Matching-adjusted Indirect Comparisons and Targeting External Control Arm Estimands

Stephen Johnston<sup>1</sup> | Harikumaran Dwarakanathan<sup>2</sup>  
Jason Waggoner<sup>1</sup> | Michael Schwiers<sup>1</sup> | Sanjoy Roy<sup>1</sup>  
Paul Coplan<sup>1</sup>  
<sup>1</sup>Johnson & Johnson; <sup>2</sup>Mu Sigma

### The Effect of the Anticholinergic Properties of Antidepressants on the Incidence of Dementia: A Target Trial Emulation

Joan Fornis<sup>1</sup> | Jaume Aguado<sup>1</sup> | Elena Rivero-Ferrer<sup>1</sup>  
Estel Plana<sup>1</sup> | Barbra Dickerman<sup>2</sup>  
Xabier Garcia de Albeniz<sup>1</sup>  
<sup>1</sup>RTI Health Solutions; <sup>2</sup>Harvard T.H. Chan School of Public Health

### The Impact of Longitudinal Data-completeness of Electronic Health Record (EHR) Data on Prognostic Risk Score Misclassification

Yinzhu Jin<sup>1</sup> | Sebastian Schneeweiss<sup>2</sup> | Dave Merola<sup>3</sup>  
Joshua Lin  
<sup>1</sup>BWH Div of Pharmacoepidemiology and Pharmacoeconomics;  
<sup>2</sup>Division of Pharmacoepidemiology and Pharmacoeconomics, Department of Medicine, Brigham and Women's Hospital and Harvard Medical School, Boston, Massachusetts, USA; <sup>3</sup>1 Division of Pharmacoepidemiology and Pharmacoeconomics, Department of Medicine, Brigham and Women's Hospital and Harvard Medical School

### The Performance of Different Strategies to Manage Confounding in Cardinality Matching for Medical Device Epidemiology: A Simulation Study

Mike Du<sup>1</sup> | Sara Khalid<sup>2</sup> | Daniel Prieto-Alhambra<sup>3</sup>  
Victoria Strauss<sup>2</sup>  
<sup>1</sup>CSM, NDORMS, University of Oxford; <sup>2</sup>University of Oxford;  
<sup>3</sup>Centre for Statistics in Medicine (CSM), Nuffield Department of Orthopaedics, Rheumatology and Musculoskeletal Sciences (NDORMS), University of Oxford, Oxford, United Kingdom

### Use of an EHR to Inform a Claims-based Algorithm to Categorize Inpatient COVID-19 Severity

Elizabeth Garry<sup>1</sup> | Andrew Weckstein<sup>1</sup> | Kenneth Quinto<sup>2</sup>  
Tamar Lasky<sup>2</sup> | Alok Chakravarty<sup>3</sup> | Sandy Leonard<sup>4</sup>  
Sarah Vititoe<sup>1</sup> | Jeremy A Rassen<sup>5</sup> | Nicolle M Gatto<sup>1</sup>  
<sup>1</sup>Aetion, Inc; <sup>2</sup>US Food and Drug Administration; <sup>3</sup>Food and Drug Administration; <sup>4</sup>HealthVerity; <sup>5</sup>Aetion, Inc.

### Use of Linked Databases for Improved Confounding Control: Considerations for Potential Selection Bias

Jenny Sun<sup>1</sup> | Sengwee Toh<sup>2</sup>  
<sup>1</sup>Harvard Pilgrim HealthCare Institute; <sup>2</sup>Harvard Medical School and Harvard Pilgrim Health Care Institute

### Using Randomized Trial Data to Estimate Effects of Complex Treatment Regimens in Real-world Patients

Michael Andrew Webster-Clark<sup>1</sup> | Jennifer Lund<sup>2</sup>  
Hanna Sanoff<sup>3</sup> | Til Stürmer<sup>2</sup> | Daniel Westreich<sup>4</sup>  
Alexander Keil<sup>4</sup>  
<sup>1</sup>UNC Gillings School of Global Public Health; <sup>2</sup>Department of Epidemiology, University of North Carolina at Chapel Hill; <sup>3</sup>University of North Carolina at Chapel Hill Department of Medicine; <sup>4</sup>University of North Carolina at Chapel Hill

### Validation of an Algorithm to Identify Hormonal Contraceptive Exposure in a Large Integrated Health Care Delivery System Database

Mary Anne Armstrong<sup>1</sup> | Malini Chandra<sup>2</sup> | Darios Getahun<sup>3</sup>  
Michael Fassett<sup>4</sup> | Jiaxiao Shi<sup>3</sup> | Amy Alabaster<sup>2</sup>  
Fagen Xie<sup>3</sup> | Vicki Chiu<sup>3</sup> | Theresa Im<sup>3</sup> | Federica Pisa<sup>5</sup>  
Tina Raine-Bennett<sup>2</sup>  
<sup>1</sup>Kaiser Permanente Northern California Division of Research; <sup>2</sup>Division of Research, Kaiser Permanente; <sup>3</sup>Research and Evaluation, Kaiser Permanente Southern California; <sup>4</sup>Kaiser Permanente Southern California; <sup>5</sup>Medical Affairs & Pharmacovigilance, Bayer AG

### Validity of Electronic Health Records-based Measures for COVID-19 Hospitalization and Severe Outcomes

Sharon Fuller<sup>1</sup> | Kathy Gleason<sup>2</sup> | Rod Walker<sup>1</sup>  
Stephen Fortmann<sup>3</sup> | Ladia Albertson-Junkans<sup>1</sup>  
J. David Powers<sup>2</sup> | Mi Lee<sup>3</sup> | James Floyd<sup>4</sup>  
Lisa Temposky<sup>1</sup> | Susan Shortreed<sup>1</sup> | Elizabeth Bayliss<sup>2</sup>  
Laura Harrington<sup>1</sup> | Jennifer Kuntz<sup>5</sup> | Lisa Pieper<sup>2</sup>  
Jan Van Marter<sup>3</sup> | Sascha Dublin<sup>1</sup>  
<sup>1</sup>Kaiser Permanente Washington Health Research Institute; <sup>2</sup>Kaiser Permanente Colorado, Institute for Health Research; <sup>3</sup>Kaiser Permanente Northwest, Center for Health Research; <sup>4</sup>University of Washington Department of Epidemiology, Seattle, WA; <sup>5</sup>Kaiser Permanente Center for Health Research

# Oral Presentations

## P E D I A T R I C S

### Antibiotic Prescribing in Children Aged 0-6 Years in Germany: Assessing Regional Variations and Potential Explanations Based on Claims Data

Oliver Scholle<sup>1</sup> | Marieke Asendorf | Christoph Buck<sup>2</sup>  
Susann Grill<sup>2</sup> | Oliver Riedel<sup>2</sup> | Ulrike Haug<sup>3</sup>

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<sup>3</sup>Leibniz-Institut für Präventionsforschung und Epidemiologie, Bremen, Germany

### Early Life Antibiotic Exposure and Incident Chronic Diseases in Childhood

Matthew Beier<sup>1</sup> | Soko Setoguchi<sup>2</sup> | Tobias Gerhard<sup>3</sup>  
Jason Roy<sup>4</sup> | Avinash Gabbeta<sup>5</sup> | Brian Strom<sup>6</sup>  
Martin Blaser<sup>7</sup> | Daniel Horton<sup>8</sup>

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### Filled Prescriptions for Opioids Among Children and Adolescents – a Nationwide Study from 2010 to 2018

Aleksi Hamina<sup>1</sup> | Marte Handal<sup>2</sup> | Olav Fredheim<sup>3</sup>  
Thomas Clausen<sup>1</sup> | Li-Chia Chen<sup>4</sup> | Svetlana Skurtveit<sup>5</sup>

<sup>1</sup>University of Oslo; <sup>2</sup>Norwegian Institute of Public Health;

<sup>3</sup>Norwegian University of Science and Technology; <sup>4</sup>Centre for Pharmacoepidemiology and Drug Safety, Division of Pharmacy and Optometry, School of Health Sciences, Faculty of Biology, Medicine and Health, University of Manchester; <sup>5</sup>Department of Mental Disorders, Norwegian Institute of Public Health, Oslo, Norway

### General Practitioner Prescribing Trends Among Pediatric Patients in the United Kingdom: 1998-2018

Reem Masarwa<sup>1</sup> | Claire Lefebvre<sup>2</sup> | Robert Platt<sup>3</sup>  
Kristian Filion<sup>3</sup>

<sup>1</sup>McGill University; <sup>2</sup>Department of Pediatrics, Centre Hospitalier Universitaire Ste-Justine, University of Montreal, Montreal, Quebec, Canada; <sup>3</sup>Department of Epidemiology, Biostatistics and Occupational Health, McGill University, Montreal, Quebec, Canada

### Impact of Drug-related Regulations on Codeine Use Among Children in Taiwan: A Nationwide Interrupted Time Series Analysis from 2005 to 2018

Chih-Wan Lin<sup>1</sup> | Yu-Jie Huang<sup>2</sup> | Wei-I Huang<sup>2</sup>  
Pi-Hui Chao<sup>2</sup> | Wen-Wen Chen<sup>2</sup> | Fei-Yuan Hsiao<sup>3</sup>

<sup>1</sup>Graduate Institute of Clinical Pharmacy, College of Medicine, National Taiwan University; <sup>2</sup>Taiwan Drug Relief Foundation, Taipei, Taiwan; <sup>3</sup>Graduate Institute of Clinical Pharmacy, National Taiwan University, Taipei, Taiwan

### Prescribed Medicine Use in a Nationwide Sample of Australian Children: Extent of Off-label Use

Andrea Schaffer<sup>1</sup> | Natasha Nassar<sup>2</sup> | Claudia Bruno<sup>3</sup>  
Nicholas Buckley<sup>4</sup> | Rose Cairns<sup>2</sup> | Melisa Litchfield<sup>5</sup>  
Simon Paget<sup>2</sup> | Helga Zoega<sup>3</sup> | Sallie-Anne Pearson<sup>6</sup>

<sup>1</sup>University of New South Wales; <sup>2</sup>University of Sydney; <sup>3</sup>Centre for Big Data Research in Health, UNSW Sydney; <sup>4</sup>Biomedical Informatics and Digital Health, University of Sydney; <sup>5</sup>Centre for Big Data Research in Health, University of New South Wales; <sup>6</sup>Centre for Big Data Research in Health, University of New South Wales

### Risk of Type 2 Diabetes Among Children Initiating Anticonvulsant Mood Stabilizers: Application of a Target Trial Approach

Jenny Sun<sup>1</sup> | Jessica Young | Aaron Sarvet<sup>2</sup>  
Pi-i Debby Lin<sup>2</sup> | Sengwee Toh<sup>2</sup> | Jason Block<sup>2</sup>

<sup>1</sup>Harvard Pilgrim HealthCare Institute; <sup>2</sup>Harvard Medical School and Harvard Pilgrim Health Care Institute

### Selective Serotonin Reuptake Inhibitors and the Risk of Type 2 Diabetes Mellitus in Youths

Thi Xuan Dai Cao<sup>1</sup> | Christopher Filliter<sup>2</sup>  
François Montastruc<sup>3</sup> | Oriana Hoi Yun Yu<sup>2</sup>  
Emma Fergusson<sup>4</sup> | Soham Rej<sup>5</sup> | Laurent Azoulay<sup>6</sup>  
Christel Renoux<sup>6</sup>

<sup>1</sup>McGill Dept of Epidemiology, Biostatistics and Occupational Health; <sup>2</sup>Centre for Clinical Epidemiology, Lady Davis Institute, Jewish General Hospital, Montreal, Québec, Canada; <sup>3</sup>Department of Clinical and Medical Pharmacology and Regional Pharmacovigilance Centre, Faculty of Medicine and Toulouse University Hospital, Toulouse, France; <sup>4</sup>Oxford Health NHS Trust, Department of Psychiatry, Oxford University, Oxford, United Kingdom; <sup>5</sup>Department of Psychiatry, McGill University, Montreal, Canada; <sup>6</sup>Department of Epidemiology, Biostatistics, and Occupational Health, McGill University, Montreal, Québec, Canada

Science is resilient.  
It can overcome diseases,  
create cures, and yes,  
even beat pandemics.  
It has the methodology  
and the rigor  
to withstand even  
the most arduous scrutiny.  
It keeps asking questions and  
until there's a breakthrough,  
it isn't done.  
That's why, when the world  
needs answers, we turn to science.  
Because in the end  
**SCIENCE WILL WIN.**<sup>™</sup>



# Oral Presentations

## PHARMACOVIGILANCE

### Comparing the Risk of Venous Thromboembolism in Rheumatoid Arthritis Patients Receiving Tofacitinib and TNF Inhibitors in Taiwan

Chin-Yao Shen | Tzu-Chi Liao | Edward Chia-Cheng Lai  
*School of Pharmacy, Institute of Clinical Pharmacy and Pharmaceutical Sciences, College of Medicine, National Cheng Kung University, Tainan 701, Taiwan*

### Impact of COVID-19 Social Distance Restrictions on Hospital Encounters Due to Injury by Poisoning or Toxicity of Medications or Non-medicinal Substances

Goua Her<sup>1</sup> | Jessica Young<sup>2</sup> | Til Stürmer<sup>3</sup>  
Michele Jonsson Funk<sup>4</sup>  
*<sup>1</sup>Department of Epidemiology, Gillings School of Global Public Health, University of North Carolina at Chapel Hill, Chapel Hill, NC 27599 USA; <sup>2</sup>UNC Gillings School of Global Public Health; <sup>3</sup>Department of Epidemiology, University of North Carolina at Chapel Hill; <sup>4</sup>University of North Carolina at Chapel Hill*

## PREGNANCY AND LACTATION

### Antidepressant Use During Pregnancy and the Risk of Neurodevelopmental Disorders in Children

Elizabeth Suarez<sup>1</sup> | Brian Bateman<sup>2</sup>  
Sonia Hernandez-Diaz<sup>3</sup> | Loreen Straub<sup>4</sup> | Yanmin Zhu<sup>4</sup>  
Helen Mogun<sup>2</sup> | Krista Huybrechts<sup>2</sup>  
*<sup>1</sup>BWH Div of Pharmacoepidemiology and Pharmacoeconomics; <sup>2</sup>Brigham and Women's Hospital, Division of Pharmacoepidemiology and Pharmacoeconomics; <sup>3</sup>Harvard T.H. Chan School of Public Health; <sup>4</sup>Brigham and Women's Hospital, Harvard Medical School*

### Balance of Unmeasured Covariates After Propensity Score Matching Based on Measurable Covariates in Perinatal Pharmacoepidemiologic Studies

Yanmin Zhu<sup>1</sup> | Thuy Thai<sup>2</sup> | Sonia Hernandez-Diaz<sup>3</sup>  
Brian Bateman<sup>4</sup> | Loreen Straub<sup>1</sup> | Kathryn Gray<sup>5</sup>  
Almut Winterstein<sup>2</sup> | Lockwood Taylor<sup>6</sup>  
Rita Ouellet-Hellstrom<sup>6</sup> | Yong Ma<sup>6</sup> | Yandong Qiang<sup>6</sup>  
Wei Hua<sup>6</sup> | Krista Huybrechts<sup>4</sup>  
*<sup>1</sup>Brigham and Women's Hospital, Harvard Medical School; <sup>2</sup>Department of Pharmaceutical Outcomes and Policy and Center for Drug Evaluation and Safety, College of Pharmacy, University of Florida; <sup>3</sup>Harvard T.H. Chan School of Public Health; <sup>4</sup>Brigham and Women's Hospital, Division of Pharmacoepidemiology and Pharmacoeconomics; <sup>5</sup>Division of Maternal-Fetal Medicine, Department of Obstetrics and Gynecology, Brigham and Women's Hospital and Harvard Medical School; <sup>6</sup>Center for Drug Evaluation and Research, United States Food and Drug Administration*

### Benzodiazepine Use in the First Trimester and Risk of Congenital Malformations: A Nationwide Cohort Study in South Korea

Yunha Noh<sup>1</sup> | Hyesung Lee<sup>2</sup> | Ahhyung Choi<sup>3</sup>  
Dong-Sook Kim<sup>4</sup> | Ju-Young Shin<sup>5</sup>  
*<sup>1</sup>Sungkyunkwan University; <sup>2</sup>School of Pharmacy, Sungkyunkwan University; <sup>3</sup>School of Pharmacy, SKKU; <sup>4</sup>Department of Research, Health Insurance Review & Assessment Service; <sup>5</sup>School of Pharmacy, Sungkyunkwan University (SKKU)*

### Characteristics and Outcomes of Pregnancies in Women with Heart Failure: A Retrospective Cohort Study in the Sentinel System

Yan Li<sup>1</sup> | Austin Cosgrove<sup>2</sup> | Efe Eworuke<sup>3</sup>  
Catherine Corey<sup>3</sup> | Joy Kolonoski<sup>2</sup> | Mayura Shinde<sup>4</sup>  
*<sup>1</sup>US Food and Drug Administration; <sup>2</sup>Department of Population Medicine, Harvard Medical School and Harvard Pilgrim Health Care Institute; <sup>3</sup>Office of Surveillance and Epidemiology, Center for Drug Evaluation and Research, U.S. Food and Drug Administration; <sup>4</sup>Harvard Medical School*

### Characteristics of Initial Postpartum Opioid Prescribing and Risks of Serious Opioid-related Events After Cesarean Delivery

Andrew Wiese<sup>1</sup> | Sarah Osmundson<sup>1</sup> | Edward Mitchel<sup>1</sup>  
Margaret Adgent<sup>1</sup> | Sharon Phillips<sup>1</sup> | Stephen Patrick<sup>2</sup>  
Andrew Spieker<sup>1</sup> | Carlos Grijalva<sup>1</sup>  
*<sup>1</sup>Vanderbilt University Medical Center; <sup>2</sup>Vanderbilt University School of Medicine*

### Comparative Safety of In-utero Exposure to Buprenorphine Combined with Naloxone vs Buprenorphine Monoproduct with Respect to Congenital Malformations

Loreen Straub<sup>1</sup> | Krista Huybrechts<sup>2</sup>  
Sonia Hernandez-Diaz<sup>3</sup> | Elizabeth Suarez<sup>4</sup> | Yanmin Zhu<sup>1</sup>  
Helen Mogun<sup>2</sup> | Brian Bateman<sup>2</sup>  
*<sup>1</sup>Brigham and Women's Hospital, Harvard Medical School; <sup>2</sup>Brigham and Women's Hospital, Division of Pharmacoepidemiology and Pharmacoeconomics; <sup>3</sup>Harvard T.H. Chan School of Public Health; <sup>4</sup>BWH Div of Pharmacoepidemiology and Pharmacoeconomics*

# Oral Presentations

## P R E G N A N C Y   A N D   L A C T A T I O N

### COVID-19 Pharmacotherapy During Pregnancy: International Registry of Coronavirus Exposure in Pregnancy (IRCEP)

Sonia Hernandez-Diaz<sup>1</sup> | Louisa Smith<sup>2</sup> | Diego Wyszynski<sup>3</sup>  
<sup>1</sup>Harvard T.H. Chan School of Public Health; <sup>2</sup>Harvard TH Chan School of Public Health; <sup>3</sup>Pregistry

### Development and Validation of ICD-10 Claims-based Algorithms for Pregnancy and Infant Outcomes

Andrea Chomistek<sup>1</sup> | Kelesitse Phiri<sup>2</sup> | Jenna Calderbank<sup>3</sup>  
Michael Doherty<sup>3</sup> | Stephanie Chiuve<sup>4</sup>  
Brenda Hinman-McIlroy<sup>4</sup> | Michael Snabes<sup>5</sup>  
John Seeger<sup>1</sup>  
<sup>1</sup>Optum Epidemiology; <sup>2</sup>GlaxoSmithKline; <sup>3</sup>Optum; <sup>4</sup>AbbVie; <sup>5</sup>AbbVie, Inc

### Effects of Gadolinium-enhanced MRI Exposure During Pregnancy on Neonatal Intensive Care Unit Admission

Thuy Thai<sup>1</sup> | Sabina Nduaguba<sup>2</sup> | Nicole Smolinski<sup>3</sup>  
Xi Wang<sup>4</sup> | Leyla Sahin<sup>5</sup> | Kate Gelperin<sup>6</sup> | Steven Bird<sup>6</sup>  
Ira Krefting<sup>7</sup> | Sonja Rasmussen<sup>8</sup> | Almut Winterstein<sup>1</sup>  
<sup>1</sup>Department of Pharmaceutical Outcomes and Policy and Center for Drug Evaluation and Safety, College of Pharmacy, University of Florida; <sup>2</sup>University of Florida; <sup>3</sup>Department of Pharmaceutical Outcomes and Policy, College of Pharmacy, University of Florida; <sup>4</sup>Department of Pharmaceutical Outcomes and Policy, University of Florida; <sup>5</sup>US Food and Drug Administration; <sup>6</sup>Division of Epidemiology, Office of Pharmacovigilance and Epidemiology, Food and Drug Administration; <sup>7</sup>Division of Imaging and Radiation Medicine, Office of New Drugs, Food and Drug Administration; <sup>8</sup>College of Medicine, University of Florida

### Feasibility of Using Healthcare Utilization Data to Identify Neurodevelopmental Disorders for Transgenerational Pharmacoepidemiology

Loreen Straub<sup>1</sup> | Brian Bateman<sup>2</sup> | Sonia Hernandez-Diaz<sup>3</sup>  
Elizabeth Suarez<sup>4</sup> | Cassandra York<sup>2</sup> | Yanmin Zhu<sup>1</sup>  
Helen Mogun<sup>2</sup> | Krista Huybrechts<sup>2</sup>  
<sup>1</sup>Brigham and Women's Hospital, Harvard Medical School; <sup>2</sup>Brigham and Women's Hospital, Division of Pharmacoepidemiology and Pharmacoeconomics; <sup>3</sup>Harvard T.H. Chan School of Public Health; <sup>4</sup>BWH Div of Pharmacoepidemiology and Pharmacoeconomics

### Fertility Rates in Women with Psoriasis and Psoriatic Arthritis: A Population-based Cohort Study

Teng-Chou Chen<sup>1</sup> | Ireny Iskandar<sup>2</sup> | Rosa Parisi<sup>3</sup>  
Matthias Pierce<sup>4</sup> | Elise Kleyn<sup>5</sup> | Christopher Griffiths<sup>6</sup>  
Darren Ashcroft<sup>7</sup>  
<sup>1</sup>The University of Manchester; <sup>2</sup>Centre for Occupational and Environmental Health, Division of Population Health, Health Services Research and Primary Care, School of Health Sciences, Faculty of Biology, Medicine and Health, University of Manchester; <sup>3</sup>Division of Informatics, Imaging and Data Sciences, Manchester Academic Health Sciences Centre, School of Health Sciences, Faculty of Biology, Medicine and Health, University of Manchester; <sup>4</sup>Centre for Women's Mental Health, University of Manchester; <sup>5</sup>Centre for Dermatology Research, Manchester Academic Health Science Centre, NIHR Manchester Biomedical Research Centre, Division of Musculoskeletal and Dermatological Sciences, University of Manchester; <sup>6</sup>Dermatology Centre, Salford Royal NHS Foundation Trust, Manchester Academic Health Science Centre, University of Manchester; <sup>7</sup>Centre for Pharmacoepidemiology and Drug Safety, Division of Pharmacy and Optometry, School of Health Sciences, University of Manchester, Manchester, UK

### First Trimester Exposure to Buprenorphine Compared to Methadone for Treatment of Opioid Use Disorders and the Risk of Congenital Malformations

Elizabeth Suarez<sup>1</sup> | Krista Huybrechts<sup>2</sup>  
Sonia Hernandez-Diaz<sup>3</sup> | Loreen Straub<sup>4</sup> | Yanmin Zhu<sup>4</sup>  
Helen Mogun<sup>2</sup> | Brian Bateman<sup>2</sup>  
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### Implication of Maternal Continuous Enrollment on Stillbirth Gestational Age Distributions and Maternal Characteristics in Medicaid Enrollees

Thuy Thai<sup>1</sup> | Sonja Rasmussen<sup>2</sup> | Nicole Smolinski<sup>3</sup> Sabina Nduaguba<sup>4</sup> | Yanmin Zhu<sup>5</sup> | Brian Bateman<sup>6</sup>  
Krista Huybrechts<sup>6</sup> | Sonia Hernandez-Diaz<sup>7</sup>  
Almut Winterstein<sup>1</sup>  
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# Oral Presentations

## P R E G N A N C Y   A N D   L A C T A T I O N

### Increasing Prescriptions of Misoprostol Dispensed Before Delivery in Belgium (2003-2017): Evidence from Healthcare Administrative Database

Lionel Larcin<sup>1</sup> | Murielle Lona<sup>2</sup> | Güngör Karakaya<sup>2</sup>  
Christine Damase-Michel<sup>3</sup> | Fati Kirakoya-Samadoulougou<sup>1</sup>

<sup>1</sup>Centre de recherche Epidémiologie, Biostatistiques, Recherche Clinique, School of Public Health, Université Libre de Bruxelles (U.L.B.), Bruxelles, Belgium; <sup>2</sup>Agence Intermutualiste (IMA), Bruxelles, Belgium; <sup>3</sup>Université de Toulouse, UPS, CHU Toulouse, INSERM, CERPOP: SPHERE, CIC 1436, Toulouse

### Metformin and Risk of Adverse Pregnancy Outcomes Among Pregnant Women with Gestation Diabetes in the United Kingdom: A Population-based Cohort Study

Ya-Hui Yu<sup>1</sup> | Robert Platt<sup>2</sup> | Oriana Hoi Yun Yu<sup>3</sup>  
Kristian Filion<sup>2</sup>

<sup>1</sup>McGill University; <sup>2</sup>Department of Epidemiology, Biostatistics and Occupational Health, McGill University, Montreal, Quebec, Canada; <sup>3</sup>Centre for Clinical Epidemiology, Lady Davis Institute, Jewish General Hospital, Montreal, Québec, Canada

### Metformin vs Insulin in Early Pregnancy and Risk of Congenital Malformations

Lars Kjerpeseth<sup>1</sup> | Carolyn Cesta | Anders Engeland<sup>2</sup>  
Kari Furu<sup>1</sup> | Mika Gissler<sup>3</sup> | Hanne Gulseth<sup>1</sup>  
Øystein Karlstad<sup>1</sup> | Helle Kieler<sup>4</sup> | Maarit Leinonen<sup>3</sup>  
Mette Nørgaard<sup>5</sup> | Laura Pazzagli<sup>6</sup> | Randi Selmer<sup>7</sup>  
Helga Zoega<sup>8</sup> | Jacqueline Cohen<sup>1</sup>

<sup>1</sup>Norwegian Institute of Public Health; <sup>2</sup>University of Bergen; <sup>3</sup>Finnish Institute for Health and Welfare; <sup>4</sup>Centre for Pharmacoepidemiology, Karolinska Institutet; <sup>5</sup>Department of Clinical Epidemiology, University of Aarhus; <sup>6</sup>Karolinska Institutet; <sup>7</sup>Norwegian Institute of Public Health, Oslo, Norway; <sup>8</sup>Centre for Big Data Research in Health, UNSW Sydney

### Prenatal Analgesic Opioid Exposure and Risk of ADHD in Childhood

Johanne Troennes<sup>1</sup> | Angela Lupattelli<sup>2</sup> | Marte Handal<sup>3</sup>  
Svetlana Skurtveit<sup>4</sup> | Eivind Ystrom<sup>4</sup> | Hedvig Nordeng<sup>5</sup>

<sup>1</sup>University of Oslo; <sup>2</sup>Department of Pharmacy, Faculty of Mathematics and Natural Sciences, University of Oslo, Oslo, Norway; <sup>3</sup>Norwegian Institute of Public Health; <sup>4</sup>Department of Mental Disorders, Norwegian Institute of Public Health, Oslo, Norway; <sup>5</sup>PharmacoEpidemiology and Drug Safety Research Group, Department of Pharmacy, and PharmaTox Strategic Initiative, Faculty of Mathematics and Natural Sciences, University of Oslo

### Prenatal Antiseizure Medication Exposure and Risk of Autism and Intellectual Disability. SCAN-AED: A Nordic Cohort Study

Marte-Helene Bjørk<sup>1</sup> | Helga Zoega<sup>2</sup> | Maarit Leinonen<sup>3</sup>  
Jacqueline Cohen<sup>4</sup> | Julie Dreier<sup>5</sup> | Kari Furu<sup>4</sup>

Nils Erik Gilhus<sup>1</sup> | Mika Gissler<sup>3</sup> | Óskar Hálfðánarson<sup>6</sup>  
Jannicke Igland<sup>7</sup> | Yuelian Sun<sup>8</sup> | Torbjörn Tomson<sup>9</sup>  
Silje Alvestad<sup>10</sup> | Jakob Christensen<sup>8</sup>

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### Prescription Medication Use and Baseline Health Status of Women with Live Birth Deliveries in a National Data Network: The Sentinel Distributed Database Mother-infant Linkage Table

Elizabeth Suarez<sup>1</sup> | Nicole Haug<sup>2</sup> | Aaron Hansbury<sup>2</sup>  
Danijela Stojanovic<sup>3</sup> | Catherine Corey<sup>4</sup>

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### Prescription Opioid Type and the Risk of Neonatal Opioid Withdrawal Syndrome

Daina Esposito<sup>1</sup> | Brian Bateman<sup>2</sup> | Martha Werler<sup>1</sup>  
Loreen Straub<sup>3</sup> | Helen Mogun<sup>2</sup> | Sonia Hernandez-Diaz<sup>4</sup>  
Samantha Parker<sup>1</sup> | Krista Huybrechts<sup>2</sup>

<sup>1</sup>Boston University School of Public Health; <sup>2</sup>Brigham and Women's Hospital, Division of Pharmacoepidemiology and Pharmacoeconomics; <sup>3</sup>Brigham and Women's Hospital, Harvard Medical School; <sup>4</sup>Harvard T.H. Chan School of Public Health

### Proton Pump Inhibitors in Pregnancy and Risk of Preeclampsia: A Nationwide Cohort Study of 1.9 Million Pregnancies

Ahhyung Choi<sup>1</sup> | Yunha Noh<sup>2</sup> | So-Hee Park<sup>1</sup>  
Seung-Ah Choe<sup>3</sup> | Ju-Young Shin<sup>4</sup>

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# Oral Presentations

## P R E G N A N C Y   A N D   L A C T A T I O N

### Statistical Power for Use of Tree-based Scan Statistics for Surveillance of Infant Outcomes Following Maternal Perinatal Medication Use

Elizabeth Suarez<sup>1</sup> | Michael Nguyen<sup>2</sup> | Di Zhang<sup>3</sup>  
Yueqin Zhao<sup>3</sup> | Danijela Stojanovic<sup>2</sup> | Monica Munoz<sup>4</sup>  
Jane Liedtka<sup>5</sup> | Abby Anderson<sup>6</sup> | Wei Liu<sup>7</sup>  
Inna Dashevsky<sup>8</sup> | David Cole<sup>8</sup> | Sandra DeLuccia<sup>8</sup>  
Talia Menzin<sup>8</sup> | Jennifer Noble<sup>8</sup> | Judith Maro<sup>9</sup>

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### The Comparative Safety of Antiseizure Medication Polytherapy vs Valproate in Pregnancy and Risk of Major Congenital Malformations

Jacqueline Cohen<sup>1</sup> | Silje Alvestad<sup>2</sup> | Elizabeth Suarez<sup>3</sup>  
Andrea Schaffer<sup>4</sup> | Randi Selmer<sup>5</sup> | Alys Havard<sup>6</sup>  
Brian Bateman<sup>7</sup> | Helga Zoega<sup>6</sup> | Helle Kieler<sup>8</sup>  
Ingvild Odsbu<sup>9</sup> | Krista F Huybrechts<sup>7</sup> | Lars Kjerpeseth<sup>1</sup>  
Loreen Straub<sup>10</sup> | Maarit Leinonen<sup>11</sup> | Marte-Helene Bjørk<sup>12</sup>  
Mette Nørgaard<sup>13</sup> | Mika Gissler<sup>11</sup> | Sinna P Ulrichsen<sup>13</sup>  
Sonia Hernandez-Diaz<sup>14</sup> | Torbjörn Tomson<sup>15</sup> | Kari Furu<sup>1</sup>

<sup>1</sup>Norwegian Institute of Public Health; <sup>2</sup>National Center for Epilepsy, Oslo University Hospital; <sup>3</sup>BWH Div of Pharmacoepidemiology and Pharmacoeconomics; <sup>4</sup>University of New South Wales; <sup>5</sup>Norwegian Institute of Public Health, Oslo, Norway; <sup>6</sup>Centre for Big Data Research in Health, UNSW Sydney; <sup>7</sup>Brigham and Women's Hospital, Division of Pharmacoepidemiology and Pharmacoeconomics; <sup>8</sup>Centre for Pharmacoepidemiology, Karolinska Institutet; <sup>9</sup>Department of Mental Disorders, Norwegian Institute of Public Health, Oslo, Norway; <sup>10</sup>Brigham and Women's Hospital, Harvard Medical School; <sup>11</sup>Finnish Institute for Health and Welfare; <sup>12</sup>Bergen Epilepsy Research Group, Department of Clinical Medicine, University of Bergen; <sup>13</sup>Department of Clinical Epidemiology, University of Aarhus; <sup>14</sup>Harvard T.H. Chan School of Public Health; <sup>15</sup>Department of Clinical Neuroscience, Karolinska Institutet

### The Impact of In-utero Antipsychotic Drug Exposure on Congenital Malformations: An International Cohort Study

Krista Huybrechts<sup>1</sup> | Loreen Straub<sup>2</sup> | Pär Karlsson<sup>3</sup>  
Laura Pazzagli<sup>4</sup> | Sonia Hernandez-Diaz<sup>5</sup>  
Jacqueline Cohen<sup>6</sup> | Brian Bateman<sup>1</sup> | Randi M Selmer<sup>7</sup>  
Elizabeth Suarez<sup>8</sup> | Kari Furu<sup>6</sup> | Mette Nørgaard<sup>9</sup>  
Mika Gissler<sup>10</sup> | Maarit Leinonen<sup>10</sup> | Helga Zoega<sup>11</sup>  
Helle Kieler<sup>12</sup>

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### The Impact of In-utero Antipsychotic Exposure on Neurodevelopmental Disorders in Children

Loreen Straub<sup>1</sup> | Brian Bateman<sup>2</sup> | Sonia Hernandez-Diaz<sup>3</sup>  
Elizabeth Suarez<sup>4</sup> | Cassandra York<sup>2</sup> | Yanmin Zhu<sup>1</sup>  
Helen Mogun<sup>2</sup> | Krista Huybrechts<sup>2</sup>

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### The Role of Propensity Score Matching in Claims-based Studies for Achieving Comparability in hba1c Levels Between Treatments in Pregnant Women with Type 2 Diabetes

Carolyn Cesta | Sonia Hernandez-Diaz<sup>1</sup> | Brian Bateman<sup>2</sup>  
Krista Huybrechts<sup>2</sup> | Ellen Seely<sup>3</sup> | Elisabetta Patorno<sup>4</sup>

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# Oral Presentations

## P R E G N A N C Y   A N D   L A C T A T I O N

### Use of Tree-based Scan Statistics for Surveillance of Infant Outcomes Following Maternal Perinatal Medication Use: A Propensity Score Matched Case Study

Elizabeth Suarez<sup>1</sup> | Michael Nguyen<sup>2</sup> | Di Zhang<sup>3</sup>  
Yueqin Zhao<sup>3</sup> | Danijela Stojanovic<sup>2</sup> | Monica A Munoz<sup>4</sup>  
Jane Liedtka<sup>5</sup> | Abby Anderson<sup>6</sup> | Wei Liu<sup>7</sup>  
Inna Dashevsky<sup>8</sup> | David Cole<sup>8</sup> | Sandra DeLuccia<sup>8</sup>  
Talia Menzin | Jennifer Noble<sup>8</sup> | Judith C Maro<sup>9</sup>

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### Validating an Optimized Live Birth Gestational Age Algorithm in a Nationwide Medicaid Sample and Quantifying the Misclassification of Exposure Due to Estimated Gestational Age

Yanmin Zhu<sup>1</sup> | Thuy Thai<sup>2</sup> | Brian Bateman<sup>3</sup>  
Sonia Hernandez-Diaz<sup>4</sup> | Loreen Straub<sup>1</sup> | Jessica Franklin<sup>5</sup>  
Kathryn Gray<sup>6</sup> | Almut Winterstein<sup>2</sup> | Lockwood Taylor<sup>7</sup>  
Rita Ouellet-Hellstrom<sup>7</sup> | Yong Ma<sup>7</sup> | Yandong Qiang<sup>7</sup>  
Wei Hua<sup>7</sup> | Krista Huybrechts<sup>3</sup>

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### Validity of ICD-10 Z3A Codes for Estimating Date of Last Menstrual Period

Andrea Chomistek<sup>1</sup> | Kelesitse Phiri<sup>2</sup> | Jenna Calderbank<sup>3</sup>  
Michael Doherty<sup>3</sup> | Stephanie Chiuve<sup>4</sup>  
Brenda Hinman-McIlroy<sup>4</sup> | Michael Snabes<sup>5</sup> | John Seeger<sup>1</sup>  
<sup>1</sup>Optum Epidemiology; <sup>2</sup>GlaxoSmithKline; <sup>3</sup>Optum; <sup>4</sup>AbbVie; <sup>5</sup>AbbVie, Inc

## R A R E   D I S E A S E

### Prediction Algorithm for Identifying Patients with Fabry or Pompe Disease in Electronic Health Records

Ella Jansen<sup>1</sup> | Lars Verkleij<sup>2</sup> | Rich Colbaugh<sup>3</sup>  
Kristin Glass<sup>3</sup> | Christopher Rudolf<sup>3</sup> | Ron Herings<sup>1</sup>  
<sup>1</sup>PHARMO Institute; <sup>2</sup>INSZO Instituut voor Zorgoptimalisatie;  
<sup>3</sup>Volv Global SA

### The Association Between Bariatric Surgery and Dupuytren Disease: A Cohort Study from Swedish Nationwide Healthcare Registries

Theresa Burkard<sup>1</sup> | Jennifer Lane<sup>2</sup> | Dag Holmberg<sup>3</sup>  
Andrea Burden<sup>1</sup> | Dominic Furniss<sup>2</sup>  
<sup>1</sup>ETH Zurich; <sup>2</sup>Centre for Statistics in Medicine, Nuffield Department of Orthopaedics, Rheumatology, and Musculoskeletal Sciences, University of Oxford, Oxford, UK; <sup>3</sup>Upper Gastrointestinal Surgery, Department of Molecular medicine and Surgery, Karolinska Institute, Karolinska University Hospital, Stockholm, Sweden

# Oral Presentations

## S A F E T Y   E N D   P O I N T S

### Cardiovascular Risk in Users of Mirabegron Relative to Users of Antimuscarinic Treatments for Overactive Bladder: Findings from a Non-interventional, Real-world Data Safety Study

Veena Hoffman<sup>1</sup> | Jesper Hallas<sup>2</sup> | Marie Linder<sup>3</sup>  
Andrea Margulis<sup>4</sup> | Brandon Suehs<sup>5</sup> | Alejandro Arana<sup>6</sup>  
Cheryl Enger<sup>1</sup> | Libby Horter<sup>5</sup> | Ingvild Odsbu<sup>7</sup>  
Morten Olesen<sup>2</sup> | Susana Perez-Gutthann<sup>6</sup> | Yihua Xu<sup>5</sup>  
Nina Kristiansen<sup>2</sup> | Kwame Appenteng<sup>8</sup> | Stefan de Vogel<sup>9</sup>  
John Seeger<sup>10</sup>

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### Comparative Safety of Conjugated Estrogens/bazedoxifene (CE/BZA) vs Estrogen/progestin Combination Hormone Therapy (EP): A Multi-database Cohort Study

Sarah Hoffman<sup>1</sup> | Samuel Governor<sup>2</sup> | Kimberly Daniels<sup>3</sup>  
Ryan Seals<sup>4</sup> | Najat Ziyadeh<sup>5</sup> | Florence Wang<sup>5</sup>  
Dingwei Dai<sup>6</sup> | Cheryl McMahill-Walraven<sup>7</sup>  
Patty Shuminski<sup>6</sup> | Vera Frajzyngier<sup>8</sup> | Xiaofeng Zhou<sup>9</sup>  
Rongjun Shen<sup>10</sup> | Nicole Fournakis<sup>2</sup> | Daniel Beachler<sup>3</sup>  
<sup>1</sup>HealthCore, Inc.; <sup>2</sup>Research Operations, HealthCore, Inc.; <sup>3</sup>Safety & Epidemiology, HealthCore, Inc.; <sup>4</sup>Optum Epidemiology; <sup>5</sup>Optum; <sup>6</sup>CVS Health Clinical Trial Services (fka Healthagen); <sup>7</sup>CVS Health Clinical Trial Services (formerly known as Healthagen), an affiliate of Aetna; <sup>8</sup>Boehringer Ingelheim; <sup>9</sup>Pfizer Inc; <sup>10</sup>Pfizer

### Proton Pump Inhibitors and Risk of Gastric Cancer: A Population-based Cohort Study

Devin Abrahami | Emily McDonald<sup>1</sup> | Mireille Schnitzer<sup>2</sup>  
Alan Barkun<sup>3</sup> | Samy Suissa<sup>4</sup> | Laurent Azoulay<sup>5</sup>  
<sup>1</sup>Division of Internal Medicine, Department of Medicine, McGill University Health Centre, Montreal, Canada; <sup>2</sup>Faculté de Pharmacie, University of Montreal; <sup>3</sup>McGill University Health Centre; <sup>4</sup>Departments of Epidemiology and Biostatistics, Faculty of Medicine, McGill University, Montreal, Canada; <sup>5</sup>Department of Epidemiology, Biostatistics, and Occupational Health, McGill University, Montreal, Québec, Canada

### Risk of Diabetic Ketoacidosis with Sodium-glucose transporter-2 Inhibitors Compared to Dipeptidyl peptidase-4 (DPP4) Inhibitors and Sulfonylureas in Patients with Type 2 Diabetes

Ghadeer Dawwas | Charles Leonard | James Lewis  
University of Pennsylvania

### Use of Low-dose Quetiapine and the Risk of Major Adverse Cardiovascular Events

Mikkel Højlund<sup>1</sup> | Lars Christian Lund<sup>1</sup> | Kjeld Andersen<sup>2</sup>  
Christoph Correll<sup>3</sup> | Jesper Hallas<sup>4</sup>

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### Use of Proton Pump Inhibitors and Risk of Pancreatic Adenocarcinoma: A Case-control Study Based on the French National Health Data System (SNDS)

Marion Lassalle<sup>1</sup> | Thien Le Tri<sup>2</sup> | Pauline Afchain<sup>3</sup>  
Marine Camus-Duboc<sup>4</sup> | Julien Kirchgesser<sup>5</sup>  
Mahmoud Zureik<sup>6</sup> | Rosemary Dray-Spira<sup>2</sup>

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### Vitamin K Antagonists and Risk of Myelodysplastic Syndrome: A Nationwide Cohort Study in Atrial Fibrillation Patients

Anke Neumann<sup>1</sup> | Marie-Joelle Jabagi<sup>2</sup> | Mahmoud Zureik<sup>2</sup>  
<sup>1</sup>EPI-Phare; <sup>2</sup>EPI-PHARE, Epidemiology of Health Products (French National Agency for the Safety of Medicines and Health Products, and French National Health Insurance)

# Oral Presentations

## V A C C I N E S

### Background Incidence Rates of Adverse Events of Special Interest for COVID-19 Vaccine Monitoring

Corinne Willame<sup>1</sup> | Rosa Gini<sup>2</sup> | Ainara Mira-Iglesias<sup>3</sup>  
Tania Schink<sup>4</sup> | Patrick Souverein<sup>5</sup> | Lei Wang<sup>6</sup>  
Elisa Barbieri<sup>7</sup> | Claudia Bartolini<sup>8</sup> | Olga Paoletti<sup>9</sup>  
Nicolas Thurin<sup>10</sup> | Luca Stona<sup>11</sup>  
Carlos Vergara-Hernández<sup>3</sup> | Vera Ehrenstein<sup>12</sup>  
Mar Martin<sup>13</sup> | Airam de Burgos<sup>13</sup> | Reimar Thomsen<sup>14</sup>  
Maria Aragon<sup>15</sup> | Felipe Villalobos<sup>16</sup>  
Meritxell Pallejà-Millán<sup>16</sup> | Bonaventura Bolibar<sup>15</sup>  
Olaf Klungel<sup>17</sup> | Daniel Weibel<sup>1</sup> | Miriam Sturkenboom<sup>1</sup>  
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### Descriptive Epidemiology of Adverse Events of Special Interest for COVID-19 Vaccines Across 7 Countries and 4 Continents: A Multinational Network Cohort Study

Xintong Li<sup>1</sup> | Anna Ostropolets<sup>2</sup> | Rupa Makadia<sup>3</sup>  
Azza Shoaibi<sup>3</sup> | Gowtham Rao<sup>3</sup> | Anthony Sena<sup>3</sup>  
Martijn Schuemie<sup>3</sup> | Eugenia Martinez-Hernandez<sup>4</sup>  
Sergio Fernández-Bertolín<sup>5</sup> | Talita Duarte-Salles<sup>5</sup>  
Patrick Ryan<sup>6</sup> | George Hripcsak<sup>2</sup> | Daniel Prieto-Alhambra<sup>7</sup>  
<sup>1</sup>Nuffield Department of Orthopaedics, Rheumatology, and Musculoskeletal Sciences, University of Oxford; <sup>2</sup>Department of Biomedical Informatics, Columbia University Irving Medical Center; <sup>3</sup>Janssen Research and Development; <sup>4</sup>Neuroimmunology Unit, Neurology Department, Hospital Clínic of Barcelona; <sup>5</sup>Fundació Institut Universitari per a la recerca a l'Atenció Primària de Salut Jordi Gol i Gurina (IDIAPJGol); <sup>6</sup>Janssen Research & Development; <sup>7</sup>Centre for Statistics in Medicine (CSM), Nuffield Department of Orthopaedics, Rheumatology and Musculoskeletal Sciences (NDROMS), University of Oxford, Oxford, United Kingdom

### Effectiveness of Influenza Vaccination in Healthy Children: A Population-based Investigation

Anna Cantarutti<sup>1</sup> | Elisa Barbieri<sup>2</sup> | Fabio Didone<sup>3</sup>  
Giovanni Corrao<sup>4</sup> | Carlo Giaquinto<sup>5</sup>  
<sup>1</sup>University of Milan - Bicocca; <sup>2</sup>University of Padova; <sup>3</sup>Department of Statistics and Quantitative Methods, Division of Biostatistics, Epidemiology and Public Health, University of Milano-Bicocca, Milan, Italy; <sup>4</sup>Unit of Biostatistics, Epidemiology and Public Health, Department of Statistics and Quantitative Methods, University of Milano-Bicocca, Milan, Italy; <sup>5</sup>Division of Pediatric Infectious Diseases, Department for Woman and Child Health, University of Padua, Padua, Italy

### Evaluation of the Potential Confounding Effect of Shingles on the Risk of Guillain-barré Syndrome After Vaccination with the Recombinant Zoster Vaccine

Francois Haguinet<sup>1</sup> | Paola Pirrotta<sup>2</sup> | Vincent Bauchau<sup>2</sup>  
<sup>1</sup>GSK Vaccines S.r.l.; <sup>2</sup>GSK

### Sensitivity Analysis of Design Choices for Estimating Incidence Rates of Adverse Events of Special Interest in Vaccine Safety

Anna Ostropolets<sup>1</sup> | Xintong Li<sup>2</sup> | Rupa Makadia<sup>3</sup>  
Gowtham Rao<sup>3</sup> | Martijn Schuemie<sup>3</sup> | Anthony Sena<sup>3</sup>  
Azza Shoaibi<sup>3</sup> | Talita Duarte-Salles<sup>4</sup> | Patrick Ryan<sup>5</sup>  
Daniel Prieto-Alhambra<sup>6</sup> | George Hripcsak<sup>1</sup>  
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### Vaccination and Acute Flares in Multiple Sclerosis: A Nationwide Case-crossover Study Using the French SNDS Health Care Databases

Lamia Grimaldi-Bensouda<sup>1</sup> | Yann Hamon<sup>2</sup>  
Philippe Attias<sup>2</sup> | Tom Duchemin<sup>2</sup> | Lucien Abenhaim<sup>3</sup>  
Yola Moride<sup>4</sup>  
<sup>1</sup>APHP Paris-Saclay University; <sup>2</sup>Re-Meds France; <sup>3</sup>London School of Hygiene & Tropical Medicine; <sup>4</sup>Faculty of Pharmacy, Université de Montréal, Montreal, QC, Canada

# Oral Presentations

P O T P O U R R I

## Approach to Falsify Calendar Time Instrumental Variable Assumptions in Estimating Treatment Effects

Phyo Htoo<sup>1</sup> | Michele Jonsson Funk<sup>2</sup> | Mugdha Gokhale<sup>3</sup>  
Gang Fang<sup>4</sup> | John Buse<sup>2</sup> | Til Stürmer<sup>5</sup>

<sup>1</sup>UNC Gillings School of Global Public Health; <sup>2</sup>University of North Carolina at Chapel Hill; <sup>3</sup>Center for Observational and Real-world Evidence (CORE), Merck Research Laboratories; <sup>4</sup>Division of Pharmaceutical Outcomes and Policy, UNC Eshelman School of Pharmacy, University of North Carolina at Chapel Hill; <sup>5</sup>Department of Epidemiology, University of North Carolina at Chapel Hill

## Ethnic Differences in COVID-19 Infection, Hospitalisation, and Mortality: An Opensafely Analysis of 17 Million Adults in England

Rohini Mathur<sup>1</sup> | Christopher Rentsch<sup>1</sup> | Caroline Morton<sup>2</sup>  
William Hulme<sup>2</sup> | Anna Schultze<sup>1</sup> | Brian MacKenna<sup>2</sup>  
Rosalind Eggo<sup>1</sup> | Krishnan Bhaskaran<sup>1</sup> | Angel Wong<sup>1</sup>  
Elizabeth Williamson<sup>1</sup> | Harriet Forbes<sup>3</sup> | Kevin Wing<sup>1</sup>  
Helen McDonald<sup>1</sup> | Chris Bates<sup>4</sup> | Seb Bacon<sup>2</sup> | Alex Walker<sup>2</sup>  
David Evans<sup>2</sup> | Peter Inglesby<sup>2</sup> | Amir Mehrkar<sup>2</sup>  
Helen Curtis<sup>2</sup> | Nicholas DeVito<sup>5</sup> | Richard Croker<sup>2</sup>  
Henry Drysdale<sup>5</sup> | Jonathan Cockburn<sup>4</sup> | John Parry<sup>6</sup>  
Frank Hester<sup>6</sup> | Sam Harper<sup>6</sup> | Ian Douglas<sup>7</sup>  
Laurie Tomlinson<sup>7</sup> | Stephen Evans<sup>7</sup> | Richard Grieve<sup>3</sup>  
David Harrison<sup>8</sup> | Kathy Rowan<sup>8</sup> | Kamlesh Khunti<sup>9</sup>  
Nishi Chaturvedi<sup>10</sup> | Liam Smeeth<sup>7</sup> | Ben Goldacre<sup>2</sup>

<sup>1</sup>London School of Hygiene and Tropical Medicine; <sup>2</sup>University of Oxford; <sup>3</sup>LSHTM; <sup>4</sup>The Phoenix Partnership; <sup>5</sup>Oxford University; <sup>6</sup>TPP; <sup>7</sup>London School of Hygiene & Tropical Medicine; <sup>8</sup>ICNARC; <sup>9</sup>University of Leicester; <sup>10</sup>University College London

## Multi-depth, Iterative Causal Forest for Subgroup Identification

Tiansheng Wang<sup>1</sup> | Michael Kosorok<sup>2</sup> | Alexander Keil<sup>2</sup>  
Richard Wyss<sup>3</sup> | Michele Jonsson Funk<sup>2</sup> | John Buse<sup>2</sup>  
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**Join** Special Interest Groups  
**Join** Chapter Groups



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## Nondifferential Treatment Misclassification Biases Toward the Null? Not a Safe Bet

Rachael Ross<sup>1</sup> | Michele Jonsson Funk<sup>2</sup> | I-Hsuan Su<sup>1</sup>  
<sup>1</sup>University of North Carolina; <sup>2</sup>University of North Carolina at Chapel Hill

## Predictors of Severe COVID-19 Outcome in Patients with Rheumatoid Arthritis

Sara Burns<sup>1</sup> | Tiffany Siu Woodworth<sup>1</sup>  
Justin Manjourides<sup>2</sup> | Zeynep Icten<sup>1</sup>  
<sup>1</sup>Panalgo; <sup>2</sup>Northeastern University

## Risk of Fall-related Injury Associated with Concomitant Use of Prescription Opioids and Gabapentinoids Among Older Adults with Chronic Noncancer Pain

Cheng Chen<sup>1</sup> | Almut G Winterstein<sup>2</sup>  
Wei-Hsuan Lo-Ciganic<sup>3</sup> | Patrick J Tighe<sup>4</sup>  
Yu-Jung "Jenny" Wei<sup>5</sup>

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## Poster Presentations during ICPE 2021 All Access

Improving Accuracy for Prospective Pregnancy Registry  
Enrollment Targets

*Veley K, Covington D, Pozin P, Buus R, Okala S*

Methodologic Challenges and Considerations for the  
Collection of Dietary Intake Data in Real-World  
Populations

*Brett NR, Bassel M, Hong M, Margolis MK*



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# Lightning

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# Lightning

## BENEFIT - RISK ASSESSMENT, COMMUNICATION, AND EVALUATION (BRACE)

### Association of Statin Use with Dry Eye Disease

Yinxu Yu<sup>1</sup> | Vatinee Bunya<sup>2</sup> | Brian VanderBeek<sup>2</sup>

<sup>1</sup>University of Pennsylvania School of Medicine; <sup>2</sup>Department of Ophthalmology, Scheie Eye Institute, University of Pennsylvania Perelman School of Medicine

### Gender Differences in Valproic Acid Use for Approved Indications in the United States (2017-2018) – an Opportunity for Risk Mitigation?

Nicole Smolinski<sup>1</sup> | Amir Sarayani<sup>2</sup> | Almut Winterstein<sup>3</sup>

<sup>1</sup>Department of Pharmaceutical Outcomes and Policy, College of Pharmacy, University of Florida; <sup>2</sup>Department of Pharmaceutical Outcomes and Policy, University of Florida; <sup>3</sup>Department of Pharmaceutical Outcomes and Policy and Center for Drug Evaluation and Safety, College of Pharmacy, University of Florida

### Missingness in Real World Data Submitted for Regulatory Decision-Making: Eastern Cooperative Oncology Group Performance Status Case Study

Cherise Wong<sup>1</sup> | Caitlin Knox<sup>1</sup> | Wenzhen Ge<sup>1</sup> | Ning Wu<sup>1</sup>  
Andrea Marcus<sup>1</sup> | Jessica Jalbert<sup>2</sup> | Asieh Golozar<sup>1</sup>

<sup>1</sup>Regeneron Pharmaceuticals; <sup>2</sup>Regeneron Pharmaceuticals, Inc., Tarrytown, NY

## BIOLOGICS / BIOSIMILARS

### Risk of Major Cardiovascular Event in Jak Inhibitor Treated Patients: Analysis of a National Claim Database

Amandine Gouverneur | Jérôme Avouac<sup>1</sup> | Clément Prati<sup>2</sup> | Jean-Luc Cracowski<sup>3</sup> | Thierry Schaevebeke<sup>4</sup>

Antoine Pariente<sup>5</sup> | Marie-Elise Truchetet<sup>4</sup>

<sup>1</sup>Université de Paris, Service de Rhumatologie, Hôpital Cochin, AP-HP/CUP, Paris; <sup>2</sup>University Hospital - CHU Minjoz, Rheumatology Unit, Besancon; <sup>3</sup>Université Grenoble Alpes, INSERM, HP2, Grenoble; <sup>4</sup>Department of Rheumatology, National Reference Center for Systemic Autoimmune Rare Diseases, Hôpital Pellegrin, Bordeaux; <sup>5</sup>Univ. Bordeaux,

# Lightning

## DISEASE EPIDEMIOLOGY / CLINICAL COURSE

### Atopic Eczema Associated Fracture Risk and Oral Corticosteroids: A Population-Based Cohort Study

Julian Matthewman<sup>1</sup> | Kathryn Mansfield<sup>1</sup>  
Richard Silverwood<sup>2</sup> | Amy Mulick<sup>1</sup> | Daniel Prieto-Alhambra<sup>3</sup>  
Katherine Lowe<sup>1</sup> | Liam Smeeth<sup>1</sup> | Sinéad Langan<sup>1</sup>

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### Birth Prevalence of Phenylalanine Hydroxylase Deficiency: A Systematic Literature Review and Meta-Analysis

Kimberly Alexander<sup>1</sup> | Andrea Margulis<sup>2</sup> | Pamela Foreman<sup>1</sup>  
Renee Shediach<sup>1</sup> | Brian Calingaert<sup>2</sup> | Abenah Harding<sup>2</sup>  
Manel Pladevall-Vila<sup>2</sup> | Sarah Landis<sup>3</sup>

<sup>1</sup>BioMarin Pharmaceutical Inc.; <sup>2</sup>RTI Health Solutions;  
<sup>3</sup>BioMarin (UK) Limited

### Chemotherapy Relative Dose Intensity, Overall Survival, and Hematologic Toxicity in Solid-Tumor Cancer Patients: A Literature Review and Meta-Analysis

Lauren Bylsma<sup>1</sup> | Carrie Nielson<sup>2</sup> | Jon Fryzek<sup>3</sup>  
Hossam Saad<sup>2</sup> | Jeffrey Crawford<sup>4</sup>

<sup>1</sup>EpidStrategies, A Division of ToxStrategies; <sup>2</sup>Amgen;  
<sup>3</sup>EpidStrategies, Rockville, MD; <sup>4</sup>Duke Cancer Institute

### Comparing Outcomes in Trial-Eligible vs Real-World COVID-19 Patients: The Case of Invasive Mechanical Ventilation

Ashley Martinez<sup>1</sup> | Silvia Perez-Vilar<sup>2</sup> | Mayura Shinde<sup>3</sup>  
Maria Kempner<sup>4</sup> | Joy Kolonoski<sup>4</sup> | Sarah Dutcher<sup>2</sup>  
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# Lightning

## D I S E A S E E P I D E M I O L O G Y / C L I N I C A L C O U R S E

### Identification of Serostatus in Rheumatoid Arthritis Using ICD-10 Diagnosis Codes

Seoyoung Kim<sup>1</sup> | Hemin Lee<sup>2</sup> | Jeffrey Sparks<sup>2</sup>  
Kazuki Yoshida<sup>2</sup> | Rishi Desai<sup>1</sup> | Joan Landon<sup>2</sup>

<sup>1</sup>Division of Pharmacoepidemiology and Pharmacoeconomics, Department of Medicine, Brigham and Women's Hospital and Harvard Medical School, Boston, Massachusetts, USA; <sup>2</sup>Brigham and Women's Hospital

### Outpatient-Identified COVID-19 and Subsequent Hospitalized Thrombotic Events

Silvia Perez-Vilar<sup>1</sup> | Ashley I Martinez<sup>2</sup> | Mayura Shinde<sup>3</sup>  
Maria Kempner<sup>4</sup> | Joy Kolonoski<sup>4</sup> | Sarah Dutcher<sup>1</sup>  
Brian Kit<sup>1</sup>

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### Patients Tell All: Using a Direct-to-Patient Community Registry to Understand Patient Burden of COVID-19

Emma Brinkley<sup>1</sup> | Christina Mack<sup>2</sup> | Natalia Petruski-Ivleva<sup>1</sup>  
Matthew Reynolds<sup>1</sup> | Alison Bourke<sup>1</sup> | Kalyani Hawaldar<sup>1</sup>  
Nancy Dreyer<sup>1</sup>

<sup>1</sup>IQVIA; <sup>2</sup>IQVIA

### Prevalence of Myxoid /Round Cell Liposarcoma (MRCLs) Among Children and Adults in the United States

Huifen Wang<sup>1</sup> | Lindsey Powers Happ<sup>2</sup>  
Samantha St. Laurent<sup>2</sup> | Charlotte Carroll<sup>2</sup>

<sup>1</sup>Huifen Wang; <sup>2</sup>GlaxoSmithKline

### Trends in Sexually Transmitted Infections in the United States Ambulatory Care Clinics from 2005-2016

Ikenna Unigwe<sup>1</sup> | Seonkyeong Yang<sup>2</sup> | Hyunjin Song<sup>3</sup>  
Wei-Hsuan Lo-Ciganic<sup>4</sup> | Robert Cook<sup>5</sup> | Haesuk Park<sup>6</sup>

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### Use of Remdesivir for COVID-19 in the Real World: An Analysis of US Electronic Medical Records

Julius Asubonteng<sup>1</sup> | Sara Haredasht<sup>1</sup> | Seth Kuranz<sup>2</sup>  
Anand Chokkalingam<sup>1</sup>

<sup>1</sup>Gilead Science Inc.; <sup>2</sup>Trinetx Inc.,

## D R U G E F F E C T I V E N E S S

### Acute Kidney Injury in Patients with Atrial Fibrillation Treated with Rivaroxaban or Warfarin: A Population-Based Study in the United Kingdom

Antonio González Pérez<sup>1</sup> | Yanina Balabanova<sup>2</sup>  
María Saez<sup>1</sup> | Gunnar Brobert<sup>3</sup> | Luis Garcia Rodriguez

<sup>1</sup>Spanish Centre for Pharmacoepidemiologic Research; <sup>2</sup>Bayer AG; <sup>3</sup>Bayer AB

### Comparative Effectiveness of Bevacizumab vs Cetuximab in Patients with Metastatic Colorectal Cancer

Yi-Chia Su<sup>1</sup> | Yea-Huei Kao Yang<sup>2</sup> | Chih-Chien Wu<sup>3</sup>  
Chien-Chou Su<sup>4</sup>

<sup>1</sup>Department of Pharmacy, Kaohsiung Veterans General Hospital; <sup>2</sup>Clinical Pharmacy and Pharmaceutical Sciences, National Cheng Kung University, Tania, Taiwan.; <sup>3</sup>Division of Colorectal Surgery, Department of Surgery, Kaohsiung Veterans General Hospital; <sup>4</sup>Institute of Clinical Pharmacy and Pharmaceutical Sciences, College of Medicine, National Cheng Kung University

### Efficacy-Effectiveness Gap for Standard First-Line Treatment of Metastatic Non-Small Cell Lung Cancer Among Patients with Barriers to Care

Rohit Ojha<sup>1</sup> | Yan Lu<sup>1</sup> | Kalyani Narra<sup>2</sup> | Rachel Meadows<sup>1</sup>  
Aaron Gehr<sup>1</sup> | Bassam Ghabach<sup>2</sup>

<sup>1</sup>JPS Center for Outcomes Research; <sup>2</sup>JPS Oncology & Infusion Center

### Long-Acting Insulin Analogs vs Intermediate-Acting Insulin and the Risk of Major Adverse Cardiovascular Events Among Patients with Type 2 Diabetes in the United Kingdom

Vanessa Brunetti<sup>1</sup> | Oriana Yu<sup>2</sup> | Robert Platt<sup>3</sup>  
Kristian Filion<sup>3</sup>

<sup>1</sup>McGill Dept of Epidemiology, Biostatistics and Occupational Health; <sup>2</sup>Department of Endocrinology, Jewish General Hospital, Montreal, Quebec, Canada; <sup>3</sup>Department of Epidemiology, Biostatistics and Occupational Health, McGill University, Montreal, Quebec, Canada

# Lightning

## DRUG UTILIZATION RESEARCH

### Analytical Enhancements in Kentucky's Drug Overdose Mortality Surveillance: Rapid Monitoring of Trends and Decedents' Recent Controlled Substance Prescription History

GYeon Oh<sup>1</sup> | Patricia Freeman<sup>2</sup> | Candace Brancato<sup>3</sup>  
Jana McAninch<sup>4</sup> | Alex Secora<sup>4</sup> | Candice Collins<sup>4</sup>  
Nabarun Dasgupta<sup>5</sup> | Svetla Slavova<sup>3</sup>

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### Changes in Purchases of Intensive Care Medicines During COVID-19 in Developed vs Developing Countries

Katherine Callaway Kim<sup>1</sup> | Mina Tadrous<sup>2</sup>  
Sandra Kane-Gill<sup>3</sup> | Ian Barbash<sup>4</sup> | Katie Suda<sup>5</sup>

<sup>1</sup>University of Pittsburgh; <sup>2</sup>Women's College Research Institute, Women's College Hospital; <sup>3</sup>University of Pittsburgh School of Pharmacy; <sup>4</sup>University of Pittsburgh School of Medicine, Division of Pulmonary, Allergy and Critical Care Medicine; <sup>5</sup>University of Pittsburgh School of Medicine

### Co-Utilization of Opioids and Non-Benzodiazepine Sedative Hypnotics in U.S. Ambulatory Care Visits, 2006-2016

Razanne Oueini | Juan Hincapie-Castillo | Scott Vouri  
Department of Pharmaceutical Outcomes and Policy, College of Pharmacy, University of Florida

### Determinants of Antimalarial Prescription Patterns Among Health Care Providers in Public Health Facilities in Uasin Gishu County, Kenya.

Henry Amdany | Wendy O'meara | Gabriel Kigen  
Moi university

### Early Uptake of New Molecular Entities Approved in 2017 in a Multisite National US Healthcare Data Network

Andrew Simon<sup>1</sup> | Sruthi Adimadhyam<sup>1</sup> | Catherine Corey<sup>2</sup>  
Michael Nguyen<sup>3</sup>

<sup>1</sup>Department of Population Medicine, Harvard Medical School and Harvard Pilgrim Health Care Institute; <sup>2</sup>Office of Surveillance and Epidemiology, Center for Drug Evaluation and Research, U.S. Food and Drug Administration; <sup>3</sup>Office of Surveillance and Epidemiology, Center for Drug Evaluation and Research, US Food and Drug Administration, Silver Spring, MD

### Measuring Mental Health Prescribing Safety Indicators in Uk Primary Care

Wael Khawagi<sup>1</sup> | Douglas Steinke<sup>2</sup> | Matthew Carr<sup>2</sup>  
Alison Wright<sup>2</sup> | Darren Ashcroft<sup>2</sup> | Anthony Avery<sup>3</sup>  
Richard Keers<sup>2</sup>

<sup>1</sup>Taif University; <sup>2</sup>Centre for Pharmacoepidemiology and Drug Safety, Division of Pharmacy and Optometry, School of Health Sciences, University of Manchester, Manchester, UK; <sup>3</sup>Division of Primary Care, School of Medicine, University of Nottingham, Nottingham, UK

### Patterns of Antibiotic Prescription Among Adult Outpatients in Italy

Federica Galimberti | Elena Olmastroni | Francesco Casizzi  
Manuela Casula | Alberico Catapano | Elena Tragni  
Department of Pharmacological and Biomolecular Sciences, Epidemiology and Preventive Pharmacology Service (SEFAP), University of Milan, via Balzaretti 9, 20133, Milan, Italy

# Lightning

## HEALTH ECONOMICS / OUTCOMES RESEARCH

### Comparison of Medication Adherence Between Initiators of a Multi-drug Dispensing System & Users of Retail Pharmacy

Lauren Stevens<sup>1</sup> | Jeffrey Ellis<sup>1</sup> | Anita Desai-Naik<sup>2</sup>  
Lilian Ndehi<sup>3</sup> | Andy Bowe<sup>1</sup>

<sup>1</sup>Humana Healthcare Research; <sup>2</sup>Humana Pharmacy Solutions;  
<sup>3</sup>Humana Inc.

### Cost-Utility of Nivolumab for Treatment of Head and Neck Cancer from a Brazilian Public Health System Perspective.

Daniel Curado<sup>1</sup> | Rosângela Gomes<sup>1</sup> | Gustavo Andreoli<sup>2</sup>  
Dalila Gomes<sup>1</sup> | Joslaine de O Nunes<sup>3</sup>  
Ricardo Fernandes<sup>4</sup> | Ivan Zimmermann<sup>5</sup>

<sup>1</sup>Ministry of Health of Brazil; <sup>2</sup>Ministry of Health, Brazil; <sup>3</sup>Ministério da Saúde; <sup>4</sup>National Institute of Cancer - INCA, Brazil; <sup>5</sup>University of Brasilia, UnB

### Effects of Initiating a Multi-dose Drug Dispensing System on Medication Adherence

Lauren Stevens<sup>1</sup> | Jeffrey Ellis<sup>1</sup> | Anita Desai-Naik<sup>2</sup>  
Lilian Ndehi<sup>3</sup> | Andy Bowe<sup>1</sup>

<sup>1</sup>Humana Healthcare Research; <sup>2</sup>Humana Pharmacy Solutions;  
<sup>3</sup>Humana Inc.

### SGLT2 Inhibitors vs GLP-1 Agonists: Comparative Progression of Renal Disease

Lauren Stevens<sup>1</sup> | Andy Bowe<sup>1</sup> | Phil Schwab<sup>1</sup>

Michael Tindal<sup>2</sup> | Andrea Bloomfield<sup>2</sup>

<sup>1</sup>Humana Healthcare Research; <sup>2</sup>Humana Pharmacy Solutions

### The Prevalence of Hyperkalemia and Associated Clinical Characteristics and Outcomes Among Hospitalized COVID-19 Patients

Rena Moon<sup>1</sup> | Abiy Agiro<sup>2</sup> | Ning Rosenthal<sup>1</sup>

Harold Brown<sup>1</sup> | Randall Legg<sup>3</sup> | Alpesh Amin<sup>4</sup>

<sup>1</sup>Premier Applied Sciences, Premier Inc; <sup>2</sup>AstraZeneca Payer Evidence; <sup>3</sup>AstraZeneca Payer Medical; <sup>4</sup>University of California, Irvine

## INFORMATICS

### Temporal Effect in Real-World-Evidence for Randomized-Clinical-Trials

Jue Hou<sup>1</sup> | Rachel Zhao<sup>2</sup> | Tianrun Cai<sup>3</sup> | Katherine Liao<sup>3</sup> | Thany Seyok<sup>3</sup> | Kumar Dahal<sup>3</sup> | Qianyu Yuan<sup>1</sup> | Kai-Li Liaw<sup>4</sup>  
Claire Fox<sup>5</sup> | Thomas Jemielita<sup>5</sup> | Tianxi Cai<sup>1</sup>

<sup>1</sup>Harvard T.H. Chan School of Public Health; <sup>2</sup>University of British Columbia; <sup>3</sup>Brigham and Women's Hospital; <sup>4</sup>Pharmacoepidemiology, Center for Observational and Real-World Evidence (CORE), Merck & Co., Inc.; <sup>5</sup>Merck & Co., Inc.

# Lightning

## METHODS IN PHARMACOEPIDEMIOLOGY

### A New Analytic Tool for Interrupted Times Series Analysis to Assess the impact of FDA Regulatory Actions

Christine Lu<sup>1</sup> | Laura Hou<sup>1</sup> | Joy Kolonoski<sup>2</sup>  
Andrew Petrone<sup>1</sup> | Fang Zhang<sup>1</sup> | Catherine Corey<sup>3</sup>  
Ting Ying Huang<sup>1</sup> | Marie Bradley<sup>4</sup>

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<sup>2</sup>Department of Population Medicine, Harvard Medical School and Harvard Pilgrim Health Care Institute; <sup>3</sup>Office of Surveillance and Epidemiology, Center for Drug Evaluation and Research, US Food and Drug Administration; <sup>4</sup>Division of Epidemiology, Office of Surveillance and epidemiology, Center for Drug Evaluation and Research, US Food and Drug Administration

### An Algorithm to Derive Response and Progression Status Based on International Myeloma Working Group Response Criteria for Patients with Multiple Myeloma in a Real-World Database

Tao Xu<sup>1</sup> | Stefka Tyanova<sup>1</sup> | Tarek Christoffer El-Galaly<sup>1</sup>  
Khaled Sarsour<sup>2</sup> | Wan-Jen Hong<sup>3</sup> | Mellissa Williamson<sup>2</sup>

<sup>1</sup>F. Hoffmann-La Roche; <sup>2</sup>Genentech; <sup>3</sup>Genentech Inc

### Characterizing Imbalance in the Tails of the Propensity Score Distribution

Bethany DiPrete<sup>1</sup> | Cynthia Girman<sup>2</sup> | Panagiotis Mavros<sup>3</sup>  
Alexander Breskin<sup>4</sup> | M. Alan Brookhart<sup>5</sup>

<sup>1</sup>Injury Prevention Research Center, University of North Carolina at Chapel Hill; <sup>2</sup>CERobs Consulting, LLC; <sup>3</sup>Janssen Pharmaceutical Companies of J&J; <sup>4</sup>NoviSci Inc.; <sup>5</sup>NoviSci, Inc.

### Collider Bias in COVID-19 Studies: Explaining the Smoking Paradox

Alice Joules | Natalia Petruski-Ivleva | Michael Warner  
Patrick Long | Aidan Cooper | Nancy Dreyer  
IQVIA

### Development and Validation of Case-Finding Algorithms to Identify Prosthetic Joint Infections after Total Knee Arthroplasty

Erica Weinstein<sup>1</sup> | Alisa Stephens-Shields<sup>2</sup> | Bogadi Loabile<sup>1</sup>  
Tiffany Yuh<sup>1</sup> | Randi Silibovsky<sup>1</sup> | Charles Nelson<sup>3</sup>  
Judith O'Donnell<sup>1</sup> | Evelyn Hsieh<sup>4</sup> | Jennifer Hanberg<sup>4</sup>  
Kathleen Akgun<sup>4</sup> | Janet Tate<sup>5</sup> | Vincent Lo Re<sup>6</sup>

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### Distinguishing Death from Disenrollment in Claims Data using a Readily Implemented Machine Learning Algorithm

Jessica Young<sup>1</sup> | Frank Yoon<sup>2</sup> | Nabarun Dasgupta<sup>3</sup>  
Debra E Irwin<sup>2</sup> | Kenneth Pack<sup>2</sup> | Toska Cooper<sup>4</sup>  
Shalu Shiv<sup>2</sup> | Sarah Bloemers<sup>2</sup> | Teresa Gibson<sup>2</sup>

<sup>1</sup>UNC Gillings School of Global Public Health; <sup>2</sup>IBM Watson Health; <sup>3</sup>Injury Prevention Research Center, University of North Carolina at Chapel Hill; <sup>4</sup>University of North Carolina at Chapel Hill

### High-Dimensional Propensity Score Approaches in Stata using the Hdps Suite of Commands

John Tazare<sup>1</sup> | Liam Smeeth<sup>1</sup> | Stephen Evans<sup>1</sup>  
Ian Douglas<sup>1</sup> | Elizabeth Williamson<sup>2</sup>

<sup>1</sup>London School of Hygiene & Tropical Medicine; <sup>2</sup>London School of Hygiene and Tropical Medicine

### Identification and Characterization of Fistulizing Crohn's Disease in Ehr using Structured and Unstructured Data

Carrie Huisingsh | Yizhou Ye | Lani Wegrzyn  
AbbVie

### Marginal Structural Models with Latent Class Growth Modeling of Time-varying Treatment

Awa Diop<sup>1</sup> | Caroline Sirois<sup>2</sup> | Denis Talbot<sup>1</sup>

<sup>1</sup>Department of social and preventive medicine, Laval University; <sup>2</sup>Faculty of pharmacy, Laval University

# Lightning

## METHODS IN PHARMACOEPIDEMIOLOGY

### Residual Bias and Indirect Covariate Balance in an Applied Comparison of Large-Scale Propensity Score and Cardinality Matching

Stephen Fortin<sup>1</sup> | Stephen Johnston<sup>2</sup> | Martijn Schuemie<sup>3</sup>  
<sup>1</sup>Janssen, Research and Development; <sup>2</sup>Johnson and Johnson;  
<sup>3</sup>Janssen Research and Development

### Use of Last Clinical Activity Date in Overall Survival Analysis with Real World Data

Lu Chen<sup>1</sup> | Otto Fajardo<sup>2</sup> | Melanie Huntley<sup>3</sup>  
Anne-Marie Meyer<sup>2</sup> | Michael Taylor<sup>4</sup>  
<sup>1</sup>Genentech; <sup>2</sup>F. Hoffmann-La Roche Ltd.; <sup>3</sup>Genentech, Inc.; <sup>4</sup>Real World Data Collaborations, Personalized Healthcare Data Science, Genentech Inc., South San Francisco, CA, USA

### Validation of Diagnosis Algorithms for Melanoma and Nonmelanoma Skin Cancer Among Patients with Parkinson's Disease in the United States Medicare Database

Catherine Saltus<sup>1</sup> | Sigal Kaplan<sup>2</sup> | Mark Gordon<sup>3</sup>  
Brian Calingaert<sup>1</sup> | Elizabeth Andrews<sup>1</sup> | James Kaye<sup>1</sup>  
Catherine Johannes<sup>1</sup>  
<sup>1</sup>RTI Health Solutions; <sup>2</sup>Teva Pharmaceutical Industries Ltd; <sup>3</sup>Teva Branded Pharmaceutical Products R&D, Inc.

## PEDIATRICS

### Antibiotics Overprescribing Patterns in Pediatric Primary Care in Italy: Findings from 2012-2018

Elisa Barbieri<sup>1</sup> | Costanza Di Chiara<sup>1</sup> | Paola Costenaro<sup>1</sup> | Anna Cantarutti<sup>2</sup> | Carlo Giaquinto<sup>3</sup> | Daniele Dona<sup>3</sup>  
<sup>1</sup>Division of Paediatric Infectious Diseases - Department for Woman and Child's Health - University of Padua; <sup>2</sup>Unit of Biostatistics, Epidemiology and Public Health, Department of Statistics and Quantitative Methods, University of Milano-Bicocca, Milan, Italy; <sup>3</sup>Division of Pediatric Infectious Diseases, Department for Woman and Child Health, University of Padua, Padua, Italy

### Pediatric Off-Label Antipsychotic Use for Attention-Deficit/Hyperactivity Disorder: A Time-to-Event Analysis

Haeyoung Lee<sup>1</sup> | Susan dosReis<sup>1</sup> | Chengchen Zhang<sup>1</sup> | Roderick Rose<sup>2</sup>  
<sup>1</sup>University of Maryland Baltimore, School of Pharmacy; <sup>2</sup>University of Maryland Baltimore, School of Social Work

## PHARMACOVIGILANCE

### Off-Label use of Potential Pharmacological Treatment for COVID-19: An Intensive Pharmacovigilance in Peru

L. Yesenia Rodriguez | Héctor Garavito | Enrique Cachay | Gisela Alva | Paola Fernández | Tania Solis | Liz Veramendi  
Juan Aldave | Violeta Saromo  
ESSALUD

## SAFETY ENDPOINTS

### The Risk of Melanoma with Rasagiline Compared with other Antiparkinsonian Medications: A Retrospective Cohort Study in the United States Medicare Database

Catherine Johannes<sup>1</sup> | Catherine Saltus<sup>1</sup> | James Kaye<sup>1</sup> | Brian Calingaert<sup>1</sup> | Sigal Kaplan<sup>2</sup> | Mark Gordon<sup>3</sup>  
Elizabeth Andrews<sup>1</sup>  
<sup>1</sup>RTI Health Solutions; <sup>2</sup>Teva Pharmaceutical Industries Ltd; <sup>3</sup>Teva Branded Pharmaceutical Products R&D, Inc.

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### Efficacy and Safety of Isoniazid Preventive Therapy (ipt) in People Living with Hiv: A Systematic Review and Meta-Analysis

J. Jaya Laxmi | Christy Thomas | Krishna Undela

India

### Knowledge and Practices Towards COVID-19 During its Outbreak: A Multinational Cross-Sectional Study

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### Psychological Interventions for Depression and Anxiety in Diabetes Mellitus Patients: Overview of Systematic Review and Meta-Analysis

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Brazil

### Parents' Practices of Paracetamol use for Child Fever Management and use of Patient Information Leaflets

Aljoharah Algabbani | Kerrie Wiley | Nada Alowed  
Omar Albalawi | Amani Alqahtani

Saudi Arabia



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### Disruptions in Rheumatology Care and the Rise of Telehealth in Response to the COVID19 Pandemic in a Community Practice-Based Network

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### Evaluation the Pattern of Treatment in Inflammatory Bowel Disease: Before and After Approved Policy on Biologics

Nai-Yu Chen | Chiao-Hsiung Chuang | Yea-Huei Kao Yang  
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### Penetration Rate of Anti-Tnf Biosimilars in Hospitals in France: 5 Years Status

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*France*

### Prescribing Patterns of Lipegfilgrastim in EU: A Retrospective Study

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*Israel*

### The Association Between Trajectories of use of Systemic Agents and Depression in Patients with Psoriasis: A Sequence and Cluster Analysis

Raymond Milan | Lelorie | Marie-Josée Brouillette  
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### Use of Ranitidine with Potential Ndma Impurities and Risk of Cancer: A Nationwide Propensity Score-Matched Cohort Study

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### Users of Biologics for Crohn's Disease and Ulcerative Colitis in the Netherlands

Hilda de Jong | Jetty Overbeek | Elisabeth Smits  
Ella Jansen | Fernie Penning- van Beest | Alun Passey  
Francesca Galea | Riika Nissinen | J N. Barthelmes  
Ivana Bravata | Andras Borsi | Ron Herings  
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### Validation Test for Algorithms to Identify Rheumatoid Arthritis Patients in the Tuscan Healthcare Administrative Databases

Irma Convertino | Massimiliano Cazzato | Sabrina Giometto  
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Emiliano Cappello | Sara Ferraro | Silvia Tillati  
Marco Fornili | Claudia Bartolini | Olga Paoletti  
Valentina Lorenzoni Leopoldo Trieste | Matteo Giuseppe  
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Marta Mosca | Marco Tuccori  
*Italy*

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## D I S E A S E   E P I D E M I O L O G Y / C L I N I C A L   C O U R S E

### A Descriptive Retrospective Cohort Study to Evaluate the Incidence of Severe COVID 19 Outcomes Among SARS-CoV-2 Infected Patients in the United States

Heather Rubino | Stephen Schachterle | Ling Li  
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Absalon | Ann Madsen  
*United States*

### A New United States Database for Pharmacoepidemiology Studies in Type 2 Diabetes Mellitus: the IMEDS Distributed Database

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Jillian Burk | Young Hee Nam | Aaron Mendelsohn  
Margaret Adgent | Aziza Jamal-Allial | Robert Greenlee  
Vinit Nair | Pamala Pawloski  
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### A Systematic Literature Review of the Epidemiology, Health-Related Quality of Life and Economic Burden, Including Disease Pathways and Treatment Patterns of Relapsed/Refractory Classical Hodgkin Lymphoma

Gautam Singh | Monika Raut | Rebekah Borse  
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Nameeta Pilkhwai  
*United States*

### An Updated Structured Review of the Epidemiology, Guidelines, and Real-World Treatment Patterns for Relapsed/Refractory Primary Mediastinal Large B-Cell Lymphoma

Jitender Takyar | Raut, Immaculata Hiscock  
Rebekah Borse | Sheetal Sharma | Arju Dhawan  
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### Antibiotic Resistance Pattern and Treatment Outcomes Among Empyema Thoracis Patients: A Cross-Sectional Study

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### Anti-Osteoporosis Treatment After a Major Osteoporotic Fracture is Often Lacking

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### Association of Ondansetron Use and Subsequent Acute Kidney Injury in Critical Care

Matthew Gray | Priyanka Priyanka | Sandra Kane-Gill  
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### Beneficial Effect of Mild Drug-Induced Liver Injury for Patients with Tuberculosis Undergoing First-Line Anti-Tuberculosis Therapy

Chen Qin | Tianchi Yang | Yang Che | Jifang Zhou  
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### Characteristics of Asymptomatic Heart Failure Patients with Reduced Ejection Fraction in a Large US-Based Real-World Cohort

Allison Bryant | Tom Brecht | Mike Behling  
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### Characteristics of Patients with Idiopathic Pulmonary Fibrosis (Ipf) Initiating Nintedanib or Pirfenidone Treatment Compared with Untreated Patients in the US

Laura Wallace | Aimee Near | Chakkarin Burudpakdee  
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### Characterizing "Long-COVID" Using Real World Data: Post-Discharge Clinical Course Among Patients Initially Hospitalized for COVID-19

Elizabeth Eldridge | Edward Corbett | Jason Jones  
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### Chronic Obstructive Pulmonary Disease and Drug-Resistant Pseudomonas in Patients Hospitalized with Community-Acquired Bacterial Pneumonia

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### Clinical Characteristics and Biomarkers of SARS-CoV-2 Infection in Patients Treated with Remdesivir in Hospital – A Population Based Cohort Study

Xiaofeng Zhou | Rongjun Shen | Kathy Liu  
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## D I S E A S E   E P I D E M I O L O G Y / C L I N I C A L   C O U R S E

### Clinical Characteristics of Pediatric Patients Hospitalized with COVID-19 in an Electronic Health Record Database

Andrea Chomistek | Michael Doherty  
Robert Gately | Rachel Ogilvie | Caihua Liang  
John Seeger | Florence Wang  
*United States*

### Comorbidities Associated with Insomnia Stratified by Age and Sex

Wenjun Zhong | Xinyue Liu | Katrina Mott  
Edward Bortnichak | Kai-Li Liaw | Zaina Qureshi  
*United States*

### Comparison of 21-Year Sex-Specific Fracture Incidence Rates Between Type 1 and Type 2 Diabetics and Non-Diabetics in Denmark (1997 – 2017)

Annika Kvist | Mohamad Nasser | Andrea Burden  
Peter Vestergaard | Morten Nielsen  
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### Comparison of Rheumatic Patients across Body Mass Index Categories

Enriqueta Vallejo-Yague | Theresa Burkard  
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*Switzerland*

### Coronavirus Disease 2019 in Saudi Arabia: A Nationwide Epidemiological Characterization Study

Khalidah Alenzi | Tahani Alanazi | Najah Alenzi  
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### COVID-19 Symptom Severity Among Smokers: Insights from a Direct-To-Community Registry

Nancy Dreyer | Natalia Petruski-Ivleva | Lisa Albert  
Emma Brinkley | Christina Mack FISPE | Matthew Reynolds  
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### Depression and Anxiety in Patients with Cancer: Prevalence and Risk Factors: A Cross-Sectional Study

Abdallah Naser | Anas Nawfal Hameed | Nour Mustafa  
Hassan Alwafi | Eman Zmaily Dahmash | Hamad Alyami  
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*Jordan*

### Designing Epidemiological Studies to Estimate the Incidence of Thrombosis in Patients with Antiphospholipid Syndrome with History of Recurrent Thrombotic Events

Chuntao Wu | Wei Jiang | Nathalie Goletiani | Deepak Jain  
Alexander Cole  
*United States*

### Determinants of COVID-19 Self-Protection Behaviors of Thai People: A Cross-Sectional Survey

Piyameth Dilokthornsakul | Benjawee Srithanissorn  
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*Thailand*

### Development and Validation of a Prediction Model for Mortality in Patients with Hip Fracture: Population-Based Cohort Study

Thomas Hjelholt | Søren Johnsen  
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*Denmark*

### Diabetes Medication Use is Associated with Higher Grade and Increased Probability of Muscle-Invasive Tumour Disease in Patients with Urothelial Carcinoma

Janine Faessen, Dennis Oerlemans | Marc de Jong  
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Maryska Janssen-Heijnen | Joop van den bergh  
Frits van Osch  
*Netherlands*

### Disease Prevalence, Comorbidities, and Medication Utilization Among Patients with Opioid Use Disorder in the US

Brittany Roy | Jianheng Li | Cathy Lally | Ankitaben Shah  
Gary Bloomgren | Made Wenten  
*United States*

### Early Parkinson's Disease: Association of Baseline Fatigue, Pain and Sleep Disorders with Disease Progression

Denise Oleske | Cindy Zadikoff | Eric Cohen  
Niodita Gupta | Scott Bunner  
*United States*

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## D I S E A S E   E P I D E M I O L O G Y / C L I N I C A L   C O U R S E

### E-Core - Setting Up a European Network for Real World COVID-19 Studies

Alexandra Pacurariu | Sonya Patel | Daniel Prieto-Alhambra  
Peter Rijnbeek | Sam Salek | Talita Duarte-Salles  
Hanne van Ballegooijen | Christian Reich | Ines Reinecke  
Manon Belhassen | Deborah Layton | Jovana Bjelica  
*United Kingdom*

### Epidemiology of Coexisting Obesity and Heart Failure with Preserved Ejection Fraction in the United States

Ayad Ali  
*United States*

### Epidemiology of COVID-19 in Adults with Asthma

Ayad Ali  
*United States*

### Epidemiology of COVID-19 in Adults with Chronic Obstructive Pulmonary Disease

Ayad Ali  
*United States*

### Epidemiology of COVID-19 in Adults with Diabetes Mellitus

Ayad Ali  
*United States*

### Epidemiology of COVID-19 in Children

Ayad Ali  
*United States*

### Epidemiology of Interstitial Lung Disease in Medically Treated US Population

Ayad Ali  
*United States*

### Epidemiology of Treatment Resistant Depression in the US

Xinyue Liu | Yuki Mukai | Christ Furtek  
Edward Bortnichak | Kai-Li Liaw | Wenjun Zhong  
*United States*

### Estimates of Malnutrition Associated with Chronic Kidney Disease Globally and its Contrast with India: A Systematic Review and Meta-Analysis

Ishfaq Rashid | Pramil Tiwari | Sanjay Cruz  
Shivani Jaswal  
*India*

### Examining the Evolving Pandemic: Trends in COVID-19 Severity for Hospitalized COVID-19 Patients Over Time

Sarah Vititoe | Andrew Weckstein | Aloka Chakravarty  
Marie Bradley | Tamar Lasky | Nicolle Gatto  
Elizabeth Garry  
*United States*

### From Contact Coverage to Effective Coverage of Community Care for Patients with Severe Mental Disorders: A Real-World Investigation from Italy

Matteo Monzio Compagnoni | Giovanni Corrao  
Angelo Barbato | Barbara D'Avanzo | Teresa Di Fiandra  
Lucia Ferrara | Andrea Gaddini | Alessio Saponaro  
Salvatore Scodotto | Valeria Tozzi | Flavia Carle  
Simona Carbone | Dan Chisholm | Antonio Lora  
*Italy*

### Incidence and Outcomes of Mature B-cell NHL in the US Pediatric Population, 2000-2017

Yangyang Liu | Mary Heckler | Annie McNeill  
Justin Wahlstrom | Lori Styles | Alex Mutebi | Huiying Yang  
*United States*

### Incidence Rates (IR) and IR Ratios of Alzheimer's Disease in Patients with Cataract Compared to the General Population: Analyses Using the Clinical Practice Research Datalink (CPRD)

Claudia Becker | Laura Eggenschwiler | Susan Jick  
Christoph Meier  
*Switzerland*

### Lessons from a Post-Authorisation Study of Rivaroxaban Use and Potential Adverse Outcomes in Routine Practice in Four Countries

Ron Herings | Elisabeth Smits | Karin Swart-Polinder  
Ana Ruigomez | Tania Schink | Annemarie Voss  
Yanina Balabanova | Gunnar Brobert  
Luis Garcia Rodriguez  
*Netherlands*

### Limited Time Interval Between Symptomatic Presentation in Primary Care and Colorectal Cancer Diagnosis

Josephina Kuiper | Myrthe van Herk-Sukel  
Valery Lemmens | Ernst Kuipers | Ron Herings  
*Netherlands*

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## D I S E A S E   E P I D E M I O L O G Y / C L I N I C A L   C O U R S E

**Long- and Short-Term Disability and Workers' Compensation Trends for Employees with Systemic Lupus Erythematosus or Connective Tissue Disorders in the United States**

Richard Brook | Nathan Kleinman | Ian Beren  
*United States*

**Long-and Short-Term Disability, Workers' Compensation and Prevalence Trends for Employees with Substance Abuse Mental Disorders in the United States**

Richard Brook | Nathan Kleinman | Ian Beren  
*United States*

**Machine Learning Applied to SEER Data for Prediction of Breast Cancer Specific Survival**

Phuong Le | Marc De Benedetti | Hoa Le  
Chi Truong  
*Canada*

**Methodological Considerations Related to the Use of Primary and Secondary Care Data in Identifying a Cohort of Moderate to Severe Psoriasis Patients in the UK**

Joshua Warden | Eileen Dareng | Sudhir Venkatesan  
Quratul Ann | Mar Pujades-Rodriguez | Tzuyung D. Kou  
Deborah Layton  
*United Kingdom*

**Modeling Drug Treatment Effects on Breast Cancer in the Setting of Differential Screening**

Sophie Mayer | Jesper Hallas | Jessie Edwards  
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*United States*

**Molecular Epidemiology Study of Interferon Gamma (IFN- $\gamma$ ) Expression in Urothelial Bladder Cancer (UBC)**

Christina Gillezeau | Naimisha Movva | Jon Fryzek  
Karma Rabon-Stith | Philip Brohawn | Maaïke Van Gerwen  
Emanuela Taioli  
*United States*

**Patient Characteristics, Pain Treatment Patterns, and Incidence of Total Joint Replacement in a Population with Osteoarthritis**

Mayura Shinde | Carla Rodriguez-Watson | Tancy Zhang  
David Carrell | Aaron Mendelsohn | Young Hee Nam  
Kenneth Petronis | Cheryl McMahon-Walraven  
Aziza Jamal-allial | Vinit Nair | Pamala Pawloski  
Anne Hickman | Mark Brown | Jennie Francis  
Ken Hornbuckle | Jeffrey Brown | Jingping Mo  
*United States*

**Polypharmacy and Outpatient Attendance of People with Schizophrenia in Indonesia**

Nurma Suri | Rifani Bhakti Natari | Gebby Jenriawan Putri  
*Indonesia*

**Predictors of Length of Stay, Mortality and Outcomes Among Hospitalised COVID-19 Patients in Saudi Arabia**

Abdallah Naser | Hassan Alwafi | Basil Alotaibi  
Mohammed Shabrawishi  
*Saudi Arabia*

**Prevalence of Chronic Kidney Diseases in Patients with Diabetes Mellitus in the Middle East: A Systematic Review and Meta-Analysis**

Abdallah Naser | Hassan Alwafi | Basil Alotaibi  
*Jordan*

**Quality and Completeness of Diagnostic Codes for Myocardial Infarction in CPRD Aurum**

Rebecca Persson | Todd Sponholtz  
Catherine Vasilakis-Scaramozza | Katrina Wilcox Hagberg  
Tim Williams | Dipak Kotecha | Puja Myles | Susan Jick  
*United States*

**Risk factors for Carbapenemase-Producing Enterobacteriaceae Colonization: A Population Based Nested Case-Control Study**

Min Fan | Qiuyan Yu | Philip Hei Li | Ian Wong  
Sze Ling Celine Chui  
*Hong Kong*

**Risk factors for thyroiditis Among girls and adolescents scheduled to human papillomavirus vaccination**

Belen Castillo Cano | Mar Martín-Pérez  
Ana Llorente-García | Aida Moreno-Juste  
Dolores Montero-Corominas | Elisa Martín-Merino  
*Spain*

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## D I S E A S E   E P I D E M I O L O G Y / C L I N I C A L   C O U R S E

Socioeconomic status and prognosis in  
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A Population-Based Cohort Study in Denmark

Cathrine Hjorth | Deirdre Cronin-Fenton | Per Damkier  
Henrik Sørensen | Bent Ejlersen | Timothy Lash  
*Denmark*

Swedish COVID-19 Investigation for Future Insights –  
A Population Epidemiology Approach using Register  
Linkage (SCIFI-PEARL)

Fredrik Nyberg | Stefan Franzén | Ailiana Santosa  
Lowie Vanfleteren | Niklas Hammar  
Johan Sundström | Magnus Lindh | Staffan Björck  
Magnus Gisslén | Björn Wettermark  
*Sweden*

Systematic Literature Review (SLR) of Respiratory  
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Utilization (HCU) Among Infants in the United States

Mina Suh, Naimisha Movva | Lauren Bylsma  
Demont | Christopher Rizzo | Jon Fryzek  
Christopher Nelson  
*United States*

Systemic Lupus Erythematosus in a Large,  
Longitudinal Electronic Health Record Database:  
Demographics, and Comorbidities –  
A Focus on African Americans

Fariba Mirzaei | Isha Mehta | Li Li | Sue Hall  
*United States*

Temporal Changes in the Baseline Patient  
Characteristics of COVID-19 Patients

Margaret Okobi | Patricia Prince | Laura Roe  
Donna Rivera | Kenneth Quinto | Sandy Leonard  
Elizabeth Garry | Melanie Wang | Nicolle Gatto  
*United States*

The Association Between Type 2 Diabetes and  
Cancer Incidence in the United Kingdom Between  
1988 and 2019

Richeek Pradhan | Oriana Yu | Robert Platt  
Laurent Azoulay  
*Canada*

The Global Burden of Upper and Lower  
Gastrointestinal Bleeding in General Population:  
A Systematic Review

Siir Su Saydam | Pareen Vora | Megan Molnar  
*Germany*

The Incidence Rates Of Hepatobiliary Diseases  
Among Non-Alcoholic Steatohepatitis Patients  
Stratified by Fibrosis-4 (FIB-4) Index for Liver Fibrosis

Aziza Jamal-Allial | Kerrin Gallagher | Thomas Capozza  
Simo Du | Erik Ness | Mindie Nguyen | Yuval Patel  
Daina Esposito | Lina Titievsky  
*United States*

Thrombotic and Cardiovascular Events Among  
Patients Hospitalized with COVID-19:  
Findings from a Large EHR Database

Zeynep Icten | Anna Watzker | Mark Friedman  
Joseph Menzin  
*United States*

Trends in Absence Time and Payments due to Long-  
and Short-Term Disability and Workers' Compensation  
for Employees with OsteoArthritis

Richard Brook | Nathan Kleinman | Ian Beren  
*United States*

Trends in Administered Medication Use Among Patients  
Hospitalized with COVID-19 in the United States

Rachel Ogilvie | Michael Doherty | Robin Clifford  
Robert Gately | Caihua Liang | Andrea Chomistek  
Florence Wang | John Seeger  
*United States*

Trends in Leaves Due to Long-and Short-Term  
Disability and Workers' Compensation for Employees  
with Back Pain

Richard Brook | Nathan Kleinman | Ian Beren  
*United States*

Vaporized Nicotine (E-cig) Use Among People with HIV  
in Care in the US

Stephanie Ruderman | Joseph Delaney  
Robin Nance | Rob Fredericksen | Lydia Drumright  
Bridget Whitney | Geetanjali Chander | Karen Cropsey  
Amanda Willig | William Mathews | Sonia Napravnik  
Joseph Eron | Katerina Christopoulos | Allison Webel  
Kenneth Mayer | Conall O'Cleirigh | Mari Kitahata  
Michael Saag | Heidi Crane | Andrew Hahn  
*United States*

# Posters

## DRUG EFFECTIVENESS

**A Controlled 1-Year Mirror-Image Study of the Effect of Paliperidone Palmitate on Hospitalization in the Treatment of Schizophrenia in China**

Ting Zhang | Hao Huang | Lu Yang | Jianhua Chen  
Yongjing Zhang | Hong Qiu | Jun Chen | Yifeng Xu  
*China*

**A Proof of Concept Study to Test the E-CORE Network in Studying Safety and Effectiveness of Treatments in COVID-19 Patients**

Alexandra Pacurariu | Sonya Patel | Prieto-Alhambra  
Peter Rijnbeek | Sam Salek | Talita Duarte-Salles  
Hanne van Ballegooijen | Sander van Olst  
Morgan Stewart | Emanuil Markov | Christian Reich  
Flach Deborah Layton  
*United Kingdom*

**Assessment of Antipsychotic Use and other Predictors Associated with Mortality in Patients with Delirium: A Population-Based Nested Case Control Study**

Daniel Hsiang-Te Tsai | Wei-Hung Chang  
Edward Chia-Cheng Lai  
*Taiwan*

**Association Between the Use of Mood Stabilizers and Risk of Trauma Among Patients with Bipolar Disorder**

Vanessa Ng | Kenneth Man | Le GAO | Esther Chan  
Joseph Hayes | Ian Wong  
*Hong Kong*

**Baloxavir Marboxil vs Neuraminidase Inhibitors Prescription on Subsequent Medical Resource Utilization Among School-Aged Children with Influenza: Analysis of Two Consecutive Seasons in Japan**

Masato Takeuchi | Koji Kawakami  
*Japan*

**Clinical effectiveness of anti-TNF, non-anti-TNF and tofacitinib in the treatment of rheumatoid arthritis**

Gerusa Oliveira | Marina Morgado | Natália Brandão  
Jéssica Barreto | Francisco Acurcio  
Augusto Guerra Junior | Juliana Alvares-Teodoro  
*Brazil*

**Comparative Clinical Effectiveness of Secuquinumab and Anti-TNF Agents in the Treatment of Psoriatic Arthritis**

Natália Brandão | Marina Morgado | Gerusa Oliveira  
Francisco Acurcio | Augusto Guerra Junior  
Juliana Alvares-Teodoro  
*Brazil*

**Comparative Effectiveness and Safety of Low vs High Dose Rivaroxaban and Apixaban for Atrial Fibrillation: A Propensity Score-Matched Cohort Study**

Sylvie Perreault | Alice Dragomir | Robert Côté  
Brian White-Guay | Aurélie Lenglet | Marc Dorais  
*Canada*

**Comparative Effectiveness and Safety of Prasugrel vs Ticagrelor in Patients with Acute Coronary Syndrome Undergoing Percutaneous Transluminal Coronary Angioplasty**

Avik Ray | Ahmad Najmi | Gaurav Khandelwal  
Ratinder Jhaj | Balakrishnan Sadasivam  
*India*

**Effectiveness and Safety of Direct Oral Anticoagulants Among Patients with Non-Valvular Atrial Fibrillation and Liver Disease: A Population-Based Cohort Study**

Antonios Douros | Ying Cui | Robert Platt  
Kristian Filion | Giada Sebastiani | Christel Renoux  
*Canada*

**Effectiveness and Safety of Edoxaban and Warfarin in Nonvalvular Atrial Fibrillation Patients: A Meta-Analysis of Real-World Studies**

Mohammed Alsultan | Jeff Guo  
*United States*

**Effectiveness of a Six-Month Isoniazid as Tuberculosis Preventive Therapy in People Living with HIV in Eritrea: A Retrospective Cohort Study**

Mulugeta Russom | Bruno Stricker | Henok Woldu  
Araia Berhane | Daniel Jeannetot | Katia Verhamme  
*Eritrea*

**Effectiveness of Sacubitril/Valsartan vs Aldosterone Antagonists for Prevention of Heart Failure-Related and All-Cause Hospitalization in Heart Failure with Reduced Ejection Fraction**

Munaza Riaz | Eric Dietrich | Steven Smith | Carl Pepine  
Haesuk Park  
*United States*

# Posters

## DRUG EFFECTIVENESS

### Flares after Hydroxychloroquine Reduction or Discontinuation in a Multinational Inception Cohort of Systemic Lupus

Celline Almeida-Brasil | John Hanly | Murray Urowitz  
Ann Clarke | Rosalind Ramsey-Goldman  
Caroline Gordon | Michelle Petri | Ellen Ginzler  
Daniel Wallace | Sang-Cheol Bae | Juanita Romero-Diaz  
Mary Anne Dooley | Christine Peschken | David Isenberg  
Anisur Rahman | Susan Manzi | Soren Jacobsen  
RS. Sam Lim | Ronald Van Vollenhoven | Ola Nived  
*Canada*

### Impact of Statin Treatment on COVID-19 Risk and Outcome – A Potential Positive Effect on Survival

Fredrik Nyberg | Ailiana Santosa | Ingela Parmryd  
Björn Wettermark | Stefan Franzén  
*Sweden*

### Impact of Treatment Sequence on Survival Outcome in Patients with a Second Treatment Line for Metastatic Castration-Resistant Prostate Cancer: A New-User Design in the French Nationwide Claims Database

Nicolas H. Thurin | Magali Rouyer | Marine Gross-Goupil  
Thibaud Haaser | Xavier Rébillard | Michel Soulié  
Gérard De Pouvourville | Fatiha Messaoudi | Hind Stitou El  
Amine Demnati | Emmanuelle Bignon | Jérémy Jové  
Stéphanie Lamarque | Cécile Droz-Perroteau  
Nicholas Moore | Patrick Blin  
*France*

### Inpatient Readmission and Oral Antiplatelet Adherence for Patients with Coronary Artery Disease

Samuel Peasah | Douglas Mager | Kiraat Munshi  
Yan Huang | Lynn Neilson | Elizabeth Swart  
Rochelle Henderson | Chester Good  
*United States*

### Intravenous Vancomycin Use at Discharge and 90-Day Risk of Readmission or Death

Samantha Eiffert | Alan Kinlaw  
*United States*

### Low-Dose Acetylsalicylic Use Shows Protective Association with Alzheimer's Disease Incidence: Results from Two Large Prospective Cohort Studies

Thi Ngoc Mai Nguyen | Ben Schöttker  
*Germany*

### Mycophenolate and Azathioprine are Associated with Risk of Hospitalized Viral Respiratory Infection in Rheumatoid Arthritis and Systemic Lupus

Cristiano Moura | Marina Machado  
Celline Almeida-Brasil | Jeffrey Curtis  
Kevin Winthrop | Michal Abrahamowicz | Sasha Bernatsky  
*Canada*

### Off-Label Day-of-Surgery Gabapentinoids and Prolonged Opioid Use: A Retrospective Cohort Study of Medicare Patients using Electronic Health Records

Jessica Young | Nabarun Dasgupta | Virginia Pate  
Til Stürmer | Brooke Chidgey | Michael Hudgens  
Michele Jonsson Funk  
*United States*

### Pharmacoepidemiology and Ethics

Zhen-Fang Lin  
*Taiwan*

### SIGMA Consortium: A New Era of Collaboration to Study the Safety and Effectiveness of Medical Interventions

Josephina Kuiper | Carla Franzoni | Vera Ehrenstein  
Rosa Gini | Ulrike Haug | Nicholas Moore  
Cécile Droz-Perroteau | Bonaventura Bolibar  
Maria Aragon | Jesper Hallas | Thomas MacDonald  
Miriam Sturkenboom | Olaf Klungel  
Susana Perez-Gutthann | Ron Herings  
*Netherlands*

### Survival Analysis of ICU Patients Administered Human Albumin Infusion from the MIMIC III v1.4 Database

Mohamed Mekkawy | Dina Magdy | Mohamed Rashad  
Noura Yousri | Mai Moustafa | Nourhan Abdelaziz  
*Egypt*

### Survival Analysis of N-Acetylcysteine Administration in ICU Patients from the MIMIC III v1.4 Database

Mohamed Mekkawy | Ola Zaafan  
*Egypt*

### The Disease-Modifying Drugs for Multiple Sclerosis and Subsequent Health Service Use: A Population-Based Study

Huah Shin Ng | Feng Zhu | Elaine Kingwell | Yinshan Zhao  
Shenzhen Yao | Okechukwu Ekuma | Lawrence Svenson  
Charity Evans | John Fisk | Ruth Ann Marrie  
Helen Tremlett  
*Canada*

# Posters

## DRUG EFFECTIVENESS

### Use of Beta Blockers and Death from Breast Cancer in New Zealand Breast Cancer Patients

Oliver Scott | Sandar TinTin | Alana Cavadino | Mark Elwood  
*New Zealand*

### Utilizing a Structured Benefit-Risk Assessment to Evaluate a Combination of Olanzapine and Samidorphan for the Treatment of Schizophrenia and Bipolar I Disorder

Brittany Roy | David McDonnell | Bei Yu | Christine Graham | Ying Jiang | Sergey Yagoda | Vasudev Bhupathi  
Lauren DiPetrillo  
*United States*

## DRUG UTILIZATION RESEARCH

### A Contemporary Characterization of Patients with Non-Valvular Atrial Fibrillation Starting Oral Anticoagulants in Quebec, Canada

Shermaine Li | Alvi Rahman | Sophie Dell'Aniello  
Alexis Matteau | Madeleine Durand | Christel Renoux  
*Canada*

### A Rapid Review on the Adherence to Evidence-Based Medical Therapy in Peripheral Artery Disease Patients

Sze Ling Chan | Rajesh | Tjun Yip Tang  
*Singapore*

### A Systematic Review of Global Oncology Treatment Practice and Modifications during COVID-19

Jingbo Yi | Bruce Crawford  
*Japan*

### Adherence to Mesalazine and Identification of Patients with Ulcerative Colitis in Healthcare Administrative Databases of Tuscany (Italy)

Claudia Bartolini | Sara Ferraro | Irma Convertino  
Lorenzo Bertani | Sabrina Giometto | Francesco Costa  
Corrado Blandizzi | Ersilia Lucenteforte | Rosa Gini  
Marco Tuccori  
*Italy*

### An Evidence-Based Evaluation of Clinical Medicine Use Indicators in Children

Zhe Chen | Lingli Zhang  
*China (People's Republic)*

### Antimicrobial Resistance in Endodontic Infections in Latin America (MICROBE-DENT): Systematic Review

Flávia Casale Abe | Cristiane de Cassia Bergamaschi Motta  
Silvio Barberato Filho | Katia Kodaira  
Pedroso Moraes Vilela de Castro | Carolina Martins  
Caio Chaves Guimarães | Luciane Cruz Lopes  
*Brazil*

### Antimicrobial Use in Patients Diagnosed with Chronic Kidney Disease Admitted in the Internal Medical Wards at

Dr George Mukhari Academic Hospital  
Katlego Kupa | Phumzile Skosana  
*South Africa*

### Antithrombotic Therapy Prescription Patterns in the Secondary Prevention of Stroke in Patients with Atrial Fibrillation: Findings from a Real-World, Population-Based Study

Francisco Sanchez-Saez | Judit Riera-Arnau  
Isabel Hurtado | Clara Rodriguez-Bernal | Gabriel Sanfelix  
*Spain*

### Assessing the Impact of Pharmacist-Led Anticoagulation Clinic within a Tertiary Care Setting in Saudi Arabia: A Retrospective Cross-Sectional Study

Ali Alsulaiman | Ahmed Alswar | Hadi Almansour  
Mohamed Sheik | Abdulaziz Alhossan  
*Saudi Arabia*

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## DRUG UTILIZATION RESEARCH

### Association between Non-Adherence to Endocrine Therapy and the Risk of Recurrence Among Breast Cancer Survivors: A Systematic Literature Review

Namratha Ravindra | Najla Faddoul  
Wei-Hsuan Lo-Ciganic | Juan M Hincapie-Castillo  
Haesuk Park | Coy D Heldermon | Seonkyeong Yang  
Debbie L Wilson | Lauren E Adkins | Ching-Yuan Chang  
*United States*

### Association between Persistence to Treatment after Percutaneous Coronary Intervention and Clinical Outcomes in Acute Coronary Syndrome Patients: A Multicenter Study in Indonesia

Erna Kristin | Lucia Krisdinarti | Alfi Yasmina  
Woro Rukmi Pratiwi | Rizaldy Taslim Pinzon | Sudi Indrajaya  
*Indonesia*

### Avoidable Public Expenditures with Selected Antineoplastic Drugs for Breast Cancer in Brazil

Ranailla Lima Bandeira dos Santos | Vera Lúcia Edais Pepe  
Claudia Garcia Serpa | Osorio-de-Castro  
*Brazil*

### Carboplatin Appropriateness and Rationality Assessment

Tien-Yuan Wu | Hui-Hsia Hsieh | Chi-Hua Chen  
*Taiwan*

### Characteristics of Patients Initiating Spiriva Respimat for Asthma in the UK

Christina Raabe | Qiang Li | Mariel Slater  
Jennifer K. Quint  
*Germany*

### Characterization of Polypharmacy in Middle-Aged and Elderly Adults in the UK: An Analysis of 0.5 Million People in UK Biobank

Junqing Xie | Antonella Delmestri | Sara Khalid  
Victoria Strauss | Gary Collins | Daniel Prieto-Alhambra  
*United Kingdom*

### Characterizing Patients Using Abuse-Deterrent Formulations Of Extended-Release Opioid Analgesics

G'Yeon Oh | Bethany DiPrete | Svetla Slavova  
Nabarun Dasgupta | Shabbar Ranapurwala | Emily Slade  
Chris Delcher | Daniela Moga  
*United States*

### Classification of Gabapentinoids as Controlled Drugs Reduced Gabapentinoid Prescriptions in Primary Care in England

Xinchun GU | Teng-Chou Chen | Douglas Steinke  
Li-Chia Chen  
*United Kingdom*

### Clinical and Cost-Saving Effects of the Drug Utilization Review Modernization Pilot Project in Inpatient and Outpatient Settings in Korea

Dongwon Yoon | Inmyung Song | Ha-Lim Jeon  
Sungho Bea | Ahhyung Choi | Hyesung Lee  
Ju-Young Shin  
*South Korea*

### Comedication of Opioids with Benzodiazepines, Gabapentinoids Among Caregivers of Children with Special Healthcare Needs

Oluwadamilola Onasanya | Beth Hogans  
Susan dosReis | Gloria Reeves | Wendy Camelo Castillo  
*United States*

### Comparative Analysis on the Evolution of Antimicrobial Resistance Surveillance and Governance Between China and the United States

Bo Wu | Fei Yan | Chaowei Fu  
*China*

### Comparison and Contrast of Antibiotic Utilization and Outcomes in Hospital-acquired Pneumonia (HAP), Ventilated HAP (vHAP) and Ventilator Associated Pneumonia (VAP) in the United States

Mahek Garg | Xinyue Liu | Wynona Blac | Kaushal Desai  
Edward Bortnichak | Pamela Moise | Laura Puzniak  
*United States*

### Consumption Patterns of Chronic Medication during the COVID-19 Pandemic in Portugal

António Teixeira-Rodrigues | Jose Guerreiro  
*Portugal*

### COVID-19 Treatment Approaches Among Hospitalized Patients in a National HealthCare System

Jennifer Liao | Vrishali Lopes | Kerry LaPlante  
Aisling Caffrey  
*United States*

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## DRUG UTILIZATION RESEARCH

### Dispensing Patterns of Antithrombotic Agents in South Africa with Specific Focus on the Direct Oral Anticoagulants (DOACs): A Database Analysis

Ilse Truter | Diana Oelofse  
*South Africa*

### Drug Use Evaluation of Cephalosporins in Patients with Culture Report of Enterococcus Faecalis or Enterococcus Faecium

Yi-Ting Shen | Tien-Yuan Wu | Hui-Hsia Hsieh  
Chi-Hua Chen  
*Taiwan*

### Drug Use Evaluation of Fentanyl Buccal Soluble Film

Hsiang-Jung Huang | Hui-Hsia Hsieh | Tien-Yuan Wu  
Chi-Hua Chen  
*Taiwan*

### Drug Use Evaluation of Vytorin

Mei-Shu Chen | Hui-Hsia Hsieh | Tien-Yuan Wu  
Chi-Hua Chen  
*Taiwan*

### Drug Utilization Evaluation for the Treatment of Vulvovaginal Candidiasis

Li-Yu Lin | Hui-Hsia Hsieh | Tien-Yuan Wu | Chi-Hua Chen  
*Taiwan*

### Drug Utilization Evaluation of Duloxetine

Hui-Hsia Hsieh | Tien-Yuan Wu | Chi-Hua Chen  
*Taiwan*

### Drug Utilization Evaluation of Pregabalin

Yi-Chin Liu | Hui-Hsia Hsieh | Tien-Yuan Wu  
Chi-Hua Chen  
*Taiwan*

### Drug Utilization Research in Africa: Overview of Demographic and Socioeconomic Profile, Health Systems and Epidemiology

Ilse Truter | Olayinka Ogunleye | Francis Kalembeera  
Dan Kibuule | Johanita Burger | Johanna Meyer  
Laura Horne | Maribel Salas  
*South Africa*

### Estimates of Paracetamol Poisoning in Brazil: Analysis of Official Records

Julia Okuyama | Taís Freire Galvão | Marcus Silva  
*Brazil*

### Evaluating the Impact of New Prescribing Restrictions for Publicly-Subsidised Proton Pump Inhibitors in Australia: An Interrupted Time Series Analysis

Benjamin Daniels | Sallie-Anne Pearson | Claudia Bruno  
Nicholas Buckley | Andrea Schaffer | Min Jun  
Helga Zoega  
*Australia*

### Evaluation of Esketamine Adverse Event from the FAERS Database and Published Case Reports

Madeline Brendle | Daniel Malonem | Lorenzo Villa Zapata  
*United States*

### Evaluation of Albumin Utilization in a Major Teaching Hospital in Iran Before and After Guideline Implementation

Shahriyar Shahbazi Khamas | Atefeh Jafari  
*Iran*

### Frequency, Characteristics, and Subsequent Treatment (Tx) of Real-World Patients (pts) who Discontinue Hedgehog Inhibitors (HHIs) as First-Line (1L) Systemic Tx for Advanced Basal Cell Carcinoma (aBCC)

Jessica Jalbert | Chieh-I Chen | Kathleen Aguilar  
Kalatu Davies | Patrick LaFontaine | Matthew Fury  
Timothy Bowler | Asieh Golozar | C. Lance Cowey  
*United States*

### HealthCare Resource Use in a US Claims Database during the Early Period of the COVID-19 Pandemic

Shiyao Gao | Krista M. Schroeder  
Casey Kar-Chan Choong | Robert Goodloe  
*United States*

### High Adherence and Sustained Virologic Response Among Vulnerable People Initiating an Hcv Treatment at a Community-Based Nurse-Led Clinic: A Cohort Study

Myriam Gagne | Isabelle Tetu IPSPL | Jean-Pierre Gregoire  
Jocelyne Moisan  
*Canada*

# Posters

## DRUG UTILIZATION RESEARCH

How Government Health Insurance Coverage of Novel Anti-Cancer Medicines Benefited Cancer Patients in China: A Retrospective Analysis of the Insurance Claim Data

Mingshuang Li | Yifan Diao | Jing Sun | Yu Jiang  
*China*

Impact Analysis of the COVID-19 Epidemic on the Patterns of Access to Medicines of Patients with Common Chronic Diseases in Beijing

Yujin Zhou | Guolin Dai | Ke Zhang, Huang | Yaying Shen Bin Ma | Hanyong Wang | Jing Sun China  
*China*

Impact of Chronic Diseases on the Adherence to Guidelines for the Treatment of Urinary Tract Infection in Quebec, Canada

François Lefebvre | Élise Fortin | Geneviève Deceuninck Marc Simard | Caroline Quanch-Thanh Alejandra Irace-Cima | Nadine Magali-Ufitinema Caroline Sirois  
*Canada*

Impact of COVID-19 Outbreak on Antidepressants Utilization: A Real-World Drug-Utilization Study based on Tuscany HealthCare Administrative Databases

Ippazio Cosimo Antonazzo | Carla Fornari | Olga Paoletti Claudia Bartolini | Sara Conti | Pietro Ferrara Paolo Angelo Cortesi | Lorenzo Giovanni Mantovani Giampiero Mazzaglia | Rosa Gini  
*Italy*

Impact of H. Pylori Eradication Therapy After the Introduction of Endoscopic Screening for Gastric Cancer in Japan

Chisato Hamashima  
*Japan*

Impact of the Introduction of Generic Equivalents on Memantine Consumption in South Africa using the ATC/DDD Methodology

Ilse Truter | Ashmitha Munasur-Naidoo  
*South Africa*

Impacts of Pharmacists' Intervention on Drug-Related Problems in Treatment for Pediatric Outpatients in Vietnam

Thang Nguyen | Vy Le, Phuong Nguyen | Suol Pham Han Diep | Dung Quach | Nguyet Nguyen | Thao Nguyen Katja Taxis  
*Vietnam*

Impacts of Prescription Drug Monitoring Program on Patients with Cancer

Tham Le | Sean Fleming | Aida Kuzucan Linda Simoni-Wastila  
*United States*



Incentive Structure of Employer Health Insurance and Impact on Patient Drug Use and Cost of Accessing the Private Primary Healthcare System

Che Zin | Norny Rahman | Nor Nazar  
*Malaysia*

Incidence in Pharmacoepidemiology – New on the Drug vs New on the Class of Drugs

Mikael Hoffmann | Henrik Støvring  
*Sweden*

# Posters

## DRUG UTILIZATION RESEARCH

### Key Opportunities and Future Direction for Drug Utilization Research in Africa

Johanna Meyer | Joseph Fadare | Joyce Kgatlwane  
Moliehi Matlala | Ester Naikaku-Hango | Daniel Afriyie  
Brian Godman | Ilse Truter | Johanita Burger  
Laura Horne | Maribel Salas  
*South Africa*

### Medicines Use by Professors at a Brazilian Public University During the COVID-19 Pandemic: Findings and Implications

Waleria de Paula | Wanessa Cecília De Oliveira  
Adriana Lúcia Meireles | Renata Nascimento  
Glenda Nicioli da Silva  
*Brazil*

### Melatonin use Among Children, Adolescents, and Young Adults: A Danish Nationwide Drug Utilization Study

Mette Bliddal | Helene Kildegaard | Lotte Rasmussen  
Martin Ernst | Poul Jørgen Jennum  
Stine Hasling Mogensen | Nikolai Constantin Brun  
Rikke Wesselhöft | Anton Pottegård  
*Denmark*

### Misuse of Antimicrobials in the Rural Population of a District in South India

Syed Ilyas Shehnaz | S. Madan Kumar  
*India*

### Non-Persistence with Statins in Diabetic and Non-Diabetic Patients with Transient Ischemic Attack

Martin Wawruch | Jan Murin | Tomas Tesar  
*Slovakia*

### Opioid Consumption from 2013 to 2016 in South Africa: Morphine, Pethidine, Oxycodone and Tramadol

Ilse Truter | Ashmitha Munasur-Naidoo  
Lauren Campbell  
*South Africa*

### Opioid Use Patterns Among Non-Metastatic Cancer Survivors: A Systematic Literature Review

Najla Faddoul | Namratha Ravindra  
Wei-Hsuan Lo-Ciganic | Juan Hincapie-Castillo  
Haesuk Park | Coy Heldermon | Seonkyeong Yang  
Lauren Adkins | Debbie Wilson | Ching-Yuan Chang  
*United States*

### Optimization of Prescription Patterns: A Response to Control High Pharmaceutical Expenditure

Ines Martinho | Jose Guerreiro  
António Teixeira-Rodrigues | Carla Torre  
*Portugal*

### Patterns of Antihypertensive Drugs Use after Primary Stroke in the General Population

Julia Perrier | Valérie Olié | Amélie Gabet  
Antoine Pariente | Christophe Tzourio | Julien Bezin  
*France*

### Patterns of Antimicrobial Prescribed to Patients Admitted to a Tertiary Care Hospital in South-West Nigeria: A Prescription Quality Audit

Onyinye Akunne | Aduragbenro Adedapo  
*South Africa*

### Patterns of Meropenem Utilization and Resistance at a Kenyan Public Referral Hospital

Dennis Makau | Margaret Oluka | Faith Okalebo  
*Kenya*

### Patterns of Prescription and Co-Prescription of Opioids and Benzodiazepines in the Period 2010 to 2018: A Real-World, Population-Based Study

Francisco Sanchez-Saez | Gabriel Sanfelix | Sabel Hurtado  
Salvador Peiro | Anibal Garcia-Sempere  
*Spain*

### Persistence to Treatment after Percutaneous Coronary Intervention for Acute Coronary Syndrome Patients as a Cost-Saving Opportunities in Indonesia

Erna Kristin | Lucia Krisdinarti | Alfi Yasmina  
Woro Rukmi Pratiwi | Ratih Puspita Febrinasari  
Endang Mahati | Sudi Indrajaya  
*Indonesia*

### Pharmacist-Led Intervention to Support Deprescribing of Cardiometabolic Medication Among People with Type 2 Diabetes: A Pilot Study

Stijn Crutzen | Gert Baas | Petra Denig | Marcel Bouvy  
Mette Heringa | Katja Taxis  
*Netherlands*

### Pilot Study Rectifies Real World Study Design to Support Regulatory Decision Making

Atheline Major-Pedersen | Jens Aberle | Paolo Sbraccia  
Nichlas Birch Jørgensen | Dorthe Skovgaard  
Anne Helene Olsen  
*Denmark*

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## DRUG UTILIZATION RESEARCH

### POPPY II Cohort Profile—A population-Based Linked Cohort Examining the Course and Outcomes of Prescription Opioid Use in NSW, Australia, 2003-2018

Natasa Gisev | Anne Pearson | Timothy Dobbins  
Luke Buizen | Tom Murphy | Andrew Wilson | Fiona Blyth  
Adrian Dunlop | Sarah Larney | David Curow  
Richard Mattick | Louisa Degenhardt

*Australia*

### Potentially Inappropriate Medication Use in Older Hospitalized Patients with Type 2 Diabetes: A Cross-Sectional Study

Manik Chhabra | Rishabh Sharma | Kota Vidyasagar  
Akshaya Bhagavathula

*India*

### Prescribing Trends of Antihypertensive Drug Classes in a Hong Kong Dementia Cohort

Edmund Cheung | Sze Ling Celine Chui | Gary Lau  
Hao Luo | Eric Wan | Ian Wong

*Hong Kong*

### Prescription Opioid Use in Australian Women of Reproductive Age from 2013 to 2020

Bianca Varney | Malcolm Gilles | Alys Havard  
Helga Zoega | Sallie-Anne Pearson | Melisa Litchfield

*Australia*

### Prevalence and Factors Associated with Oral Anticoagulant Use in the General Nursing Home Population

Qiaoxi Chen | Julie Hugunin | Kate Lapane  
Anthony Nunes | Jennifer Tjia | Matthew Alcusik

*United States*

### Prevalence and Predictors of Potentially Inappropriate Psychotropic (PIP) Medications in Older Adults with Psychiatric Illness

Rishabh Sharma | Manik Chhabra | Parveen Bansal  
Malika Arora | Arvind Sharma

*India*

### Prevalence of Adverse Drug Reactions in the Primary Care Setting: A Systematic Review and Meta-Analysis

Widya Norma Insani | Cate Whittlesea | Hassan Alwafi  
Kenneth Man | Sarah Chapman | Li Wei

*United Kingdom*

### Prevalence of Potentially Inappropriate Medication and its Correlates in Elderly Hospitalized Patients: A Cross Sectional Study Based on Beers Criteria

Rishabh Sharma | Manik Chhabra | Parveen Bansal  
Malika Arora

*India*

### Prevalence of Potentially Inappropriate Medication in Elderly Inpatients with Chronic Kidney Disease (CKD)

Manik Chhabra | Rishabh Sharma | Malika Arora | Bansal

*India*

### Process Evaluation of Implementing a Pharmacist-Led Intervention to Improve Adherence to Antihypertensive Drugs Among Patients with Type 2 Diabetes in Indonesian Community Health Centers

Sofa Alfian | Job Van Boven | Aulia Iskandarsyah  
Rizky Abdulah | Eelko Hak | Petra Denig

*Netherlands*

### Real World Utilization of 91-Day Extended Levonorgestrel-Containing Combined Oral Contraceptives in Europe: A Multinational Database Study

Sigal Kaplan | Massoud Toussi | Debabrata Roy  
Sandeep Dhanda | Amir Lass

*Israel*

### Real-World Utilization of Octreotide Immediate Releasing Use with Octreotide Long-Acting Releasing

Yue Cheng | Val Adams | Lowell Anthony | Chris Delcher  
Daniela Moga | Aman Chauhan | Bin Huang

*United States*

### Real-World Treatment Patterns of Newly Diagnosed Patients with Asthma and/or COPD

Aniek Markus | Peter Rijnbeek | Jan Kors | Guy Brusselle  
Edward Burn | Daniel Prieto-Alhambra | Katia Verhamme

*Netherlands*

### Real-World Treatment Trajectories for Newly Diagnosed Type 2 Diabetes Mellitus in Patients with Metastatic Cancer

Irene Murimi-Worstell | Kshitij Prabhune | Andrew Cohen  
Christy Harris | Alissa Segal

*United States*

### Scope of Insulin Human Utilization in Females of Childbearing Age in the US

Ayad Ali

*United States*

# Posters

## DRUG UTILIZATION RESEARCH

### Sex Difference, Label Indications and Trend in Atypical Antipsychotics Use in Early-Onset Schizophrenia: A Nationwide Cross-Sectional Study

Izabela Fulone | Marcus Silva | Luciane Cruz Lopes  
*Brazil*

### Sex Differences in Lipid Profile Across the Life Span in Patients with Type 2 Diabetes: A Cross-Sectional Study

Martina Ambroz | Sieta de Vries | Priya Vart  
Robin Dullaart | Roeters van Lennep | Petra Denig  
Klaas Hoogenberg  
*Netherlands*

### Slovenia vs the Netherlands: A Comparison of Opioid Prescription Strategies

Ajda Bedene | Anita Strmljan | Willem Lijfering  
Mitja Udovič | Frits Rosendaal | Jurij Fürst | Albert Dahan  
Eveline Van Dorp  
*Netherlands*

### Temporal Trends in Medication Utilization Among Hospitalized COVID-19 Patients

Andrew Weckstein | Sarah Vititoe | Donna Rivera  
Marie Bradley | Silvia Perez-Vilar | Sandy Leonard  
Elizabeth Garry | Nicolle Gatto | Jeremy Rassen  
*United States*

### Temporal Trends of Pharmacologic Treatments for Tuberculosis and Multidrug-Resistant Tuberculosis Following Treatment Guideline Dissemination in South Korea

Han Eol Jeong | Junyeong Choi | In-Sun Oh | Hyunjin Son  
Seung Hun Jang | Sun-Young Jung | Ju-Young Shin  
*South Korea*

### The Influence of Medical Representative Visits on Prescribing Practice of Physicians in Jordan and Iraq: A Cross-Sectional Study

Karrar Ehsan Ali | Abdallah Naser | Rabaa Alrousan  
Hassan Alwafi | Amal Khaleel AbuAlhommos  
*Jorsan*

### The Use of Medication Among People with Stage 2 Hypertension: Findings from an Indonesian Cross-Sectional Study

Riana Rahmawati | Ana Fauziyati | Zinedine Yusuf Ariant  
*Indonesia*

### The Utilization Evaluation of Intravenous Pantoprazole for Stress Ulcer Prophylaxis in a Major Teaching Hospital

Shahriyar Shahbazi Khamas | Atefeh Jafari  
*Iran*

### Time Trends in Patient Characteristics of New Rivaroxaban (RVX) Users with Atrial Fibrillation (AF) Across Four Countries

Annemarie Voss | Ana Ruigomez | Elisabeth Smits  
Karin Swart-Polinder | Yanina Balabanova | Gunnar Brobert  
Luis Garcia Rodriguez | Ron Herings | Tania Schink  
*Germany*

### Treatment Patterns and Appropriateness of Antipsychotic Prescriptions in Patients with Schizophrenia

Veronica Gamon | Isabel Hurtado | José Salazar-Fraile  
Gabriel Sanfelix  
*Spain*

### Treatment Trajectory of Antihypertensive Drugs in UK Primary Care Practices

Julie Rouette | James Brophy | Tibor Schuster  
Laurent Azoulay  
*Canada*

### Trends and Patterns in Traditional Chinese Medicine Use Among Chinese Population in Late Adulthood: An Eight-Year Repeated Panel Survey

Lu Xu | Jing Hu | Shengfeng Wang | Siyan Zhan  
*China*

### Trends in Hydroxychloroquine Drug Utilization and Safety in 2020

Sarah Hoffman | Sonali Shambhu | Vincent Willey  
Kevin Haynes  
*United States*

### Trends in Prescribing of Non-Steroidal Anti-Inflammatory Medications in the US Ambulatory Care Setting, 2006-2016

Shailina Keshwani | Joshua Brown | Wei-Hsuan Lo-Ciganic  
Seonkyeong Yang | Nicole Smolinski  
Juan Hincapie-Castillo  
*United States*

# Posters

## DRUG UTILIZATION RESEARCH

### Trends in the Management of Primary Headache in US Emergency Departments: Analysis of 2007-2018 NHAMCS Data

Seonkyeong Yang | Abigale Lipe | Macy Boren  
Juan M Hincapie-Castillo | Joshua Brown | Haesuk Park  
Jingchuan Guo | Ching-Yuan Chang | Debbie Wilson  
Lauren Adkins | Weihsuan Lo-Ciganic

*United States*

### Trends of Anti-epileptic Drugs Use During Pregnancy in Manitoba, Canada: A 20-Year Utilization Study

Walid Shouman | Joseph Delaney | Alekhya Lavu  
Sherif Eltonsy

*Canada*

### Utilization of Anti-CGRP Monoclonal Antibodies for Migraine Prophylaxis between 2019 and 2020 in Tuscany Region, Italy

Giulia Hyeraci | Rosa Gini | Olga Paoletti  
Giorgio Limoncella | Davide Messina | Silvia Benemei  
Chiara Lupi | Luigi Francesco Iannone  
Francesco De Cesaris | Pierangelo Geppetti  
Giuseppe Roberto

*Italy*

### Using Administrative Data and the Regional Pathology Registry of Tuscany to Describe First-Line Pharmacotherapy and Survival of Patients with Non-Resectable Non-Small Cell Lung Cancer from 2009 to 2019

Spini Andrea | Giuseppe Roberto | Cristiana Bellan  
Alessandra Pascucci | Pietro Rosellini | Sandra Donnini  
Folco Furiesi | Lorenzo Leoncini | Silvano Giorgi  
Allison Singer | Claudia Bartolini | Marina Ziche | Rosa Gini  
Francesco Salvo

*Italy*

### Utilisation and Safety of Glycopyrronium Bromide (GPB) Oral Solution for the Treatment of Sialorrhoea in Children <18 Years in the UK

Debabrata Roy | Vicki Osborne | Sandeep Dhanda  
Saad Shakir

*United Kingdom*

### Utilization of Drugs Reimbursed by the Italian HealthCare Service for the Treatment of COVID19 during the First Pandemic Wave: Gender Differences in the General and Nursing Home Population of Tuscany

Giuseppe Roberto | Niccolò Lombardi | Giada Crescioli  
Francesca Collini

Fabrizio Gemmi | Alfredo Vannacci

Spini Andrea | Sandra Donnini

Marina Ziche | Gianni Virgili

Ersilia Lucenteforte | Rosa Gini

*Italy*

### Utilization Patterns and HealthCare Accesses of JAKi used in Rheumatoid Arthritis Patients in Tuscany: The LEONARDO Study

Marco Tuccori | Valentina Lorenzoni | Rosa Gini  
Giuseppe Turchetti | Elisabetta Fini | Sabrina Giometto  
Claudia Bartolini | Olga Paoletti | Irma Convertino  
Sara Ferraro | Emiliano Cappello | Giulia Valdiserra  
Corrado Blandizzi | Ersilia Lucenteforte

*Italy*

### Utilization Patterns of Direct Oral Anticoagulants in Medicare Beneficiaries with Cancer and Non-Valvular Atrial Fibrillation

Shirin Ardeshirrouhanifard | Huijun An  
Ravi Goyal | Jodi Segal | G. Caleb Alexander Hemalkumar  
Mehta

*United States*

### Visualization Methods to Examine Treatment Patterns in Pharmacoepidemiology: An Example Using Osteoporosis Medications

Suzanne Landi | Min Kim | Sara Snell Taylor | Catie Wiener |  
Michele McDermott

Cynthia Deignan | CJay Lin

Akhila Balasubramanian | Andrew Park

M. Alan Brookhart | Leah McGrath

*United States*

# Posters

## G E R I A T R I C S

### Adherence to Anti-Dementia Medicine: A South African Database Analysis

Ilse Truter  
*South Africa*

### An Evaluation of Injurious Falls and Fall-Risk- Increasing-Drug (FRID) Prescribing Behaviors in a Nationally Representative Sample and the Pharmacist's Role in Fall Prevention

Taylor Elliott | Daniela Moga | Susan Westneat  
Shama Karanth | Erin Abner | Anna Kucharska-Newton  
*United States*

### Any Link Between Polypharmacy and the Risk of Mortality Among Patients with Chronic Heart Failure Newly Diagnosed? A Nested Case-Control Study

Sylvie Perreault | Mireille Schnitzer | Eliane Disso  
Jakub Qazi | Marc Dorais  
*Canada*

### Assessment of Drug-Drug Interactions Among Geriatric Patients in Community Setting

Meghana Nadendla | Umesh M | Lakshmi Choudary  
*India*

### Assessment of Predictors of Fractures in German Older Adults using a Large Population Sample

Jonas Reinold | Malte Braitmaier | Oliver Riedel  
Ulrike Haug  
*Germany*

### Association between Anticholinergic Burden of Medications and Emergency Care in the Elderly Assisted in the Brazilian Primary Care Setting

Fabiane Motter | Rodrigo Iwami | Vera Paniz  
Luciane Cruz Lopes  
*Brazil*

### Factors Associated with Different Dosage Forms of Disease-Modifying Agents in Older Adults with Multiple Sclerosis

Ashna Talwar | Jagadeswara Rao Earla | George Hutton  
Rajender Aparasu  
*United States*

### Fracture Risk Following the Initiation of antihypertensive Therapy Amongst Frail Elderly People: A Self-Controlled Case Series analysis

Annika Jödicke | Eng Hooi (Cheryl) Tan | Danielle Robinson  
Antonella Delmestri | Daniel Prieto-Alhambra  
*United Kingdom*

### Intravitreal Anti-Vascular Endothelial Growth Factors Use in France: Cross-Sectional and Longitudinal Nationwide Observational Studies

Sophie Billioti de Gage | Marion Bertrand  
Sébastien Grimaldi | Mahmoud Zureik  
*France*

### Low Rates of Bone-Active Medication Utilization from 2013-2017 by Provider Type for Beneficiaries Aged 65+ with Medicare Part D

Jennifer Marie Kirk | Sean Fleming | Denise Orwig  
*United States*

### Medication Regimen Complexity Among Older Adults Admitted to Home Hospice

Jennifer Tjia | Margaret Clayton | Jennifer Smith  
Geraldine Puerto | Vennesa Duodu  
Susan DeSanto-Madeya  
*United States*

### Polypharmacy Among Older Individuals with Heart Failure: Trends between 2000 and 2017 in the Province of Quebec, Canada

Caroline Sirois | Alexandre Campeau Calfat | Marc Simard  
Amina Ouali | Claudia Blais  
*Canada*

### Polypharmacy and Health-Related Quality of Life in Older Adults with Cancer: Determining Breakpoints

Manvi Sharma | Yiqiao Zhang | Monika Salkar  
John Bentley  
*United States*

### Predictors of Concomitant Use of Opioids and Gabapentin in the National Alzheimer's Coordinating Center Database

Logan Oatman | Jungjun Bae | GYeon Oh  
Patricia Freeman | Daniela Moga  
*United States*

# Posters

## GERIATRICS

**Survival in Older Adults Treated for Chronic Lymphocytic Leukemia Compared to Those without Cancer: An Exploratory Time-Trend Analysis**

Emilie Duchesneau | Annie McNeill | Jerzy Tyczynski  
William Schary | Jennifer Lund

*United States*

**The Effectiveness of a Module for Primary Health Care Professionals in Preventing Nonsteroidal Anti-Inflammatory Drugs-Associated Gastrointestinal Adverse Reactions Among Elderly**

Alyya Siddiq Siregar | Purwastyastuti Ascobat  
Retno Asti Werdhani | Nafrialdi Nafrialdi | Ari Fahrial  
Syam Rudy Hidayat | Grace Wangge

*Indonesia*

**Trends in Antipsychotic Dispensation to Residents of Long-Term Care Facilities in Nova Scotia, Canada including after a Fall-Related Hospitalization**

Shanna Trenaman | Ingrid Sketris | Maia von Maltzahn  
Samuel Stewart | Yan Wang | Hala Tamim

*Canada*

**Use of and Adherence to Bisphosphonates in Elderly Patients with Complex Health Needs: An Analysis of UK Primary Care Records**

Leena Elhussein | Annika Jödicke | Antonella Delmestri  
Danielle Robinson | Victoria Strauss

Daniel Prieto-Alhambra

*United Kingdom*

**Use of Potentially Inappropriate Medicines by Elderly People in Primary Care of the Unified Health System (SUS) in Brazil**

Renata Nascimento | Viviane Silveira

*Brazil*

## HEALTH ECONOMICS / OUTCOMES RESEARCH

**Absence Benefit Use and Payment Trends Among Short-and Long-Term Disability, and Workers' Compensation for Employees with Any of 20 Top Agency for Healthcare Research and Quality Conditions**

Richard Brook | Nathan Kleinman | Ian Beren

*United States*

**Absence Benefit Utilization, Duration of Leaves, and Payments Vary by Benefit and Over Time for Short-and Long-Term Disability and Workers' Compensation for Employees with Headaches and Migraines in the United States**

Richard Brook | Nathan Kleinman | Ian Beren

*United States*

**Analysis of COVID-19 Patient Experiences Reported Through Social Media**

Melissa Khashei | Jennifer Shields | Christopher St. Clair  
Wei Liu | Jae Joon Song | Monique Falconer | Wei Hua

Efe Eworuke

*United States*

**Assessment of Health-Related Quality of Life in Adults with Asthma by Asthma Severity**

Hyunjin Song | Kathryn Blake | Debbie Wilson | Almut  
Winterstein | Haesuk Park

*United States*

**Association between Primary Care Provider Payment Models and Adherence to Anticoagulation in a Sample of Patients with Atrial Fibrillation**

Lanting Yang | Jingchuan Guo | Terri Newman

Walid Gellad | Inmaculada Hernandez

*United States*

# Posters

## HEALTH ECONOMICS / OUTCOMES RESEARCH

### Association of Inflammatory Bowel Disease with the Risk of Parkinson's Disease: A Meta-Analysis of Real-World Evidence

Salman Hussain | Abul Kalam Najmi  
*India*

### Benefits Analysis of Pharmacists Intervention Multi-drug Integration in Chronic Patients

Chi-Hua Chen | Hui-Hsia Hsieh | Tien-Yuan Wu  
*Taiwan*

### Clinical Outcomes Among Relapsed/Refractory (R/R) Adult and Pediatric Classical Hodgkin's Lymphoma (cHL) Patients: A Global Systematic Literature Review (SLR)

Monika Raut | Akash Nahar | Manasi Thosar | Iris Brewer  
Rebekah Borse | Xiaoqin Yang | Sam Keeping  
*United States*

### Comparison of Quality of Life between Men and Women with Chronic Liver Diseases using Chronic Liver Disease Questionnaire (CLDQ): A Meta-Analysis.

Marwan Alrasheed | Abdulrahman Alsuhibani  
Ana Hincapie | Jeffrey Welge  
*United States*

### Cost Considerations of Dermatological Care in Jordan: A Cross-Sectional Study

Abdallah Naser | Danya Alwafi | Hassan Alwafi  
Eman Zmaily Dahmash | Faris El-Dahiyat  
Ghaydaa Ramzi Al-Hallaq  
*Jordan*

### Cost-Related Nonadherence for Prescription Medications: A Cross-Sectional Study in Jordan

Abdallah Naser  
*Jordan*

### Early Assessment of the Impact of the COVID-19 Era on Charlson Score

Tiffany Siu Woodworth | Ian Livingstone | Hailee Schuele  
Joseph Menzin  
*United States*

### Effect of Anti-Dementia Drugs on and Potential Racial/Ethnic Disparities in Satisfaction with Quality of Care Among Older Adults with Alzheimer's Disease and Related Dementias

Xiaomo Xiong | Minghui Li | Jun Wu | Kevin Lu  
*United States*

### Effectiveness and Safety of Extended Anticoagulation in Patients with Venous Thromboembolism: A Retrospective Cohort Study

Hye-Rim Kang | Wei-Hsuan Lo-Ciganic  
Christina DeRemer | Eric Dietrich | Pei-Lin Huang  
Haesuk Park  
*United States*

### Global Antiplatelet Sales Trend: A Focus on P2y12 Inhibitors from 2008 to 2018

Xuxiao Ye | Jessica Shami | Vincent Yan | Wei Kang  
Joseph Blais | Jiayi Zhao | Wallis Lau | Li Wei | Ian Wong  
Esther Chan  
*Hong Kong*

### Health-Related Quality of Life in Older Adults with Concomitant Opioid and Skeletal Muscle Relaxant Use in a National Cohort of Older Adults

Christy Xavier | Usha Sambamoorthi | Nahid Rianon  
Rafia Rasu  
*United States*

### Impact of the COVID-19 Pandemic on Routine Clinical Management of Patients with Neurological Conditions: a Retrospective Cohort Study in UK Primary Care (CPRD)

Paul Dillon | Teresa Karrer | Isaac Gravestock  
Loes Rutten-Jacobs | Julie Mouchet  
*Switzerland*

### Inadequate Response Rates and Associated Factors to Psoriasis Therapies Using a Claims-Based Algorithm

Jeffrey Curtis | Michael Grabner | Russel Burge  
Chia-Chen Teng | Mingyang Shan | Alyssa Garrelts  
Terri Ridenour | Keith Isenberg  
*United States*

### Long- and Short-Term Disability and Workers' Compensation Trends for Employees with Bone Diseases

Richard Brook | Nathan Kleinman | Ian Beren  
*United States*

### Long-and Short-Term Disability and Workers' Compensation Trends for Employees with Eye (Ophthalmic) Conditions in the United States

Richard Brook | Nathan Kleinman | Ian Beren  
*United States*

# Posters

## HEALTH ECONOMICS / OUTCOMES RESEARCH

**Long-and Short-Term Disability and Workers' Compensation Trends for Employees with Gastrointestinal (Digestive System) Conditions in the United States**

Richard Brook | Nathan Kleinman | Ian Beren  
*United States*

**Long-and Short-Term Disability, Workers' Compensation and Prevalence Trends for Employees with Mental Disorders in the United States**

Richard Brook | Nathan Kleinman | Ian Beren  
*United States*

**Novel Glucose-Lowering Agents and Cardiorenal Benefits: Absence of Racial/Ethnic Diversity in Clinical Trials**

Huilin Tang | Stephen Kimmel | Inmaculada Hernandez  
Jared Magnani | Maria Brooks | Almut Winterstein  
Jingchuan Guo  
*United States*

**Parkinson's Disease Experience from a Patient's Perspective: Systematic Review on Patient Reported Outcomes**

Priti Shah | Anne Dilley | Jing Yuan  
*United States*

**Prevalence and Leaves Due to Long-and Short-Term Disability and Workers' Compensation for Employees with Diabetes**

Richard Brook | Nathan Kleinman | Ian Beren  
*United States*

**Real World Evidence in Effectiveness, Safety, and Cost Savings of Generic Levothyroxine: A Systematic Review**

Jingjing Qian | Kaniz Afroz Tanni  
*United States*

**Risks of Cardiovascular and Kidney Events Associated with Proton Pump Inhibitor Use Among Medicare Beneficiaries: A Retrospective New User Cohort Study**

Ahmed Ullah Mishuk | Philippe Gaillard | Salisa Westrick  
Jingjing Qian  
*United States*

**Safety Profile Analysis of Sunitinib and Dasatinib Protein Kinase Inhibitors Using FDA Adverse Event Reporting System (FAERS) Database**

Fatimah Alyami | Jeff Guo  
*United States*

**The Effect of Prescriber, Treatment, and Client Characteristics on Retention in Opioid Agonist Treatment: A 15-Year Retrospective Cohort Study**

Chrianna Bharat | Sarah Larney | Sebastiano Barbieri  
Timothy Dobbins | Nicola Jones | Matthew Hickman  
Natasa Gisev | Robert Ali | Louisa Degenhardt  
*Australia*

**The Impact of COVID-19 on Telemedicine Use and Patients' Characteristics**

Gilwan Kim | Xue Song  
*United States*

**The Use of Real-World Data in Research in the GCC Countries: A Descriptive Study**

Abdullah Alalwan | Yasser Albogami | Zakiyah Alkherb  
Amani Alshahrani | Waad Aljrarri | Adel Alrwan  
*Saudi Arabia*

**Trends from 2001 to 2019 in Workers Compensation Indemnity Payments and Absences Among Employees with Bone Diseases, Headaches/ Migraines, Diabetes, Multiple Sclerosis, Osteoarthritis, Rheumatoid Arthritis and Back Pain**

Richard Brook | Nathan Kleinman | Ian Beren  
Justin Schaneman  
*United States*

**Trends in Absence Time and Payments due to Long-and Short-Term Disability and Workers' Compensation for Employees with Rheumatoid Arthritis**

Richard Brook | Nathan Kleinman | Ian Beren  
*United States*

**Understanding Oral Anticoagulant Preferences of Patients with Atrial Fibrillation in China and Willingness-To-Pay: Evidence from a Discrete Choice Experiment**

Jiayi Zhao | Hao Wang | Xue Li | Yang Hu | Vincent Yan  
Carlos Wong | Yutao Guo | Marco Cheung | Gregory Lip  
Chung-Wah Siu | Hung-Fat Tse | Esther Chan  
*Hong Kong*

# Posters

## I N F O R M A T I C S

### Characterizing Real-World Treatment Patterns Among Patients Hospitalized Due to SARS-CoV-2

Rohit Vashsiht | Ayan Patel | Lisa Dahm | Charles Wilson  
Atul Butte  
*United States*

### Identifying Dipeptidyl Peptidase-4 Inhibitor Users with Sufficient Data Completeness in Electronic Health Records

Chi-Chuan Wang | Chien-Ning Hsu | Kelly Huang  
Fang-Ju Lin | Huang-Tz Ou | Ling-Ya Huang  
Hsiao-Ching Kuo | Sengwee Toh  
*Taiwan*

### Inception to ConcePTION: a Conceptual Framework for Characterizing Pharmacoepidemiologic Data Sources. A Study from the ConcePTION Project

Romin Pajouheshnia | Nicolas Thurin | Giuseppe Roberto  
Caitlin Dodd | Giulia Hyeraci | Claudia Bartolini  
Olga Paoletti | Hedvig Nordeng | Helle Wallach-Kildemoes  
Vera Ehrenstein | Elena Dudukina | Thomas MacDonald  
Giorgia De Paoli | Maria Loane | Christine Damase-Michel  
Anna-Belle Beau | Cécile Droz-Perroteau | Régis Lassalle  
Karin Swart-Polinder | Tania Schink  
*Netherlands*

### Study Validity in Sports Medicine: A Quantitative Assessment of Orthopedic Research Based on Publicly-Obtained Data

Paul Inclan | Peter Chang | Christina Mack | Gary Solomon  
Robert Brophy | Richard Hinton | Kurt Spindler | Allen Sills  
Matthew Matava  
*United States*

### Use of Knowledge Bases in Medical Education: Medical Students' Perspective

Hager Ali Saleh  
*Sweden*

## M E D I C A L D E V I C E S

### Efficacy and Effectiveness of Mobile Health Technologies to Improve Breastfeeding: Scoping Review

Lívia Marengo | Alanis Santos | Laura Maricato  
Maria Raquel Fernandes  
Cristiane de Cassia Bergamaschi Motta  
Silvio Barberato-Filho  
*Brazil*

### Efficacy of the OptiMEDsTool for Multidisciplinary Medication Review in Belgian Nursing Homes

Maarten Wauters | Monique Elseviers | Robert Vander Stichele | Tinne Dilles | Geert Thienpont  
Thierry Christiaens  
*Belgium*

### Evaluation of Drain Use During Total Knee Replacement Associated with Health Outcomes and Healthcare Utilization

Chantal Holy | Ashley Holub | A Manoranjith | Bidusee Ray  
Kota gopi Nath | Aatheep Gurubaran | Daniel Hoeffel  
Juan Daccach  
*United States*

### Feasibility and Acceptability of the OptiMEDs Tool for Multidisciplinary Medication Review in Belgian Nursing Homes

Maarten Wauters | Monique Elseviers  
Robert Vander Stichele | Tinne Dilles | Thierry Christiaens  
*Belgium*

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## M E D I C A L   D E V I C E S

Health Economics Analysis and Quality of Life of Patients Undergoing Primary Total Knee Arthroplasty (TKA) from China ATTUNE® Study

Ming Zhang | Xin Qi | Huiwu Li | Yinghui Liu | Zhuo Chen | Ming Dong | Chen Zhang | Shudong Zhang  
*China*

Transcatheter and Surgical Aortic Valve Replacement: Patient Characteristics and Outcomes

Lawrence Rasouliyan | Vikas Kumar | Stacey Long | Mitesh Rao  
*United States*

## M E T H O D S   I N   P H A R M A C O E P I D E M I O L O G Y

Can We Really Trust the Findings of the COVID-19 Research? Quality Assessment of the Randomized Controlled Trials Published on COVID-19

Athira Joshy | Saphal Surendran | Krishna Undela  
*India*

Can We Really Trust the Findings of the COVID-19 Research? Quality Assessment of the Research Articles Published on COVID-19

Athira Joshy | Saphal Surendran | Krishna Undela  
*India*

Challenges in Studying COVID-19 Treatments in Real-World Hospital Datasets: A Case Study of Tocilizumab

Ruth Owen | Nawab Qizilbash | Stuart Pocock  
Ignacio Méndez | Sara Velázquez Díaz  
José María Castellano Vázquez  
*United Kingdom*

Clinical Notes vs Diagnosis Codes in Identification and Characterization of Women with Endometriosis

Carrie Huisingsh | Stacey Missmer  
Hsiao- Ching Huang | Brenda Hinman-McIlroy  
Stephanie Chiuvè  
*United States*

Creating High Quality External Control Arms from RWD in Support of Regulatory Decision Making

Aaron Kamau | Tom Haskell | Usman Aman  
Michael Fronstin  
*United States*

Determining the Accuracy of Developing New User Cohorts using Electronic Health Record Data

Raj Desai | Steven Smith  
*United States*

Evaluating the Completeness of Electronic Health Records in Identifying Nonfatal Cardiovascular Events in Taiwan

Yun-Yi Pan | Chi-Chuan Wang | Fang-Ju Lin  
*Taiwan*

Experimenting with County-level COVID-19 Data as a Substitute for Demographic Information

Joyce Pak | Jennifer Lund | Michael Webster-Clark  
*United States*

External Control Arms to Contextualise Single Arm Clinical Trials – Propensity Score Methods can be Inconsistent

Emily Peach | Sajan Khosla  
*United Kingdom*

Four Competing Definitions of Morphine Equivalence Insidiously Inhibit Evidence Synthesis

Nabarun Dasgupta | Yanning Wang | Jungjun Bae  
Alan Kinlaw | Brooke Chidgey | Toska Cooper  
Chris Delcher  
*United States*

Fracture Outcome Coding in Observational Osteoporosis Drug Effects Studies: A Scoping Review

Natalia Konstantelos | Anna Rzepka | Andrea Burden  
Angela Cheung | Sandra Kim | Paul Grootendorst  
Suzanne Cadarette  
*Canada*

Genetic Heterogeneity Patterns of Electronic Medical Record (EMR)-Derived Race Groups in a Deidentified Clinico-Genomic Database (CGDB)

Charlotta Früchtenicht | Yanling Jin, Janis Allen  
Sharon Boose-Sheppard | Anne-Marie Meyer  
Altovise Ewing | Melanie Huntley  
*Switzerland*

# Posters

## METHODS IN PHARMACOEPIDEMIOLOGY

### Graphical Representation of Multiple Quantitative Bias Analysis Scenarios for Unmeasured Confounding

J. Bradley Layton | Ryan Ziemiecki | Heather Danysh  
Alicia Gilsonan | Catherine Johannes  
*United States*

### Handling with Vaccine Type Missing Data in a Dynamic Cohort to Assess the Link Between Time-Varying Vaccination and an Autoimmune Disease

Belen Castillo Cano | Marc Comas-Cufí  
Elisa Martín-Merino  
*Spain*

### How COVID-19 Randomized Controlled Trials Reported on Demographic and Clinical Characteristics

Joyce Pak | Jennifer Lund | Alexander Keil  
Daniel Westreich | Til Stürmer | David Wohl | Claire Farel  
M. Bradley Drummond | Michael Webster-Clark  
*United States*

### Identification of a Diagnostically Complex Condition, Polycystic Ovarian Syndrome, in a Population-Based Cohort Using Electronic Health Record Data

Onchee Yu | Jennifer Covey | Jane Grafton  
David Cronkite | Ann Kelley | Kelly Hansen | Jan Hilpert  
Renate Schulze-Rath | Susan Reed  
*United States*

### Identification of Appropriate Safety Metrics in Long-Term Studies

Mat Soukup | Clara Kim | Taehyun Jung  
*United States*

### Identification of Patients with NonAlcoholic Steatohepatitis (NASH) in an Electronic Health Record (EHR) Database

Monica Bertoia | John Seeger | Erik Ness  
Thomas Capozza | Lina Titievsky  
*United States*

### Imbalanced Data Bias in Logistic Regression to Estimate Treatment Effects: Results from a Virtual Patient Cohort Simulation

Hankil Lee | Izabela Annis | Ryan Hickson | Gang Fang  
*South Korea*

### Impact of Increasing Enrollment Requirements in Administrative Claims Data

Liza Gibbs | Irisdaly Estevez | Katherine Gilpin  
Elizabeth Garry  
*United States*

### Matching Study Design to Prescribing Intention: The Prevalent New User Design in Opioid Research

Bethany DiPrete | GYeon Oh | Daniela Moga  
Nabarun Dasgupta | Svetla Slavova | Emily Slade  
Chris Delcher | Brian Pence | Shabbar Ranapurwala  
*United States*

### Methodologic Challenges and Considerations for the Collection of Dietary Intake Data in Real-World Populations

Neil Brett | Marielle Basse | Mengyin Hong  
Mary Kay Margolis  
*Canada*

### Methods and Practical Considerations in Use of an External Control to Assess Potential Drug Risk

George Reed | Amy Schrader | Ann Madsen  
Kate Saunders | Heather Litman | Jamie Geier  
*United States*

### Modeling Parasite Clearance Curves in a Cohort to Compare Quinine and Artesunate for the Treatment of Pediatric Cerebral Malaria

Rima Izem | Alexuse Saidi | Geoffrey Guenther  
Xiaojun Chen | Karl Seydel | Douglas Postels  
*United States*

### Multimorbidity Measures from Health Administrative Data: A Systematic Review

Marc Simard | Elham Rahme | Alexandre Campeau Calfat  
Caroline Sirois  
*Canada*

### NSAIDs and Paracetamol-Induced Hepatotoxicity: A Systematic Review and Meta-Analysis of Observational Studies

Sara Nafisi | Arzu Baygul | Ezgi Gulmez  
*Turkey*

### Primary Non-Adherence in Primary Care in the Netherlands

Mirjam Hempenius | Simone Rijken | Rolf Groenwold  
Anthonius de Boer | Olaf Klungel | Helga Gardarsdottir  
*Netherlands*

### Prognostic Impact of Three Comorbidity Indices on 1 Year Mortality Among Patients with Hip Fracture

Morten Madsen | Pia Kristensen | Alma Pedersen  
*Denmark*

# Posters

## METHODS IN PHARMACOEPIDEMIOLOGY

### Propensity Score Modeling to Reduce Channeling Bias when Exposure is Rare

Julia Pitino | Jennifer Polinski | Brenda Hinman-McIlroy  
Michael Snabes | Dionna Atkinson | Stephanie Chiuve  
*United States*

### Quantitative Bias Analyses in the Absence of a Gold Standard: An Application using Linked EHR and Claims Data to Evaluate Prolonged Opioid Use Following Surgery

Jessica Young | Nabarun Dasgupta | Virginia Pate  
Til Stürmer | Brooke Chidgey | Michael Hudgens  
Michele Jonsson Funk  
*United States*

### Real-World Algorithms in Defining Castration Resistant Prostate Cancer in Retrospective Observational Studies

Elham Heidari | Mehmet Burcu | Sameer Ghate | Irene Shui  
*United States*

### Recent Use of External Controls in Clinical Trials: A Pragmatic Literature Review

Brian Buysse | Jessica Albano  
*United Kingdom*

### Risk of Thrombotic Microangiopathy with Tyrosine Kinase Inhibitors: A disproportionality Analysis from VigiBase and AERS databases

Luis Velez-Nandayapa | Amit Saxena | Anusmita Das  
Miguel Izquierdo | Sai Li | Paul W Manley | Maria Nicolaidis  
Pierre de Zeeuw | Alicia Rossite | Johannes Eisinger  
Christiane Michel  
*Switzerland*

### Socio-Epidemiological Approaches in Designing and Modelling Pharmacy Public Health Programs in Infectious Diseases Control in Developing Countries

Waseem Ullah | Hadi Almansour | Bandana Saini  
Gul Majid Khan  
*Pakistan*

### Surveillance of Postmarketing Risk-Mitigation Behavior Using Tests of Model Misspecification in a Statistical Process Control Framework

Harris Butler | Elaine Morrato | Nichole Carlson | John Rice  
*United States*

### The Effect of Aspirin on COPD: A Methodological Review of the Observational Studies

Anirudh Bakshi | Samy Suissa  
*Canada*

### The Use of Uncertain Exposure – A Method to Define Switching and Add-On in Pharmacoepidemiology

Laura Pazzagli | Marie Linder | Reutfors | Lena Brandt  
*Sweden*

### The Utility of Non-Specific ICD-10 Z3A Codes in Estimating Gestational Age

Monica Bertoia | Li Zhou | Michael Doherty  
Florence Wang | John Seeger  
*United States*

### Using Negative Control Outcomes to Assess the Comparability of Treatment Groups Among Postmenopausal Women Switching Osteoporosis Therapy

Leah McGrath | Min Kim | David Pritchard | Ying Yu  
Peter Samai | Akhila Balasubramanian | Jay Lin  
Leslie Spangler | Robert Stad | Brian Bradbury  
M. Alan Brookhart  
*United States*

### Validation of Self-Reported Medication Use Applying Untargeted Mass Spectrometry-Based Metabolomics Techniques in the Rhineland Study

Nersi Alaeddin | Folgerdiena Maria de Vries  
Julia Carolin Stingl | Monique Maria Bernadette Breteler  
*Germany*

### Variation Among Pharmacists in Calculating Days' Supply

Patricia Freeman | Nabarun Dasgupta | John Brown  
Maryalice Nocera | Svetla Slavova  
*United States*

# Posters

## E P I D E M I O L O G Y / B I O M A R K E R S / P H A R M A C O G E N E T I C S

A Survey of HLA-B 1502 Genotype Testing on Carbamazepine New User in a Regional Teaching Hospital in Taiwan, 2019

Suhan Hsu  
*Taiwan*

Role of D-dimer on Serious Outcomes Among Patients Hospitalized with COVID-19

Caihua Liang | Rachel Ogilvie | Li Zhou | Michael Doherty  
Robert Gately | Andrea Chomistek | Jessica Franklin  
Florence Wang | John Seeger  
*United States*

Triglyceride Levels in Early Type 2 Diabetes and Their Association with Cardiovascular Risk: A Danish Cohort Study

Frederik Kristensen | Diana Christensen | Kevin Olesen  
Michael Maeng | Henrik Sørensen | Reimar Thomsen  
*Denmark*

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Chronic Prescription Medications and Prevalence of Polypharmacy in Survivors of Childhood Cancer

Celeste Ewig | Yi Man Cheng | Hoi Shan Li | Jasper Wong  
Alex Cho | Freddie Poon | Chi Kong Li | Yin Ting Cheung  
*Hong Kong*

Comparison of Pediatric Antibiotherapy in Primary Care: Low vs High Prescribers

Volkan Aydin | N Ipek Kirmizi | Omer Atac | Narin Akici  
Ahmet Akici  
*Turkey*

Deterministic Linkage of Pregnant Mothers and Their Newborns in Integrated US Insurance Claims and Electronic Health Record Data

Stephen Schachterle | Charles Wentworth | Richard Gong  
| Francesca Kolitsopoulos | Negar Aliabadi | Iona Munjal  
Eileen Farnon | Ann Madsen | Xiaofeng Zhou  
*United States*

Hypnotic Drug Use and Underlying Diagnoses Among Adolescents in Norway

Mohammad Nouri Sharikabad | Svetlana Skurtvei  
Hilchen Sommerschild | Kristine Olsen | Ingeborg Hartz  
Rikke Wesselhöft | Vidar Hjellvik | Lars Johan Hauge  
Marte Handal  
*Norway*

Monitoring of Adverse Drug Reaction-Related Parameters in Children, Youth and Young Adults Prescribed Antipsychotic Drugs by General Practitioners

Lenneke Minjon | Els van den Ban | Marloes Bazelier  
Arief Lalmohamed | Toine Egberts | Eibert Heerdink  
*Netherlands*

Overdose Risk Following Prescription Benzodiazepine Treatment in Young People

Greta Bushnel | Mark Olfson | Tobias Gerhard  
*United States*

Paediatric Outpatient Prescriptions in Countries with Advanced Economies in the 21st Century: A Systematic Review and an International Comparison

Marion Taine | Lucile Offredo | Alain Weill  
Rosemary Dray-Spira | Mahmoud Zureik  
Martin Chalumeau  
*France*

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### Systematic Review and Meta-Analysis: Efficacy and Safety of Medical Cannabis in Children

Nir Treves | Noa Mor | Matitahu Berkovitch | Orit Stolar | Ilan Matok

*Israel*

### Use of Non-Insulin Antidiabetic Drugs in Children and Young Adults – A Scandinavian Drug Utilization Study from 2010-2019

Helene Kildegaard | Lotte Rasmussen | Kari Furu | Øystein Karlstad | Marie Linder | Carolyn Cesta | Anton Pottegård

*Denmark*

## P H A R M A C O V I G I L A N C E

### Automating Individual Case Safety Report Identification within Scientific Literature using Natural Language Processing

Michael Glaser | Carolyn Cranfield | Daniel Dsouza  
Angela Duma | Kevin Hastie | Raymond Kassekert  
Andrew Bate

*United States*

### A Comparison of Data Mining Algorithms Using Different Drug Classifications for Signal Identification

Vivian Dang | Cindy Kortepeter | Monica Munoz

*United States*

### A Counterfactual Approach to Minimize Channeling Bias in Post-Market Safety Surveillance

Julia Pitino | Jennifer Polinski | Brenda Hinman-McIlroy  
Michael Snabes | Dionna Atkinson | Stephanie Chiuve

*United States*

### A Pharmacovigilance Analysis of Restless Legs Syndrome Treatments and Suicidality

Brianna Costales | Rachel Matthews | Joshua Brown  
Amie Goodin

*United States*

### A Review of the Sampling Methodology Used in Studies Evaluating the Effectiveness of Risk Minimization Measures in Europe

Mariana Almas | Tulika Paul | Sophie Jouaville

*Portugal*

### A Systematic Review of Non-Small Cell Lung Cancer Treatment-Related Cardiotoxicity

Stefanie Ho Yi Chan | Yasmin Khatib | Sherael Webley  
Deborah Layton | Sam Salek

*United Kingdom*

### A Tenfold Increase in the Rate of Adverse Drug Event Reports in Saudi Arabia

Eman Khalid AlQadheeb | Muhanad AlHarbi  
Mobarak Al-Shahrani

*Saudi Arabia*

### Adverse Drug Reactions and its Evaluation in Saudi Arabia; Retrospective Observational Study

Khalidah Alenzi | Najah Alenzi | Mohammed Almalki  
Hamod Alomrani | Monirah Alnakhibe | Turkiah Alanazi  
Fawziah Alqubali | Moshari Alghamdi | Sultan Dighriri

*Saudi Arabia*

### Adverse Events Associated with Remdesivir in COVID-19 Patients: Evaluation of Spontaneous Reports Submitted to US FDA Adverse Event Reporting System (FAERS)

Jahnvi Yalamanchili | Reddy Neha | Viswam Subeesh  
Nair Gouri | Faizan Mazhar

*India*

### Adverse Events in COVID-19 Patients Treated with Lopinavir/Ritonavir: Exploration of US FDA Adverse Event Reporting System (FAERS) Reports

Jahnvi Yalamanchili | Viswam Subeesh | Nair Gouri  
Faizan Mazhar

*India*

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## P H A R M A C O V I G I L A N C E

### Adverse Reactions to Dolutegravir Reported to the National HIV & Tuberculosis Health Care Worker Hotline in South Africa

Gayle Tatz | Hannes Mouton | Anri Uys | Briony Chisolm  
Annoesjka Swart | Karen Cohen  
*South Africa*

### Analysis of Voluntarily Reported Medication Errors: An Excerpt from a Teaching Hospital in a Developing Country

Jehath Syed | Sri Harsha MPharm | Ramesh  
*India*

### Aromatase Inhibitors Associated with Sjogren's Syndrome: A Disproportionality Analysis in Spontaneous Reporting Database

Subeesh Viswam | Siyad Kalamveettil  
*India*

### Assessing the Post Marketing Experience of Clopidogrel and Major Cardiovascular Events after PCI in Saudi Arabia using the Saudi Food and Drug Authority (SFDA) Spontaneous Reporting System

Rayan Alolayet | Abdulrahman Alnuaim | Muhanad AlHarbi  
Mobarak Al-Shahrani  
*Saudi Arabia*

### Assessment of Adherence to Deferasirox Risk Minimization Measures in Saudi Arabia

Fares Alrubaish | Wed AlGhannam | Laila Abu Esba  
Adel Alrwisan | Fawaz AL-Harbi  
*Saudi Arabia*

### Assessment of Drug Related Problems at a Tertiary Care Teaching Hospital

Jincy Kurian | Lincy George  
*India*

### Assessment of the National Pharmacovigilance System in Nepal using the Indicator Based Pharmacovigilance Assessment Tool (IPAT)

Nisha Jha | Subish Palaian | Pathiyil Ravi Shankar  
Santosh KC | Pan Bahadur Kshetri  
*Nepal*

### Benzodiazepine Use, Nonmedical Use, and Overdose in the US

Saranrat Wittayanukorn | Amy Seitz | Daniel Bak  
Rose Radin | Sara Karami | Nabila Sadiq | Rajdeep Gill  
Jana McAninch  
*United States*

### Biliary Toxicity of Immune Checkpoint Inhibitors: A Pharmacovigilance Study Through FDA Adverse Event Reporting System Database

Qixiang Guo | Wenchao Lu | Tiansheng Wang | Zhixia Zhao  
*China*

### Cardiovascular Safety Assessment of Febuxostat and Allopurinol in the Real World: A Retrospective Cohort Study

Pei-Yuan Hung | Hui-Hsia Hsieh | Tien-Yuan Wu  
Chi-Hua Chen  
*Taiwan*

### Cardiovascular Safety Profile of Romosozumab: A Pharmacovigilance Analysis of the US Food and Drug Administration Adverse Event Reporting System (FAERS)

Annika Kvist | Junaid Faruque | Andrea Burden  
*Switzerland*

### Cefoperazone and the Risk of Bleeding: A Systematic Review and Network Meta-analysis

Nora Al Orf | Mona Almaghrabi | Fawaz AL-Harbi  
Abdulaali Almutairi  
*Saudi Arabia*

### Community Pharmacists Managed Patient Safety Program for Elderly Patients During COVID-19 Pandemic: A Pilot Study from UAE

Bayan Dawood | Muaed Al Omar | Subish Palaian  
*United Arab Emirates*

### Community Pharmacists Managed Patient Safety Program with Minimal Patient Contact for Elderly Patients in Ajman, United Arab Emirates

Bayan Dawood | Muaed Al Omar | Subish Palaian  
*United Arab Emirates*

# Posters

## PHARMACOVIGILANCE

### Comparative Risk of Delirium Associated with Oxybutynin and Solifenacin in Older Adults

Te-yuan Chyou | Prasad Nishtala  
*New Zealand*

### Comparison of Safety Signals Between Selective Serotonin-Reuptake Inhibitors (SSRI) and Serotonin-Norepinephrine Reuptake Inhibitors (SNRI) Employing FDA Adverse Event Reporting System (FAERS) Database

Christa Titus | Eswaran Maheswari | Viswam Subeesh  
*India*

### Comparisons of Effect Estimates of 12 Prescribing Cascades Using Prescription Sequence Symmetry Analysis

Shih-Tsung Huang | Yu Chen | Tsui-Chuan Hsu  
Li-Ning Peng | Fei-Yuan Hsiao | Liang-Kung Chen  
*Taiwan*

### Detecting Drug-Drug Interaction Signal of Concomitant use of Tramadol and SSRI using Korea Adverse Event Reporting System Database

HeHyun Won | Hyunyoung Choi | Na-Young Jeong  
Nam-Kyong Choi  
*South Korea*

### Detecting Tizanidine and CYP1a2 Inhibitor Interaction Signals using the Food and Drug Administration's Adverse Event Reporting System

Lorenzo Villa Zapata | Richard Boyce  
Ainhoa Gomez-Lumbreras | John Horn | Daniel Malone  
*United States*

### Drug-Induced Liver Injury Associated with Lopinavir-Ritonavir in Patients with COVID-19: A Disproportionality Analysis of U.S. Food and Drug Administration Adverse Event Reporting System (FAERS) Data

Huilin Tang | Liyuan Zhou | Xiaotong Li | Alan Kinlaw  
Jeff Yang | Andrew Moon | Edward Barnes  
Tiansheng Wang  
*United States*

### Dupilumab Use and Potential Risk of Alopecia Areata: A Systematic Review

Lama Alhusayni | Nouf AL-Fadel | Fawaz AL-Harbi  
*Saudi Arabia*

### Estimation of Adverse Events Scale Relating Korean Medicine in Korea

Yeonju Woo  
*South Korea*

### Evaluating the Use of Prescription Sequence Symmetry Analysis as a Pharmacovigilance Tool: A Scoping Review

Earl Morris | Ann-Kathrin Hofer | Hemita Bhagwandass  
Razanne Oueini | Lauren Adkins | Jesper Hallas  
Scott Vouri  
*United States*

### Evaluation of Availability of Information on Risk Factors in Reports of Adverse Drug Reactions in a Pharmacovigilance Database

Dennis van Eijl | Florence van Hunsel  
*Netherlands*

### Evaluation of Chirality for Withdrawn Drugs

Ayfer Bahar | Caner Vizdiklar | Volkan Aydin | Ahmet Akici  
*Turkey*



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## P H A R M A C O V I G I L A N C E

Evaluation of Potential Drug-Drug Interactions Among Patients of the Nephrology and Kidney Transplant Wards of a Major Teaching Hospital

Shahriyar Shahbazi Khamas | Atefeh Jafari  
*Iran*

Excess Risk of Anaphylaxis with Concomitant Use of Qingkailing Injection and Cefotaxime Sodium: An Example of Novel Herbal-Drug Interaction

Haona Li | Jianxiang Deng | Peiming Yu | Xuequn Ren  
*China*

Identification of Novel Safety Signals of SGLT2 Inhibitors: A Pharmacovigilance Analysis of the USFDA and Global Adverse Event Reporting Databases

Hibathulla P | Krishna Undela  
*India*

Identification of Novel Safety Signals of SGLT2 Inhibitors: Analysis of USFDA and Global Safety Databases

Hibathulla P | Krishna Undela  
*India*

Individual Case Safety Reports Analysis for Patients with Diabetes Mellitus on Insulin in Africa and the Middle East

Charity Mlotshwa | Johanita Burger | Martine Vorster  
Dorcas Rakumakoe | Marike Cockeran  
*South Africa*

Measuring the Impact of Marketing Authorisation Withdrawal and Revocation on Public Health in France, Germany and UK

Samantha Lane | Elizabeth Lynn | Jim Slattery  
Saad Shakir  
*United Kingdom*

Medication Error Concept and Reporting Practices in Saudi Arabia: A Nationwide Study Among Healthcare Professionals

Faizah Alshammari | IV | Entisar Alanazi | Afnan Alanazi  
Abdulrahman Alturifi | Thamir Alshammari  
*Saudi Arabia*

Montelukast and Nightmare – Further Characterisation using Data from VigiBase

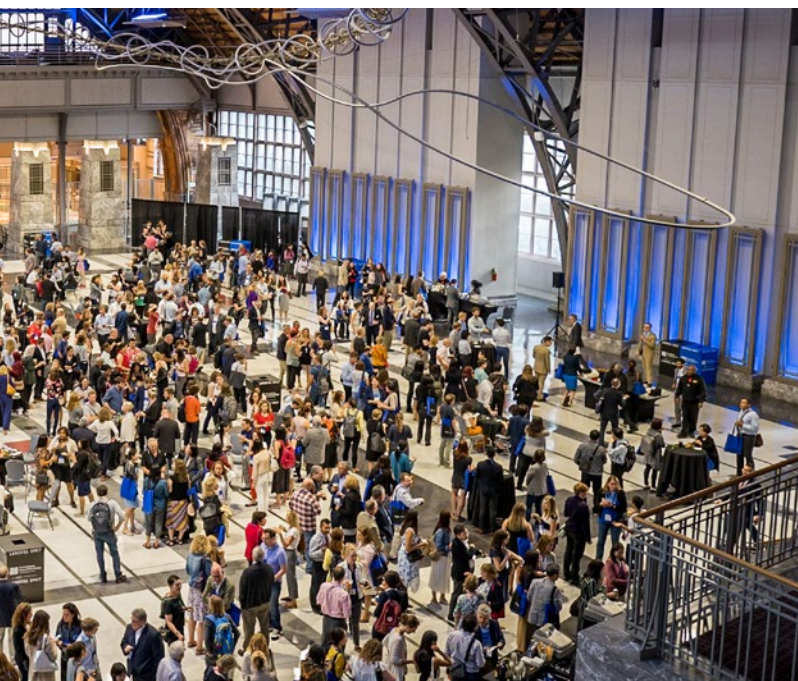
Qun-Ying Yue | Marian Attalla | Henric Taavola  
Sarah Watson | Elenor Kaminsky  
*Sweden*

Motives to Report Adverse Drug Reactions to the National Agency: A Survey Study Among Healthcare Professionals and Patients in Croatia, the Netherlands, and the UK

Sieta de Vries | Petra Denig | Adriana Andrić  
Marina Dimov Di Giusti | Alicia Ptaszynska-Neophytou  
Linda Härmark | Peter Mol  
*Netherlands*

Olanzapine and Potential Risk of Somnambulism : A Systematic Review

Saja Al-Habardi | Waad Al-Tayyar | Nouf Al-Fadel  
Fawaz Al-Harbi  
*Saudi Arabia*



# Posters

## PHARMACOVIGILANCE

### Pediatric Fentanyl Overdose within an Electronic Health Record Database

Rachel Ogilvie | Nan Liu | Bruce Turnbull | Rachel Bonfanti  
Kyle Irwin | Alana Coulter | Shara Ambrosecchia  
Mahlaqa Patel | Drusilla Scott | John Seeger  
Cheryl Enger  
*United States*

### Periodic Safety Reporting System for Post-Market Drug Safety: A Comparative Analysis of Europe, United States, Japan and Korea

Yun-Kyoung Song | Seung-Mi Lee | Green Bae  
*South Korea*

### Pharmacists Role in Patient Safety: Evaluation of Dispensing Errors in a Regional Hospital

Isabela Rufo Cordeiro Vieira | Amanda Araújo  
Carolina Franco | Lucas Silva | Renata Nascimento  
Liliane Pereira  
*Brazil*

### Post-Keratoplasty Fungal Keratitis in the Sentinel Distributed Database: Prevalence and Time Trends

Tancy Zhang | Sheryl Kluberg | Mayura Shinde  
Dave Martin | Katherine Dea | Scott Brubaker  
Brychan Clark | Christopher Jason | Cindy Zhou  
Joyce Obidi | Kinnera Chada | Azadeh Shoabi  
Hui-Lee Wong  
*United States*

### Post-Marketing Drug Safety Sources: An Evaluation of the FDA's Drug Safety Communications

Atheer Aldayel | Maha alGhamdi | Abdulaali Almutairi  
Fawaz Al-Harbi  
*Saudi Arabia*

### Psoriasis Risk After Betablockers Exposure: Analysis of French Pharmacovigilance Data

Brahim Azzouz | Elise Lepoix | Quentin Mathieu Jarrion  
Aurore Morel | Thierry Trenque,  
*France*

### Remdesivir Safety Monitoring during the COVID-19 Pandemic: A Global Review of Adverse Drug Reaction (ADR) Reporting in VigiBase

Sara Hedfors Vidlin | Elena Rocca | Oskar Gauffin  
Ruth Savage | Birgitta Grundmark  
*Sweden*

### Reporting of Pancreatitis with Tocilizumab use: A Disproportionality Analysis Using the United States Food and Drug Administration Adverse Event Reporting System

Ashwin Kamath | Sahana Acharya | Rashmi Rao  
Sheetal Ullal  
*India*

### Review of Systemic Adverse Drug Reactions of Vascular Endothelial Growth Factor Inhibitors in French Pharmacovigilance Data Base

Laure Badier | Leila Chebane | Samuel Tessier  
Agnès Sommet | Justine Benevent | Haleh Bagheri  
*France*

### Risk of Cardiovascular Diseases Associated with Sulfonylurea as an Add-On Therapy to Metformin in Patients with Type 2 Diabetes Mellitus

Hoon Jeong | Eunmi Cho | Minyoung Bang  
Kim Soo Youn Chung | Soon Young Han  
*South Korea*

### Risk of First Ischemic Stroke and Use of Antidopaminergic Antiemetics: A Case-Time-Control Study in France

Anne Benard-Laribiere | Emilie Hucteau  
Stephanie Debette | Julien Kirchgessner  
Bezin Antoine Pariente  
*France*

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## P H A R M A C O V I G I L A N C E

**Risk of Fracture Associated with SGLT-2 Inhibitors as an Add-On Therapy to Metformin in Patients with Type 2 Diabetes Mellitus**

Hyeri Yang | Eunmi Choi | Bonggi Kim | Soo Youn Chung  
Soon Young Han  
*South Korea*

**Safety Evaluation of Panobinostat, Ixazomib, Elotuzumab, and Daratumumab Using FDA Adverse Event Reporting System (FAERS) Database 2015-2020**

Marwan Alrasheed | Abdulrahman Alsuhibani  
Ana Hincapie | Jianfei Guo  
*United States*

**Safety of Propofol use in Children and Adolescents: a Disproportionality Analysis of the Food and Drug Administration Adverse Event Reporting System (FAERS)**

Hailong Li | Zhenyan Bo | Lingli Zhang  
*China*

**Safety Review of Vemurafenib and Potential Risk of Hyperglycemia: A Systematic Review and Analysis of Individual Case Safety Reports in the WHO Global Database**

Saja AL-Habardi | Nouf AL-Fade | Fawaz AL-Harbi  
*Saudi Arabia*

**Signal Detection by Time-To-Onset Method in Conjunction with Disproportionality Analysis: A Study of Spontaneous Reports from Japan**

Tsugumichi Sato | Satomi Tadauchi | Kosuke Kumano  
Nana Kamida | Kazuki Shimamura | Kiyoshi Kubota,  
*Japan*

**Teratogenicity Associated with Antibiotic Therapy: A Disproportionality Analysis in Spontaneous Reporting Database**

Siyad Kalamveettil | Viswam Subeesh  
*India*

**The Establishment of Regional Pharmacovigilance (PV) Centers in Saudi Arabia**

Rayan Alolayet | Eman Khalid AlQadheeb  
Muhanad AlHarbi | Mobarak Al-Shahrani  
*Saudi Arabia*

**Tocilizumab Induced Adverse Events in COVID-19 Patients: Exploration of Reports Submitted to US FDA Adverse Event Reporting System (FAERS)**

Jahnavi Yalamanchili | Reddy Neha | Viswam Subeesh  
Nair Gouri | Faizan Mazhar  
*India*

**Trajectories of Corticosteroid Dosing Pattern Among Patients with Systemic Lupus Erythematosus**

Seung-Hun You | Min Taek Lee | Ye-Jin Kang  
Jae-Eun Lee | Joohyeon Eom | Sun-Young Jung  
*South Korea*

**Trastuzumab Related Cardiotoxicity in Breast Cancer**

Hui-Hsia Hsieh | Tien-Yuan Wu | Chi-Hua Chen  
*Taiwan*

**Zolpidem, Zopiclone and Zaleplon Induce Complex Sleep Behaviors**

Zi-Chen Wang | Hui-Hsia Hsieh | Tien-Yuan Wu  
Chi-Hua Chen  
*Taiwan*

# Posters

## P R E G N A N C Y   A N D   L A C T A T I O N



### Awareness of Pregnant Women about the Spontaneous Adverse Drug Reaction Reporting System in Bulgaria- A Pilot Study

Radiana Staynova | Violeta Getova | Stoev  
*Bulgaria*

### Drug Utilization Pattern of Antiepileptic Drugs in Pregnancy and the Outcome of Offspring in Asia Population

Ching-Lan Cheng | Ju-Ling Chen | Yea-Huei Kao Yang  
*Taiwan*

### Improving Accuracy for Prospective Pregnancy Registry Enrollment Targets

Kristin Veley | Deborah Covington | Payal Pozin  
Rebecca Morris Buus | Sandra Okala  
*United States*

### Nucala Exposure in Women of Childbearing Age and in Pregnant Women in Us Claims Data, 2016-2019

Mary Georgiou | Sally Mountcastle | Liyuan Ma  
Kelsey Sumner | Keele Wurst  
*United Kingdom*

### Pregnancy and Neonatal Outcomes Associated with Opioid Assisted Treatments and Unexposed Pregnancies

Shuang Wang | Jayne Pawasauskas |  
Kristina Ward Xuerong Wen  
*United States*

### Pregnancy in Women with Heart Failure: A Cross-Sectional Study in the Sentinel System

Yan Li | Austin Cosgrove | Efe Eworuke |  
Catherine Corey Joy Kolonoski | Mayura Shinde  
*United States*

### Risk of Domperidone in Pregnant Women: A Study in the EFEMERIS Database

Mélanie Araujo | Clémentine Vabre | Justine Benevent  
Agnès Sommet | Christine Damase-Michel  
Caroline Hurault-Delarue | Isabelle Lacroix  
*France*

### Systematic Review of Prospective Pregnancy Studies in Europe: Scope for Improvement

Nawab Qizilbash | Macarena Garrido-Estepa  
Ana Roncero Martin  
*Spain*

### Temporal and Hospital-Level Variation in High-Dose Postpartum Opioid Prescribing after Cesarean Delivery

Andrew Wiese | Sarah Osmundson | Edward Mitchell  
Margaret Adgent | Sharon Phillips | Andrew Spieker  
Carlos Grijalva  
*United States*

### Prenatal Exposure to Psychotropic Medications and the Risk of Seizure in Children: A Population-Based Cohort Study

Zixuan Wang | Adrienne Chan | Phoebe Ho | Kirstie Wong  
Ruth Brauer | Frank Besag | Patrick Ip | Louise Howard  
Wallis Lau | Li Wei | Ian Wong | Kenneth Man  
*United Kingdom*

# Posters

## R A R E D I S E A S E

### Drug-Drug Interactions in a Kidney Transplant Patient with COVID-19: A Case Report

Shahriyar Shahbazi Khamas | Atefeh Jafari

*Iran*

### Global Symptom Improvement for Patients with Aromatic L-Amino Acid Decarboxylase Deficiency Using Individual Participant Data

Claire Simons | Josef Paris | Craig Bennison

Katharina Buesch

*United Kingdom*

### Knowledge and Awareness of the General Population and Healthcare Providers about Retinoblastoma: It is Time to Know the Glow

Abdallah Naser | Hamzeh Alrawashdeh | Hassan Alwafi  
Hamad Alyami | Eman Zmaily Dahmash | Imene Ghoul  
Anas Amin Shishtawi | Ghada Abdelwahab | Sami Qadus  
Esra' Taybeh | Rasha Abuthawabeh | Fadi Hassanin  
Yosra Alhartani | Mohammad Alyami | Emad Salawati  
Salwan Salah Alwan

*Jordan*

### Prevalence of Extramammary Paget's Disease in Urban China: A Population-Based Study

Lu Xu | Shilu Yin | Shengfeng Wang | Siyan Zhan

Zhenmin Zhao

*China*

### Real-World Adherence of Nusinersen for the Treatment of Spinal Muscular Atrophy (SMA) Using US Electronic Health Records

Nicole Johnson | Nasha Wang | Bora Youn

Angela Paradis | Emma Viscidi | Susan Eaton | Sue Hall

*United States*

### Urban Prevalence of Multiple Sclerosis in China: A Population-Based Study in Six Provinces

Lu Xu | Lu Chen | Shengfeng Wang | Siyan Zhan

Dongsheng Fan

*China*

## S A F E T Y E N D P O I N T S

### A Retrospective Database Study to Evaluate Incidence of Influenza and Influenza-like Illness (ILI) Among Rheumatoid Arthritis (RA) Patients Taking conventional Synthetic Disease Modifying Antirheumatic Drugs (csDMARD)

Kathy Liu | Oladayo Jagun | Jayashri Desai

Xiaofeng Zhou

*United States*

### Adverse Events in NSCLC Patients Treated with Docetaxel Monotherapy

Yangyang Liu | E. Tyczynski | Zhang | Christy Choi | Wolff

*United States*

### Association Between the Multiple Myeloma Treatments and Vascular Adverse Events in Taiwanese Multiple Myeloma Patients: A Population-Based Cohort Study

Mei-tsen Chen | Shih-Tsung Huang | Bor-Sheng Ko

Huai-Hsuan Huang | Fei-Yuan Hsiao

*Taiwan*

### Cohort Study Assessing Angioedema Risk in Black Heart Failure Patients Using Angiotensin-Converting Enzyme Inhibitors in the United States— Interim Results

John Connolly | Aaron Mendelsohn

Carla Rodriguez-Watson | Cheryl McMahon-Walraven

Mano Selvan | Margaret Adgent | Pamala Pawloski

Sigrid Behr | Jeffrey Brown | Raymond Schlienger

*United States*

### Comparison of the Incidence of Bleeding Between Anti-Influenza Drugs Among Outpatients for the Influenza Virus Infection: A Retrospective Study Using an Employment-Based Health Insurance Claims Database in Japan

Azusa Hara | Kanae Hara | Takuji Komeda | Eriko Ogura

Shogo Miyazawa | Chiduru Kobayashi | Masakazu Fujiwara

Manami Yoshida | Hisashi Urushihara

*Japan*

# Posters

## S A F E T Y   E N D   P O I N T S

### Conduction Disorders/Dysrhythmias and Hydroxychloroquine in Rheumatoid Arthritis

Cristiano Moura | Marina Machado | Celline Almeida-Brasil  
Jeffrey Curtis | Sasha Bernatsky  
*Canada*

### Determinants of Intravenous Admixture Preparation Errors: A Prospective Observational Study

Janique Jessurun | Nicole Hunfeld | Joost van Rosmalen  
Monique van Dijk | Patricia van den Bemt  
*Netherlands*

### Diagnostic Delay, Effectiveness and Safety Outcomes in a Real-World Cohort of Patients with Crohn's Disease: Data from Administrative Databases in Tuscany, Italy

Sara Ferraro | Claudia Bartolini | Convertino  
Lorenzo Bertani | Sabrina Giometto | Emiliano Cappello  
Giulia Valdiserra | Silvia Tillati | Corrado Blandizzi  
Ersilia Lucenteforte | Francesco Costa | Rosa Gini  
Marco Tuccori  
*Italy*

### Incidence of Angioedema after Initiation of Angiotensin-Converting Enzyme Inhibitors in Adults with Heart Failure

Jennifer Kuntz | Eric Johnson | Alan Go | Kristi Reynolds  
Andrea Cassidy-Bushrow | Douglas Roblin  
Matthew Slaughter | Denis Nyongesa | Amanda Petrik  
Sigrid Behr | Raymond Schlienger | David Smith  
*United States*

### Independent and Synergistic Effects of Systemic Corticosteroid Use and Air Pollution on Thromboembolic Events: A Climate-Drug Interaction Study

Soko Setoguchi | Rachel Nethery | Benjamin Bates  
Poonam Gandhi | Jung Hyun Kim | Kevin Josey  
*United States*

### NSAIDs and Risk of Myocardial Infarction in Patients with No Major Risk Factors: A Nested Case-Control Study in the UK Clinical Practice Research Datalink

Brenda Nicole Baak | Susan Jick  
*United States*

### Proton Pump Inhibitors and Risk of End Stage Renal Disease in Patients with Chronic Kidney Disease

Miyuki Hsing-Chun Hsieh | Edward Chia-Cheng Lai  
*Taiwan*

### Retinal Toxicity in a Multinational Inception Cohort of Systemic Lupus Patients on Hydroxychloroquine

Celline Almeida-Brasi | John Hanly | Murray Urowitz Ann  
Clarke | Rosalind Ramsey-Goldman | Caroline Gordon  
Michelle Petri | Ellen Ginzler | Daniel Wallace  
Sang-Cheol Bae | Juanita Romero-Diaz  
Mary Anne Dooley | Christine Peschken | David Isenberg  
Anisur Rahman | Susan Manzi | Soren Jacobsen  
S. Sam Lim | Ronald Van Vollenhoven | Ola Nived  
*Canada*

### Risk of Emergency Department Visits or Hospitalization for Cardiovascular Events in Patients with Medical Cannabis Authorization

Arsène Zongo | Cerina Lee | Jason Dyck  
Jihane El-Mourad | John G Hanlon | Elaine Hyshka  
Dean Eurich  
*Canada*

### Risk of Intracranial Meningioma Requiring Surgical Intervention among Recent Hormonal Contraceptives Users

Sebastian Jugl | Si Chen | Patrick Antonelli  
Almut Winterstein  
*United States*

### Risk of Thyroid Cancer with the use of GLP-1 Receptor Agonists

Amandine Gouverneur | Marine Pénichon | Renaud Garrel  
Dominique Hillaire-Buys | Antoine Pariente  
Jean-Luc Faillie  
*France*

### Safety and Effectiveness of Rivaroxaban in First-Time Users with Non-Valvular Atrial Fibrillation in Routine Practice

Luis Garcia Rodriguez | Ana Ruigomez | Tania Schink,  
Annemarie Voss | Elisabeth Smits | Karin Swart-Polinder  
Yanina Balabanova | Gunnar Brobert | Ron Herings  
*Spain*

### Safety of Rivaroxaban in First-Time Users Treated for Deep Vein Thrombosis and Pulmonary Embolism

Ana Ruigomez | Tania Schink | Annemarie Voss  
Ron Herings | Elisabeth Smits | Karin Swart-Polinder  
Yanina Balabanova | Gunnar Brobert  
Luis Garcia Rodriguez  
*Spain*

# Posters

## S A F E T Y   E N D   P O I N T S

### Stroke Risk Associated with Incident Antidepressant Use: Delineated with Age

Lu-Hsuan Wu | Ching-Lan Cheng | Yea-Huei Kao Yang  
*Taiwan*

### Sulfonylureas and the Risk of Ventricular Arrhythmias Among Patients with Type 2 Diabetes: A Systematic Review of Observational Studies

Nehal Islam | Henok Tadesse Ayele | Antonios Douros  
Oriana Yu | Kristian Filion  
*Canada*

### The Association Between Proton Pump Inhibitors and Increased Risk of Hyponatremia – A Cohort Study

Nir Treves | Tali Shik | Bruria Raccah | Galit Shefer  
Israel Yoles | Ilan Matok  
*Israel*

### The Prevalence and Associated Risk Factors of Perfumes Sensitivity in Saudi Arabia

Meshael Alrasheed | Omar Albalawi | Mohammed Aljallal  
Amani Alqahtani  
*Saudi Arabia*

### The Use of Lag Times in Cancer Pharmacoepidemiology

Blánaid Hicks | James Kaye | Laurent Azoulay  
Kasper Kristensen | Laurel habel | Anton Pottegård  
*United Kingdom*



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# Posters

## V A C C I N E S

### Adverse Events of the COVID-19 Vaccines Reported to the Vaccine Adverse Event Reporting System (VAERS), December 14, 2020 -January 22, 2021

Xiangzhong XUE | Chenyu ZOU | Jingjing Qian  
*United States*

### Comparison of Safety Profiles by Chronic Health Conditions in Korean Adults with Egg-Based Inactivated Quadrivalent Influenza Vaccines (QIV, GC3110A)

BongKyo Choi | Hyunjeong Cho | Yunchul Shin  
Eun-Kyoung Lee | Jae Woo Lee  
*South Korea*

### Detecting Signals for the Vaccine-Vaccine Interaction between Pneumococcal Vaccines and Influenza Vaccines using the Korea Adverse Event Reporting System (KAERS)

Hyunyoung Choi | HeHyun Won | Na-Young Jeong  
Nam-Kyong Choi  
*South Korea*

### Differential Demographic and Clinical Characteristics between MMR Vaccinated and Unvaccinated Children in South Korea

Ju Hwan Kim | Dongwon Yoon | Ju-Young Shin  
*South Korea*

### Old Methods and New Data: A Near Real-Time Plan for Vaccine Surveillance and Signal Detection in the United States

Kristin Kostka | Marni Hall | Christian Reich  
Nancy Dreyer | Matthew Reynolds  
*United States*

### Papillomavirus Vaccination and Guillain-Barre Syndrome Among Girls: A Population-Based Study in Spain

Belen Castillo Cano | Mar Martín-Pérez  
Ana Llorente-García | Dolores Montero-Corominas  
Elisa Martín-Merino  
*Spain*

### Safety of COVID-19 Vaccine: Knowledge of Staff at a Medical College in Western Nepal

Sabita Paudel | Subish Palaian | Pathiyil Ravi Shankar  
Nuwadatta Subedi  
*Nepal*

### Signal Detection of Zoster Vaccine Adverse Event in Elderly Using Korea Adverse Event Reporting System Database (KAERS)

Eunsun Lim | Na-Young Jeong | HeHyun Won  
Hyunyoung Choi | Sun-Young Jung | Ju-Young Shin  
Nam-Kyong Choi  
*South Korea*

### Test-Negative Designs Applied to COVID-19 Vaccine Effectiveness Assessment: Methodological Challenges

Delphine Saragoussi | Sarah Rosen | Margaret Richards  
*United Kingdom*

### The Patterns of Spontaneous Reports of Neurologic, Hematologic, and Immunologic Adverse Events Following Immunization in Korea

Min Taek Lee | Seung-Hun You | Ye-Jin Kang  
Jae-Eun Lee | Joohyeon Eom | Sun-Young Jung  
*South Korea*

### Use and Performance of Brighton Collaboration Case Definitions in Low-Middle Income Settings

Wan-Ting Huang | TienYu Owen Yang | Barbara Law  
Steve Black | Miriam Sturkenboom | Robert Chen  
*Taiwan*

### Yellow Fever Vaccine Usage in Three United States Healthcare Databases and Risk of Neurotropic Disease and Viscerotropic Disease in Vaccinees

Shaleesa Ledlie | Christina Ricci | Chunshen Pan  
Andrey Rojas | Alena Khromava | Lin Li  
*Canada*

# Posters

## P O T P O U R R I

### 5-Alpha Reductase Inhibitors and the Risk of Anemia Among Men with Benign Prostatic Hyperplasia

Henok Tadesse Ayele | Antonios Douros | Kristian Filion  
*Canada*

### An Open Algorithm to Pre-Process Free Text Self-Reported Medications Data in UK Biobank

Junqing xie | Shenda Hong | Antonella Delmestri  
Sara Khalid | Victoria Strauss | Gary Collins  
Daniel Prieto-Alhambra  
*United Kingdom*

### Association Between DPP-4 Inhibitors and COVID-19 Related Outcomes Among Patients with Type 2 Diabetes

Yunha Noh | In-Sun Oh | Eol Jeong | Kristian Filion  
Oriana Yu | Ju-Young Shin  
*South Korea*

### Association Between Oral Anticoagulants and Risk of Dementia in Patients with Non-Valvular Atrial Fibrillation

Alvi Rahman | Jonathan Michaud | Sophie Dell'Aniello  
Erica Moodie | James Brophy | Madeleine Durand  
Jason Guertin | Jean-Francois Boivin | Christel Renoux  
*Canada*

### Association Between the use of Oral Anticoagulant and Risk of Adverse COVID-19 Outcomes: An OpenSAFELY Analysis

Angel Wong | Laurie Tomlinson | Jeremy Brown  
William Elson | Alex Walker | Anna Schultze  
Caroline Morton | David Evans | Peter Inglesby  
Brian MacKenna | Krishnan Bhaskaran  
Christopher Rentsch | Emma Powell | Elizabeth Williamson  
Richard Croker | Seb Bacon | William Hulme | Chris Bates  
Helen Curtis | Amir Mehrkar  
*United Kingdom*

### Claims-Based Algorithm for Defining Asthma GINA Steps in US Healthcare Database

George Mu | Rupert Jakes | Ashley Cole | Namhee Kwon  
*United States*

### Comparison of the Incidence of Acute Pancreatitis Among New Users of Fluoxetine, Citalopram, and other Selective Serotonin Reuptake Inhibitors: A Danish Register-Based Cohort Study

Mia Aakjaer | Sarah Brøgger Kristiansen | Maurizio Sessa  
Kathrine Pape | Kim Peder Dalhoff | Marie De Bruin  
Morten Andersen  
*Denmark*

### Effectiveness and Safety of Direct Oral Anticoagulants vs Warfarin in Patients with Valvular Atrial Fibrillation: A Population-Based Cohort Study

Dawwas Dawwas | Eric Dietrich | Adam Cuker  
Geoffrey Barnes | Charles Leonard | James Lewis  
*United States*

### Ethnic Differences in COVID-19 Infection, Hospitalisation, and Mortality: An OpenSAFELY Analysis of 17 million Adults in England

Rohini Mathur | Christopher Rentsch | Caroline Morton  
William Hulme | Anna Schultze | Brian MacKenna  
Rosalind Eggo | Krishnan Bhaskaran | Angel Wong  
Elizabeth Williamson | Harriet Forbes | Kevin Wing  
Helen McDonald | Chris Bates | Seb Bacon | Alex Walker  
David Evans | Peter Inglesby | Amir Mehrkar | Helen Curtis  
*United Kingdom*

### Evaluation of Machine-Learning Algorithms for Predicting Direct-Acting Antiviral Treatment Failure in Patients with Chronic Hepatitis C: An HCV-TARGET Analysis

Haesuk Park | Wei-Hsuan Lo-Ciganic | James Huang  
Yonghui Wu | Joy Peter | Mark Sulkowski | Michael Fried  
David Nelson  
*United States*

### Generating Hypotheses About Never-Smoking Lung Cancer Risk Factors Using Large Primary Care Databases

Monica D'Arcy | Michael Kebede | Curt Dellavalle  
Mengying Li | Youjin Wang | Shahinaz Gadalla | Maria Landi  
*United States*

# Posters

P O T P O U R R I

## How Under-Coded is Pediatric Hypertension?: Comparison of Claims and Electronic Health Record (EHR) Data

Casie Horgan | Jillian Burk | Judith Maro | Efe Eworuke  
Danijela Stojanovic | Jennifer Lyons | Brian Kit  
*United States*

## Impact of Multimorbidity Subgroups on the Health Care Use, Expenditures, and Clinical Outcomes Among Patients with Tuberculosis: A Population-Based Cohort Analysis

Chen Qin | Tianchi Yang | Yang Che | CYue Xiao  
Ceng Jiang | Yanfei Chen | Jifang Zhou  
*China*

## Insights from a Review of Publicly Available Information on Post Authorisation Safety Studies (PASS)

Mariana Almas | Wilhelmina Hoogendoorn  
Sanowar Sayeed | Stella Blackburn | Jaclyn Bosco  
Louise Parmenter  
*Portugal*

## Medical Cannabis Authorization and Drugs and Other Substances Use Disorders: Longitudinal Cohort Study

Arsène Zongo | Cerina Lee | Jihane El-Mourad  
Jason Dyck | John Hanlon | Elaine Hyshka | Dean Eurich  
*Canada*

## Multi-Depth, Iterative Causal Forest for Subgroup Identification

Tiansheng Wang | Michael Kosorok | Alexander Keil  
Richard Wyss | Michele Jonsson Funk | John Buse  
Til Stürmer  
*United States*

## Nondifferential Treatment Misclassification Biases Toward the Null? Not a Safe Bet

Rachael Ross | Michele Jonsson Funk | I-Hsuan Su  
*United States*

## Oral Bisphosphonate Exposure Among Denosumab Users in Ontario, Canada

Anna Rzepka | Kaleen Hayes | Natalia Konstantelos  
Suzanne Cadarette  
*Canada*

## Patterns and Predictors of Stimulant Use During Pregnancy

Meena Murugappan | PJoel Farley | Arun Kumar  
Stephen Contag | Katie Thorsness | Tanya Melnik  
Abhijeet Rajpurohit | Sarah Westberg  
*United States*

## Predictors of Severe COVID-19 Outcome in Patients with Rheumatoid Arthritis

Sara Burns | Tiffany Siu Woodworth | Justin Manjourides  
*United States*

## Prescription Drug-Based Risk Scores: A Systematic Review

Hemalkumar Mehta | Lin Wang | Ioannis Malagaris  
YanJun Duan | Lori Rosman | G. Caleb Alexander  
*United States*

## Risk of Hospitalization and Death Associated with Pimavanserin use in Older Adults with Parkinson's Disease

Hemalkumar Mehta | Y. Joseph Hwang | Huijun An  
Thomas Moore | G. Caleb Alexander  
*United States*

## Safety of Generic Cyclosporine in Solid Organ Transplant Patients: A Systematic Review and Meta-Analysis

Kaniz Afroz Tanni | Jingjing Qian  
*United States*

## Short-Term Incidence of Thrombotic Events in Patients who were Treated with Factor Xa Inhibitors and Hospitalized for Bleeding

Chuntao Wu | Jawad Hasan | William Smith  
Ryan Rumantir | Michael Li | Alexander Cole  
*United States*

## The Risk of Severe Acute Kidney Injury with use of Anti-Hypertensives in the Elderly: A Self-Controlled Case Series Analysis

Eng Hooi (Cheryl) Tan | Annika Jödicke  
Danielle Robinson | Antonella Delmestri  
Daniel Prieto-Alhambra  
*United Kingdom*

# Posters

## P O T P O U R R I

**Use of high-dimensional Propensity Scores (hdPS) in a Japanese National Claims Database**

Jocelyn Wang | Sahar Syed | Elizabeth Garry

*United States*

**Use of Natural Language Processed Clinical Notes in an Electronic Health Record (EHR) to Characterize Adverse Events of Mood Disorders**

Hsiao- Ching Huang | Carrie Huisingh  
Stacey Missmer Brenda Hinman-McIlroy  
Stephanie Chiuve

*United States*

**Use of Potential Nephrotoxic Medications Among Adults with CKD: Parallel Cohort Studies in US and Swedish Routine Care**

Yunwen Xu | Alessandro Bosi  
Alessandro Gasparini

Björn Wettermark | Peter Barany

Lesley Inker | Alex Chang | Morgan Grams  
Juan Carrero | Jung-Im Shin

*China*

**Use of Renin-Angiotensin-Aldosterone System Inhibitors and the Risk of Acute Pancreatitis**

Julie Rouette | Hui Yin | Emily McDonald Alan Barkun  
Laurent Azoulay

*Canada*

**Using Structural Topic Modelling to Reveal Patterns in Reports on Opioid Drugs in a Pharmacovigilance Database**

Lea Lösch | Patrick Brown  
Florence van Hunsel

*Netherlands*

**Utilization and Long-Term Persistence of Direct Oral Anticoagulants Among Patients with Non-Valvular Atrial Fibrillation and Liver Disease**

Antonios Douros | Ying Cui | Robert Platt | Kristian Filion  
Giada Sebastiani | Christel Renoux

*Canada*



**Utilization Pattern of Antipsychotics in Patients with Dementia**

Hsin Min Wang | Edward Chia-Cheng Lai  
*Taiwan*

**Venous Thromboembolism in Patients with Chronic Inflammatory Skin Diseases**

Maria Schneeweiss | Seoyoung Kim | Richard Wyss  
Yinzhu Jin | Kristyn Chin | Joesph Merola  
Arash Mostaghimi | Jonathan Silverberg  
Sebastian Schneeweiss

*United States*

**What is Time Zero for Treatment Among Hospitalized Patients with Bacteremia?**

Aisling Caffrey | Vrishali Lopes  
*United States*

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**ACPE 2021**  
October  
13-15, 2021  
*Seoul, Korea*

**ISPE 2022 Mid-Year Meeting**  
April 10-12, 2022  
*Orlando, Florida*

**ICPE 2022**  
August 24-28, 2022  
*Bella Center  
Copenhagen, Denmark*