Short presentation

Older adults are the main consumers of drugs but are rarely included in pivotal randomized clinical trials. Hence, post-marketing surveillance is a pivotal activity to better characterize the safety and effectiveness of medications in older patients.

I am currently coordinating a team integrating multidisciplinary expertise from Pharmacoepidemiology, Pharmacovigilance, and Data science to catalyze the identification of subgroups of older patients at higher risk of adverse drug reactions or not sufficiently benefitting from pharmacological treatments using post-marketing data sources (e.g., administrative and spontaneous reporting databases). The team has a strong translational perspective as its final goal is to promote the integration of discoveries into patient care.

The team has access to the biggest cohort of older individuals in Denmark covering the entire Danish population aged ≥ 65 for which they have socio-demographic information, hospital- and ambulatory access to Danish hospitals, pharmacological and non-pharmacological treatments, laboratory results (i.e., biochemical, genetic, and immunological), surgery, and procedures.

Qualifications

Regulatory affairs, Certified program in EU Regulatory Affairs
Award Date: 1 Sep 2017

Translational pharmacology, PhD
Award Date: 20 Dec 2016

Employment

Associate Professor
Pharmaceutical Informatics
København Ø
1 May 2018 → nu

Assistant professor, tenure track
Pharmacotherapy
København Ø, Denmark
1 Sep 2019 → 3 Jan 2020

Research outputs

New data-driven method to predict the therapeutic indication of redeemed prescriptions in secondary data sources: a case study on antiseizure medications users aged ≥65 identified in Danish registries

Artificial intelligence for the optimal management of community-acquired pneumonia

Comparing major and mild cognitive impairment risks in older type-2 diabetic patients: a Danish register-based study on dipeptidyl peptidase-4 inhibitors vs. glucagon-like peptide-1 analogues
Drug Repurposing in Crohn's Disease Using Danish Real-World Data

Exploring the impact of co-exposure timing on drug-drug interactions in signal detection through spontaneous reporting system databases: a scoping review

Impact of the early COVID-19 pandemic on adult mental health-related dispensed medications, hospitalizations and specialist outpatient visits in Norway and Sweden: Interrupted time series analysis

Optimizing Signal Management in a Vaccine Adverse Event Reporting System: A Proof-of-Concept with COVID-19 Vaccines Using Signs, Symptoms, and Natural Language Processing

Persistence and adherence with Latanoprost: A Danish register-based cohort study in older patients with glaucoma

Ticagrelor or prasugrel vs. clopidogrel in patients with atrial fibrillation undergoing percutaneous coronary intervention for myocardial infarction


A novel approach for pharmacological substantiation of safety signals using plasma concentrations of medication and administrative/healthcare databases: a case study using Danish registries for an FDA warning on lamotrigine

Artificial intelligence-based disease risk score for community-acquired pneumonia hospitalization in older individuals: a Danish register-based study

Artificial intelligence-driven prediction of COVID-19-related hospitalization and death: a systematic review

Developing an Artificial Intelligence-Guided Signal Detection in the Food and Drug Administration Adverse Event Reporting System (FAERS): A Proof-of-Concept Study Using Galcanezumab and Simulated Data
Al-Azzawi, F., Mahmoud, I., Haguinet, F., Bate, A. & Sessa, Maurizio, 2023, In: Drug Safety. 46, p. 743–751

Machine learning-driven development of a disease risk score for COVID-19 hospitalization and mortality: a Swedish and Norwegian register-based study
Myocarditis and pericarditis in individuals exposed to the Ad26.COV2.S, BNT162b2 mRNA, or mRNA-1273 SARS-CoV-2 vaccines

One-year incidence of depression, anxiety, or stress disorders following a first-time heart failure diagnosis: A Danish nationwide registry-based study

Trends in Medical and Device Therapies Following Incident Heart Failure in Denmark during 1996–2019: A Nationwide Register-Based Follow-Up Study

Ubrogepant and rimegepant: systematic review, meta-analysis, and meta-regression of clinical studies

Ubrogepant and rimegepant: signal detection using spontaneous reports of adverse events from the Food and Drug Administration Adverse Event Reporting System

Venous thromboembolism with use of hormonal contraception and non-steroidal anti-inflammatory drugs: nationwide cohort study

A machine-learning guided method for predicting add-on and switch in secondary data sources: A case study on anti-seizure medications in Danish registries

Artificial neural network vs pharmacometric model for population prediction of plasma concentration in real-world data: a case study on valproic acid

Comparison of the incidence of acute pancreatitis among new users of fluoxetine, citalopram, and other selective serotonin reuptake inhibitors: A Danish register-based cohort study

Effectiveness and safety of P2Y₃ inhibitors in patients with ST-segment elevation myocardial infarction undergoing percutaneous coronary intervention: a nationwide registry-based study

Hypothermic oxygenated perfusion in extended criteria donor liver transplantation: A randomized clinical trial
Impact of MELD 30-allocation policy on liver transplant outcomes in Italy

Investigation of the potential association between the use of fluoxetine and occurrence of acute pancreatitis: a Danish register-based cohort study

Pharmacological and epidemiological considerations while constructing treatment episodes using observational data: A simulation study
Pazzagli, L., Andersen, Morten & Sessa, Maurizio, 2022, In: Pharmacoepidemiology and Drug Safety. 31, 1, p. 55-60

Pharmacom-epi: A framework for integrating pharmacometric modeling into Pharmacoepidemiological research using real-world data

Post-marketing safety surveillance of erenumab: new insight from Eudravigilance
Liang, D. & Sessa, Maurizio, 2022, In: Expert Opinion on Drug Safety. 21, 9, p. 1205-1210

Rationale and performances of a data-driven method for computing the duration of pharmacological prescriptions using secondary data sources

Reply to: "Impact of MELD 30-allocation policy on liver transplant outcomes in Italy: Considerations"

Segmental Ureterectomy Versus Radical Nephroureterectomy in Older Patients Treated for Upper Tract Urothelial Carcinoma

The PHARMACOM-EPI framework for integrating pharmacometric modelling into pharmacoepidemiological research using real-world data: application to assess death associated with valproate

The Relationship Between Valproate and Lamotrigine/Levetiracetam Use and Prognosis in Patients With Epilepsy and Heart Failure: A Danish Register-Based Study
Liang MPharm, D., Gardella, E., Kragholm, K., Polcwiartek, C. & Sessa, Maurizio, 2022, In: Journal of Cardiac Failure. 28 , 4, p. 630-638

The Relationship between Timing of Pretransplant Kidney Biopsy, Graft Loss, and Survival in Kidney Transplantation: An Italian Cohort Study

Artificial Intelligence in Pharmacoepidemiology: A Systematic Review. Part 2–Comparison of the Performance of Artificial Intelligence and Traditional Pharmacoepidemiological Techniques
A systematic review, meta-analysis and meta-regression evaluating the adverse reactions to erenumab in the preventive treatment of migraine

Detecting deviations from the efficacy and safety results of single-arm trials using real-world data: The case of a CAR-T cell therapy in B-cell lymphoma

Incident Atrial Fibrillation and Risk of Psychoactive Drug Redemptions and Psychiatric Hospital Contacts - a Danish Nationwide Register-based Follow-up Study

Is the Strongest Level of Medical Evidence Always Required for Guidelines Recommendations?

New Insight on the Safety of Erenumab: An Analysis of Spontaneous Reports of Adverse Events Recorded in the US Food and Drug Administration Adverse Event Reporting System Database

Pharmacoepidemiological methods for computing the duration of pharmacological prescriptions using secondary data sources

Pharmacoepidemiological and epidemiological considerations while constructing drug treatment episodes using observational data retrospectively collected: A simulation study
Pazzagli, L., Andersen, Morten & Sessa, Maurizio, 2021, In: Pharmacoepidemiology and Drug Safety. 30, S1, p. 298-299

Sessa empirical estimator (SEE): A data-driven method for predicting the duration of pharmacological prescriptions in secondary data sources

The relationship between valproate versus lamotrigine/levetiracetam use and prognosis in patients with epilepsy and heart failure: A Danish register-based study
Liang, D., Gardella, E., Kragholm, K., Polcwiartek, C. & Sessa, Maurizio, 2021, In: Pharmacoepidemiology and Drug Safety. 30, S1, p. 77-78

Thrombocytopenia after COVID-19 vaccination

Thromboembolic events in younger women exposed to Pfizer-BioNTech or Moderna COVID-19 vaccines

Metoprolol versus Carvedilol In Patients with Heart Failure, Chronic Obstructive Pulmonary Disease, Diabetes Mellitus, and Renal Failure
Angiotensin II and angiotensin 1-7: which is their role in atrial fibrillation?

Artificial Intelligence in Pharmacoepidemiology: A Systematic Review. Part 1—Overview of Knowledge Discovery Techniques in Artificial Intelligence

Association Between Serum Potassium Levels and Short-Term Mortality in Patients With Atrial Fibrillation or Flutter Co-treated With Diuretics and Rate- or Rhythm-Controlling Drugs

Beta-blocker, aspirin and statin usage after first-time myocardial infarction in patients with chronic obstructive pulmonary disease: a nationwide analysis from 1995 to 2015 in Denmark

Predictors of quetiapine extended release formulation Add-On in older patients exposed to antidepressant drugs: A Danish Register-Based cohort study

Segmental ureterectomy vs. radical nephroureterectomy for ureteral carcinoma in patients with a preoperative glomerular filtration rate less than 90 ml/min/1.73 m²: A multicenter study

The risk of fractures, acute myocardial infarction, atrial fibrillation and ventricular arrhythmia in geriatric patients exposed to promethazine

Utilizing drug-target-event relationships to unveil safety patterns in pharmacovigilance

Hepatitis B Surface Antigen Seropositive Men in Serodiscordant Couples: Effects on the Assisted Reproductive Outcomes

Beta-blocker choice and exchangeability in patients with heart failure and chronic obstructive pulmonary disease: an Italian register-based cohort study

Tadalafil 5 mg Alone or in Combination with Tamsulosin 0.4 mg for the Management of Men with Lower Urinary Tract Symptoms and Erectile Dysfunction: Results of a Prospective Observational Trial
Intraoperative assessment of ureteral and graft reperfusion during robotic kidney transplantation with indocyanine green fluorescence videography

Montelukast improves symptoms and lung function in asthmatic women compared with men

Segmental resection of distal ureter with termino-terminal ureteric anastomosis vs bladder cuff removal and ureteric re-implantation for upper tract urothelial carcinoma: results of a multicentre study

Direct-acting oral anticoagulants (DOACs) in pregnancy: new insight from VigiBase®
Sessa, Maurizio, Mascolo, A., Callréeus, T., Capuano, A., Rossi, F. & Andersen, Morten, 2019, In: Scientific Reports. 9, 1, 8 p., 7236.

Monitoring of medicinal products authorized based on a single-arm trial: The case of a CAR-T cell therapy

Montelukast induces better control of symptoms and management of lung function, and decreased inflammation in women compared with men

Preventable Cases of Oral Anticoagulant-Induced Bleeding: Data From the Spontaneous Reporting System

Robot-assisted nephron-sparing surgery for cystic nephroma in a pediatric patient: A case report

Real World Data on the Utilization Pattern and Safety Profile of Infliximab Originator Versus Biosimilars in Italy: A Multiregional Study

Photodynamic therapy with topical photosensitizers in mucosal and semimucosal areas: review from a dermatologic perspective

Contribution of Italian clinical research for contrast media-induced nonrenal adverse drug reactions over the last three decades: A systematic review

The predictive value of ABCB1, ABCG2, CYP3A4/5 and CYP2D6 polymorphisms for risperidone and aripiprazole plasma concentrations and the occurrence of adverse drug reactions
Preventable statin adverse reactions and therapy discontinuation. What can we learn from the spontaneous reporting system?

ALA-PDT exerts beneficial effects on chronic venous ulcers by inducing changes in inflammatory microenvironment, especially through increased TGF-beta release: A pilot clinical and translational study.

Predictors of new oral anticoagulant drug initiation as opposed to warfarin in elderly adults: A retrospective observational study in Southern Italy

Adverse drug reactions during hepatitis C treatment with direct-acting antivirals: The role of medication errors, their impact on treatment discontinuation and their preventability. New insights from the Campania Region (Italy) spontaneous reporting system

Comparison of long-term clinical implications of beta-blockade in patients with obstructive airway diseases exposed to beta-blockers with different β1-adrenoreceptor selectivity: An Italian population-based cohort study

Efficacy and safety of S-acyl glutathione 2% cream vs. placebo against UVB-induced erythema: a randomized, double-blinded clinical trial

Italian Immunization Goals: A Political or Scientific Heated Debate?

Pillars and Pitfalls of the New Pharmacovigilance Legislation: Consequences for the Identification of Adverse Drug Reactions Deriving From Abuse, Misuse, Overdose, Occupational Exposure, and Medication Errors

Relationship between heart failure, concurrent chronic obstructive pulmonary disease and beta-blocker use: A Danish nationwide cohort study
Sessa, Maurizio, Mascolo, A., Mortensen, R. N., Andersen, M. P., Rosano, G. M. C., Capuano, A., Rossi, F., Gislason, Gunnar Hilmar, Poulsen, Henrik Enghusen & Torp-Pedersen, C., 2018, In: European Journal of Heart Failure. 20, 3, p. 548-556

Contrast media-induced nephropathy: how has Italy contributed in the past 30 years? A systematic review
Safety profile of anticancer and immune-modulating biotech drugs used in a real world setting in Campania Region (Italy): BIO-Cam observational study

New and old roles of the peripheral and brain renin–angiotensin–aldosterone system (RAAS): Focus on cardiovascular and neurological diseases

Anatomical templates of lymph node dissection for upper tract urothelial carcinoma: a systematic review of the literature

Campania Preventability Assessment Committee (Italy): A Focus on the Preventability of Non-steroidal Anti-inflammatory Drugs’ Adverse Drug Reactions

Can causality assessment fulfill the new European definition of adverse drug reaction? A review of methods used in spontaneous reporting

Langerhans, plasmacytoid dendritic and myeloid-derived suppressor cell levels in mycosis fungoides vary according to the stage of the disease

Positive surgical margins and local recurrence after simple enucleation and standard partial nephrectomy for malignant renal tumors: systematic review of the literature and meta-analysis of prevalence

Campania Region (Italy) spontaneous reporting system and preventability assessment through a case-by-case approach: a pilot study on psychotropic drugs.

Campania preventability assessment committee: a focus on the preventability of the contrast media adverse drug reactions.

Dipeptidyl Peptidase (DPP)-4 Inhibitor-Induced Arthritis/Arthralgia: A Review of Clinical Cases

Risk of gastrointestinal complications associated to NSAIDs, low-dose aspirin and their combinations: Results of a pharmacovigilance reporting system.
A case of figurate urticaria by etanercept.

Effect of Chronic Kidney Diseases on Mortality among Digoxin Users Treated for Non-Valvular Atrial Fibrillation: A Nationwide Register-Based Retrospective Cohort Study

New era in treatment options of chronic hepatitis C: focus on safety of new direct-acting antivirals (DAAs)

Suspected adverse reactions to contrast media in Campania Region (Italy): results from 14 years of post-marketing surveillance.

Improvement of patient adverse drug reaction reporting through a community pharmacist-based intervention in the Campania region of Italy.