

WEDNESDAY, 15th NOVEMBER

Time	Main Auditorium B	Main Auditorium C	Rooms 6 & 7
09.00 – 10.30	E1W – CNC of Drug Utilization	E2W – Time Series Analysis	E3W – Data Sources –Validation Research
10.30 – 11.00	Coffee Break		
11.00 – 12.30	E4W – Adherence Research Using Databases	E5W – Quality of Quality Indicators	E6W – Using Field Studies in DUR
12.30 – 13.30	Lunch Break		
Scientific Programme Part I			
13.30 – 15.00	Welcome K1W: Digital – the Future is here, Gillian Docherty K2W: Digitalizing and DUR: Challenges and Opportunities, Björn Wettermark		
15.00 – 16.00	Coffee Break		
16.00 – 17.30	P1W – Antimicrobial Use and Resistance	P2W – ePrescribing and eDispensing Systems	P3W – Adherence
19.00	Welcome Reception, City Chambers, Glasgow		

THURSDAY, 16th NOVEMBER

Scientific Programme Part II			
08.30 – 10.00	P4T – Prescribing and De-prescribing in Old Age	P5T – Gender Difference and Safety in DU	P6T – Decision Support to Improve Drug Use
10.00 – 10.30	Coffee Break		
10.30 – 12.00	P7T – Globalization of DUR	P8T – Drug Use in Pregnancy and Pediatrics	P9T – Evolving Methods in DUR
12.00 – 13.00	Lunch Break		
Scientific Programme Part III			
13.00 – 14.30	W1T – DUR on the Life Cycle of Drugs	S2T – Data Visualization	W3T – From Intervention to Implementation How Can Science Help?
14.30 – 16.00	Coffee Break / Poster Walk (14.45)		
16.00 – 17.30	K3T: Health Informatics – Taking a "Molecule to Man" Approach, Andrew Morris K4T: Patient Perspective – The Patient and Public Voice – Using Big Data for Public Benefit, Sarah Cunningham-Burley		
17.30 – 18.30	EuroDURG General Assembly		
19.30	EuroDURG Networking Dinner, Science Centre		

FRIDAY, 17th NOVEMBER

Scientific Programme Part IV			
08.30 – 10.00	P10F – Inform and Evaluate Health Policy	P11F – Citizen Science and DUR	P12F – Cardiovascular Therapy
10.00 – 10.30	Coffee Break		
10.30 – 12.00	P13F – Patient Reported Outcome Measures	P14F – New Medicines: Management of Innovations	P15F – DUR Across the World
12.00 – 13.00	Lunch Break		
Scientific Programme Part V			
13.00 – 14.30	S4F – Predictive Analytics, Patient Level Drug Exposure	W5F – Role of DUR in Comparative Effectiveness Research	W6F – Cross-National Comparison Guideline and Checklist
14.30 – 16.00	Coffee Break / Poster Walk (14.45)		
16.00 – 17.30	Keynote Lecture K5F: Drug Utilization and Health Policy from a Global Perspective, Katja Taxis, Veronika Wirtz, Lisa Pont Closing Ceremony		

SCIENTIFIC PROGRAMME

WEDNESDAY, 15th NOVEMBER

09.00 – 10.30 EDUCATIONAL SESSION E1W Cross-National Comparison of Drug Utilization

Background

Most articles reporting cross-national comparison (CNC) of drug utilization (DU) data focus on reporting of outcomes. Method sections generally contain little information about data sources, data management, bias control, etc. Furthermore, discussion sections rarely contain in depth considerations of limitations of data sources. We must be aware that studies attempting CNC of DU data are particularly prone to systematic biases which could seriously jeopardize the validity of the comparison. In a collaborative effort of EuroDURG, WHO Collaborating Centre of Utrecht University and a grant from ISPE, we developed a methodology to assess the validity of CNC studies. This work resulted in a Good Practice Guideline for designing, conducting, reporting and reviewing CNC studies.

Aims

- To demonstrate the problems encountered while comparing DU data of different countries
- To give a global overview of the CNC guideline
- To focus on sources of bias in designing a CNC study
- To focus on sources of bias in conducting a CNC study

Description

In a general introduction, using a large range of published CNC studies, methodological pitfalls that have jeopardized the comparison will be demonstrated. It will be shown that all problems encountered are mapped and discussed while developing a CNC methodology. The results of this common effort, the CNC guidelines will be globally presented. Then we will focus first on the sources of bias in designing a CNC study and second on the sources of bias in conducting a CNC study. Different published examples will be presented and the published information will be used to evaluate possible biases using a CNC checklist, developed for this purpose.

Chairpersons:

Monique Elseviers, Belgium
Aukje Mantel-Teeuwisse, The Netherlands

Speaker:

Monique Elseviers, Belgium
Introduction: Pitfalls of cross-national comparison (CNC) studies

Speaker:

Yared Santa Ana-Tellez, Spain/ Mexico
Development and lay-out of the CNC guideline

Speaker:

Robert Vander Stichele, Belgium
Sources of bias in conducting a CNC study

Speaker:

Yared Santa Ana-Tellez, Spain/ Mexico
Sources of bias in designing a CNC study

09.00 – 10.30 EDUCATIONAL SESSION E2W Time Series Analysis

Background

Empirical research in drug utilization often describes and analyses change on various levels: health status of individual patients; populations exposed to changing health challenges and therapeutical options; introduction of expensive new treatments; health care systems being changed by regulatory and political decisions. For understanding such processes, the analysis of longitudinal data is essential. For this, time series analysis methods have been developed which can be employed in drug utilization research.

Aims

Focusing on the use of large, usually secondary, data sets, the session will present an introduction to the field as well as methods to address the particular problems encountered in longitudinal research, such as the impact of (possibly multiple) interventions and auto-correlations in the observations.

Description

The session will start with an introduction to the field, assuming no previous knowledge of time-series analyses, but presupposing some familiarity with methods of descriptive and confirmatory statistics. The subsequent speakers will present methods for analysing data with auto-correlations and seasonal influences appropriately, and for describing interrupted time series in order to describe the effects of interventions and/or external events in the field.

Chairpersons: **Gisbert W. Selke**, *Germany*
Peter Mol, *The Netherlands*

Speaker: **Gisbert W. Selke**, *Germany*
Introduction to time series analysis

Speaker: **Peter Mol**, *The Netherlands*
Interrupted time series analyses applied to study impact of safety communication about medicine

Speaker: **Joris Komen**, *The Netherlands*
Dealing with auto-correlation and seasonality in time series

09.00 – 10.30 EDUCATIONAL SESSION E3W Data Sources – Validation Research

Background

Assessing how drugs are used in clinical practice and their possible relation to clinical outcomes is one of the cornerstones of pharmacoepidemiologic research. However, due to variety in type of data sources, registration practices and methods used to collect drug use data this can be complicated. As a consequence, many different methods have been developed making comparability of results difficult.

Aims

To give insights into methods that are applied to different data sources to assess drug exposure, how these relate to actual patient drug use and how exposure assessment definition influences outcome estimates.

Description

This session will include three different presentations of 20 minutes followed by 10 minutes for discussion.

Chairpersons: **Helga Gardarsdottir**, *The Netherlands*
Tatiana Chama Borges Luz, *Brazil*

Speaker: **Helga Gardarsdottir**, *The Netherlands*
Comparisons of methods used to assess drug exposures in observational data

Speaker: **Antti Tanskanen**, *Finland*
Validation of exposure assessment using mathematical modelling and expert review: The PRE2DUP method

Speaker: **Luisa Ibáñez**, *Spain*
Validation of clinical outcomes in observational studies

11.00 – 12.30 EDUCATIONAL SESSION E4W Adherence Research Using Databases

Background

Adherence describes the extent to which an individual behavior regarding a medical treatment regimen corresponds with the recommendations of the health care provider. In order for a prescribed medication to have the desired effect on the patient, the patient has to take the intended dose, and continue to take the medication for as long as it is deemed necessary. And thus, medication non-adherence has been associated with adverse clinical outcomes and increased health care costs. Although the concept seems to be quite straight forward, assessing medication adherence accurately using electronic databases remains a challenge.

Aims

The aims are to introduce participants to medication adherence concepts and methodologies used to assess drug exposure using electronic databases, and to give insights into the assumptions and challenges faced when describing patterns of medication consumption.

Description

The session will start with an introduction to the field, assuming no previous knowledge of medication adherence and methodology for its assessment using electronic databases, but presupposing some familiarity with drug utilization research concepts. The most relevant measures, assumption to be taken while measuring adherence and definitions of exposure using electronic databases will be presented. New methodologies to describe adherence patterns more precisely and challenges associated will also be described.

Chairpersons:

Anna Birna Almarsdottir, *Denmark*
Gabriel Sanf lix-Gimeno, *Spain*

Speaker:

Anna Birna Almarsdottir & Gabriel Sanf lix-Gimeno

Introduction to adherence: definition, concepts and importance

Speaker:

Rob Heerdink, *The Netherlands*

Assessing adherence using electronic databases: measures, assumptions, and exposure definition

Speaker:

Emma Aarnio, *Finland*

Trajectory modelling and its challenges when measuring adherence with databases

11.00 – 12.30 EDUCATIONAL SESSION E5W Quality of Quality Indicators

Background

Quality indicators (QIs) are increasingly used as a tool by health authorities across countries to achieve safe, cost-effective and quality care, for professional learning and accreditation as well as financial incentives. QIs can include outcome indicators such as BP, lipid and HbA1c targets, prescribing ratios such as % of fluorquinolones versus all antibiotics prescribed for patients with respiratory infections or a maximum % of injectable vs. oral medicines, adherence to prescribing guidelines, as well as prescribing targets. To be successful and achieve desired objectives, when developing, applying and evaluating robust QIs, the developers need to consider key aspects such as the dimensions of quality being evaluated, potential data sources to ensure reliability, their ease of use, their validity in achieving the desired objective, and the budget impact of data collection. These can be considered as key aspects of the quality of QIs.

Aims

Discuss the development of QIs within healthcare systems and potential ways to assess their rationale and the ability to achieve the desired outcome

Description

The session will start with an overview of the topic of QI and how they can be used to measure quality of care/drug utilization. This will be followed by two examples of using QI from a global and a regional perspective, covering different therapeutic areas. We will conclude the session with a workshop and discussion.

- Chairpersons: **Brian Godman, UK**
Jane Robertson, WHO
- Speaker: **Stephen Campbell, UK**
Outline of QIs, their development and key considerations for measuring their quality
- Speaker: **Jane Robertson, WHO**
Potential indicators to assess the quality of antibiotic use across Europe
- Speaker: **Seán Macbride-Stewart, UK**
Quality Prescribing Indicators – Scotland’s experience

11.00 – 12.30 EDUCATIONAL SESSION E6W Using Field Studies in Drug Utilization Research

Background

The use of large databases is common in drug utilization research. Whilst we have large databases available in many countries, there is a scarcity of such datasources in many low- and middle-income countries. Furthermore, in some cases, we need to collect information which is not contained in databases. Hence we use other data collection methods including questionnaires and observation of practice to answer our research questions.

Description

This educational session provides basic theory and practical tips in conducting drug utilization studies when required information is not captured in databases or when large databases are not available. Common study designs used to collect data through observation, medical records or questionnaires will be presented and the strengths and limitations of working without large databases discussed. Course participants learn about different study designs and data collection methods and discuss how to answer relevant questions about safety and utilization of medicines in primary and secondary care settings using field studies.

Aims

- To analyse common study designs of pharmacoepidemiologic studies without large databases
- To discuss strengths and limitations of different study designs and data collection methods
- To identify strategies to improve quality and reliability of pharmacoepidemiological studies conducted without large databases

- Chairpersons: **Katja Taxis, The Netherlands**
Veronika Wirtz, USA
- Speaker: **Katja Taxis, The Netherlands**
Data collection through questionnaires and observation
- Speaker: **Lisa Pont, Australia**
Examples of studies done without large databases
- Speaker: **Annie Fourier-Réglat, France**
Introduction and overview of study designs

SCIENTIFIC PROGRAMME PART I

13.30 – 15.00 WELCOME CEREMONY AND KEYNOTE LECTURES (K1W & K2W)

Chairpersons: **Marion Bennie, UK**
Katja Taxis, The Netherlands

Speaker: **Tim Bedford, Associate Principal Research and Innovation University of Strathclyde, UK**

In this opening session, Gillian Docherty will provide a view of the future capability of digital technology in supporting our lives and the potential contribution to advancing modern healthcare delivery. The audience will be taken from the here and now to a new digital paradigm supporting our health and wellbeing. She will illustrate her talk by giving key exemplars in the context of health where technology is supporting the drive to improve healthcare and generating new data streams to enable better informed decisions for clinicians and patients in addition to population analysis for evidence generation and policy. The second speaker, Björn Wettermark will talk about digitalization in the context of drug utilization research. Giving us a glimpse of the opportunities and challenges that digital health holds for research in the field of medicine use.

14.00 Speaker Gillian Docherty, UK
Digital: The Future is here

14.30 Speaker Björn Wettermark, Sweden
Digitalizing and DUR: Challenges and opportunities

16.00 – 17.30 PARALLEL SESSION P1W Antimicrobial Use and Resistance

Background

Antibiotic resistance is a global threat. The Global Action Plan on antimicrobial resistance requests all countries to report on patterns of resistance and consumption of antibacterials. These are important in establishing the extent of the problems in country and provide the basis for developing interventions to change practices. While there is an established history of reporting antibacterial consumption in developed countries, other countries are now just starting routine reporting on antimicrobial use.

Aims

To show effective interventions which results in more prudent antibiotic use in ambulatory care.

Chairpersons: **Ria Benko, Hungary**
Jane Robertson, WHO

Speaker: **Carl Llor, Spain**
Evidence-based interventions addressed to prescribe antibiotics more prudently in ambulatory care

Abstract P1W.1: **Ria Benko, University Of Szeged, Hungary**
The pattern of antibiotic use among Hungarian, Norwegian and Portuguese children

Abstract P1W.2: **William Malcom, Health Protection Scotland NHS National Services Scotland, Glasgow, UK**
Measuring potential adverse consequences of restricting antibiotic treatment of respiratory tract infections in primary care: a population data linkage study using NHS Scotland's Infection Intelligence Platform

- Abstract P1W.3: **Michael Fleming**, *Health Protection Scotland NHS National Services Scotland, UK*
Characterisation of risk factors associated with antibiotic resistance in urinary isolates in the community: an exemplar of NHS Scotland's Infection Intelligence Platform
- Abstract P1W.4: **Verica Ivanovska**, *Faculty of Medical Sciences, Stip, Macedonia, Utrecht University Netherlands, Utrecht, The Netherlands*
Impact of the national intervention programme on parental knowledge, attitudes and practice of antibiotic use for respiratory infections

16.00 – 17.30 PARALLEL SESSION P2W ePrescribing and eDispensing Systems

Background

Medicines prescriptions represent the most frequent healthcare treatment but to date, a large amount of medicine prescription, administration and management and information sharing and transfer has remained handled using paper-based prescriptions, charts and records.

Safe and effective prescription and administration of medicines remains challenging, with medication errors, hospital admissions due to medicine-related adverse events and discrepancy in medication relating to changes in care settings remaining all too frequent. In recent years, there have been concerted effort to replace traditional paper-based prescription and medicine management systems with electronic solutions (i.e. Computerized Physician Order Entry, CPOE and electronic Prescribing and Medicines Administration, ePMA).

The term 'ePharmacy' is used to describe fully integrated electronic Prescribing and Medicines Administration systems. ePharmacy is considered key to delivering integrated Patient Electronic Health Records (EHR) systems as an enabler of continuity and integrated care. The anticipated benefits of ePharmacy implementations include safer medicine prescriptions, a reduction in data duplication and entry errors, medicine reconciliation, medicine information transfer and sharing, lower cost for health systems and improved care for patients.

However, ePharmacy are large scale and complex implementations, incorporating a number of core components: community pharmacy, Acute Medication Service, Chronic Medication Service, Hospital Electronic Prescribing and Medicines Administration systems, emergency care records, data and information governance etc. Consequently, uptake remains low and large-scale implementations are often slow to progress.

Aims

This session will include presentations from leading experts in the field of ePrescribing / eDispensing implementation and evaluation which will provide fundamental information for all of those interested in adopting and deploying these solutions in future.

- Chairpersons: **Matt-Mouley Bouamrane**, *UK*
Robert Vander Stichele, *Belgium*
- Speaker: **Robert Vander Stichele**, *Belgium*
Short intro into the terminology and the interoperativity of systems
- Speaker: **Abby King**, *UK*
ePrescribing Toolkit for NHS Hospitals in England
- Speaker: **Alison Strath**, *UK*
Scotland ePharmacy programme
- Abstract P2W.1: **Marion Bennie**, *University of Strathclyde, UK*
Analysis of risk factors for bacteraemia and subsequent mortality in Scotland: a national data linkage matched case-control study using NHS Scotland's Infection Intelligence Platform

16.00 – 17.30 PARALLEL SESSION P3W Adherence

Background

Medication adherence is the process by which patients take their medications as prescribed. It is a dynamic process, comprising three elements: initiation of therapy, implementation of the dosing regimen and persistence with treatment. Medication adherence can be measured using different methods, including pill counts, self-report, therapeutic drug monitoring, automatic/electronic compilation of dosing history data and electronic prescription/refill databases. In recent years, adherence research based on existing administrative databases gained more interest. Strengths and limitations has to be taken into account however while measuring the three elements of adherence using big data.

Aims

- To stress the importance of the three while speaking about adherence
- To present different methods to measure adherence focusing on current electronic developments and the availability of big data
- To evaluate the added value and the limitations of database research in the field of adherence research

Description

During his presentation, Bernard Vrijens will present the different elements of adherence, present different methods to measure adherence with the unique place of database research and will handle strengths and limitations of the latter method. The lecture will be followed by the oral presentation of four selected abstracts in the field of adherence research.

Chairpersons:

Monique Elseviers, Belgium
Bernard Vrijens, Belgium

Speaker:

Bernard Vrijens, Belgium
Adherence research & big data: strengths and limitations

Abstract P3W.1:

Enrica Menditto, CIRFF, Center of Pharmacoconomics, University of Naples Federico II, Naples, Italy
A snapshot of medication adherence across three European countries: application of common methodology

Abstract P3W.2:

Daniel Bejarano-Quisoboni, Center for Public Health Research (CSISP-FISABIO), Valencia, Spain
Adherence Trajectories to Essential Medications and Clinical Outcomes after Acute Coronary Syndrome. A Population-Based Cohort Study

Abstract P3W.3:

Alexandra Lelia Dima, Health Services and Performance Research (HESPER), Université Claude Bernard Lyon 1, France
Introducing Adhere R: an R package for visualization of medication histories and calculation of adherence to medications using electronic healthcare data

Abstract P3W.4:

Johanna Meyer, School of Pharmacy, Sefako Makgatho Health Sciences University, Ga-Rankuwa, Pretoria, South Africa
Adherence to antiretroviral treatment amongst patients in Botswana: A multi-measure approach to guide future practice

THURSDAY, 16th NOVEMBER

SCIENTIFIC PROGRAMME PART II

08.30 – 10.00

PARALLEL SESSION P4T

Prescribing and de-Prescribing in Old Age

Background

During the last decade explicit criteria are more and more used to evaluate the appropriateness of prescribing in old age. Moreover, evidence is growing that appropriate prescribing is associated with better health outcomes (hospitalization, mortality). In recent years, also de-prescribing gained attention to tackle the problem of polypharmacy in old age. Extended medication lists candidate for de-prescribing as well as guidelines on how to communicate de-prescribing with patients are lacking as yet.

Aims

- To highlight the specific position of de-prescribing as an additional tool to tackle polypharmacy and associated negative outcome in old age
- To handle the current evidence of medications, candidate for de-prescribing
- To offer guidance in the practice of communicating de-prescribing with de patient and his caregivers/family

Description

The guest speaker will give a state-of the art lecture about deprescribing as supplementary to appropriate prescribing in the pharmaco-therapeutic in old age handling the evidence of candidate medication for de-prescribing as well as the specific problems related to the communication with patients and family about de-prescribing. The lecture will be followed by the oral presentation of four selected abstracts in the field of polypharmacy, appropriate prescribing and de-prescribing in old age.

Chairpersons:

Monique Elseviers, *Belgium*
Lisa Pont, *Australia*

Speaker:

Bruce Guthrie, *UK*
Reducing high-risk prescribing and optimising prescribing in people with polypharmacy

Abstract P4T.1:

Christina Raae-Hansen, *Pharmaceutical Care Research Group, School of Pharmacy, University College Cork (UCC), Cork, Ireland*
Trends of potentially inappropriate prescribing in early old aged people over a 5-year period

Abstract P4T.2:

Edwin Tan, *Aging Research Center, Karolinska Institutet and Stockholm University, Stockholm, Sweden / Centre for Medicine Use and Safety, Monash University, Parkville, Australia*
Antihypertensive medication regimen intensity and incident dementia in an older population

Abstract P4T.3:

Marie-laure Laroche, *Centre of Pharmacovigilance and Pharmacoepidemiology, Limoges, France*
Prescription of futile and essential drugs in the last three months of life of older patients receiving palliative care

Abstract P4T.4:

Hans Wouters, *Dept. Of Pharmacotherapy, -Epidemiology & -Economics, University Of Groningen, Groningen, The Netherlands / dept. Of General Practice And Elderly Care Medicine, University Medical Center Groningen, Groningen, The Netherlands*
Discontinuing Inappropriate Medication In Nursing Home Residents (DIM-NHR STUDY): A Cluster Randomized Controlled Trial

08.30 – 10.00 PARALLEL SESSION P5T Gender Difference and Safety in DU

Background

Men and women are alike in many ways. However, the two genders have important biological and behavioral differences, which may affect manifestation of diseases, the treatment approaches, efficacy and safety of medicines. Distinct drug utilisation in men and women have been demonstrated in drug utilization studies. Some gender related differences might be attributed to biological differences or different incidence and prevalence of disease. However, other cannot be explained on medical grounds, and may indicate unequal treatment or behavioral peculiarities.

Aims

To present an overview of gender related differences in drug utilization and drug safety; to explore the potential opportunities and challenges studying the reasons and consequences of these differences.

Chairpersons: **Jolanta Gulbonovic, Lithuania**
Petra Denig, The Netherlands

Speaker: **Ylva Böttiger, Sweden**
Differences in prescribing to women and men: sex or gender?

Speaker: **Petra Denig, The Netherlands**
Differences in side effects between women and men: sex or gender?

Abstract P5T.1: **Andréia Turmina Fontanella, Graduate Studies Program in Epidemiology, School of Medicine, Federal University of Rio Grande do Sul, Porto Alegre, Brazil**
Psychotropic drug use and the differences between men and women: results from a household survey

Abstract P5T.2: **Gisbert W. Selke, Wissenschaftliches Institut der AOK, Berlin, Germany**
Concerns regarding the safety of combined hormonal contraceptives: influence of an EU risk assessment process on prescription patterns. An analysis of German claims data 2011–2015

08.30 – 10.00 PARALLEL SESSION P6T Decision Support to Improve Drug Use

Background

Evidence Based Medicine has produced new methods to synthesize scientific knowledge for support of clinical practice and new international databases for point-of-care information provision. Clinicians have become more sophisticated in searching for relevant information and high-tech decision support is available to interact with interoperable electronic health care records.

Aims

To provide an overview of the characteristics of point-of-care knowledge databases, the available evidence of impact.

Chairpersons: **Robert Vander Stichele, Belgium**
Catherine Sermet, France

Speaker: **Stijn Van De Velde, Norway**
Guidelines for implementation of decision support systems

Abstract P6T.1: **Rianne Weersink, University of Groningen, Groningen, the Netherlands / Health Base Foundation, Houten, The Netherlands**
Developing advices for safe drug use in patients with liver cirrhosis

- Abstract P6T.2: **Helene van der Meer**, *University Of Groningen, Groningen, The Netherlands*
Latent class analysis of anticholinergic and sedative medication use: a national population study
- Abstract P6T.3: **Heshu Abdullah-koolmees**, *UMC Utrecht, Utrecht, The Netherlands / Utrecht University, Utrecht, The Netherlands*
Predicting rehospitalization in patients treated with antipsychotics: a prospective observational study
- Abstract P6T.4: **Janet Kraska**, *Medway School of Pharmacy, Universities of Greenwich and Kent, Chatham Maritime, UK*
Development and testing of the Side Effects Patient Assessment Tool (SE-PAST)

10.30 – 12.00 PARALLEL SESSION P7T Globalization of DUR

Background

DUR is a global discipline. While a lot of the sessions focus on European DUR. In this session, we want to have a look at the situation in three other continents/regions of the world: South America, Africa and Asia.

Aim

To give a global perspective of DUR by discussing state of DUR and challenges outside Europe.

Description

The topic of this session is a global perspective of DUR. The speakers origin from three different continents. They will speak about the current situation of DUR, giving examples of their own and others' research. They will discuss the specific challenges they face in their region. Similarities and differences will emerge. Speakers will cover South America, Africa and Asia.

- Chairpersons: **Robert Vander Stichele**, *Belgium*
Aukje Mantel-Teeuwisse, *The Netherlands*
- Speaker: **Claudia Garcia Serpa Osorio-de-Castro**, *Brazil*
Exploring federal data on medicines procurement in Brazil
- Speaker: **Fatima Suleman**, *South Africa*
Global drug utilization review: what's happening in Africa
- Speaker: **Debra Rowett**, *Australia*
Predicted versus actual analysis of listed medicines – a routine part of national drug utilization review

10.30 – 12.00 PARALLEL SESSION P8T Drug Use in Pregnancy and Pediatrics

Background

Evaluation of appropriateness in drug use is a common topic of interest for DU studies in pregnancy and pediatrics. Main reasons are represented by a risk-benefit profile of medicines different from standard patient, by formal off-label use and by difficulties in evaluating time and intensity of exposure (trimesters for pregnancy, doses adjusted for age and weight for children, ...).

Aims

- To describe updates in methods of DU studies focusing on pediatric population and pregnancy
- To map sources of data and their limitations in this field
- To highlight future challenges in DU studies for these populations

Description

The first lecture will be devoted to DU in pediatrics and the second one to DU in pregnancy, possibly with speakers involved in international networks collecting specific data in these 2 populations. Two further oral communications will be identified from abstracts, by preferring those with focus on developing strategies for DU research to address clinical/regulatory questions.

Chairpersons:

Elisabetta Poluzzi, *Italy*
Hedvig Nordeng, *Norway*

Speaker:

Hedvig Nordeng, *Norway*
Drug Utilisation in Pregnancy – a multinational perspective

Speaker:

Elisabetta Poluzzi, *Italy*
Drug Utilisation in Paediatrics - different challenges for different age groups

Abstract P8T.1:

Pierre-Olivier Blotiere, *Department of Studies in Public Health, French National Health Insurance (CNAMTS), France*
Risks of specific major congenital malformations associated with prenatal exposure to antiepileptic drugs: a nationwide cohort study based on the French healthcare databases

Abstract P8T.2:

Elin Dahlén, *Department of Healthcare Development, The Health and Medical Care Administration, Stockholm County Council, Sweden*
Health care utilization and dispensed medicines among children in Stockholm, Sweden

10.30 – 12.00

PARALLEL SESSION P9T

Evolving Methods in DUR

Aims

To describe the evolving methods in drug utilization research.

Description

Presentation of submitted abstracts on methodological questions of DUR covering different countries, therapeutic areas and methodological challenges.

Chairpersons:

Björn Wettermark, *Sweden*
Marion Bennie, *UK*

Abstract P9T.1:

Clifford Nangle, *University Of Dundee, Dundee, UK, 2NHS National Services Scotland, Edinburgh, UK*
Modelling free-text prescription dose instructions to support daily dosage calculation

Abstract P9T.2:

Job FM Van Boven, *Department of Clinical Pharmacy & Pharmacology, University Medical Center Groningen, University of Groningen, Groningen, The Netherlands*
Dynamics of discontinuation in new metformin users in the first year of treatment

- Abstract P9T.3: **Catherine Sermet**, *Irdes, Paris, France*
Measuring polypharmacy in the elderly on a French national health database: impact of calculation method on prevalence and therapeutic classes
- Abstract P9T.4: **Mikael Hoffmann**, *The Nepi Foundation, Linköping, Sweden*
National monthly standard-reports of incidence-rates of drugs in Sweden – development process, validation and results
- Abstract P9T.5: **Chris Johnson**, *Pharmacy & Prescribing Support Unit, NHS Greater Glasgow & Clyde, Glasgow, UK*
Doing the right thing: Factors influencing GP prescribing of antidepressants and prescribed doses
- Abstract P9T.6: **Sandy Maumus-Robert**, *Univ. Bordeaux, Inserm, Bordeaux Population Health Research Center, Team Pharmacoepidemiology, UMR 1219, Bordeaux, France*
Off-label use of oral morphine sulfate for opioid maintenance purpose in France: results from the 2009-2015 UTOPIA study

SCIENTIFIC PROGRAMME PART III

13.00 – 14.30

WORKSHOP W1T

DUR on the Life Cycle of Drugs

Background

Drug utilization studies are useful tools for healthcare professionals, regulators, payers and the pharmaceutical industry during all different stages of the life cycle of medicines. Studies prior to the introduction of new medicines may focus on the burden-of-illness, unmet need and the potential budget impact of new medicines. After introduction there is a need for studies, e.g. on physicians prescribing behavior and characteristics of patients initiated on the drugs as well as pharmaco-epidemiological studies on the effectiveness and safety. Later along the life cycle studies, questions such as rational introduction of generics and how to stop prescribing may be of relevance.

Statins are among the most commonly used drugs in the population. Numerous drug utilization studies have added fuel to a lively debate on the benefit risk balance of statins across different populations. Most statins have now lost their patents and generics are available. Recently, PCSK9 inhibitors were introduced as a new drug of class to treat patients with familial hyper-cholesterolemia. These medicines are very effective at lowering LDL-c but there are questions around the benefit-risk and the potential budget impact. Consequently, there is a need to design good drug utilization studies to monitor the introduction of these new drugs.

Aims

To explore how drug utilization studies can contribute to improve lifecycle management of new medicines, using the new lipid lowering drugs as an example.

Description

The workshop will begin with an overview on different types of drug utilization studies conducted on statins and how they contributed to our knowledge about the benefit/risk and place in therapy of the drugs. This is followed by an introduction to the new biologic lipid lowering drugs. The rest of the workshop will be dedicated to interactive group discussions on drug utilization studies that could be conducted as part of the lifecycle management of these new drugs. Each group is given the assignment to identify the key drug utilization studies to conduct during different phases in the introduction of the new drugs.

Chairpersons:

Björn Wettermark, *Sweden*
Debra Rowett, *Australia*

- Speaker: **Björn Wettermark, Sweden**
What can we learn from drug utilization studies on statins – Overview of studies on prescribing patterns, rational use and patient adherence to statin therapy in different populations
- Speaker: **Peter Mol, The Netherlands**
Introduction to the PCSK9 inhibitors. Challenges from a regulatory and a payer perspective

13.00 – 14.30 SYMPOSIUM S2T Data Visualization

Background

Visualization of research data is necessary both for exploratory analysis, trying to uncover structures within the observations, and for presenting results in such a way that the audience can quickly grasp the essence of the results of analysis. In both cases, a wide choice of representations is available, and in choosing, the researcher has to take into account the psychology of perception, a grasp of the subject matter, available statistical methods and technical possibilities.

Aims

To be able to design meaningful diagrams for different contexts and varying audiences, and to become familiar with methods for visualising large data sets and high-dimensional data, both statically and interactively.

Description

In this symposium different ways for data visualization ranging from simple to complex including high-dimensional data will be presented.

- Chairpersons: **Ria Benko, Hungary**
Gisbert W. Selke, Germany
- Speaker: **Seán Macbride-Stewart, UK**
Want to influence prescribing? Make it easy for prescribers to interpret prescription data
- Speaker: **Maria Matuz, Hungary**
Visualisation of DU data in the scientific literature
- Speaker: **Mikael Hoffmann, Sweden**
Interactive visualization of drug utilization data – why, how, when, and when not

13.00 – 14.30 WORKSHOP W3T From Intervention to Implementation – How Can Science Help?

Background

The adoption, spread and impact of evidence generation into routine clinical practice remains a major challenge for healthcare systems worldwide. Implementation science can be defined as the “study of theories, process, models and methods of implementing evidence based practice”.

Aims

To explore how implementation science can be applied to support understanding of the key elements necessary to achieve success in moving from a health intervention study to widespread diffusion across a healthcare system.

Description

This session will begin with an overview of implementation science, (including connection to the common terminology of knowledge management / transfer concept used in healthcare systems), illustrated by a medicines related case study. This will be followed by a task where participants will work with an case example to apply an Implementation Framework (propose the IHI Framework – Going to Full Scale” – see below) to consider the key factors for a successful implementation across a health system- getting evidence into practice. Case study to work through and complete a known implementation framework tool to enable participants to gain confidence in thinking about taking a study to spread and impact across a health system (possibly use 2 case studies and have groups looking at different steps in process as unlikely to complete all steps for a case study in timescale given).

Chairpersons: **Marion Bennie, UK**
Lisa Pont, Australia

Speaker: **Rachel Bruce, UK**
Implementation Science – the Why, What and How?

16.00 – 17.30 KEYNOTE LECTURES (K3T & K4T)

The volume and complexity of health data increases. Professor Morris will address how data science research uses innovative ways of linking detailed epidemiological data with biological data at scale. And how this “molecule to man approach” is used to solve current health challenges.

Prof Cunningham-Burley will address some of the social and ethical dimensions of using big data for health and medicine. In particular, talking about public attitudes, preferences and concerns about the use of data in research. Discussing best practices in public engagement in health informatics research.

Chairpersons: **Marion Bennie, UK**

Speaker: **Andrew Morris, Professor of Medicine, Director of Health Data Research UK, the National Health and Biomedical Informatics Institute**
Health Informatics – taking a “molecule to man” approach

Speaker: **Sarah Cunningham Burley, Professor of Medical and Family Sociology, Farr Scotland Public Involvement Lead, UK**
Patient Perspective – The Patient and Public Voice – using big data for public benefit

FRIDAY, 17th NOVEMBER

SCIENTIFIC PROGRAMME PART IV

08.30 – 10.00 PARALLEL SESSION P10F Inform and Evaluate Health Policy

Background

There are considerable strains on available resources resulting in health authorities and health insurance companies across Europe instigating measures to enhance the quality and efficiency of prescribing. The intention being to try and maintain comprehensive and equitable healthcare for their populations. There is an ongoing need to assess the impact of different health policies in order to plan future policies if needed. Drug utilization research is a key element of this.

Aims

To stimulate debate and discussion regarding the rationale for introducing health policies as well as optimal ways to assess their impact

Description

Keynote lecture from Simon Hurding followed by 4 pertinent abstract presentations.

Chairpersons:

Brian Godman, UK
Simon Hurding, UK

Speaker

Simon Hurding, UK

Lessons learnt in Scotland with introducing policies to improve the quality and efficiency of prescribing – Policy versus Polypharmacy

Abstract P10F.1:

Ana Araújo, National Authority of Medicines and Health Products (Infarmed, I.P.), Lisbon, Portugal

Effect of tobacco cessation policies in the consumption of anti-smoking medicines in Portugal

Abstract P10F.2:

Hye-young Kwon, Mokwon University, Daejeon, South Korea

Changes in pharmaceutical expenditures with massive price cuts

Abstract P10F.3:

Sabine Vogler, WHO Collaborating Centre for Pharmaceutical Pricing and Reimbursement Policies, Gesundheit Österreich GmbH (GÖG / Austrian Public Health Institute), Vienna, Austria

Analysis of out-of-pocket payments for medicines in Kyrgyzstan

Abstract P10F.4:

Elaine Lazzaroni Moraes, Instituto Nacional de Câncer, Ministério da Saúde, Rio de Janeiro, Brazil

Out-of-tender medicines procurement in a Brazilian reference cancer institution

08.30 – 10.00 PARALLEL SESSION P11F Citizen Science and DUR

Background

Citizen science is the involvement of the public in scientific research. In the case of DUR, patients and the public are our research partners, being involved in all stages of the research cycle. This could contribute to shaping the research agenda. Results are more likely to be useful, ultimately improving patient care.

Aim

To discuss ways to involve patients and the general public into DUR.

Description

The keynote lecture of Nicky Britten will describe experiences with public involvement in research. This will include presenting an innovative approach developed in Exeter how to involve and embed patients and the general public into the research cycle.

- Chairpersons: **Katja Taxis, *The Netherlands***
Janet Kraska, *UK*
- Speaker: **Nicky Britten, *UK***
Patient and lay involvement in drug utilisation research
- Abstract P11F.1: **Velisha Perumal-Pillay, *University Of KwaZulu-Natal, Durban, South Africa***
Parents' and guardians' perceptions on availability and pricing of medicines and healthcare for children in eThekweni, South Africa – A qualitative study
- Abstract P11F.2: **Peter Mol, *Department of Clinical Pharmacy and Pharmacology, University Medical Center Groningen, The Netherlands***
Media attention for drug safety issues. A survey of newspapers and social media in the Netherlands (2001 – 2015)
- Abstract P11F.3: **Peter Mol, *Department of Clinical Pharmacy and Pharmacology, University Medical Center Groningen, The Netherlands***
Which patients and healthcare professionals are interested in an app for reporting adverse drug reactions and receiving drug safety information?
- Abstract P11F.4: **Johanna Meyer, *School of Pharmacy, Sefako Makgatho Health Sciences University, Ga-Rankuwa, Pretoria, South Africa***
Patients with type-2 diabetes attending a community health centre in Pretoria, South Africa: Do they know how to manage their chronic condition to improve future care?

08.30 – 10.00 PARALLEL SESSION P12F Cardiovascular Therapy

Aims

To report results of studies on DUR in the area of cardiovascular diseases.

Description

In this session researchers from various countries will report results of studies on DUR in the area of cardiovascular diseases.

- Chairpersons: **Margaret Ryan, *UK***
Elisabetta Poluzzi, *Italy*
- Abstract P12F.1: **Giuseppe Roberto, *Agenzia Regionale Di Sanità Della Toscana, Florence, Italy***
NSAIDs utilization in a large cohort of Italian elderly with cerebro/cardiovascular disease
- Abstract P12F.2: **Janne Sepp, *State Agency of Medicines, Estonia, / Institute of Pharmacy, University of Tartu, Estonia***
Co-prescribing of renin-angiotensin system (RAS) acting agents is decreasing in Estonia

- Abstract P12F.3: **Amanj Kurdi**, *University of Strathclyde, Glasgow, United Kingdom, University of Nottingham, Nottingham, UK*
Factors predicting the addition of a second antihypertensive drug in treating hypertension – a longitudinal retrospective cohort study in the UK primary care setting
- Abstract P12F.4: **Adele Lallo**, *Department of Epidemiology, Lazio Regional Health Service, Roma, Italy*
Adherence to evidence-based drug therapies after myocardial infarction: is geographic variation related to hospital of discharge or primary-care providers? Methodological challenges and policy perspectives
- Abstract P12F.5: **Katja Taxis**, *University of Groningen, The Netherlands*
Factors associated with physician adherence to prescribing guideline-recommended medications for acute coronary syndrome in Vietnam
- Abstract P12F.6: **Tanja Mueller**, *University Of Strathclyde, Glasgow, UK, / NHS National Services Scotland, Edinburgh, UK*
Use of direct oral anticoagulants in patients with atrial fibrillation in Scotland: Applying a coherent framework to drug utilization studies

10.30 – 12.00 PARALLEL SESSION P13F Patient Reported Outcome Measures

Background

Patient reported outcome measures (PROMs), integrated with other clinical healthcare information, have the potential to enable improvements in decision making for individual patient care, service planning and in shaping medicines policy direction. Data capture of PROMS is not currently part of routine clinical care.

Aims

To present an overview of PROMs in the context of medicines and explore the potential opportunities and challenges with collecting and analyzing PROMs data to support data generation for the purpose of improved patient care.

Description

This session will begin with an overview followed by 3-4 accounts from countries across the world.

Chairpersons: **Marion Bennie**, *UK*
Janet Kraska, *UK*

Speaker: **Janet Kraska**, *UK*
PROMS – the patient voice in clinical decision making

Abstract P13F.1: **Emma Dunlop Corcoran**, *University Of Strathclyde, Glasgow, UK*
PROMs in cancer care – examination of the current evidence of collection and use in routine clinical practice

Abstract P13F.2: **Roma Maguire**, *University of Strathclyde, Glasgow, UK*
Enabling daily monitoring of chemotherapy toxicity: The Daily Chemotherapy Toxicity self-Assessment Questionnaire (DCTAQ)

- Abstract P13F.3: **Hans Wouters**, *Dept. of Pharmacotherapy, -Epidemiology & -Economics, University Of Groningen, Groningen, The Netherlands / Dept. of General Practice And Elderly Care Medicine, University Medical Center Groningen, Groningen, The Netherlands*
Long-term Exposure To Anticholinergic And Sedative Drugs And Cognitive And Physical Function In Later Life
- Abstract P13F.4: **Janet Kraska**, *Medway School of Pharmacy, UK*
Complexity of medicine regimens and patient perceptions of medicine burden

10.30 – 12.00 PARALLEL SESSION P14F New Medicines: Management of Innovations

Background

There is still considerable unmet need among patients. However, new medicines are typically more expensive than existing ones with prices especially for new oncology medicines and those for orphan diseases up to US\$10,000 – 20,000/ patient/ month or more. It is difficult to fund all new medicines giving increasing pressure on resources exacerbated by a growing elderly population with growing prevalence of chronic diseases. Alongside this, patients in routine clinical care are likely to be more co-morbid and older than those in Phase III clinical trials. Professionals with budget responsibility have to balance a requirement to meet unmet need with new expensive medicines especially in high priority areas with available resources. This requires budgetary planning, discussions with clinicians on the potential role and place of new therapies, as well as follow-up of prescribing to see whether new medicines are being prescribed according to agreed guidelines as well as their effectiveness and safety in routine clinical care. Consequently, DU research is crucial going forward.

Aims

To stimulate debate and discussion regarding optimal ways to optimize the managed entry of new premium priced medicines that meet unmet need given increasing budgetary concerns.

Description

Keynote lecture from Margaret followed by 4 abstracts and discussion.

- Chairpersons: **Brian Godman, UK**
Margaret Ryan, UK
- Speaker: **Margaret Ryan, UK**
Experiences in Scotland with managing the introduction of new medicines; role of drug utilization research and prescribing initiatives
- Abstract P14F.1: **Sabine Vogler**, *WHO Collaborating Centre for Pharmaceutical Pricing and Reimbursement Policies, Pharmacoeconomics Department, Gesundheit Österreich GmbH (GÖG / Austrian Public Health Institute), Vienna, Austria*
Shining some light on confidential arrangements: Relevance of discounts for pharmaceutical pricing in European countries
- Abstract P14F.2: **Brian Godman**, *Strathclyde Institute of Pharmacy and Biomedical Sciences, Glasgow, United Kingdom, Division of Clinical Pharmacology, Karolinska Institute, Stockholm, Sweden*
The implementation of managed entry agreements in Central and Eastern Europe: Findings and implications for future policies
- Abstract P14F.3: **Sabine Vogler**, *Pharmacoeconomics Department, Austrian Public Health Institute, Vienna, Austria / WHO Collaborating Centre for Pharmaceutical Pricing and Reimbursement Policies, Vienna, Austria*
How do average prices of high-cost medicines in Europe develop in the years following marketing authorisation?

Abstract P14F.4: **Gisbert W. Selke**, *Wissenschaftliches Institut der AOK, Berlin, Germany*
Biologics: Possibilities and limitations of efficiency gains through biosimilars. An analysis of the German market 2004–2016 using health care funds claims data

10.30 – 12.00 PARALLEL SESSION P15F DUR Across the World

Description

In this unique session, researchers from across the globe will report on DUR studies. We will cover Brazil, Canada, Indonesia, Australia, South Africa and Kenya.

Chairpersons: **Katja Taxis**, *The Netherlands*
Jane Robertson, *WHO*

Abstract P15F.1: **Claudia Garcia Serpa Osorio-de-Castro**, *Sergio Arouca National School of Public Health, Oswaldo Cruz Foundation, Rio de Janeiro, Brazil*
Essential medicines list implementation dynamics: a case study using Brazilian federal medicines expenditures

Abstract P15F.2: **Daniale Weir**, *McGill University, Montreal, Canada*
Medications Prescribed, Stopped and Modified at Hospital Discharge and Filled Medications in the Community: Failure to Follow in-Hospital Medication Changes and Adverse Health Outcomes 30-days Post Hospital Discharge

Abstract P15F.3: **Elfride Sianturi**, *University Of Groningen, Groningen, The Netherlands, Universitas Cenderawasih, Papua, Indonesia*
Association between Stigma, Beliefs about Medicines and Adherence to Antiretroviral Therapy: A Cross Sectional Study in People Living with HIV (PLHIV) in Papua, Indonesia

Abstract P15F.4: **Lisa Pont**, *Centre For Health Systems And Safety Research, University of Technology, Sydney, Australia*
De-prescribing of antipsychotics in residential aged care

Abstract P15F.5: **Johanita Burger**, *North-West University (Potchefstroom Campus), Potchefstroom, South Africa*
Appropriate and non-medical use of methylphenidate by residence students at a South African tertiary institution

Abstract P15F.6: **Margaret Oluka**, *Department of Pharmacology & Pharmacognosy, School of Pharmacy, University of Nairobi, Nairobi, Kenya*
Incidence and Determinants of Medication Errors among Paediatric In-Patients at a Rural Referral Hospital in Kenya

SCIENTIFIC PROGRAMME PART V

13.00 – 14.30 SYMPOSIUM S4F Predictive Analytics, Patient Level Drug Exposure

Background

As health systems become more digitalised the volume and complexity of information grows rapidly and presents the opportunity to use (real-time) analytical methods to better characterize and predict factors/attributes of patients/consumers associated with a particular outcome e.g. adherence to medicines, unintended/ intended clinical outcome. Such intelligence can be used to design new clinical decision support tools and target health interventions to patient subgroups or even individuals. This session will present an introduction to prediction methods suitable for use in large scale administrative/clinical datasets with illustration of application within the hospital (cardiovascular risk), primary health care (risk of healthcare associated infection) and community setting (stating adherence).

Aims

To illustrate the application of different predictive analytics approaches and methods to large individual level datasets to inform advancements in clinical practice.

Chairpersons: **Gabriel Sanf lix-Gimeno, Spain**
Marion Bennie, UK

Speaker: **Rolf Groenwold, The Netherlands**
Predictive modelling in electronic health records to improve guideline adherence: an example of cardiovascular risk management

Speaker: **Chris Robertson, UK**
Using linked databases and predictive methods to identify individuals at high risk of a healthcare associated infection

Speaker: **Gabriel Sanf lix-Gimeno, Spain**
Predicting adherence using electronic databases: methods and novel predictors

13.00 – 14.30 WORKSHOP W5F Role of DUR in Comparative Effectiveness Research

Chairpersons: **Bj rn Wettermark, Sweden**
Catherine Sermet, France

Speaker: **Petra Denig, The Netherlands**
Linking drug prescription data to clinical outcomes: from group to individual treatment response

Speaker: **Thomas Cars, Sweden**
Electronic health records, propensity scores and sensitivity analyses in comparative effectiveness research

13.00 – 14.30 WORKSHOP W6F Cross-National Comparison Guideline and Checklist

Background

As part of the educational section, pitfalls and sources of bias related to CNC studies were handled. For the development of the guidelines, we started from published CNC studies trying to identify all requirements needed for a comprehensive description of included data. On the other hand, all possible sources of bias were carefully investigated and discussed. Based on these findings, we developed a checklist as a guidance in the design of new CNC studies and as a tool in the review process of submitted CNC studies.

Aims

- To briefly present the checklist and the Good Practice Guidelines for designing, conducting, reporting and reviewing CNC studies
- To learn more about the sources of bias in conducting CNC studies by the practical use of the CNC checklist while reviewing a published CNC study
- To discuss this experience during a panel discussion

Description

As introduction, the history of the development of CNC guidelines will be presented as well as the deliverables prepared by the working group. The CNC paper that will be used for the review process will be presented and the use of the checklist will be explained. The audience will be divided in working groups of 6-8 persons to fill in the checklist. The workshop will end with a panel discussion where the completed checklists and the problems encountered will be discussed.

Workshop: Review of the paper in the working groups guided by the CNC checklist

Chairpersons: **Monique Elseviers, Belgium**
Veronika Wirtz, USA

Speaker: **Yared Santa Ana-Tellez, Spain/ Mexico**
Development of a checklist and good practice guideline for cross-national comparison (CNC) of drug utilization

Speaker: **Monique Elseviers, Belgium**
Presentation of the paper selected for the review and practical organization of the review process in the working groups

Speaker: **Robert Vander Stichele, Belgium**
Panel discussion of the results of the review process and the problems encountered while using the CNC checklist

16.00 – 17.30 KEYNOTE LECTURE K5F Drug Utilization and Health Policy from a Global Perspective

Over the last decade new opportunities for drug utilization research (DUR) are emerging mainly driven by the implementation of electronic information systems across many healthcare settings providing large quantity of high quality data. At the same time, increased patient involvement in health care is posing novel research questions and the global focus is shifting towards scaling access to quality care and increasing efficiency. The three speakers will address those opportunities each from their perspective. Furthermore, challenges will be discussed. DUR is instrumental in generating evidence to inform clinical practice and policy decisions, but it is facing challenges: across many low and middle income countries eHealth remains a future prospect. Even in those regions where eHealth is providing high quality data, there is the need for DUR to evolve. Finally, DUR has often operated in isolation from other health service research.

Promoting DUR as a key input for practice and policy decisions will take leadership from researchers and practitioner, collaboration with different decision-makers, posing relevant research questions and developing innovative ways to leverage big data.

Chairperson: **Marion Bennie, UK**

Speaker: **Katja Taxis, University of Groningen, The Netherlands**

Speaker: **Veronika Wirtz, Boston University, USA**

Speaker: **Lisa Pont, Centre For Health Systems And Safety Research, University of Technology, Sydney, Australia**

CLOSING CEREMONY

Speaker: **Marion Bennie**, *University of Strathclyde, UK*

Poster prizes: **Monique Elseviers**, *University of Ghent, Belgium*