Advancing Pharmacoepidemiology and Real-World Evidence for the Global Community

August 24-28 // Copenhagen, Denmark

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Emily Brouwer  
J. Bradley Layton  
Nicole Pratt  
Donna Rivera  
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Susan Sinclair  
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## 2022 Awards

### Induction of ISPE Fellows
- Edward Bortnichak, FISPE
- Emily Brouwer, FISPE
- J. Bradley Layton, FISPE
- Donna Rivera, FISPE
- Leah Sansbury, FISPE
- Susan Sinclair, FISPE
- Jonathan Slaughter, FISPE
- Nicole Pratt, FISPE
- Leah Sansbury, FISPE
- Susan Sinclair, FISPE
- Jonathan Slaughter, FISPE

### Emerging Leader Award
- Kaley Hayes

### Special Award for Public Health Promotion Through Pharmacoepidemiology
- Dame June Raine

### Sustained Service Award
- Alison Bourke, FISPE
- Byung Joo Park, FISPE

### Judith K. Jones Award for Impact on Public Health Through Pharmacoepidemiology
- Luciane Lopes
- Ilse Truter, FISPE

### Ronald D. Mann Best Paper Awards for Manuscripts Published in Pharmacoepidemiology and Drug Safety (PDS), 2021

**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:

  **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

  **Nominees**
  - Robert Chen, FISPE
  - Nicolle Gatto, FISPE
  - Carlos Grijalva
  - Daniel Horton
  - Michele Jonsson Funk, FISPE
  - Vincent Lo Re, FISPE
  - Daniel Prieto-Alhambra, FISPE
  - Christopher Rentsch
  - Reimar Thomsen
  - Almut Winterstein, FISPE
ANDREW McAFFEY 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

Widia 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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Schedule-at-a-Glance

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**Wednesday, August 24**

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<td>Pharmacoepidemiologist’s Toolbox for Professional Empowerment – Room C1M5</td>
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<td>Principles of Pharmacoepidemiology – Room C1M0</td>
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<td>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</td>
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<td>Adherence to Medication – Room C1M0</td>
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<td>Foundations in Causal Inference – Room C1M4</td>
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<td>Practical Skills in Protocol Writing and Statistical Analytic Programming Relevant to Pharmacoepidemiology – Congress Hall D2</td>
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<td>Pragmatic Trials: Design, Methods, and Implementation – Room C1M2</td>
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<td>Using Pharmacoepidemiology Database Resources to Address Drug Safety Research – Congress Hall D5</td>
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<td>Introduction to Machine Learning for Pharmacoepidemiologists – Room C1M5</td>
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<td>ISPE Board of Directors’ Meeting</td>
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## Schedule-at-a-Glance

### Thursday, August 25

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<tr>
<th>Time</th>
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<tbody>
<tr>
<td>7 AM - 6 PM</td>
<td><strong>Speaker Ready Room</strong> – Meeting Room 21</td>
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<td>7:30 AM - 6 PM</td>
<td><strong>registration</strong> – Hall F6 - F7 Lobby</td>
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<td>7:30 AM - 6 PM</td>
<td><strong>Lactation Room</strong> – Meeting Room 28</td>
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#### 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

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**8 AM - 6 PM** Exhibits/Poster Session A – Hall C

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<tr>
<th>7 - 8 AM</th>
<th>Coffee with Exhibitors</th>
<th>Hall C</th>
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<tbody>
<tr>
<td>7 - 8 AM</td>
<td>Poster Session A Set-Up</td>
<td>Hall C</td>
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<tr>
<td>8 - 10 AM</td>
<td>Welcome and Keynote Session</td>
<td>Congress Hall D4</td>
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</table>

**10:30 AM - 12 PM** SYMPOSIA & WORKSHOPS

**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**

Congress Hall D5

**12:15 - 1:15 PM** Spotlight Poster Session A – Hall E

**Hall South**

**12 - 1:30 PM** Lunch/Poster Session A/Exhibits – Hall C

**12:15 - 1:15 PM** Spotlight Poster Session A – Hall E

**1:30 - 3 PM** ORAL PRESENTATIONS

**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 D5

**From Motherhood to Childhood, Moody to Healthy**

Congress Hall D5

**3:30 - 5 PM** SYMPOSIA & WORKSHOPS

**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** ORAL PRESENTATIONS

**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 Drug Utilization Studies in Cardiovascular Disease and Diabetes**

Congress Hall D5

**8 - 10 PM**

**PDS Editorial Board**

Bella Sky Room 181

*By invitation.*

**8:30 - 11 PM**

**Students/Early Career Professionals Meet & Greet**

Midsommar - Biergarten og RoofTop bar
## Schedule-at-a-Glance

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

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<tr>
<th>Time</th>
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<td>7 AM - 6 PM</td>
<td>Speaker Ready Room – Room 21</td>
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<tr>
<td>7 AM - 6 PM</td>
<td>Registration – Hall F6 - F7 Lobby</td>
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<tr>
<td>8 AM - 6 PM</td>
<td>Lactation Room – Meeting Room 28</td>
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<tr>
<td>8 AM - 6 PM</td>
<td>Exhibits/Posters Session B – Hall C</td>
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<td>7 - 8 AM</td>
<td>Coffee with Exhibitors Hall C</td>
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<td>7 - 8 AM</td>
<td>Africa Regional Interest Group Meeting Room 20</td>
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<td>7 - 8 AM</td>
<td>Latin America Regional Interest Group Meeting Room 18</td>
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<td>7 - 8 AM</td>
<td>Poster Session B Set-Up Hall C</td>
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<td>8 - 9:30 AM</td>
<td>ORAL PRESENTATIONS</td>
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<td>10 - 11:30 AM</td>
<td>PLENARY SESSION Congress Hall D4</td>
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<td>11:30 AM - 1 PM</td>
<td>COMMITTEE MEETINGS Finance Meeting Room 18</td>
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<tr>
<td>11:30 AM - 1 PM</td>
<td>Membership Meeting Room 19 Open to all participants, lunch available</td>
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<tr>
<td>11:45 AM - 12:45 PM</td>
<td>Spotlight Poster Session B Hall E-South</td>
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<td>1 - 2:30 PM</td>
<td>ORAL PRESENTATIONS Psychotropic Use Around the World C1M0</td>
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<tr>
<td>2:40 - 3:50 PM</td>
<td>Annual Meeting of ISPE Members &amp; Awards Ceremony Congress Hall D4</td>
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<tr>
<td>4:15 - 5:45 PM</td>
<td>SYMPOSIA &amp; WORKSHOPS 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? C1M0</td>
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<tr>
<td>6 - 7 PM</td>
<td>COUNCIL MEETINGS</td>
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<td>7 PM - 11 PM</td>
<td>Social Evening at the Langelinie Pavilion</td>
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**Committed Meetings**
- Finance Meeting Room 18
- Membership Meeting Room 19
- Academic Conference Room C1M0
- Student Conference Room C1M1

**Poster Session B**
- Across the Globe: Injury and Neurologic Pharmacoepidemiology – C1M0
- Safety First! – C1M1
- Disease Epidemiology Potpourri – C1M2
- Methods for Generating RWE Through Emulation of Target Trials C1M5
- Drug Utilization Potpourri Congress Hall D2
- Opioids and Addiction – The Other Pandemic? Congress Hall D5

**Committee Meetings**
- Study Design Approaches to Assessing Thrombosis Risk Congress Hall D2
- Lightning Session 2 C1M2

**Oral Presentations**
- Methods: Machines Making Predictions Congress Hall D4
- Mending Hearts and Brains Conference Room C1M1
- Psychotropic Use Around the World C1M0

**Spotlight Poster Session B**
- Late Breakers (Oral presentations) – C1M2

**SYMPOSIA & WORKSHOPS**
- Real-World Evidence Studies in the post-COVID-19 Era: Methodological Considerations for Pandemic Related Disruptions – C1M1
- 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? C1M0
- HARMonized Protocol to Enhance Reproducibility (HARPER): An ISPE-ISPOR Joint Task Force of the RWE Initiative C1M5
- COVID-19 Vaccine Safety Monitoring: Opportunities, Challenges and Lessons Learned for Pharmacoepidemiology Congress Hall D5
## Schedule-at-a-Glance

### Sunday, August 28

<table>
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<th>Time</th>
<th>Activity</th>
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<tr>
<td>7 AM</td>
<td>Registration – Hall F6 - F7 Lobby</td>
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<td>8 AM</td>
<td>ORAL PRESENTATIONS: Around the World With Real-World Evidence – C1M0</td>
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<tr>
<td>10 AM</td>
<td>SYMPOSIA &amp; WORKSHOPS: Emulation Differences versus Bias: Implications of Large-scale Emulation of Randomized Clinical Trials Using Clinical Practice Data (RCT-DUPLICATE) C1M0</td>
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<td>12 PM</td>
<td>Lunch/Poster Session C/Exhibits – Hall C</td>
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<td>1:30 PM</td>
<td>ORAL PRESENTATIONS: Safety Issues Concerning DM and Antidiabetic Drugs C1M0</td>
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<tr>
<td>12:15 PM</td>
<td>Spotlight Poster Session C – Hall E South</td>
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<tr>
<td>3:15 PM</td>
<td>Hot Topic Session – Congress Hall D4</td>
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<tr>
<td>4:45 PM</td>
<td>The Final Word – Congress Hall D4</td>
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<td>5:45 PM</td>
<td>Scientific Program Committee Meeting Room 20 Open to ISPE members.</td>
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**PRE-CONFERENCE**

Program Schedule

**TUESDAY, AUGUST 23**

**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.

**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.

**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

**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.

**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.
PRE-CONFERENCE
Program Schedule

Wednesday, August 24

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 Pharmacoepidemiology and Genomics: What You Should Know in the Era of Precision Medicine
FACULTY
Bruce Carleton, FISPE | Andrew Freedman, FISPE
Gillian Bartlett-Esquilan, FISPE | Kelly Filipski
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 Pharmacoepidemiologists
FACULTY
Amalia Issa, FISPE | Gillian Bartlett-Esquilan, FISPE
Bruce Carleton, FISPE | Stephen Kimmel, FISPE
Leah Sansbury, FISPE
Anke-Hilse Maitland-van der Zee, FISPE

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

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 Marraro

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 if you are interested in attending this meeting.
2:00 - 6:00 PM

**PRE-CONFERENCE COURSES – HALFDAY 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 Teitsch | 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

THURSDAY, AUGUST 25

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 Wettermark, FISPE

Modern Pregnancy Pharmacoepidemiology: Emulating Target Trials – Congress Hall D2
FACULTY
Andrea Margulis, FISPE | Krista Huybrechts, FISPE
Brian Bateman | Sonia Hernandez-Diaz, FISPE

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

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
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

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**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

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**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

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

- **AI & Predictive Analytics**
  - for enriching data, finding patients, and discovering patterns and insights

- **OM1 Real-World Data**

- **Automated Research Networks**
  - for increasing speed and reducing costs of generating evidence through fully or partially prospective data collection

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Visit the OM1 booth #201 or contact us at info@om1.com to learn more.
FRI, AUGUST 26

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

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

8:00 AM - 6:00 PM
EXHIBITS/POSTER SESSION A – HALL C

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

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
Xiaojian Li | Kaley Hayes (United States)

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 Pajouheshehnia | 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)

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 Aguilar Leiva (Sweden)

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 Effert
Alexander Breskin (United States)

12:00 - 1:30 PM

LUNCH/POSTER SESSION A/EXHIBITS – HALL C
Sponsored by AstraZeneca
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 Blikker
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 | Yoonsoo 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)

2:15PM
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)
### Program Schedule

**FRI**

**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]
Wajd 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 9th Revision to 10th 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 Iib 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)
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 | Ingvidt Odsbu | Samuel Rhedin
Catarina Almqvist | Björn Pasternäk | 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)
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 Thiébaut | Pascale Tubert-Bitter | Ismail 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 Niami
Rachel Patzer | Christopher Kim | M. Alan Brookhart
David Gilbertson | Brian Bradbury (United States)

5:30 PM
Elizabeth Garry | Imaani Easthausen | Sarah Vittoe
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)
<table>
<thead>
<tr>
<th>Time</th>
<th>Session Title</th>
<th>Speakers</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>6:00 PM</td>
<td>Evaluating the Comparative Effectiveness and Safety of Repurposed Drugs for COVID-19</td>
<td>Eng Hooi (Cheryl) Tan, Dalia Dawoud, Faaizah Arshad, Jennifer Lane, James Weaver, Talita Duarte-Salles, Scott DuVall, Thomas Falconer (United Kingdom)</td>
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<td>6:30 PM</td>
<td>Near Real Time Safety Surveillance of COVID-19 Vaccines in the UK</td>
<td>Katherine Donegan, Jemma Walker, Nick Andrews (United Kingdom)</td>
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<td>5:15 PM</td>
<td>UK Trends in Prescribing Preferences for Antidiabetic Medications Among Type 2 Diabetes Patients with and without Chronic Kidney Disease, 2006-2020</td>
<td>Julia Liaw, Meera Harhay, Soko Setoguchi, FISPE, Tobias Gerhard, FISPE, Chintan Dave (United States)</td>
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<tr>
<td>5:30 PM</td>
<td>Contemporary Trends in the Utilization of Second-line Pharmacological Therapies for Type 2 Diabetes in the United States</td>
<td>Devin Abrahami, Elvira D'Andrea, Seooyong Kim, Julie Paik, Deborah Wexler, Elisabetta Patorno (United States)</td>
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<tr>
<td>5:45 PM</td>
<td>Sex Disparities in Treatment Patterns After Metformin Initiation Among Patients with Type 2 Diabetes Mellitus</td>
<td>Monika Oktora, Stijn De Vos, Sieta de Vries, Eelko Hak, Petra Denig, FISPE (Netherlands)</td>
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<td>6:00 PM</td>
<td>Continued Potassium Supplementation Use Following Loop Diuretic Discontinuation in Older Adults: An Evaluation of a &quot;Prescribing Cascade Relic&quot;</td>
<td>Grace (Hsin Min) Wang, Steven Smith, Earl Morris, Scott Vouri (United States)</td>
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<tr>
<td>6:30 PM</td>
<td>The Potential Impact of the Supplemental Nutrition Assistance Program (SNAP) on Adherence to Antihypertensive Medications</td>
<td>Macarius Donneyong (United States)</td>
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<td>5:15 PM</td>
<td>Trends in High-risk Prescribing to US Pediatric Dental Patients, 2012-2019</td>
<td>Katherine Kim, Tumader Khouja, Charlesnika Evans, Gregory Calip, Jacqueline Burgette, Walid Gellad, Katie Suda (United States)</td>
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<tr>
<td>5:30 PM</td>
<td>Identifying Acute Neuropsychiatric Events in Children and Adolescents</td>
<td>James Antoon, James Feinstein, Carlos Grijalva, Yuwei Zhu, Emily Dickenson, Justine Stassun, Jakobi Johnson, Mert Sekmen (United States)</td>
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<td>5:45 PM</td>
<td>Comprehensive Assessment of Paediatric SARS-CoV-2 Infection: A Danish Population-based Cohort Study</td>
<td>Helene Kildegaaard, Lars Christian Lund, Mikkel Hoejlund, Lone Graff Stensballe, Anton Pottegård (Denmark)</td>
<td></td>
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</tbody>
</table>
Program Schedule

FRI
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 Sahrmann | 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
(United States)

6:30 PM
Comparative Safety of Tizzinameran 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 Hügle (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 Nicolaides | 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)
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 | Kaerina 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
**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

**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

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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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
Mompati 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)
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]
Daniala 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)
Program Schedule

Across the Globe: Injury and Neurologic Pharmacoepidemiology – Room C1M0

8:00 AM
β2-adrenoceptor Agonists and Risk of Parkinson's Disease: Nested Case-control Study of People with Asthma or Chronic Obstructive Pulmonary Disease [132]
Anne Paakinaho | Miiia 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 Bjerggaard 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 | Torger 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 Illoh | 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 Be | 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)
**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
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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

### 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 Mellemkjær
Søren Friis | Bent Ejlertsen | 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
Seokyung 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**
  Nuvan 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

  3:15 - 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 Nuvan 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
**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 Naucler (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)

**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
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 Retransitioned to Originator and Those Who Remained on Biosimilar [186]
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
Yuqin 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
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 Marquis, 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

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)
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 Pavillonen
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
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]
Qua 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 Healthcare 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)
Examining Equity: Who? Where and What? – Congress Hall D2

8:30 AM
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 Sahrmann  |  Caroline O’Neil (United States)

9:15 AM
Impact of COVID-19 Pandemic on the Prescription Trends of Antiseizure Medications [221]
Alekhya 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)
Program Schedule

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 Abenhaim (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)
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 Opioid Prescriptions 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 | Bita 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)

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)

Kourtney Davis, FISPE | Diego Wyszynski
Wilhelmine Meeraus | Lydie Marcelon | Nicole Baker
Emily Yost (United States)
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
1:30 - 3:00 PM  
**CONCURRENT SESSIONS:**  
ORAL PRESENTATIONS

**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 | Veyssel 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-Centre | Alban Fabre | Régis Lassalle
Abdelilah Abouelfath | Angela Greulaud (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 Swiss, | 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)
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)
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
Gilian 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 | Katherine Donegan
Arina Tamborska | Bhagteshwar Singh | 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-Uribe
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
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 Søgaard
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)
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)
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, TruNetX
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
38th 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

5:45 - 6:45 PM
ADJOURNMENT OF THE ICPE 2022
Anton Pottegård
Chair, ICPE 2022 Scientific Program Committee
Jesper Hallas, FISPE
Co-Chair, ICPE 2022 Scientific Program Committee

FUTURE MEETINGS
14th Asian Conference on Pharmacoepidemiology (ACPE)
Tainan, Taiwan  |  October 21-23, 2022
Soto Setoguchi
Program Chair

Mid-Year Meeting, Reykjavik
Iceland  |  April 23-25, 2023
Helga Gardarsdottir, FISPE
Program Chair

39th ICPE: Halifax
Nova Scotia, Canada  |  August 23-27, 2023
Robert Platt
Chair, ICPE 2023 Scientific Program Committee
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:

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

ADHERENCE .......................................................... 63
ASPEN ................................................................. 63
BIOLOGICS ......................................................... 64
BENEFIT-RISK ASSESSMENT, COMMUNICATION, AND EVALUATION (BRACE) ............................................. 64
CANCER ............................................................... 65
COMPARATIVE EFFECTIVENESS RESEARCH (CER) .......................................................... 65

BENEFIT-RISK ASSESSMENT, COMMUNICATION, AND EVALUATION (BRACE) ............................................. 66
DISEASE EPIDEMIOLOGY/CLINICAL COURSE .......................................................... 67
DRUG UTILIZATION RESEARCH .......................................................... 70
HEALTH EQUITY .......................................................... 74
METHODS IN PHARMACOEPIDEMIOLOGY .......................................................... 76
MOLECULAR EPIDEMIOLOGY/ BIOMARKERS/ PHARMACOGENETICS .......................................................... 79
PHARMACOVIGILANCE .......................................................... 79
PREGNANCY AND LACTATION .......................................................... 81
RARE DISEASE .......................................................... 85
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 Heddderson (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)

### 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)

- **D – Changes in Medication Use Before and After Bariatric Surgery in Older Adults [294]**
  - Scott M. Youri
  - 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)

- **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)
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 Sbidiain (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)

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
Landor Willem | Jonas Crevecoeur | Neelishan Loedy
Johan Verbeek (Netherlands)

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)
**CANCER**

**Z – Incidence of Opportunistic Infections Among Patients with Multiple Myeloma: Real-World Evidence from a Large US National Claims Database [316]**
Alexi Archambault  |  Martha Makaratzi  
Karen Rodriguez Lorenc  |  Glenn Kroog  |  Christian Hampp  
(United States)

**AA – Proton Pump Inhibitors and Colorectal Cancer Mortality: A Population-based Nationwide Cohort Study [317]**
Jannik Wheler  |  Deirdre Cronin-Fenton  |  Anders Kjaersgaard  
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  
Daeehee 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 Pottégård  |  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)**

**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)
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 Alkhebri | 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 Alzahradi | Slawa Moaman
Radwan Hafiz (Saudi Arabia)

10 – Letermovir 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
Viktoria Starokozhko | Peter Mol | Xavier Kurz (Netherlands)
Poster Session A

DISEASE EPIDEMIOLOGY/CLINICAL COURSE

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 Polynuropathy 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 Platzecker | 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 Apati | Dinci Pennap | Andrew Mosholder (United States)

22 – 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)

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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 Strunkenboom
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 | Jérémie Jové | Consuelo Huerta
Airam De Burgos Gonzalez | Veronica Bryant
Patricia García-Poza | Maria Martinez-Gonzalez (Belgium)

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Miriam Strunkenboom | 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 Abenhaim
Yola Moride (France)

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Scott Kelly | Karla Therese Sy | Kennedy Cook
Steven Arkin | Jose Francisco Cara | Marko Pregel
Kasia Lobello | Shawkat Hassan | Rongjun Shen
Xiaofeng Zhou | Calhua Liang | Kui Huang (United States)

**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 Stevrin | Jacob Harbo Andersen | Jesper Hallas
Lars Christian Lund | Louise Ladebo | Martin Ernst
Per Damkier | Peter Jensen | Anton Pottegård
Lotte Rasmussen (Denmark)

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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 Modaressi
(United States)


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)
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Elena Sofia Fiore | Ylenia Ingrasciotta | 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 Rasoullyan | Amanda G. Althoff | Vikas Kumar
Carla Zema | Stacey Long | Mitesh B. Rao (United States)

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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)

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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]
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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 Ingrasciotta | Alexander Egeberg
Jesper Hallas (Denmark)

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Nouf Alfadel | Fawaz F Alharbi (Saudi Arabia)

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Sabrina Giometto | Rosa Gini | Giulia Valdiserra
Emiliano Cappello | Sara Ferraro | Marco Bonaso
Claudia C. Bartolini | Olga Paolotti | Valentina Lorenzoni
Matteo Filippi | Giuseppe Turchetti | Michele Cristofano
Corrado Blandizzi | Marta Mosca | Ersilia Lucenteforte
Marco Tuccori (Italy)

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Ching-Lan Cheng (Taiwan)
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Lisa Pont | Efe Eworuke | Martín Cañás | Marco Tuccori
Lily Iracema Gordillo Alas | Angela Acosta Santamaría
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 ConvertinoMarco Bonaso
Claudia García Serpa Osorio-De-Castro | Ursula Kirchmayer
Mariam 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:
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Mark Lunt | Catherine Smith | Christopher Griffiths
(United Kingdom)

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Tiffany Siu Woodworth (United States)

15 – Assessment of the Issues on Understanding and Use of Biologics in Clinical Practice and Their Regulations [1060]
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Enda Yu Md | Zheng Lou Md | Guanyu Yu Md
Leqi Zhou Md | Yongjing Zhang | Hong Qiu Md, PhD
Wei Zhang (China)

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Anette Schrag | Irene Petersen | Kate Walters
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Kathrine Bang Madsen | Martin Balslev Jørgensen
Merete Nordentoft | Merete Osler (Denmark)

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Rujuta Phadke | Ana Bárbara Tavares | Mugdha Gokhale
Fidelia Ida | Jinnie J. Rhee | Montse Soriano Gabarro
(United States)

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Erzsebet Horvath-Puho | Henrik Toft Sørensen
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Louis Rochette | Martin Gignac | Victoria Massamba
Fatoumata Binta Diallo | Alvine Fansi | Samuele Cortese
Alain Lesage (Italy)

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Yixin Jiao | Heng-Ming Sung | Yue Wu | Yoganand Chillarige
Michael Wernecke | Jeffrey Kelman | Richard A. Forshee
(United States)

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Anna-Maija Tolppanen | Marjaana Koponen | Anne Paakinaho
Julian Lin | Sirpa Hartikainen (Finland)

Asha K Rajan | Muhammed Rashid | Dhruv Patel
Viji Chandran | Sreedharan Nair | Vishal Shanbhag
Girish Thunga (India)

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]
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Joseph F. F. Hayes (United Kingdom)

G. Nethravathi | Pravallika Mudimala | Christy Thomas
Krishna Undela (India)
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Ifedoloape Adesola Adeloyo | Babawale Bello
Sunday O. Olayemi (Nigeria)

Cathrine Hjorth | Per Damkier | Tore B Stage
Søren Feddersen | Stephen Hamilton-Dutoit | Bent Ejlertsen
Timothy Lash | Henrik Bøggild | Henrik Toft Sørensen
Deirdre Cronin-Fenton (Denmark)

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Manon Cairat | Anton Pottegård | Morten Olesen
Laure Dossus | Agnès Fournier | Blánaid Hicks (France)

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Kristin Kostka | Evan Minty | Antonella Delmestri
Barrack Omondi | Daniel Prieto-Alhambra | Annika Joedicke (United States)

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Paul Madley-Dowd | Harriet Forbes | Viktort 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 | Torger G Lid | Aleks 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 Chilargo
Heng-Ming Sung | Yue Wu | Jeffrey Kelman
Richard A. Forshee (United States)

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Dóra Körmenstíné Farkas | Sissel Toft Sørensen
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 (United Kingdom)

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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Nicole L. Baker | Darcy E Ellis | Quazi Ataher | James Brash
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]
Abdallah Naser | Eman Zmaily Dahmash (Jordan)

44 – Health-Related Quality of Life of Multiple Myeloma Patients from a Brazilian Metropolis Improves After First Line of Treatment [1089]
Paula Drummond | Roberta M Santos | Adriano M Reis
Jéssica Malta | Lívia Silveira
Iwyson 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]
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Daniel Witte | Henrik Toft Sørensen | Lars Pedersen (Denmark)
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Sascha Dublin | Jennifer Kuntz | James Floyd | Rod Walker
Stephen Fortmann | Elizabeth Bayliss | Susan Shortreed
Laura Harrington | Mi Lee | Ladia Albertson-Junkans
John Powers | Sharon Fuller (United States)

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Richard A. Brook | Ian A. Beren | Nathan L. Kleinman
Alek A. Drnach | Justin L. Schaneman | Eric M. Rosenberg
(United States)

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Ishfaq Rashid | Pramil Tiwari | Sanjay D Cruz
Shivani Jaswal (India)

49 – Changes in Weight Across the Life Span in Patients with Bipolar Disorder I Treated with Second Generation Antipsychotics [1094]
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Jessica Paulus | Carl Marci (United States)

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Lawrence Rasouliyan | Amanda G. Althoff | Vikas Kumar
Stacey Long | Mitesh B Rao (United States)

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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Kazuki Yoshida | Tianrun Cai | Lily Bessette | Erin Kim
Su Been Lee | Luke E Zabotka | Alec Sun
Juliaanna M. Mastrorili | Theresa A. Oduol | Jun Liu
Daniel H. Soloman | Katherine P. Liao | Seoyoung Kim
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53 – Prevalence, Characteristics, and Impacts of Frailty Measured by Multimorbidity Frailty Index Developed Using The ICD-9 CM and ICD-10 CM Codes Among Patients with Heart Failure in Taiwan: A Nationwide Cohort Study [1098]
Hsi-Yu Lai | Shih-Tsung Huang | Liang-Kung Chen
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Laura A. Clark | Rosa C. Banuelos | Evelyn Rizzo
Koen Degeling | Kathy Belk (United States)

55 – Demographic Distribution of Parkinson's Disease (PD) and LRRK2-PD in the United States [1100]
Nancy Maserejian | Feiby L. Nassan | Isha Mehta
Qiang Hou | Cathy Lally | Christopher Simpson
Jeremy D. Furtado | Nicholas J Everage (United States)

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57 – Retrospective Study Estimating the Incidence of Acute Alcoholic Hepatitis in the United Kingdom [1102]
Olorunfemi A. Oshagbemi | Michelangelo N. Ribeiro
Sigrid Behr | Olessia Zorina (Switzerland)

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Vivien Ky Chan | Edmund C Cheung | Min Fan | Hao Luo
Francisco Lai | Rosa Wong | Ian Wong | Xue Li (Hong Kong)

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Lorena Cirneanu | Christina Lymeropoulou
Emanuil Markov | Svetomir Hiltov | Ferdinando E Vegni
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Jennifer Martin | Francesca Cunningham (United States)

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Robiyanto Robiyanto | Ccm Schuiling-Veninga
Jens H. J. Bos | Eelko Hak | Eugene Van Puijenbroek (Netherlands)

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Raquel Gutierrez Machin | Diana González | Alfonso Rodríguez
Pilar Rayón | Marta Monreal | Dolores Montero
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Fang Li | Xinyu Li | Petra Denig | Katja Taxis (Netherlands)

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Marta Monreal | Consuelo Huerta | Alfonso Rodríguez
Dolores Montero (Spain)

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Helga Gardarsdottir (Netherlands)

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67 – Opioid Utilization Profile in Brazilian Federal Hospitals [1112]
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Johan Lönnbro | Lina Holmqvist | Elisabeth Persson
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Wenzhen Ge | Scott Antonia | Ning Wu | Ruben Gw Quek
Hilary Dietz | Jean-Francois Pouliot | Jessica Jalbert
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Annmaria Thomas, Steby Mol Stephen
Mohamed Dharvees T., Sandy Crasta D.
Jehath M. Syed (India)

Robert H. Vander Stichele, Miriam Sturkenboom
Carlos Duran, Luc Nicolas, Dipak Kalra (Belgium)

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Lawrence Rasouliyan, Amanda G. Althoff, Vikas Kumar
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81 – A Pharmacoepidemiologic Study of Antibiotics Prescription Patterns in a Tertiary Care Hospital [1126]
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Aaron B. Mendelsohn, Young Hee Nam, James Marshall
Cara Mcdermott, Sengwee Toh, Cate Lockhart (United States)

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Kenneth Man, Hassan Hasan Alwafi, Matthew Adesuyan
Sarah Chapman, Li Wei (United Kingdom)

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Ching-Yuan Chang, Juan Hincapié-Castillo, Walid Gellad
Bobby Jones, Jeannie Lee, James Huang
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Khoa Nguyen, Chris Delcher, Christopher Harle
Yong Ge, Ronald Shorr, Pei-Lin Huang, Lauren Adkins (United States)

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