

# ICPE 2022

**Advancing Pharmacoepidemiology  
and Real-World Evidence for  
the Global Community**

**August 24-28 // Copenhagen, Denmark**

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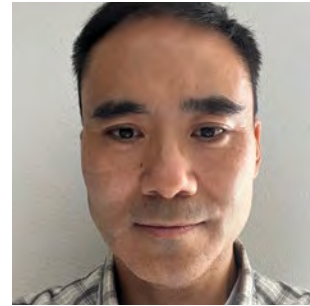
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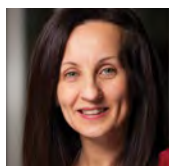
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Hisashi Urushihara  
Sascha van Boemmel-Wegmann  
Angela van der Salm  
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Catherine Vasilakis-Scaramozza  
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Luis Velez  
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David Vizcaya  
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Carla Vossen  
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Mai Vu  
Marit Waaseth  
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Grace (Hsin Min) Wang  
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Veronika Wirtz, FISPE  
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Huifeng Yun  
Eden Dagnachew Zeleke  
Ousseny Zerbo  
Salwa Zghebi  
Le Zhang  
Ling Zhang  
Shumin Zhang  
Xinyan Zhang  
Zhenzhen Zhang  
Meijia Zhou  
Wei Zhou, FISPE  
Yanmin Zhu  
Lin Zhuo  
Andrew Zullo

## NEWCOMER TRACK REVIEWERS

Emily Brouwer, FISPE  
Ian Douglas, FISPE  
Sascha Dublin

Kristian Filion  
Alicia Gilsenan, FISPE  
Xavier Kurz

Edward Lai  
John Logie  
Daniel Mines

Lisa Pont, FISPE  
Suzie Seabroke  
Katja Taxis, FISPE

# Congratulations to Our New Fellows



Edward Bortnichak



Emily Brouwer



J. Bradley Layton



Nicole Pratt



Donna Rivera



Leah Sansbury



Susan Sinclair



Jonathan Slaughter

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## INDUCTION OF ISPE FELLOWS

Edward Bortnichak, FISPE  
Emily Brouwer, FISPE

J. Bradley Layton, FISPE  
Nicole Pratt, FISPE

Donna Rivera, FISPE  
Leah Sansbury, FISPE

Susan Sinclair, FISPE  
Jonathan Slaughter, FISPE

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## SPECIAL AWARD FOR PUBLIC HEALTH PROMOTION THROUGH PHARMACOEPIDEMIOLOGY

Dame June Raine

## JUDITH K. JONES AWARD FOR IMPACT ON PUBLIC HEALTH THROUGH PHARMACOEPIDEMIOLOGY

Luciane Lopes

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## RONALD D. MANN BEST PAPER AWARDS FOR MANUSCRIPTS PUBLISHED IN PHARMACOEPIDEMIOLOGY AND DRUG SAFETY (PDS), 2021

### PRESENTERS:

Brian Strom, FISPE; *Editor-in-Chief*

Vin Lo Re, FISPE; *Regional Editor for the Americas*

Hubert Leufkens, FISPE; *Regional Editor for Europe*

Byung Joo Park, FISPE; *Regional Editor for Asia-Pacific & ROW*

Amanda McLean-Inglis, *Associate Editorial Director, Health Sciences, Wiley*

### WINNER

[Association Between Inhaled Corticosteroid Use and COVID-19 Outcomes](#)

Anders Husby | Anton Pottegård | Anders Hviid

### HONORABLE MENTION

[Statins and Risk of Diverticular Disease: Nested Case-Control Study](#)

Nils Skajaa | Frederikke Schønfeldt Troelsen | Lars Pedersen  
Ola Ekholm | Lisa Strate | Rune Erichsen | Henrik Toft Sørensen

## SPECIAL ISPE AWARD FOR CONTRIBUTIONS TO PUBLIC HEALTH ASSOCIATED WITH THE COVID-19 PANDEMIC

A special award for 2022 to recognize how ISPE members have made and, in some cases, continue to make a demonstrable impact on public health related to the COVID-19 pandemic. From a strong field of candidates nominated by ISPE members, the following were selected by the Fellowship & Awards Committee and endorsed by the ISPE Board of Directors:

Robert Chen, FISPE

Daniel Horton

Daniel Prieto-

Reimar Thomsen

Nicolle Gatto, FISPE

Michele Jonsson Funk, FISPE

Alhambra, FISPE

Almut Winterstein, FISPE

Carlos Grijalva

Vincent Lo Re, FISPE

Christopher Rentsch

## ANDREW McAfee AWARD FOR BEST ABSTRACT FROM A DEVELOPING COUNTRY

Gouri Nair  
Target Fishing and Drug Repurposing for  
Pancreatic Ductal Adenocarcinoma: An Integrated  
Bioinformatic and Computational Approach

## JOHN SNOW AWARD FOR BEST ABSTRACT BY A RESEARCHER/STUDENT LIVING IN A DEVELOPING COUNTRY

Pudi Chiranjeevi  
Association of Sacubitril/Valsartan with Hypoacusis Unveiled Through  
Disproportionality Analysis in US FDA  
Adverse Event Reporting System (FAERS)

## STANLEY A. EDLAVITCH AWARD FOR MOST HIGHLY RATED STUDENT ABSTRACTS

### FIRST PLACE

Junqing Xie  
Genetic Risk and Incident Venous  
Thromboembolism in Middle-  
Aged and Older Adults Following  
COVID-19 Vaccination

### SECOND PLACE

Syed Mohsin Mahmood Shah  
Association Between Very High  
PD-L1 Expression Versus High  
PD-L1 Expression in Patients  
Receiving Pembrolizumab as First-  
line Treatment for Advanced Non-  
small Cell Lung Cancer

### THIRD PLACE

Seonkyeong Yang  
Trajectories of Concurrent Opioid  
and Benzodiazepine Use and  
Associated Opioid Overdose  
Risk Among Arizona Medicaid  
Beneficiaries

## MOST HIGHLY RATED METHODS ABSTRACT SUBMITTED BY A STUDENT

Lars Christian Lund  
Adjusting for Calendar Time in Analyses of  
COVID-19 Vaccine Safety and Effectiveness:  
A Simulation Study

## MOST HIGHLY RATED ABSTRACT SUBMITTED BY A STUDENT IN THE DRUG UTILIZATION RESEARCH CATEGORY

Widya Norma Insani  
Statin-Related Adverse Drug Reactions in UK Primary Care Consultations:  
A Retrospective Cohort Study to Evaluate the Risk of Cardiovascular  
Events and All-Cause Mortality



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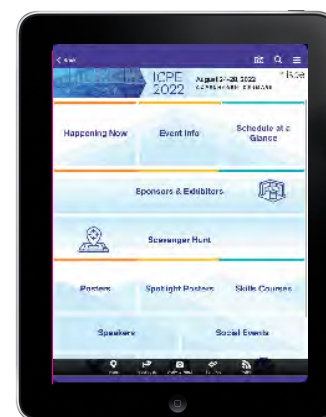
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**Browse** the event information and create a personal schedule by tapping on the star next to presentations titles.



# Schedule-at-a-Glance

**TUESDAY, AUGUST 23**

**P. 24**

7 AM	8 AM	9 AM	10 AM	11 AM	12 PM	1 PM	2 PM	3 PM	4 PM	5 PM	6 PM	7 PM
							2 PM - 6 PM <b>Speaker Ready Room – Room 21</b>					
									4 PM - 6 PM <b>Registration – Hall F6-F7 Lobby</b>			

**WEDNESDAY, AUGUST 24**

**P. 25**

7 AM	8 AM	9 AM	10 AM	11 AM	12 PM	1 PM	2 PM	3 PM	4 PM	5 PM	6 PM	7 PM
7:30 AM - 6 PM <b>Speaker Ready Room – Meeting Room 21</b>												
7:30 AM - 6 PM <b>Registration – Hall F6 - F7 Lobby</b>												
7:30 AM - 6 PM <b>Lactation Room – Meeting Room 28</b>												
	8:30 AM - 12:30 PM <b>PRE-CONFERENCE COURSES</b> Pharmacoepidemiologist's Toolbox for Professional Empowerment – <i>Room C1M5</i> Principles of Pharmacoepidemiology – <i>Room C1M0</i> Risk Minimization and Communication: Science-based Approaches and Case Studies for Designing and Evaluating Effective Interventions for the Safe Use of Medicinal Products – <i>Room C1M2</i>					12:30 PM - 2 PM <b>Lunch on Your Own</b>		2:00 PM - 6 PM <b>PRE-CONFERENCE COURSES</b> Adherence to Medication – <i>Room C1M0</i> Foundations in Causal Inference – <i>Room C1M4</i> Practical Skills in Protocol Writing and Statistical Analytic Programming Relevant to Pharmacoepidemiology – <i>Congress Hall D2</i> Pragmatic Trials: Design, Methods, and Implementation – <i>Room C1M2</i> Using Field Studies to Value-add in Pharmacoepidemiology – <i>Meeting Room 20</i> Using Pharmacoepidemiology Database Resources to Address Drug Safety Research – <i>Congress Hall D5</i> Introduction to Machine Learning for Pharmacoepidemiologists – <i>Room C1M5</i>				
						1 PM - 5 PM <b>ISPE Board of Directors' Meeting</b> <i>Meeting Room 18 &amp; 19</i>						

# Schedule-at-a-Glance

THURSDAY, AUGUST 25

P. 27

7 AM 8 AM 9 AM 10 AM 11 AM 12 PM 1 PM 2 PM 3 PM 4 PM 5 PM 6 PM 7 PM

7:30 AM - 6 PM Speaker Ready Room – Meeting Room 21

7:30 AM - 6 PM Registration – Hall F6 - F7 Lobby

7:30 AM - 6 PM Lactation Room – Meeting Room 28

8:30 AM - 12:30 PM  
PRE-CONFERENCE COURSES

Intermediate/Advanced Topics in Vaccine Epidemiology – Room C1M2

Intermediate Pharmacoepidemiology: Approaches to Unmeasured Confounders  
Room C1M5

Introduction to Drug Utilization Research and the Conduct of Real-World Drug Utilization Studies: Describe and Compare – Meeting Room 20

Modern Pregnancy Pharmacoepidemiology: Emulating Target Trials – Congress Hall D2

Pharmacovigilance and Signal Detection  
Room C1M0

Propensity Scores in Pharmacoepidemiology – Congress Hall D5

New Frontiers for Pharmacoepidemiology: Using New and Mixed Methods for Data Collection  
Room C1M4

12:30 PM - 2 PM  
Lunch on Your Own

12:45 PM - 2 PM  
New Member & Early Stage Investigator Lunch – Room C1M5

*By invitation only; registration required.*

2:00 PM - 6 PM  
PRE-CONFERENCE COURSES

Advanced Drug Utilization Research – Room C1M2

Advanced Pharmacoepidemiology Methods: Mitigating Missing Data Concerns with External or Internal Subset Validation Populations  
Room C1M1

Applied Sensitivity Analyses in Pharmacoepidemiology Database Studies – Congress Hall D5

Medical Device Epidemiology – Meeting Room 20

Real-World Evidence (RWE) Generation for Rare Disease Drug Development and Orphan Drug Approvals – Room C1M4

Weighing the Benefits & Risks: The Science and Methods of Benefit-Risk Assessment in Drug Development – Room C1M0

6:00 PM - 7:30 PM  
Welcome Reception  
Hall E-South

# Schedule-at-a-Glance

FRIDAY, AUGUST 26

P. 29

7 AM	8 AM	9 AM	10 AM	11 AM	12 PM	1 PM	2 PM	3 PM	4 PM	5 PM	6 PM	7 PM
7 AM - 6 PM Speaker Ready Room – Meeting Room 21											7 - 8 PM <b>SIG MEETINGS</b>  MiPal Congress Hall D2 Vaccine Congress Hall D5 Rare Disease Conference Room C1M0 Drug-Drug Interaction Conference Room C1M1 Pediatric Conference Room C1M4 Geriatric Epi Meeting Room 18 Cancer Meeting Room 19 Adherence Meeting Room 20 Biologics Conference Room B5M1 Medical Device Conference Room B5M2 Brace Conference Room B5M3 Digital Epi Conference Room B5M4 CER Conference Room B4M2 Genomics & Precision Medicine Conference Room B4M4 Drug Utilization Research Conference Room C1M5	
7 AM - 6 PM Registration – Hall F6 - F7 Lobby												
7 AM - 6 PM Lactation Room – Meeting Room 28												
8 AM - 6 PM Exhibits/Poster Session A – Hall C												
7 - 8 AM Coffee with Exhibitors Hall C	8 - 10 AM Welcome and Keynote Session Congress Hall D4		10:30 AM - 12 PM <b>SYMPOSIA &amp; WORKSHOPS</b>  Representing and Leveraging Heterogeneity Between Data Sources in Multi-database Pharmacoepidemiologic Studies C1M0  Methodological Challenges in Assessing the Impact of Digital Technologies on Patient Adherence C1M1  Using Real-World Data and Pharmacoepidemiologic Methods to Advance the Science of Deprescribing Research – C1M5  Data Harmonization, Standardization, and Quality Assessment in Distributed Health Data Networks: Lessons from Around the World Congress Hall D2  Post-authorization Regulatory Strategies to Evaluate Drug Safety in Pregnancy: How to Optimize the Design of Registries & Database Studies Congress Hall D5	12 - 1:30 PM <b>Lunch/Poster Session A/Exhibits</b> Hall C  12 - 1:30 PM <b>COMMITTEE MEETINGS</b>  Education Meeting Room 20  Public Policy Meeting Room 18  Global Development Meeting Room 19  <i>Open to all participants, lunch available</i>  12:15 - 1:15 PM <b>Spotlight Poster Session A</b> Hall E South	1:30 - 3 PM <b>ORAL PRESENTATIONS</b>  Challenges in Healthy Aging – C1M0  Medicating for Two: Pregnancy, Maternal, and Infant Outcomes C1M2  A Tivoli Gardens Distillery of Applied Methods – C1M5  Antidiabetics – Not Just About Diabetes Congress Hall D2  Moving from Trials to Real-World Evidence, Back and Forth Congress Hall D4  From Motherhood to Childhood, Moody to Healthy Congress Hall D5		3:30 - 5 PM <b>SYMPOSIA &amp; WORKSHOPS</b>  Advanced Methods for Covariate Balancing: Going Beyond Propensity Score Matching and Weighting Using Optimization Techniques – C1M0  Methods and Considerations for Hypothesis-free Signal Detection Studies Accommodating Various Types of Medications, Populations, and Regions – C1M1  It Takes a Village: Strategic Global Collaborations to Advance RWE Within ISPE – C1M5  Considerations of Misclassification and Confounding on COVID-19 Vaccines Effectiveness Studies – A Vaccine SIG Endorsed Symposium Congress Hall D2  Meeting the Need for Research on Drug Safety During Lactation: An Overview of Approaches Congress Hall D5	5:15 - 6:45 PM <b>ORAL PRESENTATIONS</b>  Pediatric Medicine Use: Safe Kids in an Uncertain Landscape C1M0  Smörgåsbord C1M1  Lightning Session 1 C1M2  Methods – Comparators, Controls, and Unmeasured Confounding – C1M5  Pharmacoepidemiologic Methods and SARS-CoV-2 Congress Hall D4  Drug Utilization Studies in Cardiovascular Disease and Diabetes Congress Hall D5				
									8 PM	9 PM	10 PM	
									8 - 10 PM <b>PDS Editorial Board</b> Bella Sky Room 181 <i>By invitation.</i>			
									8:30 - 11 PM <b>Students/Early Career Professionals Meet &amp; Greet</b> Midsommar - Biergarten og Rooftop bar			

# Schedule-at-a-Glance

SATURDAY, AUGUST 27

P. 39

7 AM	8 AM	9 AM	10 AM	11 AM	12 PM	1 PM	2 PM	3 PM	4 PM	5 PM	6 PM	7 PM
7 AM - 6 PM Speaker Ready Room - Room 21												
7 AM - 6 PM Registration - Hall F6 - F7 Lobby												
8 AM - 6 PM Lactation Room - Meeting Room 28												
8 AM - 6 PM Exhibits/Posters Session B - Hall C												
<p>7 - 8 AM Coffee with Exhibitors Hall C</p> <p>7 - 8 AM Africa Regional Interest Group Meeting Room 20</p> <p><i>Open to all participants.</i></p> <p>7 - 8 AM Latin America Regional Interest Group Meeting Room 18</p> <p><i>Open to all participants.</i></p> <p>7 - 8 AM Poster Session B Set-Up Hall C</p>	<p>8 - 9:30 AM <b>ORAL PRESENTATIONS</b></p> <p>Across the Globe: Injury and Neurologic Pharmacoeconomics - C1M0</p> <p>Safety First! - C1M1</p> <p>Disease Epidemiology Potpourri - C1M2</p> <p>Methods for Generating RWE Through Emulation of Target Trials - C1M5</p> <p>Drug Utilization Potpourri - Congress Hall D2</p> <p>Opioids and Addiction - The Other Pandemic? - Congress Hall D5</p>		<p>10 - 11:30 AM <b>PLENARY SESSION</b></p> <p>Congress Hall D4</p>	<p>11:30 AM - 1 PM Lunch/Poster Session B/Exhibits - Hall C</p> <p>11:30 AM - 1 PM <b>COMMITTEE MEETINGS</b></p> <p>Finance Meeting Room 18</p> <p>Membership Meeting Room 19</p> <p><i>Open to all participants, lunch available</i></p> <p>11:45 AM - 12:45 PM <b>Spotlight Poster Session B</b> Hall E-South</p>			<p>1 - 2:30 PM <b>ORAL PRESENTATIONS</b></p> <p>Psychotropic Use Around the World - C1M0</p> <p>Mending Hearts and Brains Conference Room C1M1</p> <p>Lightning Session 2 - C1M2</p> <p>Methods: Machines Making Predictions - Congress Hall D4</p> <p>Study Design Approaches to Assessing Thrombosis Risk - Congress Hall D2</p> <p>What's the Risk? Cancer Risk &amp; Common Medications - Congress Hall D5</p>	<p>2:40 - 3:50 PM <b>Annual Meeting of ISPE Members &amp; Awards Ceremony</b> Congress Hall D4</p>		<p>4:15 - 5:45 PM <b>SYMPOSIA &amp; WORKSHOPS</b></p> <p>Drug Safety on the Cutting Edge: What are the Implications of EMA's To-Be-Released Risk Minimisation Guidance on Pharmacoeconomic Methods and Practice in Developed and Developing Countries? - C1M0</p> <p>Real-World Evidence Studies in the post-COVID-19 Era: Methodological Considerations for Pandemic Related Disruptions - C1M1</p> <p>Late Breakers (Oral presentations) - C1M2</p> <p>HARmonized Protocol to Enhance Reproducibility (HARPER): An ISPE-ISPOR Joint Task Force of the RWE Initiative - C1M5</p> <p>Cloning, Censoring, and Weighting—Oh My! Applications of Target Trial Emulation for Evaluating Cancer Interventions When Study Eligibility, Intervention Initiation, and Start of Follow-up are Not Aligned - Congress Hall D2</p> <p>COVID-19 Vaccine Safety Monitoring: Opportunities, Challenges and Lessons Learned for Pharmacoeconomics - Congress Hall D5</p>	<p>6 - 7 PM <b>COUNCIL MEETINGS</b></p> <p>Academic Conference Room - C1M0</p> <p>Student Conference Room - C1M1</p> <p><i>Open to all participants.</i></p>	
												<p>7 PM</p>
												<p>8 PM</p>
												<p>9 PM</p>
												<p>10 PM</p>
												<p>11 PM</p>
												<p>7:30 - 11:30 PM Social Evening at the Langelinie Pavilion</p>

# Schedule-at-a-Glance

SUNDAY, AUGUST 28

P. 49

7 AM	8 AM	9 AM	10 AM	11 AM	12 PM	1 PM	2 PM	3 PM	4 PM	5 PM	6 PM	7 PM
7 AM - 3:30 PM <b>Speaker Ready Room – Room 21</b>												
7 AM - 4:30 PM <b>Registration – Hall F6 - F7 Lobby</b>												
7 AM - 4:30 PM <b>Lactation Room – Meeting Room 28</b>												
	8 AM - 4:30 PM <b>Exhibits – Hall C</b>											
	8 AM - 1:30 PM <b>Posters Session C – Hall C</b>											
7 - 8 AM <b>Coffee with Exhibitors Hall C</b>	8:30 - 10 AM <b>ORAL PRESENTATIONS</b>  Around the World With Real-World Evidence – C1M0  SGLT2s and Cardiovascular Endpoints – C1M1  Welcoming Novel Methods in Pregnancy Research C1M2  Examining Equity: Who? Where and What? Congress Hall D2  Pandemic Prescription Patterns (Plus Pneumonia!) Congress Hall D4  Methods: Validation Congress Hall D5	10:30 AM - 12 PM <b>SYMPOSIA &amp; WORKSHOPS</b>  Emulation Differences versus Bias: Implications of Large-scale Emulation of Randomized Clinical Trials Using Clinical Practice Data (RCT-DUPLICATE) C1M0  COVID-19 Vaccine Use During Pregnancy: Accelerating Innovative Evidence Generation Platforms to Meet Current and Future Challenges C1M1  Shaping the Future of Pharmacoepidemiology – C1M5  What Do Real World Data Validation Best Practices Look Like? Operationalizing Guidance for Real-world Studies Intended for Decision-making Congress Hall D2  Updating the Public on COVID-19 Vaccine Safety – Considerations for Pharmacoepidemiologists Congress Hall D5	12 - 1:30 PM <b>Lunch/ Poster Session C/ Exhibits – Hall C</b>	1:30 - 3 PM <b>ORAL PRESENTATIONS</b>  Safety Issues Concerning DM and Antidiabetic Drugs C1M0  Evaluating the Vaccines Against the Nasty Bugs: Safety First Round II C1M1  Lightning Session 3 C1M2  Novel Approaches to Pharmacovigilance C1M5  Fractures and Osteoporosis Medication Congress Hall D2  Use it or Lose Out: Trends in Anti-Cancer and Biologic Utilization Congress Hall D5	3:15 - 4:45 PM <b>Hot Topic Session Congress Hall D4</b>	4:45 - 5:30 PM <b>The Final Word Congress Hall D4</b>	5:45 - 6:45 PM <b>2023 Scientific Program Committee Meeting Room 20</b>  <i>Open to ISPE members.</i>					
7 - 8 AM <b>Poster Session C Set-Up Hall C</b>			12 - 1:30 PM <b>ISPE Board of Directors' Lunch – Meeting Room 19</b>		12:15 - 1:15 PM <b>Spotlight Poster Session C Hall E South</b>							

# Program Schedule

T U E S D A Y , A U G U S T 2 3

2:00 - 6:00 PM

## SPEAKER READY ROOM / MEETING ROOM 21

Only required if you need to upload your presentation, or update/replace an already-uploaded presentation. Please complete uploads 24-hours in advance of your session.

## LANYARD SELECTION

Please choose the color lanyard that best illustrates your comfort level with interactions at the conference.

**Green:** Ok to Contact, e.g. hug or handshake

**Yellow:** Minimal Contact, e.g. fist bump

**Red:** No Close Contact, e.g. no touching, maintain social distancing

## ISPE EXCHANGE

With this exclusive membership benefit, 3,500+ members connect with peers, share ideas and get involved within ISPE communities. Members can also participate in our Mentor Match and search for colleagues within the membership directory.

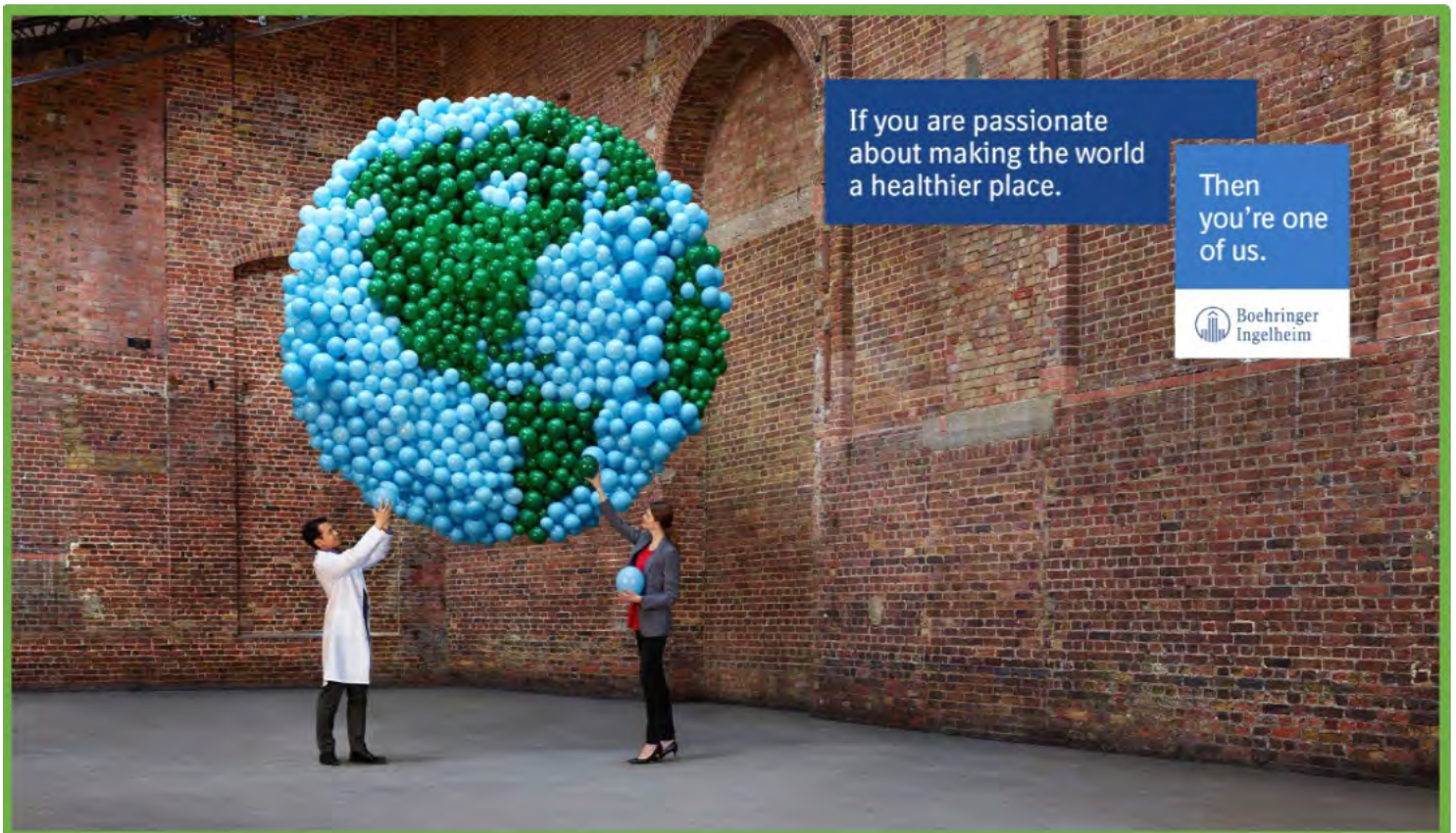
4:00 - 6:00 PM

## REGISTRATION / HALL F6-F7 LOBBY

If you plan to attend a course on Wednesday morning, it is strongly recommended that you check-in Tuesday evening to avoid delays.

## MASK WEARING MANDATE

Unless presenting, eating or drinking, mask wearing is required at all times during the conference and at all ISPE-flagged events (this also means social events) using Type IIR or FFP2 (or equivalent or better) grade masks. You might forfeit your conference registration if you are not in compliance. For your convenience, ISPE will provide free masks at the registration desk.



# PRE-CONFERENCE Program Schedule

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

7:30 AM - 6:00 PM

## SPEAKER READY ROOM / MEETING ROOM 21

Only required if you need to upload your presentation, or update/replace an already-uploaded presentation. Please complete uploads 24 hours in advance of your session.

7:30 AM - 6:00 PM

## REGISTRATION / HALL F6-F7 LOBBY

7:30 AM - 6:00 PM

## LACTATION ROOM / MEETING ROOM 28

Sponsored by EPI Excellence, LLC

7:30 AM - 6:00 PM

## PRE-CONFERENCE COURSES - VIRTUAL COURSES

The following courses will be made available online shortly after the conclusion of ICPE.

### Cancer Pharmacoeconomics and Genomics: What You Should Know in the Era of Precision Medicine

FACULTY

Bruce Carleton, FISPE | Andrew Freedman, FISPE  
Gillian Bartlett-Esquillant, FISPE | Kelly Filipksi  
Geoffrey Liu, FISPE | Donna Rivera, FISPE  
Leah Sansbury, FISPE | Wei Zhou, FISPE

### How to Design a Real-World Study of Biologics Including Biosimilars

FACULTY

Jaclyn Bosco, FISPE | Rohini Hernandez  
Thijs Giezen | Gianluca Trifiro, FISPE

### Introduction to Pharmacogenomics & Precision Medicine for Pharmacoeconomists

FACULTY

Amalia Issa, FISPE | Gillian Bartlett-Esquillant, FISPE  
Bruce Carleton, FISPE | Stephen Kimmel, FISPE  
Leah Sansbury, FISPE  
Anke-Hilse Maitland-van der Zee, FISPE

### Pediatric Pharmacoeconomics

FACULTY

Tamar Lasky, FISPE | Jenny Sun | Ann McMahon, FISPE  
Rima Izem | Steven Bird | Mehmet Burcu | Daniel Horton

### Regulatory Pharmacoeconomics

FACULTY

Danica Marinac-Dabic, FISPE | Gerald Dal Pan, FISPE  
Katherine Donegan

8:30 AM - 12:30 PM

## PRE-CONFERENCE COURSES - HALF-DAY MORNING COURSES

*Pre-purchase required.*

### Pharmacoeconomist's Toolbox for Professional Empowerment – Room C1M5

FACULTY

Caitlin Knox | Juan Hincapie-Castillo  
Mary Beth Ritchey, FISPE | Christopher Rentsch  
Yola Moride, FISPE

### Principles of Pharmacoeconomics – Room C1M0

FACULTY

Tobias Gerhard, FISPE | Almut Winterstein, FISPE  
Anton Pottegård

### Risk Minimization and Communication: Science-based Approaches and Case Studies for Designing and Evaluating Effective Interventions for the Safe Use of Medicinal Products – Room C1M2

FACULTY

Priya Bahri | Meredith Smith, FISPE | Peter Mol  
Elaine Morrato

12:30 - 2:00 PM

## LUNCH ON YOUR OWN

There are limited dining choices within walking distance of the Bella Center. Please plan to purchase food at one of the pop-up cafes provided for your convenience.

1:00 - 5:00 PM

## ISPE BOARD OF DIRECTORS' MEETING - MEETING ROOM 18 & 19

Open to all ISPE members; please contact [info@pharmacoepi.org](mailto:info@pharmacoepi.org) if you are interested in attending this meeting.

# Program Schedule

2:00 - 6:00 PM

## PRE-CONFERENCE COURSES - HALF-DAY AFTERNOON COURSES

*Prepurchase required.*

### Adherence to Medication – Conference Room C1M0

FACULTY

Jacqueline Hugtenburg | Robert Gross, FISPE  
Julie Lauffenburger | Job Van Boven

### Foundations in Causal Inference – Conference Room C1M4

FACULTY

Joshua Gagne, FISPE | Geetha Iyer

### Introduction to Machine Learning for Pharmacoepidemiologists – Conference Room C1M5

FACULTY

Lisa Weiss | Dana Teltsch | Harriet Dickinson  
Victoria Strauss | Orla Doyle | Kathryn Rough  
Joseph Zabinski

### Practical Skills in Protocol Writing and Statistical Analytic Programming Relevant to Pharmacoepidemiology – Congress Hall D2

FACULTY

Christian Hampp, FISPE | Jessica Jalbert  
Mingfeng Zhang | Nicole PrattSoko | Setoguchi, FISPE

### Pragmatic Trials: Design, Methods, and Implementation – Room C1M2

FACULTY

Jennifer Christian, FISPE | Priscilla Velentgas  
Cynthia Girman, FISPE | Anne Trontell  
Bodil Kjeldgaard Vistisen | Margaret Mazzeo

### Using Field Studies to Value-add in Pharmacoepidemiology – Meeting Room 20

FACULTY

Katja Taxis, FISPE | Lisa Pont, FISPE | Veronika Wirtz  
Anna Birna Almarsdottirarm

### Using Pharmacoepidemiology Database Resources to Address Drug Safety Research – Congress Hall D5

FACULTY

Kevin Haynes, FISPE | Daniel Beachler | Gillian Hall, FISPE  
Sudha Raman

# PRE-CONFERENCE Program Schedule

T  
H  
U

T H U R S D A Y , A U G U S T 2 5

7:30 AM - 6:00 PM

## SPEAKER READY ROOM / MEETING ROOM 21

Please arrive 24 hours before your presentation start time to upload or check your presentation.

7:30 AM - 6:00 PM

## REGISTRATION / HALL F6-F7 LOBBY

7:30 AM - 6:00 PM

## LACTATION ROOM / MEETING ROOM 28

Sponsored by EPI Excellence, LLC

8:30 AM - 12:30 PM

## PRE-CONFERENCE COURSES - HALF-DAY MORNING COURSES

Prepurchase required.

### Intermediate Pharmacoepidemiology: Approaches to Unmeasured Confounders – Conference Room C1M5

FACULTY

Michele Jonsson Funk, FISPE | Sudha Raman  
Jennifer Lund, FISPE | Mugdha Gokhale | Jessica Young  
Til Stürmer, FISPE

### Introduction to Drug Utilization Research and the Conduct of Real-World Drug Utilization Studies: Describe and Compare – Meeting Room 20

FACULTY

Gillian Caughey | Mina Tadrous | Lisa Pont, FISPE  
Jodie Hillen | Bjorn Wettermarkarm, FISPE

### Modern Pregnancy Pharmacoepidemiology: Emulating Target Trials – Congress Hall D2

FACULTY

Andrea Margulis, FISPE | Krista Huybrechts, FISPE  
Brian Bateman | Sonia Hernandez-Diaz, FISPE

### New Frontiers for Pharmacoepidemiology: Using New and Mixed Methods for Data Collection – Congress Hall C1M4

FACULTY

Nancy Dreyer, FISPE | Christina Mack, FISPE  
William Dixon | Nabarun Dasgupta | Rachel Williams

### Pharmacovigilance and Signal Detection – Conference Room C1M0

FACULTY

Judith Maro | Niklas Noren | Gregory Powell  
Monica Munoz

### Propensity Scores in Pharmacoepidemiology – Congress Hall D5

FACULTY

John Seeger, FISPE | Jeremy Rassen, FISPE

### Intermediate/Advanced Topics in Vaccine Epidemiology – Room C1M2

FACULTY

Cathy Panozzo | Jennifer Gerber | Hui-Lee Wong  
Daina Esposito | Kaatje Bollaerts | Hector Izurieta  
Deshayne Fell | Rebecca Chandler

12:30 - 2:00 PM

## LUNCH ON YOUR OWN

There are limited dining choices within walking distance of the Bella Center. Please plan to purchase food at one of the pop-up cafes provided for your convenience.

12:45 - 2:00 PM

## NEW MEMBER & EARLY-STAGE INVESTIGATOR LUNCH – ROOM C1M5

By invitation only; registration required.

2:00 - 6:00 PM

## PRE-CONFERENCE COURSES: HALF-DAY AFTERNOON COURSES

Prepurchase required.

### Advanced Drug Utilization Research – Conference Room C1M2

FACULTY

Gillian Caughey | Mina Tadrous | Katja Taxis, FISPE  
Petra Denig, FISPE

### Applied Sensitivity Analyses in Pharmacoepidemiology Database Studies – Congress Hall D5

FACULTY

Sebastian Schneeweiss, FISPE | Jeremy Rassen, FISPE  
Nicolle Gatto | Elizabeth Garry

# Program Schedule

## Medical Device Epidemiology – Meeting Room 20

FACULTY  
 Mary Beth Ritchey, FISPE | Christina Mack, FISPE  
 Mackenzie Herzog | Paul Coplan, FISPE

## Advanced Pharmacoepidemiology Methods: Mitigating Missing Data Concerns with External or Internal Subset Validation Populations – Conference Room C1M1

FACULTY  
 Judith Maro | Lourens Bloem | Jenny Sun  
 Corinne de Vries | Janick Weberpals

## Real-World Evidence (RWE) Generation for Rare Disease Drug Development and Orphan Drug Approvals – Room C1M4

FACULTY  
 Emily Bratton | Rima Izem | Xabier Garcia de Albeniz | Jie Li

## Weighing the Benefits & Risks: The Science and Methods of Benefit-Risk Assessment in Drug Development – Conference Room C1M0

FACULTY  
 Alicia Gilsenan, FISPE | Juhaeri Juhaeri  
 Christine Poulos | Bennett Levitan

## 6:00 - 7:30 PM

### WELCOME RECEPTION / HALL E-SOUTH

Sponsored by IBM Watson Health  
 Vin Lo Re, FISPE, ISPE President  
 Anton Pottegård, Chair  
 ICPE 2022 Scientific Program Committee  
 Jesper Hallas, FISPE, Co-Chair  
 ICPE 2022 Scientific Program Committee

### REGIONAL INTEREST GROUP & ACADEMIC SHOWCASE

Brigham and Women's Hospital Division of Pharmacoepidemiology & Pharmacoeconomics  
 London School of Health and Tropical Medicine  
 McGill University, Department of Epidemiology, Biostatistics, and Occupational Health  
 University of Florida, College of Pharmacy  
 Department of Pharmaceutical Outcomes and Policy  
 University of North Carolina at Chapel Hill

## Most diseases aren't siloed or stagnant. So why should your research be?

### Specialized Datasets

for a fuller view of patient journeys, outcomes, and endpoints

### AI & Predictive Analytics

for enriching data, finding patients, and discovering patterns and insights



### Research Analytics

to identify hidden insights by using our epi, biostats, data science, and clinical data expertise as an extension of your teams

### Automated Research Networks

for increasing speed and reducing costs of generating evidence through fully or partially prospective data collection

Visit the OM1 booth #201 or contact us at [info@om1.com](mailto:info@om1.com) to learn more.



# MAIN CONFERENCE

# Program Schedule

F R I

F R I D A Y , A U G U S T 2 6

7:00 AM - 6:00 PM

## SPEAKER READY ROOM / MEETING ROOM 21

Only required if you need to upload your presentation, or update/replace an already-uploaded presentation. Please complete uploads 24-hours in advance of your session.

7:00 AM - 6:00 PM

## REGISTRATION / HALL F6-F7 LOBBY

7:30 AM - 6:00 PM

## LACTATION ROOM / MEETING ROOM 28

*Sponsored by EPI Excellence, LLC*

7:00 - 8:00 AM

## COFFEE WITH EXHIBITORS / HALL C

7:00 - 8:00 AM

Poster Session A set-up – *Hall C*

Spotlight Poster Session set-up – *Hall E South*

8:00 AM - 6:00 PM

## EXHIBITS/POSTER SESSION A – HALL C

8:00 - 8:30 AM

## WELCOME / CONGRESS HALL D4

*Vin Lo Re, FISPE, ISPE President*

*Anton Pottegård, Chair*

*ICPE 2022 Scientific Program Committee*

*Jesper Hallas, FISPE, Co-Chair*

*ICPE 2022 Scientific Program Committee*

8:30 - 10:00 AM

## KEYNOTE PLENARY

### Strategies for Successful Mass Vaccination Rollout: Balancing Science, Politics, Communication and Trust – *Congress Hall D4*

*KEYNOTE SPEAKER*

*Søren Brostrøm, MD, PhD, MPA*

*Director General, Danish Health Authority*

Dr. Søren Brostrøm, Director General of the Danish Health Authority, will discuss strategies for successful mass vaccination rollout primarily from the Danish experience, but also drawing on international perspectives. The focus will be on the importance, from his experience during the pandemic, of 'evidence-based government' and 'radical transparency' and how not everything can be simplified to just 'communication' but is instead about having a good case to communicate, i.e., that science is more important than communication skills.

10:00 - 10:30 AM

## BREAK WITH POSTERS & EXHIBITORS – HALL C

# MAIN CONFERENCE

## Program Schedule

10:30 AM - 12:00 PM

### CONCURRENT SESSIONS:

#### SYMPOSIA & WORKSHOPS

Using Real-World Data and Pharmacoepidemiologic Methods to Advance the Science of Deprescribing Research [26] – C1M5

Shahar Shmuel | Daniela Moga | Joshua Niznik  
Julie Lauffenburger | Lucas Morin | Danijela Gnjidic  
Xiaojuan Li | Kaley Hayes (United States)

Post-authorization Regulatory Strategies to Evaluate Drug Safety in Pregnancy: How to Optimize the Design of Registries & Database Studies [27] – Congress Hall D5

Sonia Hernandez-Diaz FISPE | Leyla Sahin  
Christina Chambers | Andrea Margulis FISPE  
Krista Huybrechts FISPE | Corinne de Vries (United States)

Representing and Leveraging Heterogeneity Between Data Sources in Multi-database Pharmacoepidemiologic Studies [28] – C1M0

Rosa Gini | Romin Pajouheshnia | Gillian Hall FISPE  
Robert Platt | Soko Setoguchi FISPE  
Susana Perez-Gutthann FISPE | Corinne Willame (Italy)

Data Harmonization, Standardization, and Quality Assessment in Distributed Health Data Networks: Lessons from Around the World [29] – Congress Hall D2

Jeffrey Brown | Lisa Lix | Judith Maro | Matvey Palchuk  
Robert Reynolds | Xavier Kurz (United States)

Methodological Challenges in Assessing the Impact of Digital Technologies on Patient Adherence [30] – C1M1

Bjorn Wettermark, FISPE | Cristina Ghiciuc | Job Van Boven  
Monique Elseviers | Gaye Hafez | Catherine Goetzinger  
Maria Herdeiro | Enrica Menditto  
Francisca Leiva-Fernandez | Maria Dimitrova  
Zorana Kovačević | Virginia Aguiar Leiva (Sweden)

12:00 - 1:30 PM

### LUNCH/POSTER SESSION A/EXHIBITS – HALL C

Sponsored by AstraZeneca

12:00 - 1:30 PM

### ISPE COMMITTEE MEETINGS

Open to all attendees; lunch available.

Education – Meeting Room 20

Public Policy – Meeting Room 18

Global Development – Meeting Room 19

12:15 - 1:15 PM

### SPOTLIGHT POSTER SESSION A – HALL E SOUTH

Adherence

ASPEN

Biologics

BRACE

Cancer

Comparative Effectiveness Research

1:30 - 3:00 PM

### CONCURRENT SESSIONS:

#### ORAL PRESENTATIONS

A Tivoli Gardens Distillery of Applied Methods – Room C1M5

1:30 PM

Inverse Probability Weighting or Multiple Imputation for Nonmonotone Missing Data? [31]

Rachael Ross | Stephen Cole | Daniel Westreich  
Julie Daniels | Jeffrey Stringer | Jessie Edwards  
(United States)

1:45 PM

Sampling Biases in Analyses of Prescription Durations [32]

Henrik Stovring | Anton Pottegård  
Jesper Hallas FISPE (Denmark)

2:00 PM

The Impact Of Parametric Assumptions on the Bias-variance Tradeoff for Causal Analysis of Time-to-event Outcomes [33]

Andrew Allmon | Samantha Eiffert  
Alexander Breskin (United States)

# MAIN CONFERENCE

# Program Schedule

F R I

## 2:15 PM

Successful Implementation of Inverse-probability-of-screening Weights to Address Differential Outcome Screening: Effects of Statin Persistence on Breast Cancer Risk in Denmark [34]

Sophie Mayer | Jesper Hallas FISPE | Jessie Edwards  
Louise Henderson | Til Stürmer FISPE (United States)

## 2:30 PM

Analytic Methods for Elucidating Continuous Dose-response Associations in the Presence of Spike-effects: Avoiding the Illusion of a Safe Dose [35]

Andrew Wiese | Carlos Grijalva | Margaret Adgent  
Sarah Osmundson | Amelie Pham | Sharon Phillips  
Ed Mitchel | Andrew Spieker (United States)

## 2:45 PM

Antidepressant Drug-Drug-Drug Interactions and Unintentional Traumatic Injury: Pharmacoepidemiologic Screening to Detect Three-way Drug Interaction Signals [36]

Charles Leonard, FISPE | Cheng Chen | Sean Hennessy  
Colleen Brensinger | Emily Acton | Warren Bilker  
Todd Miano | Thanh Phuong Pham Nguyen (United States)

## Antidiabetics – Not Just About Diabetes – Congress Hall D2

### 1:30 PM

Incretin-based Drugs and the Prevention of Chronic Obstructive Pulmonary Disease Exacerbations Among Patients with Type 2 Diabetes [37]

Richeek Pradhan | Sally Lu | Hui Yin | Oriana Hoi Yun Yu  
Pierre Ernst | Samy Suissa | Laurent Azoulay (Canada)

### 1:45 PM

Association Between Sodium Glucose Co-transporter 2 Inhibitors and Incident Glaucoma in Patients with Type 2 Diabetes: A Multi-institutional Cohort Study in Taiwan [38]

Shih-Chieh Shao | Edward Lai | Jia-Horung Hung (Taiwan)

### 2:00 PM

Heterogeneous Treatment Effect of Glucagon-like Peptide 1 Receptor Agonists on Asthma/COPD exacerbation: Machine-learning Analysis of Two Nationwide Cohorts [39]

Tiansheng Wang | John Buse | Corinne Keet  
Alexander Keil | Richard Wyss | Virginia Pate  
Michele Jonsson Funk, FISPE | Michael Kosorok (United States)

## 2:15 PM

Risk of Hepatic Events Associated with Sodium-glucose cotransporter-2 Inhibitors in Patients with Type 2 Diabetes: A Nationwide Cohort Study [40]

Sungho Bea | Han Eol Jeong | Sohee Park | Yoosoo Chang  
Dong Hyun Sinn | Oriana Hoi Yun Yu | Ju-Young Shin  
(Republic of Korea)

## 2:30 PM

Incretin-based Drugs and the Incidence of Prostate Cancer Among Patients with Type 2 Diabetes [41]

Sally Lu | Hui Yin | Oriana Hoi Yun Yu  
Laurent Azoulay (Canada)

## 2:45 PM

Association of Glucagon-like peptide-1 Receptor Agonists with Serious Liver Events: Scandinavian Cohort Study [42]

Arvid Engström | Victor Wintzell | Mads Melbye  
Henrik Svanström | Björn Eliasson | Soffia Gudbjörnsdottir  
Kristian Hveem | Christian Jonasson (Sweden)

## From Motherhood to Childhood, Moody to Healthy – Congress Hall D5

### 1:30 PM

Use of Selective Serotonin Reuptake Inhibitors During Pregnancy and the Risk of Preterm Birth [43]

Guy Amit | Alice Tang | Chen Yanover | Maytal Bivas-Benita  
Pinchas Akiva | Irena Girshovitz | Brian Le  
Tomiko Oskotsky (Israel)

### 1:45 PM

Lisdexamfetamine in Early Pregnancy and Risk of Major Congenital Malformations [44]

Jacqueline Cohen | Carolyn Cesta | Øystein Karlstad  
Johan Reutfors | Kari Furu (Norway)

### 2:00 PM

Psychostimulant Use During Pregnancy and the Risk of Neurodevelopmental Disorders in Children [45]

Elizabeth Suarez | Brian Bateman  
Sonia Hernandez-Diaz FISPE | Loreen Straub | Yanmin Zhu  
Helen Mogun | Krista Huybrechts FISPE (United States)

## 2:15 PM

Antidepressant Treatment in Pregnancy and Maternal Mental Health in the Postpartum Year: A Danish Registry Linkage Study in Pregnant Women with Obsessive-compulsive Disorder [46]

Nhung Trinh | Birgitte Dige Semark | Trine Munk-Olsen  
Xiaoqin Liu | Liselotte Vogdrup Petersen  
Angela Lupattelli (Norway)

# MAIN CONFERENCE

# Program Schedule

## 2:30 PM

Topiramate During Pregnancy and the Risk of Neurodevelopmental Disorders in Children [47]

Sonia Hernandez-Diaz FISPE | Loreen Straub  
Brian Bateman | Elizabeth Suarez | Yanmin Zhu  
Helen Mogun | Page Pennell | Krista Huybrechts, FISPE  
(United States)

## 2:45 PM

Association of Prenatal Antidepressant Exposure with Trajectories and Acceleration of Body Mass Index in Children from 6 Week to 8 Years of Age [48]

Angela Lupattelli | Michele Pedroncelli | Sina Rostami  
Nhung Trinh (Norway)

## Challenges in Healthy Aging – C1M0

### 1:30 PM

Serious Hypoglycemia and the Risk of Dementia: A Population-based Cohort Study Using Exposure Density Sampling [49]

Wajid Alkabbani | Colleen Maxwell | Ruth Ann Marrie  
Suzanne Tyas | Iliana Lega | John-Michael Gamble (Canada)

### 1:45 PM

Evaluation of Fall-related Injuries Following a Potential Calcium Channel Blocker — Loop Diuretic Prescribing Cascade [50]

Scott Vouri | Grace (Hsin Min) Wang | Earl Morris  
Laurence Solberg | Michael Daniels | Carl Pepine  
Todd Manini | Daniel Malone (United States)

### 2:00 PM

Translation of a Medicare Claims-based Frailty Index from International Classification of Diseases 9<sup>th</sup> Revision to 10<sup>th</sup> Revision [51]

Emilie Duchesneau | Shahar Shmuel | Keturah Faurot  
Jihye Park | Musty Allison | Virginia Pate | Alan Kinlaw  
Til Stürmer FISPE (United States)

### 2:15 PM

Tobacco Smoking, Intensity, and Duration are Associated with Frailty Among People with HIV [52]

Stephanie Ruderman | Heidi Crane | Allison Webel  
Annette Fitzpatrick | Michelle Odden | Paul Crane  
Amanda Willig | Robin Nance (United States)

## 2:30 PM

Impact of Different Poststroke Antihypertensive Regimens on Cardiovascular Outcomes and Mortality in People with Dementia: Four Continents for Dementia (4C4D) Study [53]

Jenni Ilomaki | Xiwen Simon Qin | Celine SL Chui  
Gang Fang | Wallis Lau | Stephen J. Wood | Stella Kim  
Miriam TY Leung (Australia)

## 2:45 PM

Frailty-gradient Risk of Mortality Comparing Primary Endocrine Therapy and Surgery in Treating Women with Early Breast Cancer [54]

Yubo Wang | Douglas Steinke, FISPE | Sean Gavan  
Li-Chia Chen (United Kingdom)

## Moving from Trials to Real-World Evidence, Back and Forth – Congress Hall D4

### 1:30 PM

Using Bias Correction Methods with Hybrid Randomized Controlled Trial (RCT) Plus Real World (RW) Controls to Replicate Results of a Phase I/II RCT of Baricitinib for Rheumatoid Arthritis (RA) [55]

Anita Loughlin | Kristin Sheffield | Oksana Pugach  
Mingyang Shan | Douglas Faries | Paul Lakin  
Samantha Kerti | Zhanglin Cui (United States)

### 1:45 PM

Better Analysis of RCTs [56]

Tim Feeney | Stephen Cole (United States)

### 2:00 PM

Risk Ratios versus Hazard Ratios in Comparative Effectiveness Research: An Illustration Using Clinical Trial Data [57]

Chase Latour | I-Hsuan Su | Megan Delgado | Virginia Pate  
Charles Poole | Jessie Edwards | Til Stürmer, FISPE  
Jennifer Lund, FISPE (United States)

### 2:15 PM

Differential Misclassification of Overdose Safety in a Prominent Comparative Effectiveness RCT Comparing Buprenorphine and Naltrexone for Opioid Dependence [58]

Nabarun Dasgupta | Elizabeth Ajazi | Todd Schwartz  
Stephen Marshall (United States)

# MAIN CONFERENCE

# Program Schedule

F R I

## 2:30 PM

Predicting Treatment Effects of a New Drug in a Target Population Based on Randomized Controlled Trial Results [59]

HoJin Shin | Shirley Wang, FISPE | Dae Kim  
Mufaddal Mahesri | Lily Bessette | Joshua Gagne, FISPE  
Sebastian Schneeweiss, FISPE | Mehdi Najafzadeh  
(United States)

## 2:45 PM

How Choosing the Risk Ratio or the Risk Difference Changes Sufficient Adjustment Sets for External Validity [60]

Michael Webster-Clark | Alexander Keil (Canada)

## Medicating for Two: Pregnancy, Maternal, and Infant Outcomes – C1M2

## 1:30 PM

Does Treating Genital Herpes Infection During Pregnancy Reduce the Risk of Preterm Delivery? A Prospective Cohort Study of 89,000 Pregnant Women [61]

DeKun Li | Jeannette Ferber | Roxana Odouli  
Piero Garzaro | Lyndsay Avalos | Charles Quesenberry  
(United States)

## 1:45 PM

Prenatal Antibiotic Exposure and Subsequent Infections in Infancy: A Register-based Cohort Study in Sweden with Sibling Analysis [62]

Aya Nakitanda | Helle Kieler | Ingvild Odsbu | Samuel Rhedin  
Catarina Almqvist | Björn Pasternak | Laura Pazzagli (Sweden)

## 2:00 PM

Evaluating the Safety of Antiemetic Combination Use on Pregnancy Loss [63]

Thuy Thai | Joshua Brown | Stephan Schmidt  
Judith Maro | Sonja Rasmussen | Almut Winterstein, FISPE  
(United States)

## 2:15 PM

COVID-19 Vaccines During Pregnancy and Birth Defects: Preliminary Data from V-Safe COVID-19 Vaccine Pregnancy Registry, United States 2021 [64]

Jennita Reefhuis | Lauren Zauche | Sabrina Madni  
Janet Cragan | Cynthia Moore | Regina Simeone  
John Nahabedian | Emily Petersen (United States)

## 2:30 PM

Initiation of Atenolol versus Methyldopa During Pregnancy and the Risk of Intrauterine Growth Restriction/small for Gestational Age [65]

Brian Bateman | Yanmin Zhu | Krista Huybrechts, FISPE  
Sonia Hernandez-Diaz, FISPE | Lockwood Taylor  
Rita Ouellet-Hellstrom | Yong Ma  
Yandong Qiang (United States)

## 2:45 PM

Characteristics and Medication Use Patterns of Pregnancies with COVID-19 in the Sentinel System [66]

Mayura Shinde | Jennifer Lyons | Susan Andrade  
Austin Cosgrove | Jolene Damon  
Elizabeth Messenger-Jones | Danijela Stojanovic  
Ben Wong (United States)

## 3:00 - 3:30 PM

**BREAK/POSTERS/EXHIBITS – HALL C**

## 3:30 - 5:00 PM

**CONCURRENT SESSIONS:  
SYMPOSIA & WORKSHOPS**

Considerations of Misclassification and Confounding on COVID-19 Vaccines Effectiveness Studies – A Vaccine SIG Endorsed Symposium [67] – Congress Hall D2

John Seeger, FISPE | Michele Jonsson Funk, FISPE  
J. Bradley Layton, FISPE | Tainya Clarke (United States)

Advanced Methods for Covariate Balancing: Going Beyond Propensity Score Matching and Weighting Using Optimization Techniques [68] – Room C1M0

Stephen Johnston | Pranjal Tewari | Paul Coplan, FISPE  
(United States)

Methods and Considerations for Hypothesis-free Signal Detection Studies Accommodating Various Types of Medications, Populations, and Regions [69] – Room C1M1

Miyuki Hsing-Chun Hsieh | Edward Lai | Andrew Bate  
Nicole Pratt | Nam-Kyong Choi | Judith Maro  
Lars Christian Lund | Sengwee Toh (Taiwan)

# MAIN CONFERENCE

## Program Schedule

**Meeting the Need for Research on Drug Safety During Lactation: An Overview of Approaches [70] – Congress Hall D5**  
 Kristin Palmsten | Bandoli Gretchen | Christina Chambers  
 Hedvig Nordeng, FISPE | Shinya Ito | Marie Teil  
 Lynne Yao (*United States*)

**It Takes a Village: Strategic Global Collaborations to Advance RWE within ISPE [71] – C1M5**  
 Helga Gardarsdottir, FISPE | Shirley Wang, FISPE  
 Susana Perez-Gutthann, FISPE | Carla Rodriguez-Watson  
 Olaf Klungel, FISPE | Donna Rivera, FISPE (*Netherlands*)

**5:00 - 5:15 PM**

**BREAK**

**5:15 - 6:45 PM**

**CONCURRENT SESSIONS:**  
**ORAL PRESENTATIONS**

**Methods – Comparators, Controls, and Unmeasured Confounding – Room C1M5**

**5:15 PM**  
**Using Active Comparators in Self-controlled Case Series: An Application to Two Studies in the Clinical Practice Research Datalink [72]**  
 Anna Schultze | Jeremy Brown | John Logie  
 Marianne Cunnington | Stephen Evans | Ian Douglas  
 Nicholas Galwey (*United Kingdom*)

**5:30 PM**  
**Negative Control Outcomes to Assess the Comparability of Biologics versus Small-molecule Therapeutics for Osteoporosis: Considerations for Differential Non-adherence [73]**  
 Lydia Feinstein | Alexander Breskin | Peter S. Samai  
 M. Alan Brookhart (*United States*)

**5:45 PM**  
**Evaluation of Methods for Unmeasured Confounding Control in Pharmacoepidemiology Using Healthcare Databases: An Empirical Study Concerning Drugs Inducing Prematurity [74]**  
 Chi Hong Duong | Romain Demailly | Sylvie Escolano  
 Anne Thiébaud | Pascale Tubert-Bitter | Ismaïl Ahmed  
 (*France*)

**6:00 PM**  
**Alternative Analytic and Matching Approaches for the Prevalent New-user Design: A Simulation Study [75]**  
 Michael Webster-Clark | Panagiotis Mavros | Elizabeth Garry  
 Til Stürmer | Shahar Shmuel | Jessica Young  
 Cynthia Girman, FISPE (*Canada*)

**6:15 PM**  
**Proton Pump Inhibitors and Myocardial Infarction: An Application of Active Comparators in a Self-controlled Case Series [76]**  
 Angel Wong | Celine SL Chui | Ka Shing Cheung  
 Jeremy Brown | Ian Douglas | Ian Wong | Esther W. Chan  
 (*United Kingdom*)

**6:30 PM**  
**Advantages of Splitting Switchers and New Users in the Prevalent New User Design [77]**  
 Jessica Young | Michael Webster-Clark | Panagiotis Mavros  
 Til Stürmer, FISPE | Elizabeth Garry | Shahar Shmuel  
 Cynthia Girman, FISPE (*United States*)

**Pharmacoepidemiologic Methods and SARS-CoV-2 – Congress Hall D4**

**5:15 PM**  
**Influence of Incomplete Death Information on Cumulative Risk Estimates in United States Claims Data [78]**  
 Julie Barberio | Timothy Lash | Ashley Miami  
 Rachel Patzer | Christopher Kim | M. Alan Brookhart  
 David Gilbertson | Brian Bradbury (*United States*)

**5:30 PM**  
**Estimating Real-World Outcomes Under a Rapidly Evolving Treatment Paradigm: Dexamethasone and Inpatient Mortality Among US Hospitalized COVID-19 Patients [79]**  
 Elizabeth Garry | Imaani Easthausen | Sarah Vititoe  
 Andrew Weckstein | Aloka Chakravarty | Tamar Lasky  
 Marie Bradley | Silvia Perez-Vilar (*United States*)

**5:45 PM**  
**Adjusting for Calendar Time in Analyses of COVID-19 Vaccine Safety and Effectiveness: A Simulation Study [80]**  
 Lars Christian Lund | Jesper Hallas, FISPE | Henrik Stovring  
 (*Denmark*)

# MAIN CONFERENCE

# Program Schedule

F R I

**6:00 PM**

Evaluating the Comparative Effectiveness and Safety of Repurposed Drugs for COVID-19 [81]  
Eng Hooi (Cheryl) Tan | Dalia Dawoud | Faaizah Arshad  
Jennifer Lane | James Weaver | Talita Duarte-Salles  
Scott DuVall | Thomas Falconer (United Kingdom)

**6:15 PM**

Adjusting for Data Observation Delay in near Real-time Safety Surveillance of COVID-19 Vaccines Using Administrative Claims Databases [82]  
Yoganand Chillarige | Mao Hu | Yuhui Feng | Xiangyu Shi  
Cindy Zhou | Hui-Lee Wong | Yixin Jiao | Patricia Lloyd  
(United States)

**6:30 PM**

Near Real Time Safety Surveillance of COVID-19 Vaccines in the UK [83]  
Katherine Donegan | Jemma Walker | Nick Andrews  
(United Kingdom)

## Drug Utilization Studies in Cardiovascular Disease and Diabetes – Congress Hall D5

**5:15 PM**

UK Trends in Prescribing Preferences for Antidiabetic Medications Among Type 2 Diabetes Patients with and without Chronic Kidney Disease, 2006-2020 [84]  
Julia Liaw | Meera Harhay | Soko Setoguchi, FISPE  
Tobias Gerhard, FISPE | Chintan Dave (United States)

**5:30 PM**

Contemporary Trends in the Utilization of Second-line Pharmacological Therapies for Type 2 Diabetes in the United States [85]  
Devin Abrahami | Elvira D'Andrea | Seoyoung Kim  
Julie Paik | Deborah Wexler | Elisabetta Patorno  
(United States)

**5:45 PM**

Sex Disparities in Treatment Patterns After Metformin Initiation Among Patients with Type 2 Diabetes Mellitus [86]  
Monika Oktora | Stijn De Vos | Sieta de Vries | Eelko Hak  
Petra Denig, FISPE (Netherlands)

**6:00 PM**

Continued Potassium Supplementation Use Following Loop Diuretic Discontinuation in Older Adults: An Evaluation of a "Prescribing Cascade Relic" [87]  
Grace (Hsin Min) Wang | Steven Smith | Earl Morris  
Scott Vouri (United States)

**6:15 PM**

Trends and Prescription Patterns of Medications for Secondary Stroke Prevention in Denmark, 2013-2018 [88]  
Nils Skajaa | Devin Abrahami | Kasper Adelborg  
Henrik Toft Sørensen | Julie Lauffenburger | Elvira D'Andrea  
Lee Schwamm | Elisabetta Patorno (Denmark)

**6:30 PM**

The Potential Impact of the Supplemental Nutrition Assistance Program (SNAP) on Adherence to Antihypertensive Medications [89]  
Macarius Donneyong (United States)

## Pediatric Medicine Use: Safe Kids in an Uncertain Landscape – Room C1M0

**5:15 PM**

Trends in High-risk Prescribing to US Pediatric Dental Patients, 2012-2019 [90]  
Katherine Kim | Tumader Khouja | Charlesnika Evans  
Gregory Calip | Jacqueline Burgette | Walid Gellad  
Katie Suda (United States)

**5:30 PM**

Identifying Acute Neuropsychiatric Events in Children and Adolescents [91]  
James Antoon | James Feinstein | Carlos Grijalva  
Yuwei Zhu | Emily Dickenson | Justine Stassun  
Jakobi Johnson | Mert Sekmen (United States)

**5:45 PM**

Comprehensive Assessment of Paediatric SARS-CoV-2 Infection: A Danish Population-based Cohort Study [92]  
Helene Kildegaard | Lars Christian Lund | Mikkel Hoejlund  
Lone Graff Stensballe | Anton Pottegård (Denmark)

# MAIN CONFERENCE

## Program Schedule

### 6:00 PM

Inappropriate Antibiotic Prescriptions and the Risk of Adverse Drug Events Among Children Treated for Common Infections [93]

Anne Butler | Derek Brown | Michael Durkin  
John Sahrman | Katelin Nickel | Caroline O'Neil  
Margaret Olsen | David Hyun (*United States*)

### 6:15 PM

KiDSafe – Improving Medication Safety for Children and Adolescents: Implementation and Evaluation of a New Form of Care [94]

Irmgard Toni | Jochem König | Dorothée Malonga Makosi  
Michael S. Urschitz | Wolfgang Rascher | Antje Neubert  
(*Germany*)

### 6:30 PM

Comparative Safety of Tozinameran in Children versus Adolescents: An Analysis of First Pharmacovigilance Data [95]

Francois Montastruc | Clément Karsenty  
Durrieu Geneviève | Clara Flumian | Laurent Chouchana  
Camille Brehin (*France*)

### Smörgåsbord – Room C1M1

#### 5:15 PM

Association Between Children Prescription Drug Costs for New Medications and Their Parent's Adherence to Chronic Medication [96]

Julie Lauffenburger | Renee Barlev | Niteesh Choudhry  
(*United States*)

#### 5:30 PM

The Impact of Using Pictorial Aids in Caregivers' Understanding of Patient Information Leaflets of Pediatric Pain Medications: A Quasi-experimental Study [97]

Aljoharah Algabbani | Khalid Alzahrani | Sarah Sayed  
Meshael Alrasheed | Deema Sorani | Omar Almohammed  
Amani Alqahtani (*Saudi Arabia*)

#### 5:45 PM

Does Left Atrial Dilation Predict Atrial Fibrillation Severity and Post-ablation Outcomes Among Individuals with Atrial Fibrillation? [98]

Paul Coplan, FISPE | Amit Doshi | Liat Tsoref  
Yariv Avraham Amos | Mati Amit | Charlene Wong  
Guy Cafri | Rahul Khanna (*United States*)

### 6:00 PM

Patient Groups in Rheumatoid Arthritis Identified by Deep Learning Respond Differently to Biologic or Targeted Synthetic Disease Modifying Antirheumatic Drugs [99]

Theresa Burkard | Maria Kalweit | Andrea Burden  
Thomas Hügler (*Switzerland*)

### 6:15 PM

Anticoagulant Therapy and Risk of Kidney Disease – A Nationwide Cohort Study [100]

Ane Emilie Friis Vestergaard | Christian Christiansen  
Simon Jensen | Kasper Adelborg | Henrik Birn  
Uffe Heide-Jørgensen (*Denmark*)

### 6:30 PM

Costs Associated with Healthcare Resources Utilization Among Empagliflozin vs GLP-1RA Initiators in Routine Clinical Care in Denmark [101]

Reimar Thomsen | Lotte Brix Christensen | Johnny Kahlert  
Jakob Knudsen | Anastasia Ustyugova  
Susanne Sandgaard | Pia Holmgaard | Lars Ehlers (*Denmark*)

### 5:15 - 6:45 PM

#### LIGHTNING FORUM SESSION 1 – ROOM C1M2

#### Cancer

#### 5:15 PM

Risk of Myasthenia Gravis with Tyrosine Kinase Inhibitors: A Disproportionality Analysis from Vigibase and AERS Databases [102]

Luis Velez-Nandayapa | Amit Saxena | Miguel Izquierdo  
Maria Nicolaidis | Pierre de Zeeuw | Alicia Rossiter  
Johannes Eisinger | Christiane Michel (*Switzerland*)

#### 5:20 PM

Breast Cancer and Subsequent Risk of Type 2 Diabetes Mellitus: A Systematic Review and Meta-Analysis [105]

Nanna Jordt | Kasper Kjærgaard | Reimar Thomsen  
Signe Borgquist | Deirdre Cronin-Fenton (*Denmark*)

#### 5:25 PM

Risk of Pancreatitis and Pancreatic Carcinoma for Anti-diabetic Medications: Evidence Synthesis from Disproportionality Analysis [103]

Asif Muhammed | Christy Thomas | Krishna Undela (*India*)

# MAIN CONFERENCE

# Program Schedule

F R I

**5:30 PM**

Cardiovascular Risk Among Adolescents and Young Adults Initiating Cardiotoxic Cancer Chemotherapy and Concurrent QTc Interval-prolonging Antidepressants [107]  
Oluwadamilola Onasanya | Susan DosReis, FISPE  
Eberechukwu Onukwugha | Wendy Camelo Castillo  
(United States)

**5:35 PM**

Cancer Panel Discussion

## Drug Utilization Research

**5:45 PM**

Longer-term Effectiveness of Home Blood Pressure Self-monitoring Plus Self-titration of Antihypertensive Medication for Poorly Controlled Hypertension in Primary Care: An Extension of the ADAMPA Trial [108]  
Gabriel Sanfelix-Gimeno | Patricia Martínez-Ibáñez  
Irene Marco-Moreno | Celia Robles-Cabaniñas  
Eugenia Avelino-Hidalgo | Laura Bellot-Pujalte  
Ignacio Barreira-Franch | Lucía Martínez-Ibáñez (Spain)

**5:50 PM**

The Impact of COVID-19 Pandemic on Drug Utilization Patterns: A Population-based Cohort Study in Manitoba, Canada [111]  
Laila Aboulatta | Payam Peymani | Christine Vaccaro  
Christine Leong | Kaarina Kowalec | Joseph Delaney  
Jamie Falk | Silvia Alessi-Severini (Canada)

**5:55 PM**

Morbidity Consequences of Misuse of Psychoactive Prescription Drugs in Portugal: The MisuMedPT Project [106]  
Ana Araujo | Rita Casal | João Goulão | Ana Martins  
(Portugal)

**6:00 PM**

Global Trends in Antidepressant, Atypical Antipsychotic, and Benzodiazepine Use: A Cross-sectional Analysis of 64 Countries [113]  
Orges Alabaku | Katie Suda | Simone Vigod | Mina Tadrous  
(United States)

**6:05 PM**

Drug Utilization Research Panel Discussion

## Diabetes

**6:15 PM**

Effectiveness and Safety of Empagliflozin in Routine Care: Results from the Empagliflozin Comparative Effectiveness and Safety (EMPRISE) Study [110]  
Phyo Htoo | Helen Tesfaye | Julie Paik | Deborah Wexler  
Mehdi Najafzadeh | Robert Glynn | Anouk Deruaz-Luyet  
Soulmaz Farsani (United States)

**6:20 PM**

Association Between Glycemic Control and Risk of Venous Thromboembolism in Diabetic Patients: A Nested Case-control Study [112]  
Sarah Charlier | Christian Meier | Susan Jick  
Christoph Meier | Claudia Becker (Switzerland)

**6:25 PM**

Diabetes Severity and the Risks of COVID-19 Infection and Severe COVID-19 Outcomes [109]  
Sascha Dublin | James Floyd | Rod Walker | Jennifer Kuntz  
Susan Shortreed | Stephen Fortmann | Elizabeth Bayliss  
Laura Harrington (United States)

**6:30 PM**

Liraglutide and Unexpected Psychiatric Adverse Events in Patients with Obesity: A Pharmacovigilance Study with Machine Learning Approach [104]  
Ji-Hwan Bae | Hyesung Lee | Sungho Bea | Ju-Young Shin  
(Republic of Korea)

**6:35 PM**

Diabetes Panel Discussion

# MAIN CONFERENCE Program Schedule

7:00 - 8:00 PM

## ISPE SPECIAL INTEREST GROUP MEETINGS

*Open to all attendees.*

MiPal – Congress Hall D2

Vaccine – Congress Hall D5

Rare Disease – Conference Room C1M0

Drug-Drug Interaction – Conference Room C1M1

Pediatric – Conference Room C1M4

Geriatric Pharmacoepidemiology – Meeting Room 18

Cancer – Meeting Room 19

Adherence – Meeting Room 20

Biologics – Conference Room B5M1

Medical Device – Conference Room B5M2

Brace – Conference Room B5M3

Digital Epi – Conference Room B5M4

CER – Conference Room B4M2

Genomics and Precision Medicine –  
Conference Room B4M4

Drug Utilization Research – Conference Room C1M5

8:30 - 11 PM

## STUDENTS/EARLY CAREER PROFESSIONALS MEET & GREET –

*Hosted by the ISPE Student Council*

Midsommar Biergarten og Rooftop Bar, Nørrebrogade  
18 B, 2200 Copenhagen  
[www.midsommar.dk](http://www.midsommar.dk)

Midsommar Biergarten og Rooftop Bar is a 15-minute taxi ride from the Bella Sky Hotel. No ISPE transportation is available for this event; attendees must make their own way to the venue.

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# MAIN CONFERENCE Program Schedule

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S A T U R D A Y , A U G U S T 2 7

7:00 AM - 6:00 PM

## SPEAKER READY ROOM / MEETING ROOM 21

Only required if you need to upload your presentation, or update/replace an already-uploaded presentation. Please complete uploads 24-hours in advance of your session.

7:00 AM - 6:00 PM

## REGISTRATION / HALL F6-F7 LOBBY

7:00 AM - 6:00 PM

## LACTATION ROOM / MEETING ROOM 28

*Sponsored by EPI Excellence, LLC*

7:00 - 8:00 AM

## COFFEE WITH EXHIBITORS / HALL C

7:00 - 8:00 AM

## REGIONAL INTEREST GROUPS

*Open to all attendees.*

*Africa – Meeting Room 20*

*Latin America – Meeting Room 18*

7:00 - 8:00 AM

Poster Session B set-up – *Hall C*

Spotlight Poster Session set-up – *Hall E South*

8:00 AM - 6:00 PM

## EXHIBITS/POSTER SESSION B – HALL C

8:00 - 9:30 AM

## CONCURRENT SESSIONS:

### ORAL PRESENTATIONS

## Methods for Generating RWE Through Emulation of Target Trials – *Room C1M5*

8:00 AM

One Design to Rule Them All: The Clone-Censor-Weight Design as a General Framework for Epidemiologic Studies [114]

Alexander Breskin (*United States*)

8:15 AM

Effect of Different Durations of Treatment with Antihypertensive Drugs with Anticholinergic Effects on the Risk of Dementia: A Target Trial Emulation Study [115]

Jaume Aguado | Lia Gutierrez | Kenneth Rothman  
Xabier Garcia de Albeniz (*United States*)

8:30 AM

Evaluation Metrics for Data-driven Propensity Score Estimation: A Simulation Study [116]

Yuchen Guo | Daniel Prieto-Alhambra | Victoria Y. Strauss  
Sara Khalid (*United Kingdom*)

8:45 AM

Emulating a Sequence of Target Trials to Avoid Immortal Time Bias in Pregnancy Studies — an Application to Antibiotic Initiation and Preterm Delivery [117]

Ellen Caniglia | Rebecca Zash | Christina Fennell  
Modiegi Diseko | Gloria Mayondi | Jonathan Heintz  
Mompoti Mmalane | Joseph Makhema (*United States*)

9:00 AM

Comparing the Effects of Neoadjuvant Versus Adjuvant Chemotherapy in Stage II-III, Triple-negative Breast Cancer: Illustration of Trial Emulation Using the Clone-Censor-Weight Method [118]

I-Hsuan Su | Charles Gaber | Stephanie Downs-Canner  
Emilie Duchesneau | Jennifer Lund, FISPE (*United States*)

9:15 AM

Emulating Stratified Randomized Trials by Propensity Score Methods [119]

Phyo Htoo | Robert Glynn | Shirley Wang, FISPE  
Julie Paik | Sebastian Schneeweiss, FISPE  
Elisabetta Patorno (*United States*)

# Program Schedule

## Drug Utilization Potpourri – Congress Hall D2

### 8:00 AM

Method of Hormonal Contraception and Protective Effects Against Ectopic Pregnancy: A Population-based Register Study [120]

Marie Linder | Carolyn Cesta | Helena Kopp Kallner  
Silvia Segovia Chacón | Sofie Graner (Sweden)

### 8:15 AM

The Characteristics of Gabapentinoid Users with Chronic Non-cancer Pain in the Primary Care of United Kingdom [121]

Xinchun GU | Teng-Chou Chen | Douglas Steinke, FISPE  
Li-Chia Chen (United Kingdom)

### 8:30 AM

Sedative Load Before and After Entry to Residential Aged Care [122]

Gillian Caughey | Catherine Lang | Janet Sluggett  
Steve Wesselingh | Maria Inacio (Australia)

### 8:45 AM

Prescription Patterns in Patients with Incident Trigeminal Neuralgia [123]

Pilar Hernandez-Con | Haesuk Park | Michael Maguire  
Shailina Keshwani | Juan Hincapie-Castillo (United States)

### 9:00 AM

Non-adherence to Chronic Medications Used in COPD and Its Association with Adverse Events: A Longitudinal, Population-based Study [124]

Daniela Weir | Kay James | Kednapa Thavorn  
Sara Guilcher | Salmaan Kanji | Sunita Mulpuru | Chris Bai  
Walter Wodchis (Netherlands)

### 9:15 AM

South Peace Polypharmacy Reduction Project: Impact Evaluations of Medication Reviews and Online Workshops in Rural British Columbia [125]

Colin Dormuth | Greg Carney | Lina Al-Sakran | Anat Fisher  
Malcolm Maclure (Canada)

## Opioids and Addiction – The Other Pandemic? – Congress Hall D5

### 8:00 AM

Trajectories of Use in Elderly Incident Benzodiazepine Users of Norway [126]

Kristian Svendsen (Norway)

### 8:15 AM

Patterns of Buprenorphine Initiation Treatment for Opioid Use Disorder and Association with Opioid-related Overdose Deaths [127]

Svetla Slavova | Feitong Lei | Daniela Moga | Emily Slade  
Lindsey Hammerslag | Nabarun Dasgupta | Michelle Lofwall  
Patricia Freeman (United States)

### 8:30 AM

Secular Trends of Dispensed Opioid Prescriptions in Catalonia, Spain, 2007-19: A Population-based Cohort Study of over 5 Million Individuals [128]

Junqing Xie | Victoria Y. Strauss | Gary S. Collins  
Sara Khalid | Antonella Delmestri | Aleksandra Turkiewicz  
Martin Englund | Mina Tadrous (United Kingdom)

### 8:45 AM

Association of Opioid Dose Reduction with Opioid Overdose and Opioid Use Disorder Among Patients on High-dose Long-term Opioid Therapy in North Carolina [129]

Bethany DiPrete | Shabbar Ranapurwala  
Courtney Maierhofer | Naoko Fulcher | Paul Chelminski  
Christopher Ringwalt | Timothy Ives | Nabarun Dasgupta  
(United States)

### 9:00 AM

Geographic Variation of High-risk Prescription Opioid Use Measures Among Disabled Medicare Beneficiaries, 2011-2018 [130]

Motomori Lewis | Lili Zhou | Walid Gellad  
Juan Hincapie-Castillo | Diana Wilkie | Richard Segal  
Debbie Wilson | Weihsuan Jenny Lo-Ciganic (United States)

### 9:15 AM

The Association Between Trajectories of Prescription Opioid Use and Opioid Overdose Risk Among Nonmetastatic Breast Cancer Survivors [131]

Weihsuan Jenny Lo-Ciganic | Juan Hincapie-Castillo  
Ching-Yuan Chang | Bobby Jones | Haesuk Park  
Coy Heldermon | Vakaramoko Diaby | Debbie Wilson  
(United States)

# MAIN CONFERENCE

# Program Schedule

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## Across the Globe: Injury and Neurologic Pharmacoepidemiology – Room C1M0

### 8:00 AM

$\beta$ 2-adrenoceptor Agonists and Risk of Parkinson's Disease: Nested Case-control Study of People with Asthma or Chronic Obstructive Pulmonary Disease [132]

Anne Paakinaho | Miia Tiihonen | Heikki Koskela  
Marjaana Koponen | Jari Tiihonen | Sirpa Hartikainen  
Anna-Maija Tolppanen (Finland)

### 8:15 AM

Trends in the Use of Non-prescription Medications for Intentional Self-poisoning: A Review of Data from the United States Poison Control Centers [133]

Silvia Perez-Vilar | Jummai Apata | Dinci Pennap  
Andrew Mosholder (United States)

### 8:30 AM

Dosing Profiles of Opioid and Benzodiazepine Use Associated with Risk of Injurious Falls Among US Medicare Beneficiaries: Group-based Multi-trajectory Models [134]

Juan Hincapie-Castillo | Walid Gellad | Bobby Jones  
Jeannie Lee | James Huang | Ching-Yuan Chang  
Debbie Wilson | Gary Reisfield (United States)

### 8:45 AM

Bacillus Calmette-Guérin Therapy for Bladder Cancer and Risk of Alzheimer's Disease in Denmark [135]

Signe Sørup | Trine Frøslev | Mette Nørgaard  
Jørgen Bjerregaard Jensen (Denmark)

### 9:00 AM

Effect of Reductions in Opioid Prescribing on Opioid Use Disorder and Fatal Overdose in the United States: A Dynamic Markov Model [136]

G. Caleb Alexander | Jeromie Ballreich | Omar Mansour  
David Dowdy (United States)

### 9:15 AM

Fatal Overdoses in a Cohort of Chronic Pain Patients [137]

Aleksi Hamina | Ingvild Odsbu | Vidar Hjellvik |  
Linn Gjersing | Torgeir Lid | Thomas Clausen  
Svetlana Skurtveit (Norway)

## Safety First! – Room C1M1

### 8:00 AM

Use of Antipsychotics and the Risk of Acute Respiratory Failure [138]

Onyekachukwu Iloh | Susan DosReis, FISPE (United States)

### 8:15 AM

Evaluating the Long-term Effect of Allopurinol Use in Gout Using Marginal Structural Models: A Primary Care Electronic Health Records Study [139]

Trishna Rathod-Mistry | Edward Roddy | Kelvin Jordan  
Christian Mallen | Milisa Blagojevic-Bucknall (United Kingdom)

### 8:30 AM

Association Between Fluoroquinolones and Uveitis, Retinal Detachment and Aortic Aneurysm or Dissection: An Application of Self-controlled Study Designs with Active Comparators [140]

Jeremy Brown | Kevin Wing | Stephen Evans  
Clémence Leyrat | Kathryn Mansfield | Liam Smeeth  
Angel Wong | David Yorston (United Kingdom)

### 8:45 AM

Death, Cardiac Event and Acute Liver Injury Associated with Bedaquiline or Delamanid in Patients with Multidrug Resistant Tuberculosis: A Nationwide Cohort Study [141]

Han Eol Jeong | Ju Hwan Kim | Hyesung Lee | In-Sun Oh  
Sungho Bea | Ju-Young Shin (South Korea)

### 9:00 AM

Risk of Depressive Disorders Associated with Medical Cannabis Authorization:

A Propensity Score Matched Cohort Study [142]

Jerry Liwono Yana | Jason Dyck | Dean Eurich  
Arsène Zongo (Canada)

### 9:15 AM

Risk of Mortality Associated with Pimavanserin Compared with Atypical Antipsychotics in Patients with Parkinson's Disease-related Psychosis [143]

J. Bradley Layton, FISPE | Lisa McQuay | Joan Forns  
Heather Danysh | Colleen Dempsey | Mary Anthony  
Mary Ellen Turner (United States)

# MAIN CONFERENCE

## Program Schedule

### Disease Epidemiology Potpourri – Room C1M2

#### 8:00 AM

Inhaled Corticosteroids and COVID-19 Risk and Outcomes—Findings from a Population-based Cohort within the SCIFI-PEARL Project [144]

Brian Kirui | Marina Labor | Fredrik Nyberg, FISPE  
Lowie Vanfleteren (Sweden)

#### 8:15 AM

Risk Factors for Mortality and Intensive Care Requirements Among Pediatric Patients Hospitalized with COVID-19 in the United States [145]

Nuvan Rathnayaka | Alexander Breskin | Angela Cook  
Catherine Wiener | M. Alan Brookhart (United States)

#### 8:30 AM

Temporal Trends, In-hospital Outcomes and Comorbidity Profile in US Asthma Hospitalizations Between 2004 and 2017 [146]

Salwa Zghebi | Mohamed Mohamed | Mamas Mamas  
Evangelos Kontopantelis (United Kingdom)

#### 8:45 AM

Healthcare Costs and Disease Duration Associated with Mild, Moderate and Severe COVID-19: A Payer Perspective [147]

Chantal Holy | Brandon Patterson | Fayolah Richards  
Antoine El khoury | Jill Ruppenkamp | Ronita Debnath  
Jessica deMartino | Brahim Bookhart (United States)

#### 9:00 AM

Clustering of HbA1c Longitudinal Trajectories in Type 2 Diabetes Mellitus (T2DM) [148]

Adrian Martinez de la Torre  
Maria Luisa Marques de Sá Faquetti | Fernando Perez-Cruz  
Stefan Weiler | Andrea Burden (Switzerland)

#### 9:15 AM

Women's Mortality Following Childbirths Affected by Vaginal Bleeding Due to Threatened Miscarriage: A Danish Cohort Study with up to 40 Years of Follow-up [149]

Elena Dudukina | Erzsebet Horvath-Puho  
Henrik Toft Sørensen | Vera Ehrenstein (Denmark)

### 9:30 - 10:00 AM

#### BREAK/POSTERS/EXHIBITS – HALL C

### 10:00 - 11:30 AM

#### PLENARY SESSION

Updates from the COVID-19 Pharmacoepidemiological Battlefield: Recent Victories and Battles Ahead – Congress Hall D4

In this session, our four esteemed speakers will both look back over the many contributions from the pharmacoepidemiological society to the handling of the COVID-19 pandemic, as well as outline both learnings and likely challenges that lies ahead. Specifically, we will discuss the value of coordinated global collaborations in addressing urgent safety issues, what methodological insights we should take from these recent years, what regulators have learned and will expect from the pharmacoepidemiological society in the future, and what areas of the pandemic that will likely provide the study questions of the future.

Anton Pottegård

Professor, University of Southern Denmark Odense C, Denmark

Daniel Prieto-Alhambra, FISPE

Professor of Pharmaco- and Device Epidemiology,  
University of Oxford

J. Bradley Layton, FISPE

Director, Epidemiology, RTI Health Solutions

Miriam Sturkenboom, FISPE

Prof. Dr., University Medical Center Utrecht

Catherine Cohet, PhD

Pharmacoepidemiology/RWE Senior Specialist,  
European Medicines Agency

# MAIN CONFERENCE Program Schedule

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**11:30 AM - 1:00 PM**

**LUNCH/POSTER SESSION B/EXHIBITS – HALL C**

**11:30 AM - 1:00 PM**

**ISPE COMMITTEE MEETINGS**

*Open to all attendees; lunch available.*

Finance – Meeting Room 18

Membership – Meeting Room 19

**11:45 AM - 12:45 PM**

**SPOTLIGHT POSTER SESSION B –  
HALL E SOUTH**

Databases

Digital Epidemiology

Drug Utilization Research

Drug-Drug Interaction

Genomics

Geriatrics

# MAIN CONFERENCE

# Program Schedule

1:00 - 2:30 PM

## CONCURRENT SESSIONS: ORAL PRESENTATIONS

### Methods: Machines Making Predictions – Congress Hall D4

1:00 PM

Comparative Evaluation of Automated Approaches for Confounder Selection in Ultra High-dimensional Data with Rare Outcomes [151]

Richard Wyss | Mark van der Laan | Susan Gruber | Xu Shi Hana Lee | Sarah Dutcher | Sengwee Toh  
Jennifer Nelson (United States)

1:15 PM

Fracture Risk Estimation in Post-menopausal Women: A Comparison of Machine Learning Methods and Software Systems [152]

David Pritchard | Matthew Phelan | M. Alan Brookhart (United States)

1:30 PM

A New Artificial Intelligence Guided Method for Identifying Add-on and Switch in Secondary Data Sources: A Case Study on Antiseizure Medications in Danish Registries [153]

Maurizio Sessa (Denmark)

1:45 PM

Claims-based Model to Predict Obesity in Older Patients [154]

Karine Suissa | Zhigang Lu | Lily Bessette  
Cassandra York | Richard Wyss | Joshua Lin (United States)

2:00 PM

Development of a Multivariate Prediction Model to Identify Possible Signal Triggering Reports from Spontaneous Individual Case Safety Reports [155]

Florence van Hunsel | Helen Gosselt | Liza Bazelmans  
Thomas Lieber | Linda Harmark (Netherlands)

2:15 PM

Predicting Wilson Disease Progression Using Machine Learning with Real-World Electronic Health Records [156]

Caihua Liang | Scott Kelly | Rongjun Shen | Ling Li  
Kasia Lobello | Steven Arkin | Kui Huang | Xiaofeng Zhou (United States)

### Study Design Approaches to Assessing Thrombosis Risk – Congress Hall D2

1:00 PM

Risk of Venous Thromboembolism in Patients Receiving Targeted Anti-cancer Therapy – A Nationwide Cohort Study [157]

Erzsebet Horvath-Puho | Florian Moik | Cihan Ay  
John-Bjarne Hansen | Frits Mulder | Nick van Es  
Henrik Toft Sørensen (Denmark)

1:15 PM

Arterial and Venous Thrombotic Events in Patients with COVID-19 Compared to Influenza [158]

Noelle Cocoros | Sarah Dutcher | John Connolly  
Silvia Perez-Vilar | Dena Carbonari | Terese Defor  
Djeneba Audrey Djibo | Laura Harrington (United States)

1:30 PM

Synergistic Effects of PM2.5 and Use of Corticosteroids on Cardiovascular and Thromboembolic Events Among Older Adults: Evidence of Environment-Drug Interaction [159]

Kevin Josey | Rachel Nethery | Benjamin Bates,  
Aayush Visaria | Poonam Gandhi | Jung Hyun Kim  
Soko Setoguchi, FISPE (United States)

1:45 PM

Association Between Phentermine and Risk of Major Adverse Cardiovascular Events: A Suite of Self-Controlled and Comparative Cohort Studies to Conquer Confounding [160]

Amir Sarayani | Christian Hampp, FISPE | William T. Donahoo  
Joshua Brown | Almut Winterstein, FISPE (United States)

2:00 PM

Use of Chlorprothixene and the Risk of Diabetes and Major Adverse Cardiovascular Events: A Nation-wide Cohort Study [161]

Rikke Wesselhoeft | Mikkel Hoejlund | Christina Wagner  
Kjeld Andersen | Anders Fink-Jensen  
Jesper Hallas, FISPE (Denmark)

2:15 PM

Use of Combined Oral Contraceptives and Risk of Venous Thromboembolism: A Nested Case-control Analysis in German Claims Data [162]

Tania Schink | Christina Princk | Malte Braitmaier  
Ulrike Haug (Germany)

# MAIN CONFERENCE

# Program Schedule

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## What's the Risk? Cancer Risk & Common Medications – Congress Hall D5

### 1:00 PM

5-alpha Reductase Inhibitor Use and Risk of Colorectal Cancer in Men with Benign Prostatic Hyperplasia: A Population-based Cohort Study [163]

Niamh Doherty | Christopher Cardwell | Peter Murchie  
Christopher Hill | Laurent Azoulay | Blánaid Hicks  
(United Kingdom)

### 1:15 PM

Parity, Use of Statins and Low-dose Aspirin, and Breast Cancer Risk—Data from Two Large Cohort Studies [164]

Julie Schmidt | Agnès Fournier | Manon Cairat  
Aurélie Mailhac | Henrik Toft Sørensen | Marc Gunter  
Deirdre Cronin-Fenton (Denmark)

### 1:30 PM

Statins and Breast Cancer Recurrence: A Danish Nationwide Cohort Study with Up to 23 Years of Follow-up [165]

Elisabeth Solmunde | Rikke N. Pedersen | Lene Mellempkjær  
Søren Friis | Bent Ejlersen | Thomas P. Ahern  
Mette Nørgaard | Deirdre Cronin-Fenton (Denmark)

### 1:45 PM

The Association Between Menopausal Hormone Therapy and Gastric and Colorectal Cancer Risk in Korean Women: A Nationwide Population-based Cohort Study [166]

Ji-Eun Kim | Chaewon Baek | Aesun Shin  
Seokyoung Hahn | Hee-Kyung Park | Ji-Yeob Choi  
(South Korea)

### 2:00 PM

Sodium-glucose Co-transporter 2 Inhibitors and the Risk of Early Bladder Cancer Events [167]

Devin Abrahami | Helen Tesfaye | Hui Yin | Seanna Vine  
Blánaid Hicks | Oriana Yu | Robert Platt  
Sebastian Schneeweiss, FISPE (United States)

### 2:15 PM

Thiazide Diuretics and Risk of Colorectal Cancer [168]

Julie Rouette | Emily McDonald | Tibor Schuster  
Ilan Matok | James Brophy | Laurent Azoulay (Canada)

## Psychotropic Use Around the World – Room C1M0

### 1:00 PM

Antidepressant Use Among Children and Adolescents Across the Scandinavian Countries [169]

Lotte Rasmussen | Peter Jensen | Johan Reutfors  
Lena Brandt | Kari Furu | Svetlana Skurtveit | Randi Selmer  
Per Damkier (Denmark)

### 1:15 PM

Attention Deficit Hyperactivity Disorder Medication Consumption in 64 Countries from 2015 to 2019: A Longitudinal Study [170]

Adrienne Chan | Tian-Tian Ma | Wallis Lau | Patrick Ip  
David Coghill | Le GAO | Yogini Jani | Yingfen Hsia  
(Hong Kong)

### 1:30 PM

Patterns of ADHD Medicine Use: A Population-based Study Among Australian Children and Adults (2013-2020) [171]

Claudia Bruno | Alys Havard | Malcolm Gillies  
David Coghill | Jonathan Brett | Adam Guastella  
Sallie-Anne Pearson | Helga Zoega (Australia)

### 1:45 PM

An Overview of Psychotropic Pharmacotherapy at Time of Death by Suicide: An Australian-wide Case Series Study Using Administrative and Coronial Data [172]

Kate Chitty | Nicholas Buckley | Jessy Lim | Zein Ali  
Jennifer Schumann | Rose Cairns | Benjamin Daniels  
David Preen (Australia)

### 2:00 PM

Prescription of Psychotropic Medications in Patients with Cancer: A Population-based Study in Hong Kong [173]

Chun SIng Lam | Chui Ping Lee | Joey Wing Yan Chan  
Yin Ting Cheung (Hong Kong)

### 2:15 PM

Antidepressant Adherence Patterns over Time Among Adults with Depression—an Application of Group-based Trajectory Modeling Using Commercial Claims Data from 2007-2015 [174]

Jannat Saini | Danya Qato | Susan DosReis, FISPE  
(United States)

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### Posters

**Discharged where? The importance of understanding discharge dispositions when estimating in-hospital mortality**  
M. Alan Brookhart, PhD

**The effect of remdesivir for the treatment of COVID-19 on mortality among hospitalized patients**  
Alexander Breskin, PhD, MPH

**In-hospital treatment patterns among patients hospitalized with COVID-19 in the United States**  
Nuwan Rathnayaka, PhD

### Podium Presentations

**Friday, August 26**  
1:30 - 3:00 p.m. CEST **The impact of parametric assumptions on the bias-variance tradeoff for causal analysis of time-to-event outcomes**  
Presented by Andrew Allmon, DrPH

5:15 - 6:45 p.m. CEST **Negative control outcomes to assess the comparability of biologics versus small-molecule therapeutics for osteoporosis: considerations for differential non-adherence**  
Presented by Lydia Feinstein, PhD

### Saturday, August 27

8:30 - 10:00 a.m. CEST **One design to rule them all: The clone-censor-weight design as a general framework for epidemiologic studies**  
Presented by Alexander Breskin, PhD, MPH

8:30 - 10:00 a.m. CEST **Risk factors for mortality and intensive care requirements among pediatric patients hospitalized with COVID-19 in the United States**  
Presented by Nuwan Rathnayaka, PhD

1:00 - 2:30 p.m. CEST **Fracture risk estimation in post-menopausal women: a comparison of machine learning methods and software systems**  
Presented by David Pritchard, PhD, MS



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# MAIN CONFERENCE

# Program Schedule

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## Mending Hearts and Brains – Room C1M1

### 1:00 PM

Comparative Effectiveness of Direct Oral Anticoagulants versus Warfarin Among Nursing Home Residents with Atrial Fibrillation [175]

Hemalkumar Mehta | Huijun An | Jodi Segal, FISPE  
James Goodwin | G. Caleb Alexander (United States)

### 1:15 PM

The Effectiveness and Safety of Extended Anticoagulant Treatment in Patients with Venous Thromboembolism [176]

Nazleen Khan | Geetha Iyer | Helen Tesfaye | Gregory Brill  
Katsiaryna Bykov (United States)

### 1:30 PM

Using Real-World Data to Assess Comparative Effectiveness and Safety of Apixaban and Rivaroxaban in Patients with Nonvalvular Atrial Fibrillation in the UK [177]

Liza Gibbs | Priya Govil | Seamus Kent | Stephen Duffield  
Shaun Rowark | Manuj Sharma | Ayad Ali | Amanda Patrick  
(United States)

### 1:45 PM

Prophylactic Anticoagulation with Low Molecular Weight Heparin in COVID-19: Cohort Studies in Denmark and Sweden [178]

Lars Christian Lund | Pontus Hedberg  
Anne Helms Andreasen | Janne Petersen | Tonny Petersen  
Anton Pottegård | Jacob Bodilsen | Pontus Naucner (Denmark)

### 2:00 PM

Risk of Ischemic Stroke Associated with DOAC Discontinuation on Patients with Non-valvular Atrial Fibrillation [179]

Tobias Alvaro Thomsen | Jorge Mesa Guadalupe  
Lucía Cea Soriano | Consuelo Huerta | Airam De Burgos (Spain)

### 2:15 PM

High-intensity versus Low- or Moderate-intensity Statin Treatment for Patients with Ischemic Stroke: Nationwide Cohort Study [180]

Frederikke Bach | Nils Skajaa | Buket Öztürk Esen  
Cecilia Fuglsang | Erzsebet Horvath-Puho  
Henrik Toft Sørensen | Kasper Adelborg (Denmark)

## 1:00 - 2:30 PM

### LIGHTNING FORUM SESSION 2 - ROOM C1M2

#### Vaccines

### 1:00 PM

Risk of Appendicitis After mRNA COVID-19 Vaccination: A Population-based Cohort Study [191]  
Helene Kildegaard | Louise Ladebo | Jacob Harbo Andersen  
Peter Jensen | Lotte Rasmussen | Per Damkier  
Anton Pottegård (Denmark)

### 1:05 PM

Impact of Individual Case Reports for COVID-19 Vaccines on the Ability to Detect Future Safety Signals with Other Medicinal Products [192]  
Sara Hedfors Vidlin | Oskar Gauffin | Daniele Sartori  
Niklas Noren (Sweden)

### 1:10 PM

The Impact of Data Truncation on Rates of Vaccine-associated Adverse Events Utilizing Open and Closed Claims: Lessons from Post-Marketing Safety Surveillance of the SARS-CoV-2 mRNA-1273 Vaccine [186]  
Christopher Bush | Daina Esposito | Deesha Patel  
Alice Gelman | Sahar Syed | Priyadarshani Dharia  
Katie Mues | David Martin (United States)

### 1:15 PM

The Comparative Risk of Thrombosis with Thrombocytopenia Associated with Different COVID-19 Vaccines: International Network Cohort Study Including 5 European Countries and the US [182]  
Xintong Li | Edward Burn | Talita Duarte-Salles | Can Yin  
Christian Reich | Antonella Delmestri | Katia Verhamme  
Peter Rijnbeek (United Kingdom)

### 1:20 PM

Vaccines Panel Discussion

# MAIN CONFERENCE

# Program Schedule

## Biologics/Biosimilars

### 1:30 PM

Predictors of Effectiveness of First-line Biologic Disease Modifying Antirheumatic Drug(s) (bDMARD) or Targeted Synthetic DMARD (tsDMARD) Treatment with a Tumor Necrosis Factor Inhibitor in Patients with Rheumatoid Arthritis [189]

Alexander Liede | Whitney Krueger | Linyan Li  
Yuhang Liu | Yi Pan | Michelle Brauer | Seoyoung Kim  
Earl Steinberg (*Ireland*)

### 1:35 PM

Effect Modification of Biologic Survival by Patient Characteristics: A Step Towards Precision Medicine in the Treatment of Psoriasis [184]

Zenas Yiu | Gabrielle Becher | Brian Kirby | Philip Laws Nick Reynolds | Catherine Smith | Richard Warren  
Christopher Griffiths (*United Kingdom*)

### 1:40 PM

Application of a Systems Biology Approach to Address Confounding by Indication for Immune-mediated Disorders in Spontaneous Reports Data: A Case Study of Vedolizumab-associated Pancreatitis in Inflammatory Bowel Disease [187]

Jodie Hillen | Katherine Duszynski | Ty Stanford  
Michael Ward | Elizabeth Roughead | Lisa Kalisch  
Nicole Pratt (*Australia*)

### 1:45 PM

Discontinuation of Infliximab Treatment in IBD Patients: A Comparison Between Patients Who Re-transitioned to Originator and Those Who Remained on Biosimilar [185]

Rosanne Meijboom | Helga Gardarsdottir, FISPE  
Matthijs Becker | Kris Movig | Johan Kuijvenhoven  
Toine Egberts | Thijs Giezen (*Netherlands*)

### 1:50 PM

Biologics/Biosimilars Panel Discussion

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

### 2:00 PM

Mortality Among Parkinson's Disease Patients Treated with Pimavanserin or Atypical Antipsychotics: An Observational Study in Medicare [188]

Sandia Akhtar | Andrew Mosholder | Yong Ma  
Gerald Podskalny | Yuhui Feng | Hai Lyu | Jiemin Liao  
Yuguin Wei (*United States*)

### 2:05 PM

Post-market Safety Communication for New Drugs Approved in Australia 2010-2016 [190]

Barbara Mintzes | Alice Bhasale | Lucy Perry | Eliza McEwin  
Annim Mohammad | Ashleigh Hooimeyer | Atse Huisman  
(*Australia*)

### 2:10 PM

Hydroxyzine Initiation Following Drug Safety Advisories on Cardiac Arrhythmias in the UK and Canada: A Longitudinal Cohort Study [181]

Richard Morrow | Barbara Mintzes | Patrick Souverein  
Christine Hallgreen | Bilal Ahmed | Elizabeth Roughead  
Marie Louise De Bruin | Sarah Kristiansen (*Canada*)

### 2:15 PM

Duration of the Evaluation of Additional Risk Minimization Measures: The Need for Speed [183]

Sharon Essink | Inge Zomerdijk | Sabine Straus  
Marie Louise De Bruin (*Netherlands*)

### 2:20 PM

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

# MAIN CONFERENCE

# Program Schedule

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2:40 - 3:50 PM

## ANNUAL MEETING OF ISPE MEMBERS & AWARDS CEREMONY – CONGRESS HALL D4

Call to Order & President's Address  
Vin Lo Re, FISPE, *ISPE President*

Financial Report  
Wei Zhou, FISPE, *Vice President/Finance*

Strategic Plan 2020-2024 Update  
Tobias Gerhard, FISPE,  
*Chair, Strategic Planning Committee*

New Business

Awards Ceremony

ISPE Board Transition

RETIRING BOARD MEMBERS & OFFICERS  
Olaf Klungel, FISPE | Fredrik Nyberg, FISPE  
Lisa Pont, FISPE | Jennita Reefhuis  
Mary Beth Ritchey, FISPE | Wei Zhou, FISPE

INDUCTION OF NEW DIRECTORS  
Ursula Kirchmayer, FISPE  
*Government/Regulator (Europe/Africa)*

Andrea Margulis, FISPE  
*Industry/Service Provider (Europe/Africa)*

Gillian Caughey  
*Academic (Asia/Pacific)*

Efe Eworuke  
*Government/Regulator (Americas)*

Jessica Franklin  
*Industry/Service Provider (Americas)*

INSTALLATION OF 2022-2023 OFFICERS  
Tobias Gerhard, FISPE, *President*  
Caitlin Knox, *Vice President/Finance*  
Vin Lo Re, FISPE, *Immediate Past President*  
Lisa Pont, FISPE, *President-Elect*

3:50 - 4:15 PM

BREAK/POSTERS/EXHIBITS – HALL C

4:15 - 5:45 PM

## CONCURRENT SESSIONS: SYMPOSIA & WORKSHOPS

HARmonized Protocol to Enhance Reproducibility  
(HARPER): An ISPE-ISPOR Joint Task Force of the  
RWE Initiative [200] – Room C1M5  
Shirley Wang, FISPE | Donna Rivera, FISPE | William Crown  
Peter Arlett | Wim Goettsch (*United States*)

Cloning, Censoring, and Weighting—Oh My!  
Applications of Target Trial Emulation for  
Evaluating Cancer Interventions When Study  
Eligibility, Intervention Initiation, and Start of  
Follow-up are Not Aligned [201] – Congress Hall D2  
Jennifer Lund, FISPE | Xabier Garcia de Albeniz  
Camille Maringe | Charles Gaber | Richard Wyss,  
Maribel Salas, FISPE | Armen Ghazarian (*United States*)

COVID-19 Vaccine Safety Monitoring:  
Opportunities, Challenges and Lessons Learned  
for Pharmacoepidemiology [202] – Congress Hall D5  
Alicia Gilsenan, FISPE | Miriam Sturkenboom, FISPE  
Cynthia De Luise | Catherine Cohet | Jeffrey Brown  
Susana Perez-Gutthann, FISPE | Patricia Lloyd | Joseph Kim  
(*United States*)

Drug Safety on the Cutting Edge:  
What are the Implications of EMA's To-be-  
released Risk Minimisation Guidance on  
Pharmacoepidemiological Methods and Practice  
in Developed and Developing Countries?  
[203] – Conference Room C1M0  
Meredith Smith, FISPE | Priya Bahri | Elaine Morrato  
Parthasarathi Gurumurthy (*United States*)

Real-World Evidence Studies in the Post-  
COVID-19 Era: Methodological Considerations for  
Pandemic Related Disruptions [204] – C1M1  
Anne Butler | Mehmet Burcu | Helga Gardarsdottir, FISPE  
G. Caleb Alexander (*United States*)

# MAIN CONFERENCE

# Program Schedule

4:15 - 5:45 PM

## LATE BREAKERS –

CONFERENCE ROOM C1M2

4:15 PM

Alternative Approaches to Defining COVID-related Inpatient Encounters in IBM® MarketScan® Data [194]

Kathleen Andersen | Andy Surinach | Qiao Mu  
Tamuno Alfred | Deepa Malhotra | Leah McGrath  
Jennifer Nguyen | Jennifer Judy (United States)

4:30 PM

Use of the New ICD-10-CM Diagnosis Code for Post-COVID-19 Condition in Routine Clinical Practice in the United States [195]

Leah McGrath | Amie Scott | Andy Surinach  
Richard Chambers | Michael Benigno | Deepa Malhotra  
(United States)

4:45 PM

Rapid Surveillance on the Use of Neutralising Monoclonal Antibodies and Antivirals in Patients with COVID-19 in Scotland Using Administrative and Purposely Collected Data [196]

Tanja Mueller | Euan Proud | Holly Tibble | Elliott Hall  
Amanj Kurdi | Marion Bennie (United Kingdom)

5:00 PM

Increasing Use of Antidepressants, Hypnotics and Psychostimulants During the COVID-19 Pandemic Among Danish Children, Adolescents, and Young Adults [197]

Mette Bliddal | Lotte Rasmussen | Jacob Harbo Andersen  
Anton Pottegård | Trine Munk-Olsen | Helene Kildegaard  
Rikke Wesselhoeft (Denmark)

5:15 PM

Female Preconception Vaccination Against COVID-19 and Spontaneous Abortion in a Prospective Preconception Cohort Study [198]

Jennifer Yland | Amelia Wesselink | Krista Huybrechts, FISPE  
Sonia Hernandez-Diaz, FISPE | Lauren Wise (United States)

5:30 PM

Comparative Effectiveness of Sotrovimab and Molnupiravir for Prevention of Severe COVID-19 Outcomes in Non-hospitalised Patients: An Observational Cohort Study Using the OpenSAFELY Platform [199]

Bang Zheng | Amelia Green | John Tazare | Stephen Evans  
Ian Douglas | Brian MacKenna | Ben Goldacre  
Laurie Tomlinson (United Kingdom)

6:00 - 7:00 PM

## COUNCIL MEETINGS

Academic – Conference Room C1M0

Student – C1M1

7:00 - 11:00 PM

## Social Evening at the Langelinie Pavillon

Badge or guest ticket required for entry.

Located at Langelinie 10, DK-2100 Copenhagen

Shuttle from Bella Center Entrance 6  
starting at 6:00 pm

# MAIN CONFERENCE Program Schedule

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S U N D A Y , A U G U S T 2 8

7:00 AM - 3:30 PM

## SPEAKER READY ROOM / MEETING ROOM 21

Only required if you need to upload your presentation, or update/replace an already-uploaded presentation. Please complete uploads 24-hours in advance of your session.

7:00 AM - 4:30 PM

## REGISTRATION / HALL F6-F7 LOBBY

7:30 AM - 4:30 PM

## LACTATION ROOM / MEETING ROOM 28

Sponsored by EPI Excellence, LLC

7:00 - 8:00 AM

## COFFEE WITH EXHIBITORS / HALL C

7:00 - 8:00 AM

Poster Session C set-up – Hall C  
Spotlight Poster Session set-up – Hall E South

8:00 AM - 3:15 PM

## POSTERS – HALL C

8:00 AM - 4:30 PM

## EXHIBITS – HALL C

8:30 - 10:00 AM

## CONCURRENT SESSIONS: ORAL PRESENTATIONS

### Methods: Validation – Congress Hall D5

8:30 AM

Validation of an International Classification of Disease (ICD) 10 Algorithm for Hypoglycemia in Administrative Claims Data [205]

Goua Her | Sara Dejene | Jea Young Min | Virginia Pate  
Michele Jonsson Funk, FISPE | James Flory (United States)

8:45 AM

Evaluation of Mortality Data Sources Compared to the National Death Index in the Healthcore Integrated Research Database [206]

Aziza Jamal-allial | Todd Sponholtz | Shiva K Vojjala  
Anahit Papazian | Biruk Eshete  
Seyed Hamidreza Mahmoudpour | Patrice Verpillat  
Daniel Beachler (United States)

9:00 AM

Adaptability of High Dimensional Propensity Score Procedure in the Transition from ICD-9 to ICD-10 in the US Healthcare System [207]

Amir Sarayani | Joshua Brown | Christian Hampp, FISPE  
William T. Donahoo | Almut Winterstein, FISPE (United States)

9:15 AM

Reproducibly Estimating Drug Exposure from Free-text Prescriptions [208]

William Dixon | Belay Yimer | David Selby | Meghna Jani  
Mark Lunt | Goran Nenadic (United Kingdom)

9:30 AM

A Bootstrap Approach for Validating Groups Identified by Latent Class Growth Models [209]

Marc Simard | Miceline Mésidor | Caroline Sirois  
Denis Talbot (Canada)

9:45 AM

Can Administrative Claims Data Be Used to Determine Pre-treatment HbA1c Among Adults with Type 2 Diabetes? [210]

Jenna Wong | Xiaojuan Li | David Arterburn  
Dongdong Li Elizabeth | Messenger-Jones | Rui Wang  
Sengwee Toh (United States)

# Program Schedule

## Examining Equity: Who? Where and What? – Congress Hall D2

### 8:30 AM

Inequalities in the Incidence and Management of Non-valvular Atrial Fibrillation in England, 2009 to 2019: Cohort Study Using Electronic Health Records from General Practices [212]

Alyaa Ajabnoor | Salwa Zghebi | Rosa Parisi  
Darren Ashcroft | Martin Rutter | Tim Doran  
Matthew Carr | Mamas Mamas (*United Kingdom*)

### 8:45 AM

Racial Disparities in Clinical Trial Participation: Evidence from Real-World Oncology Data [213]

Harlan Pittell | Gregory Calip | Amy Pierre  
Jenny Guadamuz (*United States*)

### 9:00 AM

Socioeconomic Inequalities in COVID-19 Vaccination and Infection Among Adults Living in Urban Areas of Catalonia, Spain: A Population-based Cohort Study [214]

Elena Roel | Berta Raventós | Edward Burn  
Andrea Pistillo | Daniel Prieto-Alhambra  
Talita Duarte-Salles (*Spain*)

### 9:15 AM

Geographic Variation and Racial Disparities in Novel Glucose-lowering Drugs Adoption Among US Medicare Beneficiaries with Type 2 Diabetes [215]

Wei-Han Chen | Yujia Li | John M. Allen | Hui Shao  
William Donahoo | Steven Smith | Serena Jingchuan Guo  
(*United States*)

### 9:30 AM

The Association of Ethnicity and Social Deprivation and Choice of Second-line Antidiabetic Treatment in People with Type 2 Diabetes: A Cross-sectional Study [216]

Patrick Bidulka | Rohini Mathur | David Lugo-Palacios  
Stephen O'Neill | Anirban Basu | Richard Silverwood  
Paul Charlton | Andrew Briggs (*United Kingdom*)

### 9:45 AM

Differences in Opioid Use After Hip Fracture by Race and Post-acute Care Use Among US Older Adults [217]

Kaley Hayes | Meghan Cupp | Abednego Commey  
Francesca Beaudoin | Richa Joshi | Andrew Zullo  
(*United States*)

## Pandemic Prescription Patterns (Plus Pneumonia!) – Congress Hall D4

### 8:30 AM

Does COVID-19 Pandemic Impacted on Quality of Antibiotic Use in the Community? An Interrupted Time-series Analysis [218]

Carla Torre | Antonio Teixeira Rodrigues  
Mariana Dominques | José Guerreiro | João Rocha  
Bruno Sepodes (*Portugal*)

### 8:45 AM

Systemic Corticosteroids for COVID-19 in US Outpatient Settings [219]

Marie Bradley | David Graham | Efe Eworuke | Hana Lee  
Sandia Akhtar | Hai Lyu | Kushal Naik | Yoganand Chillarige  
(*United States*)

### 9:00 AM

Utilization of Broad- Versus Narrow-spectrum Antibiotics for the Treatment of Outpatient Community-acquired Pneumonia [220]

Katelin Nickel | Anne Butler | Michael Durkin  
Margaret Olsen | John Sahrman | Caroline O'Neil  
(*United States*)

### 9:15 AM

Impact of COVID-19 Pandemic on the Prescription Trends of Antiseizure Medications [221]

Alekhyia Lavu | Donica Janzen | Laila Aboulatta  
Payam Peymani | Brianne Desrochers | Silvia Alessi-Severini  
Sherif Eltonsy (*Canada*)

### 9:30 AM

The Effect of the COVID-19 Pandemic on Medicines Utilisation in England [222]

Danielle Robinson | Jonathan Pearson-Stuttard  
Benjamin Bray (*United Kingdom*)

### 9:45 AM

Impact of COVID-19 on Psychotropic Medication Use Among Children and Adolescents Receiving Mental Health Services [223]

Alejandro Amill-Rosario | Haeyoung Lee  
Chengchen Zhang | Susan DosReis, FISPE (*United States*)

# MAIN CONFERENCE

# Program Schedule

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## Around the World with Real-World Evidence – Room C1M0

### 8:30 AM

HIV Pre-exposure Prophylaxis (PrEP) Effectiveness in the Real World: A Nested Case-control Study Among 46,706 Men at High Risk of HIV Infection in France [224]  
Hugo Jourdain | Sophie Billioti de Gage | David Desplas  
Rosemary Dray-Spira (France)

### 8:45 AM

Use of Central Nervous System Drugs in Combination with Selective Serotonin Reuptake Treatment: A Bayesian Screening Study for Risk of Suicidal Behavior [225]  
Zheng Chang | Tyra Lagerberg | Arvid Sjölander  
Robert Gibbons | Patrick Quinn | Brian D'Onofrio  
Clara Hellner | Paul Lichtenstein (Sweden)

### 9:00 AM

Long-acting Injectable Antipsychotics and Risk of Treatment Failure in a Population-based Cohort [226]  
Donica Janzen | James Bolton | Christine Leong  
I fan Kuo | Silvia Alessi-Severini (Canada)

### 9:15 AM

The Effect of Remdesivir for the Treatment of COVID-19 on Mortality Among Hospitalized Patients [227]  
Alexander Breskin | Catherine Wiener | M. Alan Brookhart  
(United States)

### 9:30 AM

Association Between Very High PD-L1 Expression versus High PD-L1 Expression in Patients Receiving Pembrolizumab as First-line Treatment for Advanced Non-small Cell Lung Cancer [228]  
Syed Mohsin Mahmood Shah | Melina Marmarelis  
Ronac Mamtani | Rebecca Hubbard | Sean Hennessy  
(United States)

### 9:45 AM

Does Hydroxychloroquine Prevent Cardiovascular Events in Systemic Lupus Erythematosus Patients? [229]  
Lamiae Grimaldi | Tom Duchemin | Philippe Attias  
Yann Hamon | Jacques Benichou | Yola Moride  
Lucien Abenheim (France)

## SGLT2s and Cardiovascular Endpoints – Room C1M1

### 8:30 AM

Sodium-glucose Co-transporter 2 Inhibitor Treatment and Risk of Atrial Fibrillation: Scandinavian Cohort Study [230]  
Arvid Engström | Victor Wintzell | Mads Melbye  
Anders Hviid | Björn Eliasson | Soffia Gudbjörnsdottir  
Kristian Hveem | Christian Jonasson (Sweden)

### 8:45 AM

Cardiovascular Outcomes in Patients with Type 2 Diabetes Who Added Either GLP1 Receptor Agonists or DPP4 Inhibitors to SGLT2 Inhibitor Therapy [231]  
Katsiaryna Bykov | Seoyoung Kim | Chintan Dave  
Raisa Levin | Deborah Wexler | Elisabetta Patorno  
(United States)

### 9:00 AM

Cardiovascular Effectiveness of Sodium—Glucose Cotransporter 2 Inhibitors (SGLT-2i) and Glucagon-like Peptide 1 Receptor Agonists (GLP-1 RA) in Routine Care of Frail People with Type 2 Diabetes [232]  
Alexander Kutz | Chandrasekar Gopalakrishnan  
Dae Hyun Kim | Elisabetta Patorno (United States)

### 9:15 AM

Cardiovascular Effectiveness of SGLT2 Inhibitors: Head-to-head Comparisons [233]  
Devin Abrahami | Elvira D'Andrea | Julie Paik  
Deborah Wexler | Brendan Everett | Seoyoung Kim  
Elisabetta Patorno (United States)

### 9:30 AM

Cardiovascular Effectiveness of Empagliflozin vs Glucagon-like peptide-1 Receptor Agonists or Liraglutide in the EMPRISE Study [234]  
Phyo Htoo | Helen Tesfaye | Julie Paik | Deborah Wexler  
Mehdi Najafzadeh | Robert Glynn | Anouk Deruaz-Luyet  
Soulmaz Farsani (United States)

### 9:45 AM

Using Iterative Causal Forest to Identify Heterogeneous Treatment Effects: Sodium-glucose Cotransporter-2 inhibitors versus Glucagon-like Peptide-1 Receptor Agonists on Hospitalization for Heart Failure [235]  
Tiansheng Wang | Alexander Keil | Siyeon Kim  
Richard Wyss | Phyo Htoo | Michele Jonsson Funk, FISPE  
John Buse | Michael Kosorok (United States)

# Program Schedule

## Welcoming Novel Methods in Pregnancy Research – Room C1M2

### 8:30 AM

Associations of Prenatal Exposure to Antibiotics and Paracetamol with Trajectories of Wheezing up to 2 Years of Age [236]

Marleen Van Gelder | Michelle G.A. Clevis | Sharon Essink  
Jolt Roukema | Nel Roeleveld | Chris Verhaak  
Peter Merkus (Netherlands)

### 8:45 AM

Development and Validation of Claims-based Algorithms for Estimating Gestational Age of Spontaneous Abortion and Termination [237]

Krista Huybrechts, FISPE | Yanmin Zhu  
Sonia Hernandez-Diaz, FISPE | Brian Bateman  
Kathryn Gray | Loreen Straub | Lockwood Taylor  
Rita Ouellet-Hellstrom (United States)

### 9:00 AM

Estimating the Association Between Initial Postpartum Discharge Adgent Prescription Dose and Subsequent Opioid Use:

The Role of Different Modeling Strategies [238]  
Andrew Wiese | Carlos Grijalva | Margaret adgent  
Sarah Osmundson | Amelie Pham | Sharon Phillips  
Ed Mitchel | Andrew Spieker (United States)

### 9:15 AM

Hierarchical Clustering Analysis to Inform Classification of Congenital Malformations for Surveillance of Medication Safety in Pregnancy [239]

Loreen Straub | Sonia Hernandez-Diaz, FISPE  
Shirley Wang, FISPE | Kathryn Gray | Lewis Holmes  
Brian Bateman | Helen Mogun | Krista Huybrechts, FISPE  
(United States)

### 9:30 AM

A Novel Framework to Assess Reproductive Toxicity: Pregnancy Outcomes Intensive Monitoring (PRIM) [240]

Lisa Prach | Bitu Rezaallah | Valentine Jehl (Switzerland)

### 9:45 AM

Quantification of Medication-mediated Effects on Pregnancy Outcome in Women with Rheumatic Conditions [241]

Gretchen Bandoli | Kristin Palmsten | Chelsey Smith  
Christina Chambers (United States)

## 10:00 - 10:30 AM

### BREAK/POSTERS/EXHIBITS – HALL C

## 10:30 AM - 12:00 PM

### CONCURRENT SESSIONS: SYMPOSIA & WORKSHOPS

#### Shaping the Future of Pharmacoepidemiology [242] – Meeting Room C1M5

Vicki Osborne | Deborah Layton, FISPE | Amie Goodin  
Almut Winterstein, FISPE | Andrew Bate | Catherine Cohet  
Xavier Kurz | Lisa Pont, FISPE | David Moeny  
Olaf Klungel, FISPE | Simone Pinheiro | John Seeger, FISPE  
K. Arnold Chan, FISPE | Stanley Edlavitch, FISPE  
Hugh Tilson, FISPE | Joshua Brown (United Kingdom)

#### What Do Real World Data Validation Best Practices Look Like? Operationalizing Guidance for Real-World Studies Intended for Decision-making [243] – Congress Hall D2

Ulka Campbell | Sangmi Kim | Sengwee Toh  
Seamus Kent | Jeffrey Brown | Carla Rodriguez-Watson  
(United States)

#### Updating the Public on COVID-19 Vaccine Safety – Considerations for Pharmacoepidemiologists [244] – Congress Hall D5

Mathias Møllebæk | Priya Bahri | Nabarun Dasgupta  
Barbara Mintzes | Anton Pottegård | Peter Mol (Denmark)

#### Emulation Differences versus Bias: Implications of Large-scale Emulation of Randomized Clinical Trials Using Clinical Practice Data (RCT-DUPLICATE) [245] – Conference Room C1M0

Shirley Wang, FISPE | Sebastian Schneeweiss, FISPE  
Peter Arlett | Hans-Georg Eichler | Melvin Olson  
(United States)

#### COVID-19 Vaccine Use During Pregnancy: Accelerating Innovative Evidence Generation Platforms to Meet Current and Future Challenges [246] – Meeting Room C1M1

Kourtney Davis, FISPE | Diego Wyszynski  
Wilhelmine Meeraus | Lydie Marcelon | Nicole Baker  
Emily Yost (United States)

# MAIN CONFERENCE Program Schedule

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12:00 - 1:30 PM

LUNCH/POSTER SESSION C/EXHIBITS – HALL C

12:00 - 1:30 PM

ISPE BOARD OF DIRECTORS' LUNCH –  
MEETING ROOM 19

Open to all ISPE members; please contact  
info@pharmacoepi.org if you are interested in  
attending this meeting.

12:15 - 1:15 PM

SPOTLIGHT POSTER SESSION C – HALL E SOUTH

Health Equity

Medical Devices

Medications in Pregnancy and Lactation

Pediatrics

Rare Diseases

Vaccines



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## Program Schedule

1:30 - 3:00 PM

**CONCURRENT SESSIONS:**  
ORAL PRESENTATIONS**Novel Approaches to Pharmacovigilance –  
Room C1M5**

1:30 PM

Surveillance of Antidepressant Safety (SADS):  
Comparison of Signal Detection of Serious Medical  
Events Using Tree-based Scan Statistics and  
Repeated Cohort Studies [247]

Mia Aakjær | Murat Kulahci | Marie Louise De Bruin  
Abdul Rauf Khan | Morten Andersen (Denmark)

1:45 PM

Myocarditis and Pericarditis Associated with  
SARS-CoV-2 Vaccines in Four European Countries  
Using Large Electronic Health Care Data Sources:  
A Population-based Descriptive Cohort and a  
Nested Self-controlled Risk Interval Study [248]

Judit Riera Arnau | Sophie Bots | Anna Schultze  
Davide Messina | Svetlana Belitser | Carlos Duran  
Ema Alsina | Ian Douglas (Spain)

2:00 PM

Screening for Statin-related Prescribing  
Cascades Using High-throughput Sequence  
Symmetry Analysis [249]

Scott Vouri | Earl Morris | Marta Walsh  
Leonie Hochleitner | Matthew Muschett | Jessica Agalliu  
Alyssa Dempsey | Stephan Schmidt (United States)

2:15 PM

Detecting Adverse Drug Events in Dermatology  
Through Natural Language Processing of  
Physician Notes [250]

Lawrence Rasouliyan | Vikas Kumar | Veysel Kocaman  
David Talby (United States)

2:30 PM

Preliminary Results from HERO-together:  
A Post-emergency Use Authorization Observational  
Cohort Study to Evaluate the Safety of the Pfizer-  
BioNTech COVID-19 Vaccine in US Healthcare  
Workers and Community Members [251]

Emily O'Brien | Cherise Wong | Jack Shostak | Laura Webb  
Lauren Cohen | Heather Rubino | Patrick Caubel  
Amy Abernethy (United States)

2:45 PM

Use of Anxiolytic, Hypnotic and Antidepressant  
Drugs After Dispensation of a Levonorgestrel  
52 mg Intra-uterine System Compared to a  
19.5 mg Intra-uterine System:

A Nationwide Matched-cohort Study [252]

Noemie Roland | Bérangère Baricault | Jeremie Botton  
Lise Duranteau | Rosemary Dray-Spira | Alain Weill  
Mahmoud Zureik (France)

**Fractures and Osteoporosis Medication –  
Congress Hall D2**

1:30 PM

Concurrent Use of Prescription Opioids with  
Other Medications and Risk of Fall and Fracture in  
Rheumatoid Arthritis Patients [253]

Nazleen Khan | Katsiaryna Bykov | Jeffrey Katz  
Robert Glynn | Seanna Vine | Seoyoung Kim (United States)

1:45 PM

Effectiveness of Osteoporosis Medications on  
the Risk of Fracture: A French Population-based  
Cohort Study [254]

Pauline Bosco-Levy | James O'Kelly | Karine Briot  
Nadia Mehsen-Cetre | Alban Fabre | Régis Lassalle  
Abdelillah Abouelfath | Angela Grelaud (France)

2:00 PM

A Translational Approach to Study Drug-Drug  
Interaction with Hormonal Contraceptives: From  
Pharmacoepidemiology to Mechanistic Modelling [255]

Amir Sarayani | Brian Cicali | Stephan Schmidt  
Joshua Brown | Almut Winterstein, FISPE (United States)

2:15 PM

Comparison of Denosumab versus Bisphosphonates  
on Progression-free and Overall Survival in Newly  
Diagnosed Multiple Myeloma: A New User, Active  
Comparator Analysis of Real-World Data [256]

Jenny Guadamuz | Mustafa Ascha  
Ghulam Rehman Mohyuddin | Brian C.-H. Chiu  
Pritesh R. Patel | Karen Sweiss, | Rebecca Rohrer  
Amy Pierre (United States)

2:30 PM

The Difference Between Pregabalin and  
Gabapentin in the Risk of Fragility Fractures –  
A Nationwide High-dimensional Propensity Score  
Matched Cohort Study [257]

Daniel Henriksen | Emilie Jørgensen | Per Damkier  
Jesper Hallas, FISPE (Denmark)

# MAIN CONFERENCE

# Program Schedule

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**2:45 PM**

Treatment Heterogeneity in Comparative Effectiveness of Teriparatide vs Bisphosphonates: Multi-database Cohort Study [258]

Alexandros Rekkas | Annika Joedicke | David van Klaveren  
Daniel Prieto-Alhambra | Peter Rijnbeek (*Netherlands*)

**Use it or Lose Out: Trends in Anti-cancer and Biologic Utilization – Congress Hall D5**

**1:30 PM**

Utilization Patterns of Systemic Immunomodulating Drugs in Patients with Atopic Dermatitis in Clinical Practice [259]

Maria Schneeweiss | Priyanka Anand  
Sebastian Schneeweiss, FISPE (*United States*)

**1:45 PM**

Trends in Access to Essential Cancer Medicines in Low and Middle Income Countries, 2015-2020 [260]

Dima Qato | Andrew Shooshtari | Jonathan Cohen  
Prashant Yadav  
(*United States*)

**2:00 PM**

End-of-life Endocrine Treatment of Older Hormone Receptor-positive Metastatic Breast Cancer Patients: A Nationwide Swedish Retrospective Cohort Study [261]

Máté Szilcz | Jonas Wastesson | Henrik Lindman  
Kristina Johnell (*Sweden*)

**2:15 PM**

Real-World Treatment Patterns Before and After Receiving PD-L1 Test Results in Patients with Advanced Non-small Cell Lung Cancer (aNSCLC) [262]

Wenzhen Ge | Scott Antonia | Ning Wu  
Jean-Francois Pouliot | Hilary Dietz | Jessica Jalbert  
Ruben GW Quek | James Harnett (*United States*)

**2:30 PM**

Triptan Consumption Before and After the Initiation of an Anti-CGRP mAb: A Descriptive Drug Utilization Study in Tuscany Region, Italy [263]

Giulia Hyeraci | Olga Paoletti | Luigi Francesco Iannone  
Rosa Gini | Francesco De Cesaris | Silvia Benemei  
Pierangelo Geppetti | Giuseppe Roberto (*Italy*)

**2:45 PM**

The Association Between Trajectories of Adherence to Endocrine Therapy and the Risk of Breast Cancer Recurrence Among Nonmetastatic Breast Cancer Survivors [264]

Juan Hincapie-Castillo | Weihsuan Jenny Lo-Ciganic  
Ching-Yuan Chang | Bobby Jones | Haesuk Park  
Coy Heldermon | Vakaramoko Diaby | Debbie Wilson  
(*United States*)

**Safety Issues Concerning DM and Antidiabetic Drugs – Room C1M0**

**1:30 PM**

Long-acting Insulin Analogues versus Neutral Protamine Hagedorn Insulin and the Risk of Severe Hypoglycemia Among Patients in Type 2 Diabetes in the United Kingdom [267]

Vanessa Brunetti | Kristian Filion | Oriana Hoi Yun Yu,  
Robert Platt (*Canada*)

**1:45 PM**

Dipeptidyl peptidase-4 Inhibitors and the Risk of Acute Liver Injury Among Patients with Type 2 Diabetes [268]

Richeek Pradhan | Hui Yin | Oriana Hoi Yun Yu  
Laurent Azoulay (*Canada*)

**2:00 PM**

The Comparative Safety of Individual SGLT2 Inhibitors and the Risk of Diabetic Ketoacidosis [269]

Devin Abrahami | Elvira D'Andrea | Seoyoung Kim  
Deborah Wexler | Julie Paik | Elisabetta Patorno  
(*United States*)

**2:15 PM**

Risk of New-onset Type 2 Diabetes in Antidepressant Users: A Population-based Cohort Study in Denmark [270]

Reeha Sharon | Morten Andersen | Theis Lange (*Denmark*)

**2:30 PM**

Risk of Hypoglycemia with Sodium Glucose cotransporter-2 Inhibitors vs Alternative Glucose Lowering Medications in Patients with and without Baseline Use of Insulin or Sulfonylurea [265]

Phyo Htoo | Deborah Wexler | Seoyoung Kim | Julie Paik  
Ethan Alt | Dae Kim | Elisabetta Patorno (*United States*)

**2:45 PM**

Concomitant Use of Sulfonylureas and Warfarin and the Risk of Severe Hypoglycemia: A Population-based Cohort Study [266]

Jenny Dimakos | Ying Cui | Robert Platt | Christel Renoux  
Kristian Filion | Antonios Douros (*Canada*)

# Program Schedule

## Evaluating the Vaccines Against the Nasty Bugs: Safety First Round II – Room C1M1

### 1:30 PM

COVID-19 Vaccination During Pregnancy and Risk of Preterm Birth, Small-for-gestational-age Birth, and Stillbirth [271]

Deshayne Fell | Sheryll Dimanlig-Cruz | Annette Regan  
Siri Haberg | Christopher Gravel | Laura Oakley  
Gillian Alton | Tavleen Dhinsa (Canada)

### 1:45 PM

Risk of Myocarditis and Pericarditis Following BNT162b2 and mRNA-1273 COVID-19 Vaccination [272]

Nicola Klein | Kristin Goddard | Edwin Lewis  
Bruce Fireman | Ousseny Zerbo | Thomas Boyce  
Kayla Hansen | James Donahue (United States)

### 2:00 PM

COVID-19 Vaccination and Acute Neurological Events in England: A Self-controlled Case Series Using the OpenSAFELY Platform [273]

Anna Schultze | Jemma Walker | John Tazare  
Arina Tamborska | Bhagteshwar Singh | Katherine Donegan  
Julia Stowe | Caroline Morton (United Kingdom)

### 2:15 PM

Assessment of the Risk of Myocardial Infarction, Stroke, and Pulmonary Embolism Following Different COVID-19 Vaccines in Adults Under 75 Years of Age in France [274]

Stephane Le Vu | Jeremie Botton | Marie-Joëlle Jabagi  
Marion Bertrand | Bérangère Baricault | Jérôme Drouin  
Alain Weill | Paddy Farrington (France)

### 2:30 PM

Genetic Risk and Incident Venous Thromboembolism in Middle-aged and Older Adults Following COVID-19 Vaccination [275]

Junqing Xie | Victoria Y. Strauss | Albert Prats-Urbe  
Dipender Gill | Roger Paredes | Daniel Prieto-Alhambra  
(United Kingdom)

### 2:45 PM

mRNA COVID-19 Vaccination Early in Pregnancy and Risk of Spontaneous Abortion in an International Pregnancy Registry [276]

Omar Mansour | Diego Wyszynski  
Sonia Hernandez-Diaz, FISPE (United States)

## 1:30 - 3:00 PM

### LIGHTNING SESSION 3 – ROOM C1M2

#### Informatics

### 1:30 PM

The Impact of Electronic Health Record Discontinuity on Prediction Modeling [282]

Lily Bessette | Joshua Lin | Shreyas Kar | Richard Wyss  
Aaron Kesselheim (United States)

### 1:35 PM

Target Fishing and Drug Repurposing for Pancreatic Ductal Adenocarcinoma: An Integrated Bioinformatic and Computational Approach [277]

Gouri Nair | Aina Shaju | Subeesh Kulangara Viswam (India)

### 1:40 PM

Using Network Analysis Modularity to Represent Health Code Systems in Machine Learning Models [281]

Mohsen Askar | Kristian Svendsen | Lars Småbrekke  
Lars Ailo Bongo (Norway)

### 1:45 PM

Web and Social Media Listening Using AI/NLP for COVID-19 Vaccine Safety Monitoring [287]

Alena Khromava | Chathuri Daluwatte | Yuning Chen  
Laurence Serradell | Anne-Laure Chabanon  
Anthony Chan-Ou-Teung | Kiran Mahadeshwar  
Cliona Molony (Canada)

### 1:50 PM

Informatics Panel Discussion

#### Disease Epidemiology

### 2:00 PM

Temporal Changes in Incidence of Acute Pyelonephritis: A 19-year Population-based Danish Cohort Study [278]

Lise Svingel | Christian Christiansen | Kirstine Søggaard  
Henrik Birn | Mette Nørgaard (Denmark)

### 2:05 PM

Predicting Risks of Intracranial Bleeding in Older Adults with Atrial Fibrillation to Aid Prescribing Decisions [283]

Lily Bessette | Joshua Lin | Daniel Singer | Dae Kim  
(United States)

# MAIN CONFERENCE Program Schedule

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## 2:10 PM

Estimating the Incidence of Co-occurring Thrombosis and Thrombocytopenia in a Healthcare Database [279]

Yanfang Liu | Choo Hua Goh | Dereck Shen  
Kuan-Chih Huang | Hong Qiu | Man Luo | Zhangjing Chen  
Chao-Hsiun Tang (United States)

## 2:15 PM

Individualized Treatment Rule Identification in Heart Failure Patients Using Precision-medicine Methods [286]

Arti Virkud | Jessie Edwards | Michele Jonsson Funk, FISPE  
Emily Gower | Michael Kosorok | Patricia Chang  
Abhi Kshirsagar (United States)

## 2:20 PM

Disease Epidemiology Panel Discussion

## Pregnancy and Lactation

### 2:30 PM

Exposure to Known or Suspected Teratogenic Drugs Prior to Conception in a Commercially Insured Population of Pregnant Women [284]

Ryan Seals | Alicynne Glazier-Essalmi | Florence Wang  
(United States)

### 2:35 PM

Antibiotic Use in Early Pregnancy and Risk of Gestational Diabetes Mellitus: A Nationwide Cohort Study of 3 Million Pregnancies [285]

Yunha Noh | Eun-young Choi | Ahhyung Choi  
Seung-Ah Choe | Ju-Young Shin (South Korea)

### 2:40 PM

Associations of Prenatal Depression and Selective Serotonin Reuptake Inhibitor (SSRI) Treatment with Early Child Development [280]

Lyndsay Avalos | Nerissa Nance | Ayesha Sujan  
Kathryn Ridout | DeKun Li | Charles Quesenberry  
Meghan Davignon | Lisa Croen (United States)

# Program Schedule

## 2:45 PM

Associations of Prenatal Exposure to Non-steroidal Anti-inflammatory Drugs with Preterm Birth and Small-for-gestational Age Among Women with Autoimmune Disorders [463]

Erin Delker | Christina Chambers | Diana Johnson  
Gretchen Bandoli (*United States*)

## 2:50 PM

Pregnancy and Lactation Panel Discussion

## 3:00 - 3:15 PM

**BREAK/EXHIBITS/POSTERS - Hall C**

## 3:15 - 4:45 PM

### HOT TOPIC SESSION

**How Can We Mitigate Publication of Poorly Conducted RWE Studies? Keynote Session – Congress Hall D4**

The growing acceptance of RWE in clinical and regulatory decision-making as well as the increasing availability of healthcare data coupled with automated analytic approaches have contributed to a marked expansion of RWE studies. Commensurate with this, there has been increasing concern about inappropriate applications of RWE, violating causal inference principles with inappropriate use of data and methods. At the height of the 2020s COVID-19 pandemic, urgency for data elucidating the effects of various COVID-19 treatments may have created additional pressure to relax standards regarding the level and rigor of scientific review, resulting in "pandemic-related research waste", including two papers published in, and then retracted from, *NEJM* and *The Lancet*. This symposium will discuss ways that we as pharmacoepidemiologists can contribute to better governance of RWE studies, including appropriate study conduct, transparency, publication and peer review.

#### SPEAKERS

Almut Winterstein, FISPE

*Distinguished Professor, University of Florida*

Vera Ehrenstein, MPH, DSc, *Aarhus University*

Jeffrey Brown, PhD, *Chief Scientific Officer, TriNetX*

Til Stürmer, FISPE

*Nancy A. Dreyer Distinguished Professor and Chair,  
University of North Carolina at Chapel Hill*

Meredith Smith, FISPE, *AstraZeneca*

## 4:45 - 5:30 PM

**THE FINAL WORD – CONGRESS HALL D4**

**38<sup>th</sup> ICPE Awards**

Anton Pottegård

*Chair, ICPE 2022 Scientific Program Committee*

Jesper Hallas, FISPE

*Co-Chair, ICPE 2022 Scientific Program Committee*

Review of Abstract Admission Categories

Newcomer Track

Moderator Subcommittee

Spotlight Poster Sessions

**Spotlight Poster Awards**

Wendy Camelo Castillo

*Chair, Spotlight Poster Sessions*

**ADJOURNMENT OF THE ICPE 2022**

Anton Pottegård

*Chair, ICPE 2022 Scientific Program Committee*

Jesper Hallas, FISPE

*Co-Chair, ICPE 2022 Scientific Program Committee*

## 5:45 - 6:45 PM

**2023 SCIENTIFIC PROGRAM COMMITTEE – MEETING ROOM 20**

*Open to all attendees.*

### FUTURE MEETINGS

**14<sup>th</sup> Asian Conference on Pharmacoepidemiology (ACPE)**

Tainan, Taiwan | October 21-23, 2022

Soto Setoguchi

*Program Chair*

**Mid-Year Meeting, Reykjavík**

Iceland | April 23-25, 2023

Helga Gardarsdottir, FISPE

*Program Chair*

**39<sup>th</sup> ICPE: Halifax**

Nova Scotia, Canada | August 23-27, 2023

Robert Platt

*Chair, ICPE 2023 Scientific Program Committee*

# Posters

## G U I D E L I N E S

### OVERVIEW

Poster sessions are intended to give presenters an opportunity to discuss informally their research with colleagues interested in their research. The purpose of the posters is to visually stimulate interest in the research, to present sufficient information for viewers to understand the methods, results, and significance of the research, and to promote conversations and networking among conference participants.

Neither ISPE nor the Bella Convention Center will be responsible for any material left on display overnight or is lost or damaged.

### POSTER SESSIONS EXPLAINED

There are two separate and distinct Spotlight and General poster sessions each day at the Bella Convention Center. The Spotlight Poster Session is scheduled for **Hall E South**. The General Poster Session is scheduled for **Hall C**. Each day is allocated a Session and scheduled at the following times:

**Session A: Friday, August 26 | 8 AM - 6 PM**

**Session B: Saturday, August 27 | 8 AM - 6 PM**

**Session C: Sunday, August 28 | 8 AM - 1:30 PM**

### SETUP/TAKE DOWN

7:00am-8:00am; all posters must be in place by 8:00am. The poster area must be cleared of tubes, obstacles, trip hazards, and other materials.

All posters for a specific day's session must be removed at the end the session, by 7:00pm on Friday and Saturday, and by 3:00pm on Sunday. Posters not removed by these times will be assumed to be abandoned and will be discarded.

### DISCUSSION TIME

#### General Session

Presenting Authors must be at their posters at the following times for discussion:

**Friday (Session A): 12:00 - 1:30 PM**

**Saturday (Session B): 11:30 AM - 1:00 PM**

**Sunday (Session C): 12:00 - 1:30 PM**

#### Spotlight Poster

Presenting Authors must be at their posters at the following times for discussion:

**Friday (Session A): 12:15 - 1:15 PM**

**Saturday (Session B): 11:45 AM - 12:45 PM**

**Sunday (Session C): 12:15 - 1:15 PM**

### Spotlight Sessions

Organized by ISPE Special Interest Groups (SIGs). Spotlight sessions showcase select posters and give presenters the opportunity to share and discuss their work with an audience. When the spotlight session chair and audience stop at your poster, please give a brief, 3-minute, presentation and be prepared to answer questions about your research.

Spotlight posters are organized in the following topic areas:

#### Friday (Session A)

Adherence | ASPEN | Biologics | BRACE  
Cancer | Comparative Effectiveness Research

#### Saturday (Session B)

Databases | Digital Epidemiology | Drug Utilization Research  
Drug-Drug Interaction | Genomics | Geriatrics

#### Sunday (Session C)

Health Equity | Medical Devices | Medications in Pregnancy and Lactation | Pediatrics | Rare Diseases | Vaccines

### Spotlight Session Prizes

A group of judges will select the best posters of each Spotlight Session. The best presenters will receive an invitation to display their posters for the duration of the conference. The winners will be announced at The Final Word session on Sunday, August 28.

### Numbering System

Each poster board will be numbered. Presenters should attach their posters to the board number corresponding to the number assigned to their poster listed in this program. The poster board number is the first number listed. The publication number, for use in locating abstracts in the program book, is listed after the abstract title.

### Example

**97 – Characteristics of Patients with Depression Who Initiate Antidepressant and Benzodiazepine Therapy Simultaneously, Compared with Antidepressant Monotherapy [176]**

Greta A. Bushnell | Alice White | Til Stürmer | Bradley Gaynes  
Virginia Pate | Deborah Azrael | Matthew Miller (United States)

Key: **97** – Poster Board Number [176] – Publication Number

# Poster Session A

## SPOTLIGHT POSTERS

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BENEFIT-RISK ASSESSMENT, COMMUNICATION, AND EVALUATION (BRACE)	66
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METHODS IN PHARMACOEPIDEMIOLOGY	76
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SAFETY END POINTS	86

# Poster Session A

FRIDAY, AUGUST 26 | 8 AM - 6 PM

## SPOTLIGHT POSTERS

### ADHERENCE

#### A – Primary Hydroxychloroquine Adherence in Lupus Pregnancy [291]

Julia F Simard | Emily F. Liu | Eliza Chakravarty  
Amadeia Rector | Miranda Cantu | Daniel Kuo | Gary Shaw  
Maurice Druzin | Michael Weisman | Monique Hedderson  
(United States)

#### B – Impact of the COVID-19 Pandemic on Timeliness of Denosumab Dispensations: An Interrupted Time Series Analysis [292]

Anna M. Rzepka | Tara Gomes | Angela M. Cheung  
Sandra Kim | Maha Chaudhry  
Suzanne M. M. Cadarette (Canada)

#### C – Trends in Opioid New Users and Subsequent Long-Term Use Among Patients with Rheumatic and Musculoskeletal Diseases Between 2006-2020 [293]

Meghna Jani | Joyce (Yun-Ting) Huang | David A. Jenkins  
Belay Yimer | Jose Benitez-Aurioles | Niels Peek  
Mark Lunt | William Dixon (United Kingdom)

#### D – Changes in Medication Use Before and After Bariatric Surgery in Older Adults [294]

Scott M. Vouri | Ching-Yu Wang | Leonie Hochleitner  
(United States)

#### E – Antidepressant Continuation and Adherence in Pregnancy and Risk of Antenatal Hospital Admission for Depression and/or Anxiety [295]

Angela Lupattelli | Anna Cantarutti | Giovanni Corrao,  
Chiara Gatti (Norway)

#### F – ADHD Medication Use Trajectories Among Pregnant Women with ADHD in Norway and Sweden [296]

Chaitra Srinivas | Øystein Karlstad | Hein Stigum  
Kari Furu | Carolyn Cesta | Johan Reutfors  
Jacqueline Cohen (Norway)

### ASPEN

#### G – Thiazide Diuretics and the Risk of Skin Cancer: A Meta-Analysis of Observational Studies [297]

Tien Hoang Tran | Seung-Kwon Myung  
Thao Thi Kim Trinh (Vietnam)

#### H – Incidence and Prevalence of Prescription Opioid Use During Australian COVID-19 Restrictions [298]

Monica Jung | Dickson Lukose | Suzanne Nielsen  
J. Simon Bell | Geoffrey Webb | Jenni Ilomaki (Australia)

#### I – Impact of Clinical Pharmacist Interventions on Patients' Quality of Life (QoL) and Influencing Risk Factors Associated with Poor QoL in Systemic Lupus Erythematosus Disorder Patients [299]

Sujit Kumar Sah | Ramesh Madhan  
Subramanian Ramaswamy (India)

#### J – Economic Evaluation of Sacubitril/Valsartan for the Treatment of Chronic Heart Failure with Reduced Ejection Fraction (HFrEF) in Indonesia [300]

Erna Kristin | Dwi - Endarti | Ratih Puspita Febrinasari  
Dwi Aris Agung Nugrahaningsih | Woro Rukmi Pratiwi  
Sudi Indrajaya (Indonesia)

#### K – Risk of Mortality with Early-Stage Nonadherence to the Regimen in Patients with Drug-Susceptible Tuberculosis: A Nationwide Linkage Database [301]

Hyesung Lee | Sungho Bea | Ju Hwan Kim | Bin Hong  
Ju-Young Shin (Republic of Korea)

#### L – Comparative Cardiovascular Events Associated with Denosumab vs Zoledronate in The Elderly: A 5-Year Follow-Up Propensity Score Matching Cohort [302]

Kaicheng Chang | Fang-Yi Li | Shih-Chieh Shao  
Hui-Yu Chen (Taiwan)

# Poster Session A

**M – Association of Sacubitril/Valsartan with Hypoacusis Unveiled Through Disproportionality Analysis in US FDA Adverse Event Reporting System (FAERS) [303]**

Pudi Chiranjeevi | Saraswathy G. R.  
Subeesh Kulangara Viswam | Ann Mary Swaroop (India)

**N – Triazole Anti-fungals Associated with Acute Pancreatitis: A Disproportionality Analysis in a Spontaneous Reporting Database [304]**

Lipin Lukose | Aina Shaju | Mohammed Asif  
Subeesh Kulangara Viswam (India)

## BIOLOGICS

**O – Depression, Anxiety and Adjustment Disorder Among Patients with Psoriasis Receiving Systemic Agents: A Retrospective Cohort Study in Quebec, Canada [305]**

Raymond Milan | Jacques Lelorier | Marie-Josée Brouillette  
Anne Holbrook | Ivan V. Litvinov | Elham Rahme (Canada)

**P – Inpatient Constipation Among Migraine Patients Treated with Preventive Medications in a United States Electronic Health Record Database [306]**

Andrea K. Chomistek | Veena Hoffman | Karminder Gill  
Robert Urman | Stephen M. Ezzy | Li Zhou | Andrew Park  
Brett Loop | Sandra Lopez-Leon | Peter Mcallister  
Florence Wang (United States)

**Q – Effect Modification by Indications to the Risks of Major Thromboembolic Adverse Events in Patients Receiving Intravitreal Anti-Vascular Endothelial Growth Factor Treatment – A Population-based Retrospective Cohort Study [307]**

Wanju Annabelle Lee | Shih-Chieh Shao | Tzu-Chi Liao  
Swu-Jane Lin | Chi-Chun Lai | Edward Lai (Taiwan)

**R – Mandatory Non-Medical Switching Policy from Originator to Biosimilar Infliximab in Patients with Inflammatory Bowel Disease in British Columbia: A Cohort Study [308]**

Anat Fisher | Jason D. Kim | Colin Dormuth (Canada)

**S – TNF-Alpha Inhibitors Biosimilar Use in France: A 207,118 Patients Longitudinal Study [309]**

Hugo Jourdain | Mahmoud Zureik | Léa Hoisnard  
Emilie Sbidian (France)

**T – Predictors of Treatment Changes in Patients with Rheumatoid Arthritis Using Machine Learning [310]**

Alexander Liede | Whitney Krueger | Linyan Li  
Yuhang Liu | Yi Pan | Michelle Brauer | Seoyoung Kim  
Earl Steinberg (Ireland)

**U – Drug Utilization of Biologic Therapy in Crohn's Disease and Ulcerative Colitis: A Population-based Danish Cohort Study 2015-2020 [311]**

Kristoffer Jarlov Jensen | Camilla B. Jensen  
Christina Wennerström | Kari Stougaard Jacobsen  
Johan Burisch | Janne Petersen (Denmark)

## BENEFIT-RISK ASSESSMENT, COMMUNICATION, AND EVALUATION (BRACE)

**V – Regulatory Benefit-Risk Assessment of Oncology Drugs: A Systematic Review of FDA and EMA Approvals [312]**

Tommi Tervonen | Cathy Anne Pinto | Maria E. Dudek  
Shahrul Mt-Isa | Xinyue Liu | Oswaldo Bracco  
Zaneta Balantac | Harrison Clarke (United Kingdom)

**W – Benefit Risk Contextualisation of COVID-19 Vaccines in the EU [313]**

Xavier Kurz | Catherine Cohet | Chantal Quinten  
Geert Molenberghs | Niel Hens | Steven Abrams  
Lander Willem | Jonas Crevecoeur | Neilshan Loedy  
Johan Verbeeck (Netherlands)

**X – Structured Benefit-Risk for Enoxaparin Based on Real-World Evidence Data in the Context of Its Label Extension for Treatment of Deep Vein Thrombosis and Pulmonary Embolism and Prevention of Its Recurrence in Active Cancer Patients [314]**

Marie-Laure Kürzinger | Chantal El-Haddad  
Tatiana Gouin-Soboleva | Zita Fazekas | Denis Granados  
Elizabeth Benito Garcia | Yasmina Djoudi (France)

**Y – An Approach to Personalized Assessment of Drug Efficacy Using Likelihood Ratios [315]**

Colin Dormuth (Canada)

# Poster Session A

## CANCER

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**Z – Incidence of Opportunistic Infections Among Patients with Multiple Myeloma: Real-World Evidence from a Large US National Claims Database [316]**

Alexi Archambault | Martha Makaratz | Karen Rodriguez Lorenc | Glenn Kroog | Christian Hampf  
(United States)

**AA – Proton Pump Inhibitors and Colorectal Cancer Mortality: A Population-based Nationwide Cohort Study [317]**

Jannik Wheler | Deirdre Cronin-Fenton | Anders Kjærsgaard  
Timothy Lash | Rune Erichsen | Veronika Fedirko (Denmark)

**AB – Risk of Venous Thromboembolism Events in Prostate Cancer Patients [318]**

Lu Wang | Mitchell M. Conover | James Weaver  
J. Kellogg Parsons | Sabine D. Brookman-May | Dina Gifkins  
(United States)

**AC – 5-Alpha Reductase Inhibitor Use and Risk of Kidney and Bladder Cancer in Men with Benign Prostatic Hyperplasia: A Population-based Cohort Study [319]**

Niamh Doherty | Christopher Cardwell | Peter Murchie  
Christopher Hill | Laurent Azoulay | Blánaid Hicks  
(United Kingdom)

**AD – Effects of Endocrine Therapy on Cardiovascular Diseases and Type 2 Diabetes Among Breast Cancer Patients: The National Health Insurance Service Database of Korea [320]**

Ji-Eun Kim | Jaseung Choi | Jooyong Park | Wonshik Han  
Daehee Kang | Ji-Yeob Choi (South Korea)

**AE – Use of Selective Serotonin Reuptake Inhibitors (SSRI) and Risk of Breast Cancer [321]**

Tomas Log | Marit Waaseth (Norway)

**AF – Hypothesis-Free Screening for Carcinogenic Effects of Drugs [322]**

Anton Pottegård | Kasper Bruun Kristensen | Søren Friis  
Lars Christian Lund | Jesper Hallas | Christopher Cardwell  
Bettina K. Andreassen | Laurel A. Habel (Denmark)

**AG – Mineralocorticoid Receptor Antagonists and Prostate Cancer Risk in Patients with Heart Failure [323]**

Chengsheng Ju | Wallis Lau | Li Wei (United Kingdom)

## COMPARATIVE EFFECTIVENESS RESEARCH (CER)

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**AH – Antipsychotic Polytherapy Versus Monotherapy in Specific Dose Categories in the Maintenance Treatment of Schizophrenia [324]**

Heidi Taipale | Antti Taskanen | Jari Tiihonen (Finland)

**AI – Comparative Risk of Opioid Overdose with Concomitant Use of Prescription Opioids and Skeletal Muscle Relaxants [325]**

Nazleen Khan | Katsiaryna Bykov | Michael Barnett  
Robert Glynn | Seanna Vine | Joshua J. Gagne (United States)

**AJ – Association of Mortality by Statin Intensity in Chronic Liver Disease Patients with Atherosclerotic Cardiovascular Disease: A Nationwide Cohort Study [326]**

Sungho Bea | In-Sun Oh | Ju Hwan Kim | Dong Hyun Sinn  
Yoosoo Chang | Seungho Ryu | Ju-Young Shin  
(Republic of Korea)

**AK – Macrolide Treatment Failure Due to Drug-Drug Interactions: Real-World Evidence to Evaluate a Pharmacological Hypothesis [327]**

Brian Cicali | Stephan Schmidt | Markus Zeitlinger  
Joshua Brown (United States)

**AL – Real World Effects of Oral Anticoagulants in AF: A Cohort Study with Validation Against Results from a Randomised Controlled Trial [328]**

Emma M L Powell | Ian Douglas | Kevin Wing  
Usha Gungabissoon | Liam Smeeth (United Kingdom)

**AM – Comparative Effectiveness of Ticagrelor, Prasugrel, and Clopidogrel for Secondary Prophylaxis in Acute Coronary Syndrome [329]**

Joel F. Farley | Arun Kumar | Pamela Lutsey  
Wendy St. Peter, | Jon Schommer | Jeremy Van'T Hof  
Abhijeet Rajpurohit (United States)

**AN – Real-World Evidence for the Effectiveness of Vitamin D Supplementation in the Reduction of Total and Cause-specific Mortality. Results from Half a Million Participants of the UK Biobank Cohort Study [330]**

Sha Sha | Hermann Brenner | Ben Schoettker  
Thi Mai Ngoc Nguyen | Sabine Kuznia | Tobias Niedermaier  
Anna Zhu (Germany)

**AO – A Real-World Assessment of Sex Differences in the Comparative Safety and Effectiveness of Direct-Acting Oral Anticoagulants Versus Warfarin [331]**

Meijia Shao | Ai Ni | Macarius Donneyong (United States)

# Poster Session A

## BENEFIT-RISK ASSESSMENT, COMMUNICATION, AND EVALUATION (BRACE) —

1 – Pharmacoepidemiology and Benefit/Risk Management Strategies in Clinical Trials with Cell-based Combination Products [332]

Marina A. Malikova (*United States*)

2 – Application of The BRACE Framework for Benefit-Risk Assessment, Communication, and Evaluation of Pexidartinib [333]

Eric Wang | Charles Dharmani | Maribel Salas (*United States*)

3 – Estimates of Dietary Exposure to Antibiotics Among a Community Population in East China [334]

Yingying Wang | Yurong Li | Jinxin Zang | Xiaolian Dong  
Bingbing Zhu | Na Wang | Lufang Jiang, | Feng Jiang  
Xinping Zhao | Qingwu Jiang | Chaowei Fu (*China*)

4 – Evaluation of Consumers' Knowledge, Beliefs and Risk Assessment Regarding Protein [335]

Paraskevi Basdeki | Eirini-Georgia Deligiannidou  
Diamanto Lazari | Christos Kontogiorgis (*Greece*)

5 – Guidance for Pediatric Use in Prescription Information for Novel Medicinal Products in the EU and the US [336]

Helle Christiansen | Christine Hallgreen | Sven Frokjaer  
Marie Louise De Bruin (*Denmark*)

6 – Fetal Exposure to Isotretinoin in Saudi Arabia: Real-World Data Analysis from 2015-2020 [337]

Yasser Albogami | Ohoud A. Almadani | Sultan Alshehri  
Abdullah Alkhebrri | Mona Anzan | Sumaya Almohareb  
Abdulaziz Alhossan | Adel A. Alrwisan (*Saudi Arabia*)

7 – Research Impact Assessment: An Example from the Canadian Network for Observational Drug Effect Studies [338]

Ingrid Sketris | Amy Freier | Alexandra M. Yip  
Natasha Rodney-Cail | Nancy Carter (*Canada*)

8 – Prenatal Exposure to Teratogenic Drugs: Contrasts Between Publicly and Privately Insured Persons [339]

Nicole Smolinski | Yanning Wang | Thuy Thai  
Amir Sarayani | Celeste Ewig | Sonja Rasmussen  
Almut Winterstein (*United States*)

9 – Readability of Information Imprinted in Patient Information Leaflets (PILs) in Saudi Arabia: The Case of Antihypertensive Medications [340]

Aljoharah M. Algabbani | Shahad Alzahrani | Slawa Moaman  
Radwan Hafiz (*Saudi Arabia*)

10 – Letemovir for Cytomegalovirus Prophylaxis in Allogeneic Hematopoietic Stem Cell Transplantation [341]

Md Azharuddin | Manju Sharma (*India*)

11 – A Review of Patient-Reported Outcomes for European Medicines Agency Regulatory Approval of Oncologic Drugs Between 2017 and 2020 [342]

Carla Torre | Maria Manuel Teixeira | Fabio Cardoso Borges  
Paula Barão | João Rocha | Bruno Sepodes (*Portugal*)

12 – Targets for Quality Improvement? Top 10 Teratogenic Drugs Used During Pregnancy in the US [343]

Yanning Wang | Nicole Smolinski | Thuy Thai  
Amir Sarayani | Celeste Ewig | Sonja Rasmussen  
Almut Winterstein (*United States*)

13 – Effectiveness of Risk Minimization Plan for Concentrated Insulin Lispro in France, Germany and Sweden [344]

Ayad K. Ali | Melissa L. Ewing (*United States*)

14 – A Comprehensive Review on the Teratogenic Risks for Twelve Drugs with Risk Evaluation and Mitigation Strategy (REMS) to Prevent Prenatal Exposure [345]

Tansu Miriam Isilay Aydogan | Nicole Smolinski | Thuy Thai  
Sebastian Jugl | Amir Sarayani | Celeste Ewig  
Almut Winterstein (*Germany*)

15 – Contribution of Real-World Evidence to Support Efficacy Claims in Centralised Marketing Authorisation Applications Submitted to EMA in 2018-2019 [346]

Elisabeth Bakker | Kelly Plueschke | Carla Jonker  
Viktoriiia Starokozhko | Peter Mol | Xavier Kurz (*Netherlands*)

# Poster Session A

## DISEASE EPIDEMIOLOGY/CLINICAL COURSE

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**16 – Prevalence of Hypothyroidism in the United States: An NHANES 2009–2010 and 2011–2012 Analysis [347]**

Chris Schneiderman | Dianlin Guo | Bruce Barger  
*(United States)*

**17 – A Cross-Sectional Analysis of Systemic Lupus Erythematosus: Younger Patients Have Higher Inpatient Readmission Rates and Older Patients Have Higher Inpatient Resource Use and Mortality [348]**

Laura A. Clark | Evelyn Rizzo | Rosa C. Banuelos  
Koen Degeling | Kathy Belk *(United States)*

**18 – Trends in The Incidence of Chronic Inflammatory Demyelinating Polyneuropathy Over a 10-Year Period in a US Commercially Insured Population [349]**

Nicole Tsao | Venkatesh Harikrishnan  
William A. Blumentals *(United States)*

**19 – Estimating Incidence and Case Fatality of Thyroid Storm in Germany Between 2007 and 2017: A Claims Data Analysis [350]**

Katharina Platzbecker | Arulmani Thiyagarajan  
Till Ittermann | Henry Völzke | Ulrike Haug *(Germany)*

**20 – Using Healthcare Claims to Evaluate Long Haul COVID-19 Disease [351]**

Rachel Ogilvie | Jessica Franklin | Michael C. Doherty  
Heather Norman | John Seeger *(United States)*

**21 – Suicide Poisoning Mortality: A Comparison of the National Poison Control Center and CDC National Datasets [352]**

Silvia Perez-Vilar | Jummai Apata | Dinci Pennap  
Andrew Mosholder *(United States)*

**22 – Type 2 Diabetic Patients with a Single Cardiovascular or Renal Comorbidity: 5-Year Risk of a New Cardiovascular Renal Complication Using the French Nationwide Claims Database [353]**

Patrick Blin | Michael Joubert | Philippe Zaoui  
Estelle Guiard | Dunia Sakr | Caroline Dureau-Pournin  
Marie-Agnès Bernard | Régis Lassalle  
Florence Thomas-Delecourt | Sébastien Bineau  
Nicholas Moore | Cécile Droz-Perroteau  
Patrick Jourdain *(France)*

**23 – Prevalence and Clinical Burden of Genetic Dilated Cardiomyopathy in the United States: Results from The Optum® Electronic Health Records Database [354]**

Scott Kelly | Yaa Ababio | Robert Moccia | Franca S. Angeli  
Joanne Berghout | Kui Huang | Kathy Liu | Sara Burns  
Cynthia Senerchia | Gabriel C. Brooks *(United States)*

**24 – The Burden of Sudden Cardiac Death Among Older Adults Diagnosed with Cancer [355]**

Jennifer Lund | Courtney Schlusser  
Sharon Peacock Hinton | Emilie Duchesneau  
Disha Subramaniam | Magdalene M. Assimon *(United States)*

**25 – Diabetes and Cardiovascular Diseases in Women with Pregnancies Complicated by Vaginal Bleeding: Danish Population-based Cohort Study [356]**

Elena Dudukina | Erzsebet Horvath-Puho  
Henrik Toft Sørensen | Vera Ehrenstein *(Denmark)*

**26 – Type 2 Diabetes, the Epidemic: Trends in Prevalence, Treatment and Risk-Factor Control, 2004-2020 [357]**

Jetty Overbeek | Karin Swart | Marieke Blom | Petra Elders  
Giel Nijpels | Ron Herings *(Netherlands)*

**27 – Characteristics and Trends in Cough Medication Use Among Patients with Chronic Cough in Florida: 2013-2019 [358]**

Weihsuan Jenny Lo-Ciganic | Seonkyeong Yang  
Shu Huang | Juan Hincapie-Castillo | Xuehua Ke  
Jonathan Schelfhout | Helen Ding | Mandel Sher  
Debbie Wilson *(United States)*

**28 – Treatment Rates for Glaucoma and Intraocular Hypertension in the United Kingdom, 2000-2019 [359]**

Luis Velez-Nandayapa | Laura Eggenschwiler | Susan Jick  
Christoph Meier | Claudia Becker *(Switzerland)*

**29 – The Burden of Osteoarthritis Across the States of India, 1990–2019: Findings from the Global Burden of Disease Study 2019 [360]**

Ambrish Singh | Siddharth Kumar Das | Arvind Chopra  
Debashish Danda | Binoy J. Paul | Lyn March  
Ashish Jacob Mathew | Padmanabha Shenoy  
Carolyn Gotay | Andrew J. Palmer | Benny Antony *(Australia)*

# Poster Session A

## 30 – Socioeconomic Position, Psychiatric Medical Treatment and Risk of Breast Cancer Recurrence and Mortality:

### A Danish Population-based Cohort Study [361]

Fanny B. Asmussen | Cathrine Hjorth | Oleguer Plana-Ripoll  
Aurélie Mailhac | Deirdre Cronin-Fenton (Denmark)

## 31 – Risk of COVID-19 Among Patients with Atopic Dermatitis:

### A Targeted Literature Review [362]

Ihtisham Sultan | Ashley Howell | Andrea Marcus  
(United States)

## 32 – Age- and Gender-specific Epidemiology of Urinary Tract Infection, Pneumonia, Sepsis, Cholecystitis and Cellulitis Among the Elderly: A 20-Year Nationwide Study [363]

Hung-Yu Lin | Shih-Tsung Huang | Liang-Kung Chen  
Fei-Yuan Hsiao (Taiwan)

## 33 – Incidence of Diabetes Mellitus Among Chronic Inflammatory Demyelinating Polyneuropathy Patients Compared to the General Population: A Real-World Study of US Commercially Insured Individuals [364]

Nicole Tsao | Venkatesh Harikrishnan  
William A. Blumentals (United States)

## 34 – Evaluating the Effectiveness of Implementing Diagnostic Stewardship in the Management of Acute Pharyngitis: Insights from India [365]

Aleena Issac | Jose J. Kochuparambil  
Jais Vayalikulnel (India)

## 35 - Uropathogens and Their Antimicrobial Sensitivity Patterns to Choose Empirical Antibiotic: Study from a Public Hospital in India [366]

Aleena Issac | Jose J. Kochuparambil  
Jais Vayalikulnel (India)

## 36 – Treatment Patterns for Inflammatory Bowel Disease in Japan and the US (2010-2019) [367]

Michiyo Yamazaki | Hsingwen Chung | Hong Qiu Md, PhD  
(United States)

## 37 – Assessment of Neurological Complications in Hemodialysis Patients [368]

Sunil G M | Savitha Sanathan | Manjunath Shetty  
Ronald Castelino | Santhrupth H V (India)

## 38 – The Willingness and Attitude of Healthcare Providers on Medication Self-Management by Hospitalized Patients with Schizophrenia or Bipolar Disease [369]

Elke Loots (Belgium)

## 39 – Associations Between Oral Diseases and Chronic Diseases Modified by Trajectories of Lifestyle Behaviors: A Nationwide Population-based Study in Korea [370]

Ji-Yeob Choi | Jaseung Choi | Seokyung Hahn  
Hee-Kyung Park | Seo-Young Park (South Korea)

## 40 – The Impact of Improved Treatments on Survival of US Leukemia Patients: 1990-2018 [371]

Nadia Howlader | Kathleen A. Cronin | Angela Mariotto  
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Haley J. Kaplowitz, PhD



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**249 – Use of Selective Serotonin Reuptake Inhibitors During Pregnancy and the Risk of Child's Neurodevelopmental Disorders [580]**

Guy Amit | Chen Yanover | Maytal Bivas-Benita  
Irena Girshovitz | Pinchas Akiva | Tal Helbitz  
Vered Bar (Israel)

**250 – Impact of COVID-19 on Pregnancy Complications and Outcomes in the Healthcare Integrated Research Database [581]**

Geetika Kalloo | Maria Guzman | Christopher L. Crowe  
Brett Doherty | Kerrin Gallagher | Aziza Jamal-Allial  
Sarah Hoffman (United States)

**251 – Utilization of Biologics Before, During and After Pregnancy Among Patients with Autoimmune Conditions [582]**

Celeste Ewig | Nicole Smolinski | Yanning Wang  
Thuy Thai | Amir Sarayani | Sebastian Jugl  
Sonja Rasmussen | Almut Winterstein (United States)

## RARE DISEASE

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**252 – Sarcoidosis in Patients After Solid Organ Transplantation Treated with mTOR Inhibitors Versus Calcineurin Inhibitors [583]**

Emese K. Vágó | Matthew C. Baker | Suzanne Tamang  
Henrik Toft Sørensen | Erzsebet Horvath-Puho (Denmark)

**253 – The Burden of AADC Deficiency on Patients, Caregivers, and Healthcare Systems: A Systematic Literature Review [584]**

Flemming Axelsen | Katharina Buesch | Rongrong Zhang  
Kasia Szczepanska | Gregory Fuest | Alexis Russell (Denmark)

**254 – Epidemiology of Palmoplantar Pustulosis in Urban China and a Systematic Review [585]**

Jingnan Feng | Qian Zhang | Jinzhu Guo | Lin Zhuo  
Shengfeng Wang | Wenhui Wang | Siyan Zhan (China)

**255 – Survival Benefit of Eculizumab in Patients with Paroxysmal Nocturnal Hemoglobinuria [586]**

Ami Patel | Jesse Metzger | Louis Terriou  
Christopher Patriquin | Morag Griffin | Jong Wook Lee  
Phillippe Gustovic | Wei Jiang | Jeff Szer (United States)

**256 – Treatment Patterns for Depression and Anxiety Among Patients with Progressive Supranuclear Palsy (PSP) [587]**

Sara J. Snell Taylor | Jessica Shurer | Kristophe Diaz  
Nelson Pace (United States)

**257 – Predictors of Loss of Ambulation in Duchenne Muscular Dystrophy: A Literature Review [588]**

Anne Broe | Katharina Buesch | Nermina Ferizovic  
Erik Landfeldt (Denmark)

# Poster Session A

## 258 – Prevalence of Postural Orthostatic Tachycardia Syndrome (POTS) in the US [589]

Jessica Jalbert | Dana Murdock | Ying Li | Ethan Marin  
Scott Mellis | Mohamed Hussein (United States)

## 259 – Marketing Authorisation Pathways and Clinical Evidence Supporting Approval of Orphan Medicinal Products in EU Between January 2015 and October 2021 [590]

Christine Hallgreen | Mathias Møllebæk  
Ertugrul Corap (Denmark)

## 260 – The Development of a Conceptual Model to Describe the Health-related Quality of Life Impacts of Living with Friedreich Ataxia [591]

Christina Qian | Katharina Buesch | Andrea Bever  
Jessica Dunne | Shelagh Szabo (Canada)

## 261 – Outcome Measures Relevant for Assessing Health Related Quality of Life and Utility in Friedreich Ataxia [592]

Christina Qian | Katharina Buesch | Tina Li | Andrea Bever  
Jessica Dunne | Shelagh Szabo (Canada)

## 262 – Frequency of Sleep Disorders and Insomnia in Patients with Wilson Disease Identified in Electronic Health Records [593]

Mary Dozier | Elissa H. Wilker | Jawad Hasan | Shona Fang  
(United States)

## 263 – Clinical Evaluation of Code-based Algorithms to Identify Pulmonary Arterial Hypertension Patients in Coded Healthcare Databases [594]

Eva-Maria Didden | Di Lu | Andrew Hsi | Haley Hedlin  
Monika Brand | Roham T. Zamanian (Switzerland)

## 264 – A Non-interventional Study Using Multiple Data Sources to Evaluate Potential Sight Threatening Events and Severe Visual Loss Among Patients Exposed to Crizotinib [595]

Kui Huang | Jingping Mo | Elizabeth Kim  
Jayeta Chakrabarti | Keith Wilner | Cynthia De Luise  
Patrick J. Arena (United States)

## SAFETY END POINTS

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## 265 – Long-term Clinical Outcomes Associated with Antimicrobial Allergies Using Mixed-effect Survival Models [596]

Matthew P. Gray | Sandra Kane-Gill (United States)

## 266 – The Effect of Antibiotics Prescription and Length of Hospitalization on Mortality in Patients with Sepsis [597]

Onyinye O. Akunne | Aduragbenro D. Adedapo (South Africa)

## 267 – Effect of Cardiovascular Disease and Diuretic Use on Amputation Risk with Sodium-Glucose Cotransporter 2 Inhibitors in Patients with Type 2 Diabetes [598]

Sohee Park | Han Eol Jeong | Sungho Bea  
Oriana Hoi Yun Yu | Ju-Young Shin (Republic of Korea)

## 268 – Is Statin Use Associated with an Increased Risk of Adrenal Insufficiency? A Nested Matched Case-control Study [599]

Julien Bezin | Sandy Maumus-Robert | Ana Jarne-Munoz  
Antoine Pariente | Thomas Duroux | Lise Duranteau (France)

## 269 – Risk of Suicidal Behavior Associated with Benzodiazepines: A Nationwide Case-crossover Study [600]

Julien Bezin | Marie Tournier | Anne Bénard-Larivière  
Fabrice Jollant | Emilie Hucteau | Papa-Yatma Diop  
Antoine Pariente | Emmanuel Oger (France)

## 270 – Real-World Safety of Factor Xa Inhibitors and Warfarin in Obese and Morbidly Obese Nonvalvular Atrial Fibrillation (NVAf) Patients Using a University Health Center Electronic Medical Record Database in the United States (US) [601]

Mohammed Alsultan | Ana L. Hincapie | Patricia Wigle  
Diego F. Cuadros | Alex C. Lin | Jeff J. Guo (United States)

## 271 – Comparative Safety of Beta-Blocker and Calcium Channel Blockers in Patients with Chronic Obstructive Pulmonary Disease and Atrial Fibrillation: A National Population Cohort Study in Taiwan [602]

Shan-Ju Lin | Nai-Yu Chen | Yu-Ching Chang  
Ching-Lan Cheng (Taiwan)

# Poster Session A

## 272 – Differential Risk of Osteoporotic Fractures Associated with Use of Antipsychotics: A Systematic Review and Meta-Analysis [603]

Dana Alsugeir | Matthew Adesuyan | Basma Alfageh  
Li Wei | Ruth Brauer (*United Kingdom*)

## 273 – Risk of Clostridium Difficile Infection Associated with Used of Proton Pump Inhibitors and Histamine-2 Receptor Antagonists in Taiwan Hospitalized Patients [604]

Yi Hsuan Liu | Yea-Huei Kao Yang | Lu Hsuan Wu  
Chien-Chou Su (*Taiwan*)

## 274 – A Study of Statins and the Risk of Venous Thromboembolism [605]

Lade Ayodele | Susan Jick | David Mcmanus  
Howard J. Cabral (*United States*)

## 275 – Evaluation of a Web-based Application Monitoring Thiopurine Therapy in the Veterans Health Administration (VHA) [606]

Anthony Au | Von Moore | Muriel Burk  
Francesca Cunningham (*United States*)

## 276 – Use of Sodium-Glucose Cotransporter-2 Inhibitors (SGLT2i) and Risk of Parkinson's Disease [607]

Miyuki Hsing-Chun Hsieh | Edward Lai (*Taiwan*)

## 277 – "Take Up to Eight Tablets Per Day": The Impact of Incorporating the Uncertainty of Free-text Medication Instructions for Drug Exposure Data Preparation [608]

Meghna Jani | Belay Yimer | David Selby | Mark Lunt  
Goran Nenadic | William Dixon (*United Kingdom*)

## 278 – Diabetes Mellitus, Antidiabetic Use and the Risk of Treated Depression in the UK [609]

Claudia Becker | Delia Bornand | Susan Jick  
Christoph Meier (*Switzerland*)

## 279 – Use of Oral Contraceptives or Hormone Therapy and Risk of COVID-19 Infection or Hospitalization: A Multisite Cohort Study [610]

Sascha Dublin | Laura Harrington | John Powers  
Elizabeth Bayliss | Stephen Fortmann | Susan Shortreed  
Rod Walker | James Floyd | Jennifer Kuntz | Sharon Fuller  
Ladia Albertson-Junkans | Mi Lee  
Lisa Temposky (*United States*)

## 280 – Warfarin and Sulfonylureas in Individuals with Type 2 Diabetes and Risk of Bleeding: A UK Population-based Cohort Study [611]

Hassan Hasan Alwafi | Abdallah Naser (*Saudi Arabia*)

## 281 – Leuprolide and Fracture Risk in Patients with Central Precocious Puberty [612]

Yandong Qiang | Talia Menzin | Christian Hampp  
Hye Seung Lee | Shannon Sullivan | Yueqin Zhao  
Ting-Ying Huang (*United States*)

## 282 – Aromatase Inhibitors and the Incidence of Parkinson's Disease: Population-based Cohort Study [613]

Francois Montastruc | Farzin Khosrow-Khavar  
Laurent Azoulay | Jean-Louis Montrastruc  
Christel Renoux (*France*)

## 283 – Association Between Concomitant Use of Direct Oral Anticoagulants and Statins and Major Bleeding in Patients with Non-valvular Atrial Fibrillation [614]

Airam De Burgos Gonzalez | Lucía Cea Soriano  
Consuelo Huerta (*Spain*)

## 284 – Evaluate the Risk of Cardiovascular Event in Rheumatoid Arthritis Patient Receiving Tofacitinib and TNF Inhibitors in Taiwan [615]

Chin-Yao Shen | Edward Lai (*Taiwan*)

## 285 – Associations of Thiazide Use with Skin Cancers: A Systematic Review and Meta-Analysis [616]

Yi-Hung Chen | Shih-Chieh Shao | Edward Lai  
Ching-Chi Chi (*Taiwan*)

## 286 – Risk of Adverse Events Associated with Novel Oral Anticoagulant (Apixaban): A Systematic Review and Meta-Analysis [617]

Amar Ashok Maske | Christy Thomas  
Krishna Undela (*India*)

## 287 – A Replication of the Incidence Rate Estimates of Selected Adverse Events of Special Interest (AESIs) from the vACCine COVID-19 monitoring readinESS (ACCESS) in the EU with US Real World Data [618]

Stephen Schachterle | Ling Li | Rongjun Shen  
Charles Wentworth | Jill Dreyfus | Scott Kelly  
Ann Madsen | Xiaofeng Zhou (*United States*)

# Poster Session A

**288 – Cardiovascular Efficacy and Safety of Incretin Mimetics and Sodium-Glucose Co-Transporter 2 Inhibitors as Add-on to Metformin Monotherapy in Patients with Type 2 Diabetes Mellitus: A Systematic Review and Meta-Analysis of RCTs [619]**  
Gifty Lawrance | Christy Thomas | Krishna Undela (*India*)

**289 – To Use Antipsychotics or Not to Use Antipsychotics? A Population-based Nested Case-control Study in Patients with Hospital-acquired Delirium After Discharge [620]**  
Hsiang-Te Tsai | Wei-Hung Chang | Edward Lai (*Taiwan*)

**290 – Risk of Intentional Self Harm and Suicide Among 5-Alpha Reductase Inhibitor Users and Alpha-Blocker Users [621]**  
Sandia Akhtar | Dinci Pennap | Adebola Ajao | Elena Boley Sai Dharmarajan | Kushal Naik | Natasha Flowers Michael Wernecke | Jeffrey Kelman | Andrew Mosholder David Graham | Thomas E. Macurdy (*United States*)

**291 – Acute Myocardial Infarction, Stroke, and MACE in COPD Patients Treated with Acclidinium and Other Inhaled Bronchodilators [622]**  
Nuria Saigi-Morgui | Cristina Rebordosa | Estel Plana Annalisa Rubino | Jaume Aguado | David Martinez Alejandra Lei | Sami Daoud | Peter McMahon Susana Perez-Gutthann | Elena Rivero-Ferrer (*Spain*)

**292 – Atypical Antipsychotic Use and Mortality Risk in Parkinson's Disease [623]**  
Thanh Phuong Pham Nguyen | Dylan Thibault Daniel Weintraub | Allison Willis (*United States*)

**293 – Opioid-Induced Nausea – A Population-based Active-comparator Symmetry Analysis [624]**  
Daniel Henriksen | Kamilla Caspersen | Lars Christian Lund Per Damkier | Jesper Hallas (*Denmark*)

**294 – Association Between Initiation of Medical Therapy and Hypo- or Hyperthyroidism – A Population-based Symmetry Analysis Screening Study [625]**  
Daniel Henriksen | Lars Folkestad | Sara Ali | Per Damkier Jesper Hallas (*Denmark*)

**295 – Exposure to Tricyclic and Selective Serotonin Reuptake Inhibitor Antidepressants and the Risk of Hip Fracture: An Updated US-based Case-control Study [626]**  
Caitlin Dodd | Sara Burns | April Duddy Marten Van Den Berg | Tiffany Siu Woodworth (*United States*)

**296 – Risk of Cardiovascular Events in Patients with Rheumatoid Arthritis Treated with Tofacitinib vs Select TNF Inhibitors: Assessing the Concordance of Trial Findings Using Real-World Data [627]**  
Gulce Askin | Amanda Kong | Julia Pitino Dionna Attinson | Tancy Zhang | Jennifer Polinski Ryan Kilpatrick | Dongmu Zhang | Whitney Krueger (*United States*)

**297 – Flecainide and Risk of Skin Cancer: A Large Population-based Case-control Study in Spain and Denmark [628]**  
Carlen Reyes | Luz Maria M. León-Muñoz Andrea Pistillo | Sigrún Alba Jóhannesdóttir Schmidt Kasper Bruun Kristensen | Anton Pottegård Consuelo Huerta | Talita Duarte-Salles Diana Puente (*Spain*)

**298 – Predicting Individual Risk of Muscle Disorders in Patients Eligible for Statin Treatment: Derivation and External Validation of STRATIFY-StatindMD Prediction Model [629]**  
Ting Cai | Constantinos Koshariaris | Jennifer A. Hirst F. D. Richard Hobbs | James P. Sheppard (*United Kingdom*)

**299 – Identifying Hospitalizations for Heart Failure in Healthcare Databases: Algorithm Development and Validation [630]**  
Yu-Ru Liu | Chih-Fan Yeh | Tsung-Yu Ko | Chi-Chuan Wang Fang-Ju Lin (*Taiwan*)

**300 – Peptidomimetic Structure of Dipeptidyl Peptidase-4 Inhibitors and the Risk of Sulfonylurea-induced Severe Hypoglycemia: A Population-based Cohort Study [631]**  
Jenny Dimakos | Ying Cui | Robert Platt | Christel Renoux Kristian Fillion | Antonios Douros (*Canada*)

**301 – Buprenorphine and Tramadol Prescriptions in Major Depressive Disorder Settings [632]**  
Onyekachukwu Illoh | Eberchukwu Onukwughra Julia F. Slejko (*United States*)

**302 – Risk of Malignancy in Patients with Rheumatoid Arthritis Treated with Tofacitinib vs Select TNF Inhibitors: Assessing the Concordance of Trial Findings Using Real-World Data [633]**  
Gulce Askin | Amanda Kong | Julia Pitino | Dionna Attinson Tancy Zhang | Jennifer Polinski | Ryan Kilpatrick Dongmu Zhang | Whitney Krueger (*United States*)

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# Poster Session B

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## SPOTLIGHT POSTERS

### DATABASES

**A – Identification and Classification of Asthma Patients Using a Computerized Database - Data from a Large Israeli Health Maintenance Organization [634]**

Vered Rosenberg | Gabriel Chodick | Neville Berkman (*Israel*)

**B – Quality of Life in Patients with Post-COVID-19 Syndrome: Combining Data from Electronic Health Records and Questionnaires [635]**

Rinske Van Den Hoek | Karin Hek, Eelko Hak | Isabelle Bos  
Lisa Bosman | Robert Verheij | Tim Olde Hartman  
Lilian Peters | Jean Muris | Sjoukje Van Der Bij  
Liset Van Dijk (*Netherlands*)

**C – The Impact of COVID-19 on Population-level Drug Utilisation of Alendronate in Five European Databases [637]**

Eng Hooi (Cheryl) Tan | Danielle E Robinson  
Annika Joedicke | Maria Sanchez-Santos | Mees Mosseveld  
Katrine Bødkergaard Nielsen | Carlen Reyes  
Annemarie Voss | Ettore Marconi | Francesco Lapi  
Jonas Reinold | Katia M Verhamme | Lars Pedersen  
Marcel De Wilde | Marc Far Ruiz | María Aragón  
Pauline Bosco-Levy | Régis Lassalle  
Daniel Prieto-Alhambra (*United Kingdom*)

**D – The Impact of Longitudinal Data-completeness of Electronic Health Record (EHR) Data on Prediction Performance of Clinical Risk Scores [662]**

Joshua Lin | Yinzhu Jin | Sebastian Schneeweiss  
Dave Merola (*United States*)

**E – Changes in Sensitivity and Positive Predictive Value in Phenotype Algorithms for Myocardial Infarction and Ischemic Stroke Over Time in Multiple Observational Databases [663]**

Joel N Swerdel | Patrick Ryan (*United States*)

**F – Time Trends in Performance of Different Mortality Data Sources Compared to the National Death Index in the Healthcare Integrated Research Database [664]**

Todd Sponholtz | Aziza Jamal-Allial | Shiva K Vojjala  
Anahit Papazian | Biruk Eshete | Seyed Hamidreza  
Mahmoudpour | Patrice Verpillat | Daniel Beachler  
(*United States*)

**G – Selection of Censoring Schemes for Analyzing Overall Survival in Real-World Data with Linked Mortality Information [665]**

Wei-Chun Hsu | Aaron Crowley | Susan Oliveria  
Craig Parzynski (*United States*)

**H – Concordance of Efficacy Data Collected in a Clinical Trial Setting Versus a Registry Study Setting: Example of Use of Real-World Data to Support Drug Regulatory Approval of Abatacept for Acute Graft Versus Host Disease Prophylaxis [666]**

Christopher Bond | Tzuyung Douglas Kou | Leslie Kean  
Linda J. Burns | Karissa Lozenski | Roxanne Kapikian  
Xiao-Ying Tang | Mei-Jie Zhang | Michael Hemmer  
Sean Connolly | Martin Polinsky | Brian Gavin  
Andres Gomez | Marcelo Pasquini (*United States*)

### DIGITAL EPIDEMIOLOGY

**I – New Tools for Pharmacoepidemiological Studies: Developing a Lightweight Modular Analytics Framework Based on a Nordic Common Data Model (NCDM) and a General Model of Person-Time-Event Data [659]**

Morten Andersen | Reeha Sharon | Sarah Kristiansen  
Mia Aakjær (*Denmark*)

**J – Machine Learning to Automate Data Extraction for Systematic Literature Reviews [660]**

Antonia Panayi | Juan M Ortiz | Katherine Ward | Antonio  
Santiago Ibanez Lopez | Andrew Xia | Regina Barzilay  
(*Switzerland*)

# Poster Session B

## K – Predicting Early Readmission and Death After Hospitalization for Chronic Obstructive Pulmonary Disease Exacerbation Using Machine Learning [661]

Chih-Ying Wu | Chien-Ning Hsu | Charlotte Wang  
Jung-Yien Chien | Chi-Chuan Wang | Fang-Ju Lin (Taiwan)

## L – Identifying Protective Drugs for Parkinson's Disease: Large Screening of The French National Healthcare Database with Signal Detection Machine Learning Algorithms [670]

Émeline Courtois | Thi Thu Ha Nguyen | Agnès Fournier  
Sylvie Escolano | Laure Carcaillon-Bentata  
Pascale Tubert-Bitter | Alexis Elbaz | Anne Thiébaud  
Ismail Ahmed (France)

## M – Development of a Tool for Visualizing Patient Journeys Using Disease Blogs on the Internet [671]

Shinichi Matsuda | Takumi Ohtomo | Masaru Okuyama  
Hiraku Miyake (Japan)

## DRUG UTILIZATION RESEARCH

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## N – Respiratory Drugs and Antibiotics Use Before and During COVID-19 in Asthma and COPD Patients: A Quasi-Experimental Study [638]

Laila Nabil Mahmoud Helmy Aboulatta | Emily M. Barr  
Christine Leong | Kaarina Kowalec | Joseph Delaney  
Jamie Falk | Silvia Alessi-Severini | Sherif Eltonsy (Canada)

## O – Variation in The Impact of a Policy to Restrict Coverage of Lidocaine 5% Plasters in Ireland [639]

Frank Moriarty | Molly Mattsson (Ireland)

## P – In-Hospital Treatment Patterns Among Patients Hospitalized with COVID-19 in the United States [640]

Nuvan Rathnayaka | Catherine Wiener | Alexander Breskin  
Angela Cook | M. Alan Brookhart (United States)

## Q – Utilization of Antipsychotics for Delirium After Hospitalization for COVID-19 and Other Infections [641]

Lily Bessette | Yichi Zhang | Cassandra York | Joshua Lin  
(United States)

## R – Agreement and Correlation Between Different Topical Corticosteroid Potency Classification Systems [642]

Mina Tadrous | Alexa C Bowie | Alexander Egeberg  
Jane Harvey | Stephanie Lax | Jacob Thyssen  
Aaron M. Drucker (Canada)

## S – Use of Methotrexate in Girls and Women of Childbearing Age and Occurrence of Methotrexate-Exposed Pregnancies in Germany [643]

Nadine Wentzell | Bianca Kollhorst | Ulrike Haug (Germany)

## T – Intended and Unintended Consequences: Changes in Opioid Prescribing Practices Following Two Policies in North Carolina, 2012–2018 – A Controlled Interrupted Time Series Analysis [644]

Courtney Maierhofer | Shabbar Ranapurwala  
Bethany Diprete | Naoko Fulcher | Christopher Ringwalt  
Paul Chelminski | Timothy Ives | Nabarun Dasgupta  
Vivian Go | Brian Pence (United States)

## U – Statin-Related Adverse Drug Reactions in UK Primary Care Consultations: A Retrospective Cohort Study to Evaluate the Risk of Cardiovascular Events and All-cause Mortality [645]

Widya Norma Insani | Cate Whittlesea | Chengsheng Ju  
Kenneth Man | Hassan Hasan Alwafi | Alaa Alsharif  
Sarah Chapman | Li Wei (United Kingdom)

# Poster Session B

## DRUG-DRUG INTERACTION

**V – Polypharmacy and Potential Drug Interactions in the Brazilian Amazon: A Cross-Sectional Population-based Study, 2019 [646]**

Tais Freire Galvao | Gustavo Magno B Tiguman  
Tayanny Margarida M. Almeida Biase | Marcus Silva (Brazil)

**X – Age and Sex Differences in Polypharmacy Patterns in New Users of Metformin: A UK-based Descriptive Study [647]**

Maria Luisa Marques De Sa Faquetti | Theresa Burkard  
Adrian Martinez De La Torre | Andrea Burden (Switzerland)

**Y – The Impact of Polypharmacy on Antidepressant Discontinuation in Comorbid Depression and Type 2 Diabetes: A UK Primary Care Record Cohort Study [648]**

Annie Jeffery | Kate Walters | David Osborn | Ian Wong  
Joseph F. F. Hayes (United Kingdom)

**Z – Polypharmacy Trends Among US Middle-aged Adults from 2007 to 2020 [649]**

April Duddy | Lu Zhang | Tiffany Siu Woodworth  
(United States)

**AA – Adverse Events of Myopathy After Comedication of Statin-Contraindicated Drugs: Case/Noncase Study Using Korea Adverse Event Reporting System (KAERS) Database, 2016-2020 [672]**

Sewon Park | Min-Ju Koo | Sun-Young Jung (South Korea)

**AB – Concomitant Use of Sodium-Glucose Co-transporter 2 Inhibitors and Statins and the Risk of Myotoxicity - A Pharmacovigilance Study [673]**

Antonios Douros, | Christopher Gravel | Daniel Krewski  
Donald Mattison (Canada)

**AC – A Population Based Assessment of Concomitant Use of Sulfonylureas and Beta-Blockers and the Risk of Severe Hypoglycemia [674]**

Jenny Dimakos | Ying Cui | Robert Platt | Kristian Filion  
Christel Renoux | Antonios Douros (Canada)

## GENOMICS

**AD – KRAS.PG12 Mutated Advanced Non-Small Cell Lung Cancer: Characteristics and Outcomes from a Danish Nationwide Retrospective Observational Study [636]**

Matilde Frost | Ditte Resendal Gotfredsen  
Kristoffer Jarlov Jensen | Anne Mette Skov Soerensen  
Karly Louie Nicholas Sroczynski | Erik Jakobsen  
Jon AndersenEspen Jimenez-Solem  
Tonny Petersen (Denmark)

**AE – Shifting Treatment Landscape and Overall Survival by PD-L1 Expression Level Among Patients with Advanced Non-Small Cell Lung Cancer (aNSCLC) [650]**

Wenzhen Ge | Hilary Dietz | Ning Wu | Ruben Gw Quek  
Jean-Francois Pouliot | Scott Antonia | Jessica Jalbert  
James Harnett (United States)

**AF – Evolution of The Treatment Landscape in Patients with Advanced or Metastatic Cancers Following the Approval of Immuno-Oncology Treatments: Analysis of The England National Cancer Registry [651]**

Patrice Verpillat | Seyed Hamidreza Mahmoudpour  
Craig Knott | Amerah Amin | Emmanuelle Boutmy (Germany)

**AG – Utilization of Drugs with Pharmacogenetic Dosing Recommendations in Switzerland: A Descriptive Study Using Swiss Claims Data [667]**

Nina L. Wittwer | Christoph Meier | Carola A Huber  
Henriette E. Meyer | Zu Schwabedissen | Samuel Allemann  
Cornelia Schneider (Switzerland)

**AH – Determinants of Higher Metformin Daily Dosage Among Type 2 Diabetic Patients: A Genetic Risk Score Analysis in The Rotterdam Study [668]**

Soroush Mohammadi Jouabadi | Payam Peymani  
Bruno H. Stricker | Fariba Ahmadizar (Netherlands)

**AI – Comparison of FDA and EMA Regulatory Routes and Approval Timing for Personalized Medicines [669]**

Carla Vossen | Tara Isherwood | Jessica D Albano  
(Netherlands)

# Poster Session B

## GERIATRICS

**AJ – Urinary Retention and the Risk of Delirium Among Elderly Patients with Benign Prostatic Hyperplasia [652]**

Sheng-Yung Chang | Chin-Yao Shen | Edward Lai (Taiwan)

**AK – Polypharmacy and Trajectories of Health-Related Quality of Life in Older Adults: A National Cohort Study [653]**

Edwin CK Tan | Muhamad Aljeaidi  
Miriam Haaksma (Australia)

**AL – Classifying Polypharmacy: A Latent Class Analysis in Older Adults in Quebec, Canada [654]**

Maude Gosselin | Denis Talbot | Marc Simard  
Miceline Mesidor | Yohann M Chiu | Caroline Sirois (Canada)

**AM – Comparison of Potentially Inappropriate Medications in Nursing Homes and the Community: A Nationwide Cross-Sectional Study in Older Persons [655]**

Solene Drusch | Thien Le Tri | Joel Ankri  
Hugues Michelon | Mahmoud Zureik | Marie Herr (France)

**AN – Time Series Analysis of Blood Pressure-lowering Drug Prescribing Trends Among Dementia Patients in Hong Kong [656]**

Edmund CI Cheung | Celine SI Chui | Miriam Leung  
Gary Kk Lau | Hao Luo | Eric Yf Wan  
Ian Wong (Hong Kong)

**AO – One-Year Opioid Use Following Discharge from Post-Acute Care After Hip Fracture [657]**

Andrew Zullo | Meghan Cupp | Francesca Beaudoin  
Richa Joshi | Melissa Riester | Kaley Hayes (United States)

**AP – Longitudinal Progression of Frailty in Older Population and Risk of Mortality: An Application of Joint Latent Class Models [658]**

Leena Mohamed Elabbas Elhoussein | Danielle E. Robinson  
Antonella Delmestri | Daniel Prieto-Alhambra | Alan Silman  
Victoria Y. Strauss (United Kingdom)

## DISEASE EPIDEMIOLOGY/ CLINICAL COURSE

**1 – The Risk of Acute Infection in Association with Newly Diagnosed Depression: A Cohort Study [675]**

Noah Aebi | Christoph Meier | Susan Jick | Undine E. Lang  
Julia Spoendlin (Switzerland)

**2 – The Impact of Sex on Migraine-associated Risks of Premature Stroke and Myocardial Infarction: A Danish Population-based Cohort Study [676]**

Cecilia Fuglsang | Morten Schmidt | Lars Pedersen  
Henrik Toft Sørensen (Denmark)

**3 – The Impact of COVID Passport Mandates on The Number of Cases of and Hospitalizations With COVID-19 in the UK: A Difference-In-Differences Analysis [677]**

Kim López Güell | Albert Prats-Urbe | Martí Català  
Daniel Prieto-Alhambra | Clara Prats  
Jotun Hein (United Kingdom)

**4 – Trends and Risk Factors of Adult Oral Disease: Results from a Nationwide Population-based Study in Korea [678]**

Jaseung Choi | Seo-Young Park | Seokyoung Hahn  
Hee-Kyung Park | Ji-Yeob Choi (South Korea)

**5 – Response to Electroconvulsive Therapy in Treatment Resistant Depression: A Nationwide Register-based Study [679]**

Adam Nygren | Johan Reutfors | Lena Brandt  
Robert Bodén | Axel Nordenskjöld | Mikael Tiger (Sweden)

**6 – Patterns of Adverse Event Reporting for Long-acting Benzodiazepines [680]**

Ju Won Lee | Yuseon Jung | Seung-Hun You | Dal Ri Nam  
Sun-Young Jung (Republic of Korea)

**7 – Heart Failure Phenotype Transitions in Early Diagnosis [681]**

Mai Duong | Phillip R Hunt | Alison Booth | Nahila Justo  
Javier Cid Ruzafa | Ignacio Hernández | Beatriz Palacios  
Juan J. Delgado | Aldo Maggioni (United Kingdom)

**8 – COVID-19: Multifactorial Modelling to Predict Long-Term Trends [682]**

Chris Schneiderman | Leon Raskin | Alexander Liede  
(United States)

# Poster Session B

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# Poster Session C

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# Poster Session C

SUNDAY, AUGUST 28 | 8 AM - 1:30 PM

## SPOTLIGHT POSTERS

### HEALTH EQUITY

**A – Effect of The Refitted CKD-EPI Race-Free Formula to Estimate Glomerular Filtration Rate on The Chronic Kidney Disease Prevalence and Mortality in The Danish Population [1000]**

Uffe Heide-Jørgensen | Søren Vestergaard | Henrik Birn  
Christian Christiansen (Denmark)

**B – Description of Concurrent CKD and HF by Race and Ethnicity Distribution in the US [1001]**

Daniel Fernandez Llana | Claudia Cabrera Moksnes  
Nitin Shivappa (United Kingdom)

**C – A Dashboard to Visualize the Geographic Distribution of Incidence and Prevalence of Diseases by Race and Ethnicity in the United States Using Real-World Data [1002]**

Brian Dreyfus | Siva Rayavaram | Leticia Ferri | Lorena Kuri  
(United States)

**D – State-By-State Analysis of Medicaid Barriers to Medication for Opioid Use Disorder (MOUD) Access [1003]**

Sophia L Balkovski | Catherine Psaras | Marissa Seamans  
(United States)

**E – The Association Between Race, Social Determinants of Health, and Treatment for Major Depressive Disorder (MDD) in a Real-World Cohort [1004]**

Jessica Paulus | Xi Qian | Pam Kumparatana  
Veena Hoffman | Zhaohui Su | Carl Marci (United States)

**F – Rural-Urban Disparities in COVID-19 Related Mortality Across US Counties by Racial and Ethnic Composition [1005]**

Wenxi Huang | Inmaculada Hernandez | Shangbin Tang  
Nico Gabriel | Nasser Sharareh | Nimish Patel  
Lucas A Berenbrok | Sean Dickson | Serena Jingchuan Guo  
(United States)

**G – Impact of Contextual-Level Social Determinants of Health on Novel Antidiabetic Drug Adoption in Patients with Type 2 Diabetes [1006]**

Yujia Li | Hui Hu | Yi Zheng | Jie Xu | Wei-Han Chen  
Ning Liu | Jiang Bian | Serena Jingchuan Guo (United States)

**H – Racial Differences in US COVID-19 Testing, Positivity, Hospitalization, and Mortality [1007]**

Sruthi Adimadhyam | Adebola Ajao | Maria Kempner  
Hye Seung Lee | Caroline Jjingo | Jane Baumblatt  
Danijela Stojanovic | Yueqin Zhao | Joy Kolonoski  
Efe Eworuke (United States)

### MEDICAL DEVICES

**I – Development of a Python Notebook to Automate Predictive Modeling: Total Knee Arthroplasty Case Study [1008]**

Chantal Holy | Harshita Vemu | Saurabh Menon  
Julia Hwang | Yifan Zhang | Jill Ruppenkamp | Paul Coplan  
(United States)

**J – Differences in Outcomes Among Patients with Atrial Fibrillation Undergoing Catheter Ablation with Versus Without Intracardiac Echocardiography Use [1009]**

Rahul Khanna | Rhea C. Pimentel | Neloufar Rahai  
Sonia Maccioni (United States)

**K – Catheter Ablation Procedure Using Advanced Porous Tip Contact-Force Sensing Radiofrequency Catheter: Impact on Healthcare Utilization Among Patients with Persistent Atrial Fibrillation [1010]**

Rahul Khanna | Amit Doshi | Sonia Maccioni  
Meghana Sariki (United States)

**L – Clinical and Economic Burden Associated with Uncontrolled Surgical Bleeding: A Retrospective Database Analysis [1011]**

Stephen S Johnston | Pranjal Tewari | Mosadoluwa Afolabi  
Walter Danker (United States)

# Poster Session C

## M – Comparison of Outcomes for Major Contemporary Endograft Devices Used for Endovascular Repair of Intact Abdominal Aortic Aneurysms [1012]

Michael O. Falster | Sarah K. Garland | Louisa Jorm  
C. Barry Beiles | Anthony J. Freeman | Art Sedrakyan  
Oluwadamisola Sotade | Ramon L. Varcoe (Australia)

## N – Do Methods Matter in Diagnostic Yield Assessment in Bronchoscopy?

### A Simulation-based Analysis [1013]

Meijia Zhou | Anil Vachani | Fabien Maldonado  
Balaji Laxmanan | Iftekhar Kalsekar | Philippe Szapary  
Lisa Dooley | Septimiu Murgu (United States)

## O – Association Between Use of Levonorgestrel-releasing and Copper Intrauterine Devices and The Risk for IUD Expulsion in Routine Clinical Practice: Results from EURAS-LCS12 [1014]

Lisa Eggebrecht | Anja Bauerfeind | Tanja Boehnke  
Camille Cellier | Jens Lange | Klaas Heinemann (Germany)

## P – Evaluating Implementation of HPV Self-collection for Cervical Cancer Screening Among Low-income, Under-screened Women in the US [1015]

Elyse M. Miller (United States)

## PEDIATRICS

---

## Q – Trends in The Incidence of Varicella Cases with Complications Among Korean Children During 2010-2020 After the Universal One-Dose Varicella Vaccination Program [1016]

Hyunjeong Cho | Bongkyoo Choi | Eunbi Sun  
Seoyoung Jeon | Seonghee Ann (Republic of Korea)

## R – Risk of Infection in Children with Psoriasis Receiving Treatment with Ustekinumab, Etanercept, or Methotrexate [1017]

Maria Schneeweiss | Timothy J Savage | Richard Wyss  
Julien Kirchgesner | Yinzhu Jin | Cassandra York  
Joseph F. Merola | Sebastian Schneeweiss | Robert Glynn  
(United States)

## S – Off-Label Use of Drugs in Paediatric (Specialised) Outpatient Clinics – What Has Changed Between 2009 and 2019? [1018]

Irmgard Toni | Jutta Hupfer | Christine Gerber  
Wolfgang Rascher | Antje Neubert (Germany)

## T – Association Between Prenatal Antipsychotic Exposure and The Risk of Attention-Deficit/Hyperactivity Disorder and Autism Spectrum Disorder:

### A Systematic Review and Meta-Analysis [1019]

Zixuan Wang | Kirstie Wong | Ian Wong | Kenneth Man  
(United Kingdom)

## U – Outpatient Antibiotic Prescribing in Early Life: A Population-based Study Comparing Birth Cohorts from Denmark and Germany [1020]

Ulrike Haug | Oliver Scholle | Lotte Rasmussen  
Mette Reilev | Jost Viebrock (Germany)

## V – Trends in Psychotropic Prescriptions Dispensed to US Children Early in the COVID-19 Pandemic [1021]

Greta A Bushnell | Jenny Sun | Wendy Camelo Castillo  
Angela Czaja | Susan Dosreis | Tobias Gerhard  
Florentia Kaguelidou | Haeyoung Lee  
Sangita Pudasainee-Kapri | Sudha Raman  
O'mareen Spence | Durrieu Geneviève | Daniel B Horton  
(United States)

## X – Association Between Antihistamine Exposure and Newly Diagnosed Juvenile Idiopathic Arthritis: A Nationwide Analysis [1022]

Daniel B. Horton | Tania J. Atanassova | Cecilia Huang  
Joanna Madej | Sarah E. Mcguire | Tobias Gerhard  
Brian L Strom (United States)

## Y – Use of Valganciclovir/Ganciclovir [(v)GCV] for Treatment of Congenital Cytomegalovirus (cCMV) Infection in the United States: Evidence from The Sentinel Distributed Database, 2008-2020 [1023]

Ashish Rai | Emmanuel Ojo | Takashi Komatsu  
Mayura Shinde | Danijela Stojanovic | Adebola Ajao  
Hengrui Sun | Amy Bishara | Joy Kolonoski  
Ann McMahon | Prabha Viswanathan (United States)

# Poster Session C

## MEDICATIONS IN PREGNANCY AND LACTATION

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**Z – COVID-19 Infection and Medication Use in Pregnancy (CONSIGN) – A Multinational Drug Utilisation Study Using Linked Healthcare Data [1024]**

Eimir Hurley | Beatriz Poblador-Plou  
Gabriel Sanfelix-Gimeno | Francisco Sanchez-Saez  
Isabel Hurtado | Clara Rodriguez-Bernal | Sue Jordan  
Daniel Thayer | Ieuan Scanlon | Carys Jones  
Claudia C. Bartolini | Rosa Gini | Giorgio Limoncella  
Miriam Sturkenboom | Hedvig Nordeng (Norway)

**AA – Emulation of a Target Trial of Metformin in Pregnancy in Women with Pre-Gestational Type 2 Diabetes Mellitus [1025]**

Jennifer Yland | Krista Huybrechts | Amelia Wesselink  
Lauren Wise | Sonia Hernandez-Diaz (United States)

**AB – National Trends and Utilization Patterns of Benzodiazepines and Z-Hypnotics Among 2,883,162 Pregnant Women in Taiwan: An Interrupted Time Series Analysis [1026]**

Lin-Chieh Meng | Chih-Wan Lin | Shih-Tsung Huang  
Fei-Yuan Hsiao (Taiwan)

**AC – Intrauterine Exposure to SSRI Antidepressants and Risk of Emotional Disorder till Age 22: A Danish National Register Study [1027]**

Ardesheer Talati | Mette Bliddal | Rikke Wesselhoeft  
Katrine Strandberg-Larsen | Myrna Weissman  
Jay Gingrich | Anton Pottegård (United States)

**AD – Association of Maternal Levothyroxine Use During Pregnancy with Offspring Birth and Neurodevelopmental Outcomes [1028]**

Mengqin Ge | Edmund C. Cheung | Kenneth Man  
Patrick Ip | Wing Cheong Leung | Gloria Li | Annie Kung  
Ching-Lung Cheung | Ian Wong (Hong Kong)

**AE – Application of Claims-based Algorithms to Ascertain Gestational Age Among Multiple Pregnancy Outcomes [1029]**

Jennifer Judy | Deepa Malhotra | Amy Law | David Oliveri  
Jennifer Nguyen | Kimberly Shea (United States)

## RARE DISEASES

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**AF – Development and Testing of Diagnostic Algorithms for Identifying Subjects with Acromegaly in Administrative Claims Databases [1030]**

Salvatore Crisafulli | Andrea Fontana | Valentina Ientile  
Luca L'abbate | Isabela Alexandra Chiorean  
Francesco Barone-Adesi | Gianluca Trifiro (Italy)

**AG – A Population-based Study on the Prevalence of Diagnosed Primary Immune Thrombocytopenia in the United States, 2016-2021 [1031]**

Sherry Xiao | Sara Burns | Stephen Schachterle  
Lawrence Charnas | David Readett (United States)

**AH – Algorithm to Identify Patients with Hypereosinophilic Syndrome (HES) in Electronic Health Record Databases [1032]**

Sandra Joksaitė | Gemma Requena | Nicholas Galwey  
Rupert Jakes | Melissa Van Dyke (United Kingdom)

**AI – Risk of Hospitalization for Vaso-Occlusive Episode in Patients with Sickle-Cell Disease After Out-patient Exposure to Systemic Corticosteroids [1033]**

Margaux Lafaurie | Ondine Walter | Pierre Cougoul  
Julien Maquet | Pablo Bartolucci | Maryse Lapeyre-Mestre  
Guillaume Moulis (France)

**AJ – The Use of United States Administrative Claims Data to Study Patients with Friedreich Ataxia: The Impact of Specific and Non-Specific Coding Periods [1034]**

Christina Qian | Katharina Buesch | Lauren Powell  
Karissa Johnston (Canada)

**AK – An Innovative Way to Generate Blinded Data in Single Arm Clinical Trials [1035]**

Cynthia Girman | Katherine Brind'amour PhD  
Susan Hartmaier PhD | Xinruo Zhang | Emma Rosen  
David A. Weinstein MD MSc (United States)

# Poster Session C

## AL – Use of Provider Notes in Novel Identification of Cancer at the Gastroesophageal Junction [1036]

Katherine Gilpin | Gulce Askin | Clark Jackson  
David Hallett | Wendy Sebbly | Leon Raskin (*United States*)

## AM – Natural History of Wilson's Disease in the United States Using Optum® Electronic Health Records [1037]

Scott Kelly | Karla Therese Sy | Kennedy Cook  
Steven Arkin | Jose Francisco Cara | Marko Pregel  
Kasia Lobello | Shawkat Hassan | Rongjun Shen  
Xiaofeng Zhou | Caihua Liang | Kui Huang (*United States*)

## VACCINES

---

## AN – Characteristics Associated with Residual Risk of COVID-19 Hospitalisation After a Complete Vaccination Schedule in 28 Million People in France [1038]

Laura Semenzato | Jeremie Botton | Jérôme Drouin  
Bérangère Baricault | Marion Bertrand  
Marie-Joelle Jabagi | François Cuenot | Kim Bouillon  
Stephane Le Vu | Rosemary Dray-Spira | Alain Weill  
Mahmoud Zureik (*France*)

## AO – Heterogeneity Across European Electronic Healthcare Data Sources: Identification of Adverse Events of Special Interest (AESI) and Impact in Multi-Databases Assessment – An ACCESS Study [1039]

Corinne Willame | Caitlin Dodd | Carlos Duran  
Daniel Weibel | Olaf H Klungel | Miriam Sturkenboom  
Roel Elbers | Rosa Gini | Elisa Barbieri | Nicolas H Thurin  
Tania Schink | Felipe Villalobos | Ainara Mira-Iglesias  
Patrick Souverein | Mar Martin-Perez | Régis Lassalle  
Cécile Droz-Perroteau | Jérémy Jové | Consuelo Huerta  
Airam De Burgos Gonzalez | Veronica Bryant  
Patricia García-Poza | Maria Martinez-Gonzalez (*Belgium*)

## AP – Cohort Monitoring of 29 Adverse Events of Special Interest Prior to and After COVID-19 Vaccination in Four Large European Data Sources [1040]

Miriam Sturkenboom | Davide Messina | Olga Paoletti  
Airam De Burgos Gonzalez | Patricia García-Poza  
Consuelo Huerta | Ana Llorente | Olaf H Klungel  
Mar Martin-Perez | Maria Martinez-Gonzalez  
Ivonne Martin | Jetty Overbeek | Marc Padros-Goossens  
Patrick Souverein | Karin Swart, Daniel Weibel | Rosa Gini  
(*Netherlands*)

## AQ – Vaccination and Acute Flares in Rheumatoid Arthritis: A Nationwide Case-crossover Study Using the French SNDS Health Care Databases [1041]

Lamiae Grimaldi | Yann Hamon | Tom Duchemin  
Philippe Attias | Jacques Benichou | Lucien Abenheim  
Yola Moride (*France*)

## AR – Changing Characteristics Over Time of Individuals Receiving COVID-19 Vaccines in Denmark: A Population-based Descriptive Study of Vaccine Uptake [1042]

Mette Reilev | Morten Olesen | Helene Kildegaard  
Henrik Støvring | Jacob Harbo Andersen | Jesper Hallas  
Lars Christian Lund | Louise Ladebo | Martin Ernst  
Per Damkier | Peter Jensen | Anton Pottegård  
Lotte Rasmussen (*Denmark*)

## AS – Clinical Outcomes and Safety of Live-Attenuated Vaccines in Children Exposed to Biologics Response Modifiers in Utero [1043]

Ousseny Zerbo | Kristin Goddard | Edwin Lewis  
Darios Getahun | Kristin Palmsten | Candace C Fuller  
Bradley Crane | James Donahue | Matthew F Daley  
Lisa A Jackson | Nicola Klein | Shararareh Modarresi  
(*United States*)

## AT – Post-Emergency Use Authorization (EUA) Active Safety Surveillance Study Among Individuals in the Veterans Affairs Health System Receiving Pfizer-BioNTech Coronavirus Disease 2019 (COVID-19) Vaccine [1044]

Kofi Asomaning | Mei Sheng Duh | Maral Dersarkissian  
Cynthia De Luise | Catherine Nguyen | Mu Cheng  
Angela Lax | Suna Park | Mianzhao Guo | Mingfang Zhang  
Pierre Cremieux | Yinong Young-Xu (*United States*)

## AU – Real-World Effectiveness of mRNA COVID-19 Vaccines Among Elderly US Nursing Home Residents [1045]

Hector Izurieta | Yun Lu | Arnstein Lindaas  
Kathryn Matuska | Xiangyu Shi | Mikhail Menis  
Whitney Steele | Michael Wernecke | Yoganand Chillarige  
Hui-Lee Wong | Jeffrey Kelman | Richard A. Forshee  
(*United States*)

# Poster Session C

## BIOSIMILARS

### 1 – Developing and Testing of Diagnostic Algorithms for the Identification of Inflammatory Bowel Diseases Using a Claims Database from Southern Italy [1046]

Elena Sofia Fiore | Ylenia Ingrassiotta | Valentina Isgrò  
Valentina Ientile | Saveria S Foti | Luca L'abbate  
Andrea Fontana | Michele Tari | Angela Alibrandi  
Gianluca Trifiro (*Italy*)

### 2 – Rheumatoid Arthritis, Psoriasis and Other Auto Immune Diseases – Prescribing Patterns and Characteristics of Patients Undergoing Biological Therapy in Portugal (2020) [1047]

Claudia Furtado | Isabel Tovar | Cristina Gaspar  
(*United States*)

### 3 – Trends in The Use of Biologics for Treatment of Plaque Psoriasis in the Real-World Setting [1048]

Lawrence Rasouliyan | Amanda G. Althoff | Vikas Kumar  
Carla Zema | Stacey Long | Mitesh B. Rao (*United States*)

### 4 – Comparative Risk of Herpes Zoster and Postherpetic Neuralgia in Patients with Psoriasis Receiving IL-17 Inhibitor and IL-12/23 Inhibitor Versus Traditional Systemic Immunosuppressants [1049]

Edward Lai | Chaw-Ning Lee | Miyuki Hsing-Chun Hsieh  
Che-Yu Chen | Chao-Chun Yang | Tzu-Chi Liao (*Taiwan*)

### 5 – Evaluation of The Effectiveness and Safety of Biological Disease-Modifying Drugs for the Treatment of Ankylosing Spondylitis in the Unified Health System [1050]

Francisco De Assis Acurcio | Bárbara Santos  
Gerusa A. Oliveira | Luíla C Henriques | Marina Morgado  
Natália Dias Brandão | Isabella C. Ferreira  
Fernanda De Frias Campos | Juliana Álvares-Teodoro (*Brazil*)

### 6 – Evaluation of The Rate of Discontinuation of Treatment with Biological Drugs in Patients with Ankylosing Spondylitis: Pre-Pandemic and Pandemic Period [1051]

Francisco De Assis Acurcio | Fernanda De Frias Campos  
Bárbara Santos | Isabella C. Ferreira | Luíla C. Henriques  
Gerusa A. Oliveira | Natália Dias Brandão | Marina Morgado  
Juliana Álvares-Teodoro (*Brazil*)

### 7 – Evaluation of the Use Profile of Biological Medicines and Synthetic Target-Specific Medicines for the Treatment of Rheumatoid Arthritis in the Sus in the State of Minas Gerais, Brazil [1052]

Francisco De Assis Acurcio | Isabella C. Ferreira  
Bárbara Santos | Fernanda De Frias Campos  
Gerusa A. Oliveira | Natália Dias Brandão | Marina Morgado  
Luíla C. Henriques | Juliana Álvares-Teodoro (*Brazil*)

### 8 – Brodalumab Assessment of Hazards: A Multinational Safety (BRAHMS) Study of a Biological Anti-Psoriatic Drug Across Six European Countries [1053]

Mette Reilev | Peter Jensen | Henrik Støvring  
Lise Skov Ranch | Rosa Gini | Claudia C. Bartolini  
Gianluca Trifiro | Ursula Kirchmayer  
Alessandro Cesare Rosa | Valeria Belleudi | Ulrike Haug  
Sarina Schwarz | Wiebke Schaefer | Ron Herings  
Elisabeth Smits | Jetty Overbeek | Emily Holthuis  
Kari Furu | Karin Gembert | David Hägg  
Michele Tari | Valentina Ientile | Ylenia Ingrassiotta | Alexander Egeberg  
Jesper Hallas (*Denmark*)

### 9 – Traceability of Insulin Glargine's Innovator and Its Biosimilar Products Adverse Drug Events Reports in Saudi Arabia [1054]

Fares Alrubaish | Solaiman Alhawas | Abdulrahman Alnuaim  
Nouf Alfadel | Fawaz F Alharbi (*Saudi Arabia*)

### 10 – Exploring The Relationship Between Utilization Patterns of Biologic Disease-Modifying Anti-Rheumatic Drugs and Disease Activity in Rheumatoid Arthritis Patients [1055]

Irma Convertino | Massimiliano Cazzato | Silvia Tillati  
Sabrina Giometto | Rosa Gini | Giulia Valdiserra  
Emiliano Cappello | Sara Ferraro | Marco Bonaso  
Claudia C. Bartolini | Olga Paoletti | Valentina Lorenzoni  
Matteo Filippi | Giuseppe Turchetti | Michele Cristofano  
Corrado Blandizzi | Marta Mosca | Ersilia Lucenteforte  
Marco Tuccori (*Italy*)

### 11 – The Risk of Serious Infection in Crohn's Disease Patients Treated with Biologics: An External Comparator Cohort Study [1056]

Nai-Yu Chen | Chiao-Hsiung Chuang | Yu-Ching Chang  
Ching-Lan Cheng (*Taiwan*)

# Poster Session C

## 12 – A Regulatory Overview of Biosimilars Across Selected Countries [1057]

Luciane Lopes | Gustavo M Santos | Svetlana Doubova  
Lisa Pont | Efe Eworuke | Martín Cañás | Marco Tuccori  
Lily Iracema Gordillo Alas | Angela Acosta Santamaria  
Gustavo H. Marin | José Crisóstomo Landeros  
Flavia C. Albuquerque | Golnoosh Alipour Haris  
Martin A. Urtasun | Boya Lin | Juan Roldán-Saelzer  
Patricia Carmona-Sepulveda | Dino Viveros  
Felipe D. Vera | Irma Convertino Marco Bonaso  
Claudia Garcia Serpa Osorio-De-Castro | Ursula Kirchmayer  
Mariama G. Falcao | Fernanda Lacerda L Machado  
Lourdes Abigail Orellana Tablas  
Saul Eduardo Contreras Sanchez  
Manuel Machado Beltrán (Brazil)

## 13 – Real-World Effectiveness and Persistence of Methotrexate Versus Adalimumab: A Comparative Study from The British Association of Dermatologists Biologics and Immunomodulators Register (BADBIR) [1058]

Oras Alabas | Kayleigh Mason | Zenas Yiu | Richard Warren  
Mark Lunt | Catherine Smith | Christopher Griffiths  
(United Kingdom)

## 14 – Recent Biosimilar Uptake in the United States [1059]

Elizabeth Dee | Caitlin Elliott | Shangzhi Gao | Caitlin Dodd  
Tiffany Siu Woodworth (United States)

## 15 – Assessment of the Issues on Understanding and Use of Biologics in Clinical Practice and Their Regulations [1060]

Imelda G. Peña | Bryan Paul I. Bulatao (Philippines)



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# Poster Session C

## DISEASE EPIDEMIOLOGY/ CLINICAL COURSE

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**16 – Long-Term Health Events and Healthcare Utilization After COVID-19 Hospitalization Among Children and Adults Insured by Medicaid, North Carolina, United States, 2020-2021 [1061]**

Rachel Sendor | Sharon Peacock Hinton | Til Stürmer  
Michele Jonsson Funk (*United States*)

**17 – Association Between Tumor Location and Pathological Stage in Patients with Resectable Low Rectal Cancer: Evidence from 20-Years of Data in China [1062]**

Qingqing Hu | Zheng Kuo Md | Yuting Yao | Yuan Zhou  
Enda Yu Md | Zheng Lou Md | Guanyu Yu Md  
Leqi Zhou Md | Yongjing Zhang | Hong Qiu Md, PhD  
Wei Zhang (*China*)

**18 – A Scoping Review of Drug Exposures and The Development of Parkinson's Disease [1063]**

Takahiro Itaya | Brendan Hallam | Mine Orlu  
Anette Schrag | Irene Petersen | Kate Walters  
(*United Kingdom*)

**20 – Treatment-Resistant Depression and Labor Market Affiliation in the Danish Welfare Society: A Register-based Study [1065]**

Frederikke H. Gronemann | Thomas Lund | Louise Lindholdt  
Kathrine Bang Madsen | Martin Balslev Jørgensen  
Merete Nordentoft | Merete Osler (*Denmark*)

**21 – Long-Term Clinical and Health Outcomes Following COVID-19 Disease: An Umbrella Review [1066]**

Hu Li | Jin Xia | Dimitri Bennett | Fatima Roque  
Rujuta Phadke | Ana Bárbara Tavares | Mugdha Gokhale  
Fidelia Ida | Jinnie J. Rhee | Montse Soriano Gabarro  
(*United States*)

**22 – Incident Dementia Identified by Redeemed Prescriptions Recorded in The Danish National Prescription Registry [1067]**

Cecilia Fuglsang | Nils Skajaa | Péter Szentkúti  
Erzsebet Horvath-Puho | Henrik Toft Sørensen  
Victor Henderson (*Denmark*)

**23 – Comorbidity, Trauma and Mortality in Children and Young Adults Using ADHD Medications in Quebec Between 2000 and 2020 [1068]**

Carlotta Lunghi | Helen-Maria Vasiliadis | Elham Rahme  
Louis Rochette | Martin Gignac | Victoria Massamba  
Fatoumata Binta Diallo | Alvine Fansi | Samuele Cortese  
Alain Lesage (*Italy*)

**24 – Comparison of Methods to Quantify Uncertainties in Averaging Incidence Estimates: An Illustration of Approximating Lyme Borreliosis (LB) Incidence in High-Risk Regions in Europe [1069]**

Thao Mp Tran | Leah Burn | Maxim Blum | James H. Stark  
(*Belgium*)

**25 – Nursing Home Facility Characteristics and Occurrence of Severe COVID-19 Outcomes Among US Medicare Beneficiaries Ages 65 and Older in the Vaccine Era [1070]**

Hector Izurieta | Mikhail Menis | Yun Lu | David Graham  
Yixin Jiao | Heng-Ming Sung | Yue Wu | Yoganand Chillarige  
Michael Wernecke | Jeffrey Kelman | Richard A. Forshee  
(*United States*)

**26 – Identification of Drugs Associated with Lower Risk of Parkinson's Disease Using Systematic Screening Approach in a Nationwide Nested Case-control Study [1071]**

Anna-Maija Tolppanen | Marjaana Koponen | Anne Paakinaho  
Julian Lin | Sirpa Hartikainen (*Finland*)

**27 – Prevalence and Predictors of COVID-19 Associated Mucormycosis: A Systematic Review and Meta-Analysis [1072]**

Asha K Rajan | Muhammed Rashid | Dhruv Patel  
Viji Chandran | Sreedharan Nair | Vishal Shanbhag  
Girish Thunga (*India*)

**28 – Kidney Function Before and After Acute Kidney Injury: A Nationwide Population-based Cohort Study [1073]**

Simon Jensen | Uffe Heide-Jørgensen | Søren Vestergaard  
Henrik Gammelager | Henrik Birn | Dorothea Nitsch  
Christian Christiansen (*Denmark*)

**29 – The Impact of Antidepressant Treatment on Insulin Commencement in Type 2 Diabetes: A UK Electronic Health Record Nested Case-control Study [1074]**

Annie Jeffery | Kate Walters | David Osborn | Ian Wong  
Joseph F. F. Hayes (*United Kingdom*)

**30 – Quality Assessment of Latest National Comprehensive Cancer Network Guidelines Using The AGREE-II Instrument and RIGHT Statement [1075]**

G. Nethravathi | Pravalika Mudimala | Christy Thomas  
Krishna Undela (*India*)

# Poster Session C

## 31 – Antihypertensive Prescription and Blood Pressure Patterns in Patients with Chronic Kidney Disease at a Nephrology Outpatient Clinic in Lagos University Teaching Hospital, Idi-Araba [1076]

Ifedolapo Adesola Adejumo | Babawale Bello  
Sunday O. Olayemi (Nigeria)

## 32 – Return-To-Work in Premenopausal Breast Cancer Patients Prescribed Taxane-based Chemotherapy. a Population-based Cohort Study Investigating the Impact of 26 Single Nucleotide Polymorphisms [1077]

Cathrine Hjorth | Per Damkier | Tore B Stage  
Søren Feddersen | Stephen Hamilton-Dutoit | Bent Ejlersen  
Timothy Lash | Henrik Bøggild | Henrik Toft Sørensen  
Deirdre Cronin-Fenton (Denmark)

## 33 – Antiplatelet Drugs and Breast Cancer Risk in a Large Nationwide Danish Case-control Study [1078]

Manon Cairat | Anton Pottegård | Morten Olesen  
Laure Dossus | Agnès Fournier | Blánaid Hicks (France)

## 34 – Techniques for Characterising Long COVID in Real World Data [1079]

Kristin Kostka | Evan Minty | Antonella Delmestri  
Barrack Omondi | Daniel Prieto-Alhambra | Annika Joedicke  
(United States)

## 35 – Association Between Antiseizure Medication Prescribing and Its Indications During Pregnancy and Offspring Neuro-Developmental Outcomes Between 1995 and 2020 in the UK [1080]

Paul Madley-Dowd | Harriet Forbes | Viktor H. Ahlqvist  
Jessica Rast | Caichen Zhong | Brian K Lee | Dheeraj Rai  
(United Kingdom)

## 36 – A Nationwide Registry-Linkage Study of Mental Disorders in Chronic Pain Patients: Characteristics of Users of Opioid Versus Non-Opioid Analgesics [1081]

Line C. Gjerde | Marte Handal | Ragnar Nesvåg  
Thomas Clausen | Torgeir G Lid | Aleksis Hamina  
Svetlana Skurtveit | Ingvild Odsbu (Norway)

## 37 – Natural History of COVID-19 Among US Nursing Home Residents Ages >65 Years: Vaccine Era [1082]

Hector Izurieta | Yun Lu | Yixin Jiao | David Graham  
Michael Wernecke | Mikhail Menis | Yoganand Chillarige  
Heng-Ming Sung | Yue Wu | Jeffrey Kelman  
Richard A. Forshee (United States)

## 38 – Urticaria and Risk of Cancer: A Danish Population-based Cohort Study [1083]

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Christian Vestergaard | Sigrún Alba Jóhannesdóttir Schmidt  
Lise Maria Lindahl | Kathryn Mansfield | Sinéad Langan  
Henrik Toft Sørensen (Denmark)

## 39 – An Evaluation of Survival Comparing Women with Breast Cancer Receiving Surgery or Primary Endocrine Therapy and Women without Cancer [1084]

Yubo Wang | Douglas Steinke | Sean Gavan | Li-Chia Chen  
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## 40 – Bayesian Nonparametric Comorbidity Analysis of Type 2 Diabetes Mellitus (T2DM) [1085]

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Stefan Weiler | Andrea Burden (Switzerland)

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Sarah Seager | Christian Reich | Xiaoyu Lin (United States)

## 42 – Trends of Hospital Admissions Due to Neoplasms in England and Wales Between 1999 and 2019: An Ecological Study [1087]

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## 43 – Trends in Hospital Admissions for Mental, Behavioural and Neurodevelopmental Disorders in England and Wales Between 1999 and 2019: An Ecological Study [1088]

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## 44 – Health-Related Quality of Life of Multiple Myeloma Patients from a Brazilian Metropolis Improves After First Line of Treatment [1089]

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Jéssica Malta | Lívia Silveira  
Iwysyn H Costa | Bárbara Marques  
Cristiane Aparecida A Menezes De Pádua (Brazil)

## 45 – Incidence of First-Time HbA1c-Defined Prediabetes in Denmark 2012-2018 and Risk of Progression to Type 2 Diabetes: A Nationwide Study based on Routine Care Laboratory Data [1090]

Sia Nicolaisen | Reimar Thomsen | Cathrine Juel Lau  
Daniel Witte | Henrik Toft Sørensen | Lars Pedersen  
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Stephen Fortmann | Elizabeth Bayliss | Susan Shortreed  
Laura Harrington | Mi Lee | Ladia Albertson-Junkans  
John Powers | Sharon Fuller (United States)

## 47 – Comparisons of Twenty-Year Trends in Direct

### Costs, Absence Payments and Lost Time for Employee "Caregivers" of Patients with Breast, Skin, GI, Female, Male, and "Other" Cancers [1092]

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Alek A. Drnach | Justin L. Schaneman | Eric M. Rosenberg  
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## 48 – Outcome Predictability of Serum Uric Acid Among Non-Dialyzed Chronic Kidney Disease Patients – A Hospital Based Prospective Cohort Study [1093]

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## 49 – Changes in Weight Across the Life Span in Patients with Bipolar Disorder I Treated with Second Generation Antipsychotics [1094]

Veena Hoffman | Harry Cheng | Thomas Brecht  
Jessica Paulus | Carl Marci (United States)

## 50 – Real-World Experience of Hospitalized COVID-19 Patients Requiring Mechanical Ventilation [1095]

Lawrence Rasouliyan | Amanda G. Althoff | Vikas Kumar  
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## 51 – Incidence of Lyme Borreliosis in the Dutch General Practice Population: A Large-Scale Population-based Cohort Study Across the Netherlands Between 2015 and 2019 [1096]

Hilda J. De Jong | Eline Houben  
Fernie J. Penning-Van Beest | Josephina Kuiper  
Emily Holthuis | Maxim Blum | Jozica Skufca  
Margarita Riera-Montes | Bradford Gessner | Andreas Pilz  
Andrew John Vyse | Elizabeth Begier | Mendwas Dzingina  
Ron Herings | James H. Stark (Netherlands)

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Su Been Lee | Luke E Zobotka | Alec Sun  
Julianna M. Mastrorili | Theresa A. Oduol | Jun Liu  
Daniel H. Solomon | Katherine P. Liao | Seoyoung Kim  
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Koen Degeling | Kathy Belk (United States)

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Nancy Maserejian | Feiby L. Nassan | Isha Mehta  
Qiang Hou | Cathy Lally | Christopher Simpson  
Jeremy D. Furtado | Nicholas J Everage (United States)

## 56 – Incidence and Prognosis of Young Japanese Patients with Stroke: A Population-based Registry Database Research [1101]

Sachiko Tanaka (Japan)

## 57 – Retrospective Study Estimating the Incidence of Acute Alcoholic Hepatitis in the United Kingdom [1102]

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Sigrid Behr | Olessia Zorina (Switzerland)

## 58 – Treatment Pathway and Mortality-Causing Mechanism of Treatment-Resistant Depression: A Six-Year Population-based Retrospective Cohort Study [1103]

Vivien Ky Chan | Edmund Cl Cheung | Min Fan | Hao Luo  
Francisco Lai | Rosa Wong | Ian Wong | Xue Li (Hong Kong)

## 59 – Incidence of Second Primary Malignancies (SPMs) in Relapsed/Refractory (R/R) B-Cell Non-Hodgkin's Lymphoma (NHL) and Multiple Myeloma (MM) Patients in England [1104]

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Lorena Cirneanu | Christina Lymperopoulou  
Emanuil Markov | Svetomir Hitov | Ferdinando E Vegni  
(United States)

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Jennifer Martin | Francesca Cunningham (United States)

### 61 – Antidepressants and Antipsychotics Before and During Pregnancy in the Netherlands [1106]

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Jens H. J. Bos | Eelko Hak | Eugene Van Puijenbroek  
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### 62 – Immediate Release Fentanyl: Real-World Data on Abuse and Dependence in Spain [1107]

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### 63 – Community Pharmacist-Led Interventions and Their Impacts on Patients with Type 2 Diabetes in Low-and Middle-Income Countries: A Scoping Review [1108]

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Fang Li | Xinyu Li | Petra Denig | Katja Taxis (Netherlands)

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Marta Monreal | Consuelo Huerta | Alfonso Rodríguez  
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Helga Gardarsdottir (Netherlands)

### 66 – Drug Utilization Patterns During Pre-conception and Pregnancy Period in Women with Systemic Lupus Erythematosus in Korea [1111]

Yuseon Jung | Seung-Hun You | Sun-Young Jung  
(South Korea)

### 67 – Opioid Utilization Profile in Brazilian Federal Hospitals [1112]

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Serpa Osorio-De-Castro | Elaine Silva Miranda (Brazil)

### 68 – Use of Symptomatic Treatments for Alzheimer's Disease Dementia [1113]

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Jina Swartz | Xinyue Liu (United States)

### 69 – The Issue of Antibiotic Combinations Prescribing in Outpatients in Syria [1114]

Ana Tomas | Saleh Aljadeeah (Serbia)

### 70 – Antimicrobial Use in Sweden During the COVID-19 Pandemic: Prescription Filling and Inpatient Care Requisition Patterns [1115]

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Carolyn Cesta | Ingvild Odsbu (Sweden)

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Johan Lönnbro | Lina Holmqvist | Elisabeth Persson  
Per Thysell | N. David Åberg | Susanna M Wallerstedt  
(Sweden)

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Hilary Dietz | Jean-Francois Pouliot | Jessica Jalbert  
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### 73 – Persistence and Adherence to Antihypertensive Drugs in the Participants of Social Health Insurance Attending a Primary Care Clinic in Banjarmasin, Indonesia [1118]

Alfi Yasmina | Haura Maulida Rahmatika | Farida Heriyani  
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Alfi Yasmina | Farida Heriyani | Muhammad Arifial Asyum  
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Marcus Silva (Brazil)

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Sophie Billioti De Gage, | David Desplas  
Rosemary Dray-Spira (France)

## 77 – Facilitators & Barriers of Medication Adherence Amongst the Geriatric: A Developing Country Scenario [1122]

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Anmaria Thomas | Steby Mol Stephen  
Mohamed Dharvees T. | Sandy Crasta D.  
Jehath M. Syed (India)

## 78 – Will The Implementation of ISO/CEN Standards for Global Identification of Medicinal Products (IDMP) Make Any Difference for Pharmaco-Epidemiology? [1123]

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## 80 – Systemic and Biologic Therapy in Atopic Dermatitis [1125]

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Navid Omidifar | Alekhya Lavu (Canada)

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Cara Mcdermott | Sengwee Toh | Cate Lockhart  
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Kenneth Man | Hassan Hasan Alwafi | Matthew Adesuyan  
Sarah Chapman | Li Wei (United Kingdom)

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Marieke Blom | Joline Beulens | Giel Nijpels | Petra Elders  
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Ching-Yuan Chang | Juan Hincapie-Castillo | Walid Gellad  
Bobby Jones | Jeannie Lee | James Huang  
Debbie Wilson | Gary Reisfield | Chian Kwok  
Khoa Nguyen | Chris Delcher | Christopher Harle  
Yong Ge | Ronald Shorr | Pei-Lin Huang | Lauren Adkins  
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## 86 – Antihyperglycemic Use in Hemodialysis-Dependent Kidney Failure [1131]

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Magdalene M. Assimon | John Buse | Jenny Flythe  
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## 87 – Understanding Opioid Use Prior to and Immediately Following Cancer Diagnosis Using Group-based Trajectory Models (GBTM) [1132]

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Winston Liauw | Natasa Gisev | Sallie-Anne Pearson  
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## 88 – Dynamic Pattern of Anti-Epileptic Drug During Pregnancy Among Women with Epilepsy by Using Linking Database in Taiwan [1133]

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## 89 – Impact of the COVID-19 Controlled Drugs and Substances Act Exemption on Pharmacist Prescribing of Opioids and Benzodiazepines in Ontario: A Cross-Sectional Time-series Analysis [1134]

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## 92 – Risk of Drug-Related Upper Gastrointestinal Bleeding in the Total Population of the Netherlands: A Time-trend Analysis [1137]

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## 93 – Melatonin Use Among Children, Adolescents, and Young Adults: A Danish Nationwide Drug Utilization Study [1138]

Mette Bliddal | Helene Kildegaard | Lotte Rasmussen  
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## 94 – An Epidemiological Evaluation of Topical Ophthalmologic Prescriptions Across Age Spectrums Using US Claims Database: 2005 to 2019 [1139]

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## 96 – Trends in Insulin Types and Devices Used by Adults with Type 2 Diabetes in the United States, 2016 to 2020 [1141]

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## 97 – Drug Utilization Pattern Among Patients with Benign Prostatic Hyperplasia in Korea: A Large Cohort Study [1142]

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## 98 – Primary Non-Adherence to Biologics and Immunomodulatory Therapies for Rheumatoid Arthritis, Psoriatic Arthritis, and Spondyloarthritis Using Linked EHR and Pharmacy Claims Data [1143]

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## 99 – Group-based Trajectory Modeling of Medication Refill Patterns of Novel Oral Anticoagulant (NOACs): An Analysis of the Phollow Cohort [1144]

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Yolanda B. De Rijke | Monique Mb Breteler  
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## 101 – Barriers and Enablers of Decision-Making Considering Use of Antidepressants – A Mixed-Method Study Among Pregnant and Postpartum Women with a Mental Illness [1146]

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Akrity Pandey | Estory Pokhrel | Pathiyil Ravi Shankar  
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Cherry Chu | Vess Stamenova | Janette Brual  
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110 – Psychotropic Medication Use After the COVID-19 Pandemic Transition to Telepsychiatry Services Among the Privately Insured in the United States [1155]

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111 – Mortality Consequences of Misuse of Psychoactive Prescription Drugs in Portugal – The MisuMedPT Project [1156]

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112 – Profile of Antiplatelet Use in Patients After Myocardial Infarction in a General Hospital in Banjarmasin During 2016–2020 [1157]

Pandji Winata Nurikhwan | Muhammad Nur Mahmudi  
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## ACPE 2022



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## TAINAN, TAIWAN



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David B. Olsen | Rosemary Dray-Spira | Chantal Quinten  
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## 125 – The Impact of Polypharmacy on Restarting Antidepressant Treatment in Individuals with Comorbid Depression and Type 2 Diabetes: A UK Primary Care Cohort Study [1170]

Annie Jeffery | Kate Walters | David Osborn | Ian Wong  
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Danijela Stojanovic | Arvind Ramaprasan | Ann Kelley  
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### 138 – Barriers and Facilitators in Reporting Medication Errors: A Nurse's Perspective [1183]

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Ashir Shumunov | Jennifer Martin | Francesca Cunningham  
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Cheryl N. McMahon-Walraven | Catherine Saltus  
Patricia Shuminski | James A. Kaye | Catherine B. Johannes  
Brian Calingaert | Mark Libertin | Shelli Graham  
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Michael Burns | Justin Waller | Amanda M. De Hoedt  
Sameer Ghate | Jeri Kim | Thomas J. Polascik  
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Kenneth Pack | Toska Cooper | Sarah Bloemers  
Brian Pence | Debra E. Irwin | Teresa B. Gibson (*United States*)

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Hung-Ta Chen | Cindy Khordoc (*United States*)

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Jonas Reinold | Anne Elbrecht | Wolfgang Biewener  
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Dawn G Albright | Emily Rubinstein | Amanda Patrick  
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Elizabeth M Garry | Nicolle Gatto (Canada)

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Robert Wood | Theo Tritton | Olivia Massey | Rosie Wild  
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Vera Ehrenstein | Karin Gembert | Ella Jansen  
Ron Herings | Nicolas H Thurin | Igor Locatelli  
Janja Jazbar | Špela Žerovnik | Mitja Kos | Steven Smit  
Sirje LindAndres Metspalu | Silvia Zaccagnino  
Maria Paula Busto | Bas Middelkoop  
Manuel Barreiro-De Acosta | Francisco Sanchez-Saez  
Clara Rodriguez-Bernal | Gabriel Sanfeliix-Gimeno  
Beatriz Poblador-Plou | Jonás Carmona-Pérez  
Antonio Gimeno-Miguel | Miguel Gil | Wiebke Schaefer  
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Xavier Kurz | Lisa Pont | David Moeny | Olaf H Klungel  
Simone Pinheiro | John Seeger | K. Arnold Chan  
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Rebecca Hawrusik | Alexander Peters | Catherine Corey  
David Graham | Judith Maro | Noelle M Cocoros  
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## 170 – Racial and Ethnic Categories in Propensity Score Analyses: An Application in US Medicare Beneficiaries Initiating DPP4 Inhibitors vs Sulfonylureas [1215]

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Aukje Mantel-Teeuwisse | Paula B. Hennik | Carla Herberts  
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Kenneth Wilkins | Soko Setoguchi | Yu Shao  
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Sarah E Mcguire | Daniel B Horton (United States)

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Melissa L Mannion | Fenglong Xie | Timothy Beukelman  
Jeffrey Curtis for the Carra Registry Investigators  
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Kathryn Kyler | Samir Shah | Sonya Tang Girdwood  
Jennifer Goldman | Carlos Grijalva | Derek Williams  
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Georges J. Nahhas | Patricia Saddier (United States)

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Peter Jensen | Jacob Harbo Andersen | Johan Reutfors  
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Anton Pottegård | Mette Bliddal  
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## 197 – Maternal Antibiotics Use in Pregnancy and The Risk of Neurodevelopmental Disorders in Children: A Systematic Review and Meta-Analysis [1242]

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Ashley Martinez | Emmanuel Ojo | Kimberly Barrett  
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Dan Dauner | Rui Zhang | Terrence Adam | Eleazar Leal  
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Huifang Liang | Brenna Kirk | Dionna Atkinson  
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Nasser Alqahtani | Hadeel Alkofide | Rahaf Almesned  
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John Dennis | Debasish Kar | Anna Forbes | Sneha Anand  
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Jeffrey C. Joyce | Timothy Burrell | Yoganand Chillarige  
Jeffrey Beers | Patrick Saunders-Hastings | Stella G. Muthuri  
Kathryn M. Edwards | Steven Black | Jeffrey Kelman  
Christian Reich | Kandace Amend | Daniel Beachler  
Rachel Ogilvie | Alex Secora | John Seeger  
Patricia Lloyd | Deborah Thompson | Rositsa Dimova  
Joyce Obidi | Steve Anderson | Richard A. Forshee  
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Patti Walton | Christopher J Hostler | Damion A. Martins  
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Corinne Willame | Emily Yost | Carla Brannan  
Cheryl N. McMahill-Walraven | Maria Guzman  
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Heather Rubino | Cynthia De Luise | Alejandro Arana  
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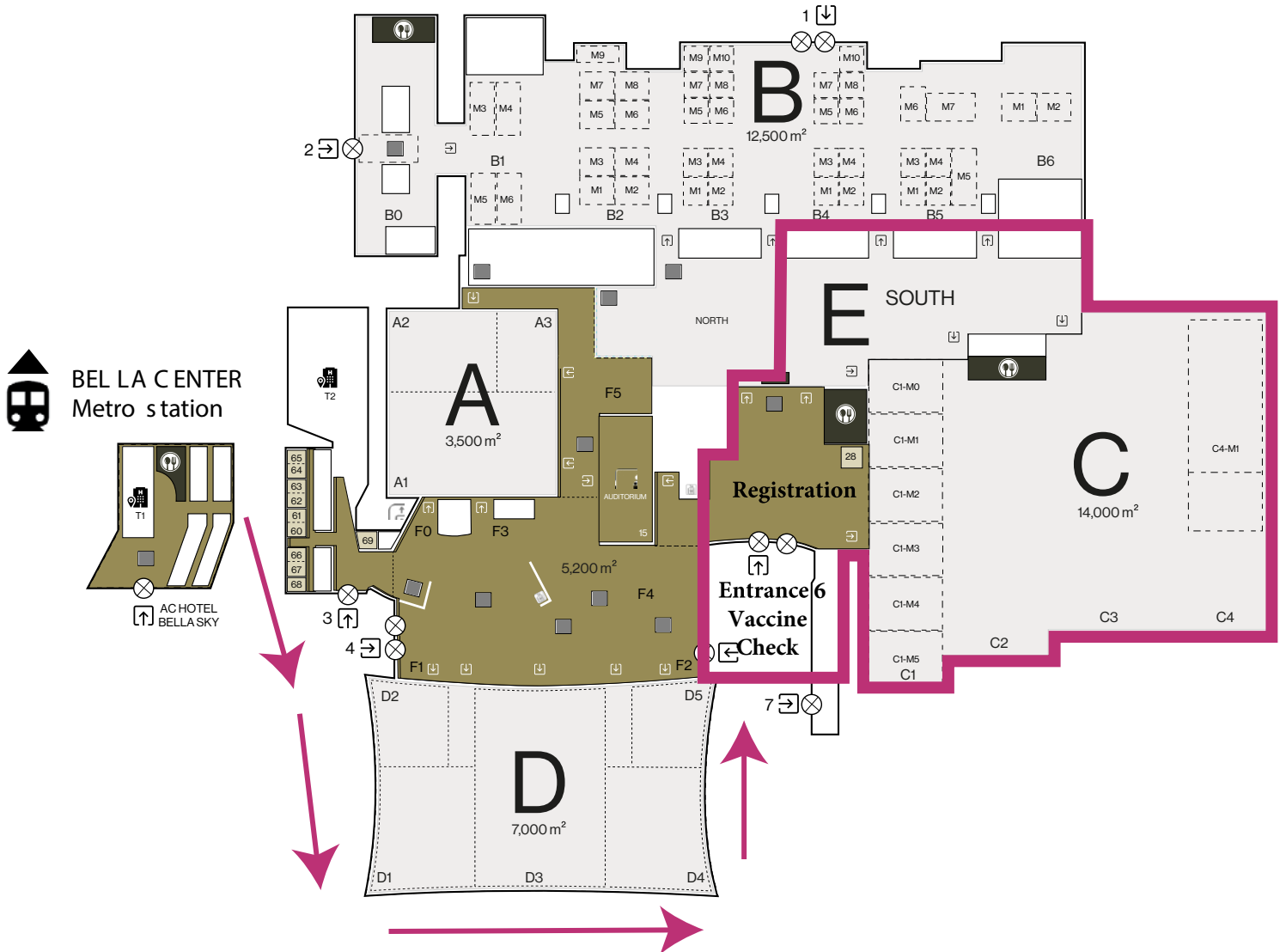
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**ICPE 2023**  
August 23 - 27, 2023  
*Halifax, Nova Scotia, Canada*