

W-ES 1: Basic statistical methods – Presenting, visualising and interpreting drug utilisation data using descriptive statistical methods

Background:

At the basis of drug utilization research is the presentation and comparison of drug consumption data. Descriptive statistical methods form the base to do this. In this course we will address such methods to familiarize beginning researchers with these methods.

Aim:

To illustrate how DU data can be presented, visualized and interpreted using descriptive statistical methods

Target audience:

Beginning researchers in the field of DUR with little experience of statistical methods.

Teachers:

Maria Matuz, University of Szeged, Hungary

Tanja Mueller, University of Strathclyde, Glasgow, UK

Description:

- Overview of statistical methods to describe drug utilization data
- Overview of methods to visualize results of statistical analyses
- Some practice on how to interpret results of descriptive statistical analyses

W-ES 2: Basic methodology – Classification systems and measurement units in Drug Utilisation Research with a focus on the ATC-DDD system

Background:

At the basis of drug utilization research is the presentation and comparison of drug consumption statistics. To be able to do this, a classification system is needed. Such an internationally accepted classification system is the so called ATC/DDD methodology, developed and maintained by the WHO Collaborating Centre for Drug Statistics Methodology. Drugs are classified according to their Anatomical Therapeutic Chemical (ATC) class and are assigned a defined daily dose (DDD). There are also a number of other classifications systems which are used in various countries.

Aim:

To practice opportunities and pitfalls in using different classification systems and measurement units, with a special emphasize on ATC-DDD

Teacher:

Hege Salvesen-Blix, WHO Collaborating Centre for Drug Statistics Methodology, Oslo, Norway

Target audience:

Beginning researchers in the field of DUR with little/no experience in using classification systems like ATC/DDD.

Description:

- Basic information on the ATC/DDD-methodology and other drug classification systems
- Challenges in applying the ATC/DDD-methodology including how to deal with combination products and the importance of including the correct ATC codes into your research
- Interpretation of data using specific examples including some group work and a plenary discussion

W-ES 3: Applied adherence – assessment methods and interventions

Background:

About 50% of patients with chronic illness do not take medications as prescribed, leading to increased morbidity and mortality. Over the last decade, a lot of research efforts have been dedicated to develop accepted definitions and measures of adherence. In this session we will address recent developments in adherence research, including assessing adherence using different data sources as well as interventions to improve adherence.

Aim:

To present different (novel) methods to assess adherence and present an overview of interventions which have shown to improve adherence.

Teachers:

Gabriel Sanf elix-Gimeno, Centre for Public Health Research, Valencia, Spain

Bernard Vrijens, University of Li ge, Belgium

Target audience:

DUR researchers at all levels interested in methods and interventions on adherence.

Description:

- Assessment of adherence using databases (focus on calculation techniques)
- (New) Techniques to assess adherence in field research
- Which interventions really help to improve adherence?

W-ES 4: Advanced statistical methods – Temporal analyses

Background:

An important aspect of many studies in the health sector is the development of conditions over time, both on the individual and on the community or societal level. When studying the effect of a treatment, e.g. the application of a drug, the main question is how it will affect the further development of the disease among treated patients. The field of survival analysis was developed in order to provide methods for assessing and comparing the effect of treatments on the survival of patients with severe diseases. A complementary view looks at the overall effects of interventions on groups of patients or communities. These are usually not amenable to randomized experimental setups due to their large-scale nature. Therefore, interrupted time series analyses have been established as a strong quasi-experimental method to assess effects of interventions rigorously. The results can be used to evaluate the effectiveness of past measures taken and to inform future actions by both medical and political deciders.

Aims:

Participants will have knowledge of current methods for analysing temporal data in a drug utilization research setting. Practical methods will be demonstrated on suitable examples and using widely available tools, providing participants with the ability to start pursuing their own analyses.

Teachers:

Yared Santa-Ana-Téllez, Centre for Public Health Research, Valencia, Spain

Peter Mol, Dutch Medicines Evaluation Board, Utrecht, Netherlands

Target audience:

Research students and professionals with a need to analyse the effects of interventions on the patient level of the community level, and with some familiarity with both descriptive and inferential statistics.

Description:

- Introduction to Temporal Analysis
- Interrupted Time Series Analysis
- Survival Analysis
- Questions and discussion

W-ES 5: Advanced methodology – The added value of doing mixed-methods research

Background:

This course provides basic theory and practical tips in conducting drug utilization research when required information is not captured in databases or when large databases are not available. Common study designs used to collect data through observations, medical records or questionnaires will be presented and the strengths and limitations of working without large databases discussed. We will also address the important question on how to involve patients in drug utilization studies. Hands-on experience will expose course participants to different study designs and rich discussions on how to answer relevant questions about safety and utilization of medicines in primary and secondary care settings using mixed methods.

Aim:

To address the value of mixed methods research and discuss how to include the patients' perspective in Drug Utilisation Research

Teachers:

Katja Taxis, University of Groningen, Netherlands

Lisa Pont, University of Technology Sydney, Australia

Ramune Jacobsen, University of Copenhagen, Denmark

Target Audience:

DUR researcher at different levels with limited experience in using mixed methods (mix of quantitative and qualitative methods).

Description:

- Introduction to mixed methods research
- How to include the patient's perspective in drug utilization research
- Workshop with discussion of practical examples
- Plenary discussion

W-ES 6: Policy applications of drug utilization research

Background:

Pharmaceutical expenditure is coming under increasing scrutiny, having risen by more than 50% in real terms during the last decade amongst Organisations for Economic Co-operation and Development (OECD) countries. Drug Utilisation Research (DUR) is a critical resource to inform and support policy makers and healthcare systems to maximise the use of, and avoid harm from, medicines, whilst achieving or maintaining equitable health care.

Aim:

To give an overview on how DUR may help policymakers in promoting rational use of drugs.

Teachers:

Marion Bennie, University of Strathclyde, Glasgow, Scotland

Brian Godman, University of Strathclyde, UK / Karolinska Institutet, Sweden

Target Audience:

DUR researchers / Policy advisors at different levels interested in how DUR can shape and support policy makers.

Description:

- Importance of DUR for Policy makers
- Policy Stakeholder engagement
- Case illustrations from around the world
- Discussion of challenges / enablers in different health systems

Conference Welcome:**István Zupkó, Dean of the Faculty of Pharmacy, University of Szeged (30 min)****Marion Bennie, Chair of the Scientific Committee****Gyöngyvér Soós, DUR Pioneer in Hungary****Ria Benko, Chair of the Local Organising Committee****Plenary 1: Multi-morbidity and the evolving challenge of polypharmacy****Background:**

Multimorbidity of – in particular – elderly people is and will remain a major challenge in the 21th century given demographic developments. Co-morbidities can lead to polypharmacy, which is common and frequently unavoidable. Solutions are sought at different levels (policy level, practice) and by different health care professionals.

Aims:

To present current developments around the challenge of multimorbidity and addressing polypharmacy with possible solutions.

Description:

The session will set the scene of the current challenges of multimorbidity and polypharmacy. It will contain two key-note talks; the first talk aims to provide a high-level perspective, while the second talk offers a more practical view-point from a health care professional.

Chairs: Sabine Vogler & Gyöngyvér Soós**Schedule:**

Speaker 1: **Attila Horváth-Sziklai**, Director of the Hungarian Chamber of Pharmacists; on behalf of the Pharmaceutical Group of the European Community (PGEU)

“Where does Europe go? Challenges and policy responses to multimorbidity”

Introducing the policy framework in the light of growing multimorbidity (30 min).

Speaker 2: **Professor Bruce Guthrie**, Professor of General Practice, University of Edinburgh; Chair of guideline development group for the NICE Multimorbidity Guideline

“Improving the life of elderly people living with multimorbidity – how to deal with polypharmacy in practice”

Speaking from the perspective of a health care professional on managing multimorbidity in patient care and the challenge of polypharmacy (30 min).

T-TS 1: The role of drug utilisation data in evaluating safety of drug use

Background:

In the era of Big Data and Artificial Intelligence, the increasing availability of drug utilization (DU) data can potentially be exploited through a variety of methodological approaches aimed to investigate the safety of medications and relevant adverse drug reactions (ADRs) experienced or perceived by patients. In the *real-world* post-marketing setting, DU data can be especially useful to: 1) measure the impact (effectiveness) of risk-minimization strategies issued by regulatory agencies for specific ADRs (e.g., through the so-called interrupted time series analysis); 2) measure the public health impact of ADRs by combining exposure DU data such as DDD/TID with risk estimates obtained from a systematic literature review; 3) calculate reporting rates and prioritize safety signals emerging from pharmacovigilance (i.e., by combining DDD/TID with spontaneous reports); 4) early and timely identify potential safety signals through healthcare databases (e.g., prescription sequence symmetry analysis and supervised machine learning); and 5) automatically annotate drug mentions in web forums (including social media) and describe pattern of potential misuse, abuse and inappropriateness.

Aims:

To map the potential application of DU data and relevant methods in drug/patient safety studies.

Description:

The session will begin with an introduction to a topical issue within the field from an invited speaker. Different aspects of the topic will be discussed by contributors, followed by an open discussion.

Chairs: Anna Birna Almarsdóttir & Emanuel Raschi

Schedule:

Speaker: **Emanuel Raschi**, University of Bologna, Italy

“Signal detection of ADRs by using DU data” (30 min)

Oral presentations of 4 selected abstracts discussing different aspects of the topic (15 min each):

- **156** *“Nature, frequency and relevance of prescription modification in Dutch community pharmacies”* – [Ellen van Loon](#)
- **87** *“Sex differences in reported adverse drug reactions are primarily seen in the first weeks after metformin initiation”* – [Sieta de Vries](#), Petra Denig, Corine Ekhart, Peter Mol, Eugene van Puijenbroek
- **141** *“Can we trust in all patient reported drug allergies? Questionnaire based survey”* – [Vivien Tóth](#), Mária Matúz, Gyöngyvér Soós, Péter Doró, Réka Viola, Ria Benkő
- **128** *“Medication reconciliation at hospital admission and discharge in a cardiology unit: a pilot study”* – Brígida Dias Fernandes, [Lorena Rocha Ayres](#), Josefa Cristina Pereira dos Santos, Leonardo Coutinho Ribeiro, Clarice Chemello

T-SY 1: Challenges for cross-national comparison research

Background:

During previous EuroDURG and ISPE conferences, cross-national comparison (CNC) research gained attention. On the one hand, based on European experience, problems related to performing qualitative CNC studies were investigated and CNC Guidelines were presented. On the other hand, in many countries worldwide, the problem of availability and accessibility of DU data was identified and actions for improvement were worked out.

Aims:

What are the opportunities and limitations to perform CNC studies anno 2020?

Description:

This session will start with two key note lectures. The first will focus on the opportunities of CNC studies starting from the rich availability of data sources in the European region. The second will highlight the limitations to perform CNC studies in large parts of the world. The example of Latin America will be used to show how to start tackling the problem with identification of useful data sources at the regional level. The lectures will be followed by a discussion on how the availability of DUR data sources can be improved using the EuroDURG Declaration, first presented during the previous Glasgow conference.

Chairs: Claudia Osorio de Castro & Monique Elseviers

Schedule:

Speaker 1: Professor Thomas MacDonald, Professor of Clinical Pharmacology, University of Dundee; Deputy Chair ENCePP (European Network of Centres for Pharmacoepidemiology and Pharmacovigilance)

“Challenges for cross-national comparison research: opportunities in the European region” (30 min)

Speaker 2: Professor Luciane Lu Lopes, University of Sorocaba, Brazil

“Limitations to perform CNC studies: the example of Latin America” (30 min)

Discussion round chaired by Monique Elseviers (30 min) including

- Announcement of the publication of the CNC guidelines
- Presentation of the Glasgow Declaration on Increasing Access to Drug Utilisation Data and possible routes of dissemination

T-TS 2: Improving the accuracy of medication adherence assessment

Background:

Adherence describes the extent to which an individual behaviour regarding a medical treatment regimen corresponds with the recommendations of the health care provider. In this sense, information on physician prescriptions in addition to information on dispensations (exposure) seem essential for the appropriate assessment of medication assessment. Understanding the difference between adherence and exposure is key to adequately assess both. Moreover, there are design features and operational definitions, often common to adherence and exposure, which need to be precisely understood and defined to avoid skewing estimations.

Aims:

To explore key aspects of medication exposure assessment using electronic databases, with focus on the different aspects of exposure assessment that are relevant for measuring exposure as use over time or as adherence to therapy from a clinical perspective.

Description:

This session will begin with a key note lecture that will include explanation of definitions and examples of exposure assessment. This includes describing design aspects that are key to both exposure and adherence, highlighting the importance of using information of both prescription and dispensation to assess adherence accurately. This will be followed by 4 oral submitted presentations on different experiences in assessing medication adherence using electronic databases.

Chairs: Gabriel Sanf elix-Gimeno & Petra Denig

Schedule:

Speaker: **Dr Helga Gardarsdottir**, Utrecht University, Netherlands

“Medication exposure assessment using electronic databases” (30 min)

Oral presentations of 4 selected abstracts providing illustration of Drug Utilisation research around medication adherence assessment using electronic databases (15 min each):

- **18** *“Real-world evaluation of the impact of statin intensity on adherence, persistence and discontinuing of statin therapy: evidence from the Scottish population”* – Renata Nascimento, Amanj Kurdi, Tanja Mueller, Brian Godman, Sean MacBride Stewart, Simon Hurding, Francisco de Assis Acurcio, Augusto Afonso Guerra Junior, Juliana Alvares Teodoro, Alec Morton, Marion Bennie
- **170** *“Predictors of different types of non-adherence to antihypertensive or antihyperlipidemic drugs among patients with diabetes: a multicentre study in Indonesia”* – Sofa Alfian, Nurul Annisa, Fajriansyah Fajriansyah, Dyah A Perwitasari, Rizky Abdulah, Petra Denig, Eelko Hak
- **6** *“Non-persistence with statin treatment in patients following an ischaemic stroke”* – Martin Wawruch, Gejza Wimmer jr, Jan Murin, Tomas Tesar
- **57** *“Asthma medicine compliance determinants among 20,157 individuals from the general population”* – Kudret Cem  zdemir, Ramune Jacobsen, Eskild Landt, Alexey Fedulov, Dahl Morten

Plenary 2: Innovative medicines – opportunities and challenges

Background:

The pressures facing health systems to provide access to new innovative medicines continues to grow. The complexity and increasing sophistication of these medicines to target particular patient sub-populations brings with it the need to capture and analyse the necessary data to understand their impact and value within modern healthcare systems.

Aims:

To understand the range and types of innovative medicines now entering the healthcare system and the challenges / opportunities this provides to drug utilization researchers (DUR) to engage collaboratively at scale, supporting evidence generation for healthcare system policy and practice.

Description:

This session will comprise of two speakers presenting different perspectives on how new medicines are being brought to the global market place, and what systems and approaches are being adopted to manage their introduction and evaluate their impact – highlighting the opportunity for DUR expertise.

Chairs: Marion Bennie & Katja Taxis

Schedule:

Speaker 1: **Dr Mariângela Batista Galvão Simão**, Assistant Director General – Access to Medicines and Health Products, World Health Organisation

“Innovative Medicines – the WHO approach to supporting access to innovative medicines”

Considering global access to medicines and how this approach needs to change and evolve as more high cost targeted medicines gain market authorization (30 min).

Speaker 2: **Judith Bidló**, National Health Insurance Fund of Hungary

“Policy adoption across borders – Hungarian national speaker from an HTA perspective”

Presenting an HTA perspective on the evaluation of new innovative medicines, including a local Hungarian viewpoint, outlining how this HTA community is collaborating across the EU and internationally to respond to such medicines (30 min).

T-WS 1: Medicines use in old age: Drivers of polypharmacy and quantification of the problem

Background:

In many studies on medication use in old age, polypharmacy (defined as chronic use of 5 or more medications) is used as an indicator of inappropriate use of medications. In many older patients, however, polypharmacy is related to the health status of the patient, characterized by a complexity of multimorbidity and functional/mental disabilities.

Aims:

To obtain more insight into the drivers of polypharmacy and to share research methods to quantify the problem of inappropriate polypharmacy.

Description:

The session will begin with an introductory talk, followed by a discussion round. A poster walk will be facilitated to enable the presentation of the discussed topics; session Chairs will then summarise key aspects.

Chairs: Monique Elseviers & Katja Taxis

Schedule:

Speaker: *Professor Bruce Guthrie*, Professor of General Practice, University of Edinburgh; Chair of guideline development group for the NICE Multimorbidity Guideline

“Polypharmacy and (potential) inappropriate medicine use as indicators of the quality of prescribing in old age” – introduction to the session (20 min).

- Discussion round: What are the drivers of polypharmacy? What is appropriate/inappropriate polypharmacy? How to quantify inappropriate polypharmacy?
Method: Discussion groups of 8-10 persons. Use of a poster with predefined fields to note the answers (30 min)
- Poster walk
Method: Participants visit the other posters where one presenter of the original group will stay to give additional information and answer questions (20 min)
- Summary of the discussion focussing on the question: How to quantify inappropriate polypharmacy for
 - clinical practice in an individual patient
 - quality of prescribing as evaluation tool for prescribers
 - indicator of quality of care in a nursing home*Method: Chairs will summarise the practical advices formulated during the group discussions in view of the quantification of inappropriate polypharmacy (20 min)*

T-TS 3: Challenges for Drug and Health Policy

Background:

Innovative drugs, some of them providing novel ways of treating diseases, are being introduced at spiralling prices, threatening to undermine the foundations of social health care systems. Attempts to offset the rises in cost by pressing for lower prices for well-established drugs, on the other hand, promotes the world-wide concentration of manufacturing units, which may in turn lead to drug shortages, disregard of good manufacturing processes, and also fraudulent production of “fake medicines”. Both trends, in effect, create situations where drugs are not adequately available to the population.

Aims:

To describe potential ways forward to ensure medium- to long-term adequate access to drugs.

Description:

The session will begin with an introduction to the topic from an invited speaker. Different aspects of the topic will then be discussed by contributors.

Chairs: Gisbert Selke & Sabine Vogler

Schedule:

Speaker: *Professor Aukje Mantel-Teeuwisse*, Utrecht University, Netherlands; Managing Director of WHO Collaborating Centre of Pharmaceutical Policy and Regulation

“The cost of new drugs vs. safe and secure procurement of established medicines: a precarious balance for social health care systems” (30 min)

Oral presentations of 4 selected abstracts discussing different aspects of the topic (15 min each):

- **88** *“Sex proportionality in pre-clinical and clinical trials evaluated in the dossiers supporting market approval”* – Marieke Dekker, [Sieta de Vries](#), Carolien Versantvoort, Ellen Drost-van Velze, Mansi Bhatt, Peter van Meer, Ineke Havinga, Peter Mol, Christine Gispén-de Wied
- **35** *“The impact of regulatory guidance on valproate prescribing and harm reduction for females of childbearing potential in NHS Scotland”* – Gavin MacColl, [Karen Gronkowski](#), Stuart McTaggart, Marion Bennie
- **2** *“Serious adverse events with high-cost drugs accessed through litigation in Brazil”* – Ricardo Eccard da Silva, [Claudia Garcia Serpa Osorio-de-Castro](#), Elisângela da Costa Lima, Maria Rita Carvalho Garbi Novaes
- **149** *“Can cross-country collaborations improve access to medicines?”* – [Sabine Vogler](#), Manuel Alexander Haasis, Rianne van den Ham, Fatima Suleman

T-TS 4: Psychotropic drug use

Background:

Mental disorders are among the most important public health challenges globally. They are a leading cause of disability and the third leading cause of overall disease burden (measured as disability-adjusted life years), after cardiovascular disease and cancer. According to data from the IHME's Global Burden of Disease, about 13% of the global population – close to a billion people – suffer from some mental disorder, with dementia being the fastest-growing mental illness.

In recent years, there has been a debate in many countries on the epidemic of mental illness. It can be argued to what extent this reflects an actual increase or only recognition and de-stigmatisation, resulting in more people seeking help. These trends have also been supported by drug development. Psychotropic drugs are big business, with an estimated global annual sales of \$80bn (£63bn). Some psychotropic drugs, e.g. selective serotonin reuptake inhibitors (SSRIs) and psychostimulants, have rapidly increased in utilization and are now being prescribed to large proportions of the population, and there has been concern that they are prescribed too readily, to people with only mild symptoms.

Aims:

To give an overview of the current knowledge (from published Drug Utilisation studies) on trends in utilization of different psychotropic drugs in Europe and current research in the field.

Description:

A keynote lecture focusing on what we know about the utilization of different psychotropic drugs in Europe and the key questions to be addressed by drug utilization researchers; followed by oral submitted presentations in this area.

Chairs: Björn Wettermark & Elisabetta Poluzzi

Schedule:

Speaker: *Dr Mikael Hoffmann*, Swedish Network for Pharmacoepidemiology (NEPI)

"Opportunities and challenges in psychotropic drug utilisation studies" (30 min)

Oral presentations of 4 selected abstracts (15 min each):

- **26** *"Using an eDelphi consensus technique to develop mental health related indicators to assess prescribing safety"* – [Wael Khawagi](#), Douglas Steinke, Sarah Pontefract, Richard Keers
- **31** *"Psychotropic drug use among elderly Swedish people with dementia – a study based on national registries"* – [Jonas Kindstedt](#), Maria Sjölander, Maria Gustafsson
- **164** *"Multi-dose drug dispensing and longitudinal changes in psychotropic prescribing patterns among older adults: national matched cohort study"* – [Lucas Morin](#), Samuel Hawley, Jonas Wastesson, Kristina Johnell, Daniel Prieto-Alhambra
- **121** *"Incidence of diagnosed paediatric anxiety disorders and use of prescription drugs: a nation-wide registry study"* – Helga Ask, [Svetlana Skurtveit](#), Marte Handal, Lars Johan Hauge, Ted Reichborn-Kjennerud

F-TS 5: Cancer & biologicals

Background:

There is increasing spend on new cancer medicines across Europe due to the continued launch of new premium priced biological medicines for ever smaller targeted populations, rising prevalence rates and the emotive nature of the disease area. Prices of new cancer medicines have increased over ten fold in the past decade, and this trend is continuing. However, there is limited health gain for most new cancer medicines despite high prices. In addition, new cancer medicines are being made available in Europe at an increasingly early stage as part of fast tracking process/ adaptive pathway processes with data being collected in routine clinical care to assess their role and value. These combined factors are placing ever greater pressure on health authorities to try and utilize limited financial resources as optimally as possible as they are typically responsible for the funding of new cancer medicines during this research phase. As a result, we are seeing ongoing developments and initiatives to better manage the entry of new cancer medicines starting with Horizon Scanning and continuing post launch with real world studies. This includes new methods to deal with uncertainty. We are also seeing ongoing developments to monitor generally the effectiveness and safety of cancer medicines in routine care to ensure available resources are being used wisely. Drug utilization studies are a crucial part of these multiple activities.

Aims:

To appraise ongoing activities among European countries to improve the use of available resources to better manage patients with cancer given competing pressures. This includes reviewing ongoing activities across Europe at key stages of the lifecycle, with a special emphasis on drug utilization studies.

Description:

A key note lecture followed by oral submitted presentations in this area.

Chairs: Brian Godman & Amanj Kurdi

Schedule:

Speaker: *Professor Brian Godman*, University of Strathclyde, UK; Karolinska Institutet, Sweden; Sefako Makgatho Health Sciences University, South Africa

“Initiatives across countries to optimise available resources for patients with cancer including greater use of bio-similars and real world data” (30 min)

Oral presentations of 4 selected abstracts (15 min each):

- **148** *“Are there socio-economic inequalities in utilisation of novel cancer therapies? A systematic review”* – Ruth Norris, Linda Sharp, Adam Todd, Alastair Greystoke, Kristina Johnell
- **150** *“Cross-country comparison of policies for biosimilar medicines”* – Sabine Vogler, Nina Zimmermann
- **144** *“Linking regional administrative healthcare data with the pathology registry of the University Hospital of Siena (Italy) to describe treatment patterns of patients with non-small-cell lung cancer”* – Andrea Spini, Francesco Salvo, Cristiana Bellan, Alessandra Pascucci,

Pietro Rosellini, Adele Caldarella, Alessandro Barchielli, Edoardo Francini, Sandra Donnini, Folco Furiesi, Lorenzo Leoncini, Silvano Giorgi, Claudia Bartolini, Marco Zappa, Rosa Gini, Marina Ziche, Giuseppe Roberto

- **61** *“Biosimilar, so it looks alike, but what does it mean? – A qualitative study of patients’ perceptions of biosimilars in Denmark”* – Meera Varma, Louise Druedahl, Anna Birna Almarsdóttir

F-TS 6: Elderly patients – the clinical perspective on polypharmacy

Background:

How to manage polypharmacy in elderly people is an important public health challenge considering ageing populations and the increase in patients suffering from multiple long term conditions. There is a lack of evidence for decision making regarding how to manage polypharmacy, balancing prescribing and deprescribing to reduce the burden of medicine taking and optimize patient outcomes.

Aim:

To discuss the challenges of managing polypharmacy in practice.

Description:

The session will start with an introduction into the clinical perspective by Katharina Mende-Schmidt, general practitioner working in Stockholm who combines her clinical work with research on how to improve prescribing for older patients on polypharmacy. She will present the challenges of managing polypharmacy including deprescribing using examples from her practice, highlighting the issues of managing polypharmacy from a clinical perspective.

Chairs: Katja Taxis & Tinne Dilles

Schedule:

Speaker: *Katharina Schmidt-Mende*, practicing GP from Stockholm, Sweden

“It’s just one piece of the puzzle – A GP’s experiences regarding inappropriate prescribing in frail older people” (30 min)

Oral presentations of 4 selected abstracts on polypharmacy (15 min each):

- **168** *“Time trends in the use of proton-pump inhibitors in the elderly in Norway, including co-medication with NSAIDs or low-dose ASA”* – Christian Lie Berg, Hege Salvesen Blix, Hilchen Sommerschild
- **27** *“Use of medication among nursing home residents: A Danish drug utilisation study”* – Carina Lundby, John Jensen, Søren Post Larsen, Helene Hoffmann, Anton Pottegård, Mette Reilev
- **95** *“Linking anti-cholinergic exposure to outcome in nursing home residents: associations with anticholinergic symptoms, alertness and mortality”* – Maarten Wauters, Robert Vander Stichele, Kristel Paque, Carlos Duran, Tinne Dilles, Bart Van Rompaey, Thierry Christiaens, Monique Elseviers
- **10** *“High-risk medication in community care”* – Irina Dumitrescu, Minne Casteels, Kristel De Vlieghe, Tinne Dilles

F-TS 7: Implementation of interventions

Background:

Many interventions are being proposed to improve the delivery of health care, including, for example, technological innovations such as artificial intelligence to assist in diagnostics; block chain to manage data protection; and digitization of patient data to foster research and support the efficient use of resources. In addition, a wide range of interventions aimed at behaviour change are being developed. However, health systems are generally struggling to cope with the diversity of interventions, while also trying to identify how to make best use of new technologies. The question of how to develop and implement interventions to improve aspects of medicines management is an interesting and important one, and will be the subject of this session.

Aims:

To review and examine the implementation of interventions with the potential to improve medicines management.

Description:

The session will begin with an overview of the topic from an invited speaker. Afterwards, short oral presentations by contributors will focus on different approaches/technologies, followed by an open discussion round.

Chairs: Suzanne Rose Hill & Tanja Mueller

Schedule:

Speaker: *Professor Margaret Watson*, University of Strathclyde, Glasgow, UK

“The Art and the Science of Implementation” (30 min)

Oral presentations of 2 selected abstracts (15 min each):

- **157** *“Impact of a new pharmaceutical care model on polypharmacy in long term care facilities in Canada”* – Line Guénette, [Carolina Tisnado Garland](#), Edeltraut Kröger, Rachel Rouleau, Caroline Sirois
- **82** *“Electronic prescription data to improve primary care prescribing (EPIPP)”* – [Sean MacBride-Stewart](#), Charis Marwick, Margaret Ryan, Bruce Guthrie

Discussion round on how to implement interventions and how to evaluate the impact of these interventions (30 min)

F-SY 2: Policies on deprescribing – an international view

Background:

In an ageing society with a rising prevalence of patients with multimorbidity and polypharmacy, deprescribing is an emerging concept. In simple terms, deprescribing is the process of withdrawing inappropriate medicines in order to improve outcomes with the underlying understanding that patients should receive only the medications that they want and need. Although deprescribing interventions generally seem safe and feasible, the evidence on benefits remains uncertain. Policies to bring deprescribing into practice have been implemented in various countries. We can learn a lot by evaluating the approaches taken in different countries.

Aims:

This symposium aims to 1) provide an overview of the policies that have been introduced to implement deprescribing in practice; and 2) illustrate the challenges to implement deprescribing in practice, taking into account the different stakeholders – especially prescribers and patients.

Description:

The symposium is intended for researchers, clinicians, and policy makers with an interest in drug utilization research and medicine use in complex populations.

Chairs: Katja Taxis & Lisa Pont

Schedule:

Panel member 1: **Dr Anton Pottegård**, Associate Professor, University of Southern Denmark, Odense

Introduction to the concept of deprescribing and highlighting challenges ahead.

Panel member 2: **Carina Lundby**, University of Southern Denmark, Odense

Highlighting barriers to and enablers of deprescribing from the perspective of health care professionals (physicians, pharmacists and nurses) and patients and their relatives/carers.

Panel member 3: **Wade Thompson**, University of Southern Denmark, Odense

Panel member 4: **Professor Petra Denig**, University of Groningen, Netherlands

Panel member 5: **Dr Lisa Pont**, University of Technology Sydney, Australia

Presenting an overview of policies on deprescribing from around the world including Canada, Denmark, The Netherlands, Scotland and Australia

The symposium will conclude with an open panel discussion led by questions from participants.

F-TS 8: Antimicrobial stewardship interventions

Background:

Antimicrobial resistance is a global threat, and irrational antibiotic use is one of the main drivers. In Europe, the timely published surveillance data for both ambulatory and hospital care enables international benchmarking. However, more encouraging information is the result of effective interventions. If no such interventions are in place, data that may identify the target for primary interventions are warranted.

Aims:

To give insight into Drug Utilisation Research (DUR) studies across the globe on effective interventions/antibiotic stewardship programmes, and DUR studies which identified irrational prescribing of antibacterial drugs. This session is complementary to plenary 4.

Description:

This session will begin with the lecture of the invited speaker and it will include 4 selected abstracts on the use of antibacterial drugs.

Chairs: Voula Papaioannidou & Ria Benko

Schedule:

Speaker: *Dr Esmita Charani*, Imperial College London, UK

“Policies aiming at confining antibacterial resistance” (30 min)

Oral presentations of 4 selected abstracts (15 min each):

- **154** *“Antimicrobial consumption at a high complexity hospital in Brazil: utilisation profile from different wards”* – [Lucas Pereira](#), Maria Olívia Zanetti, Cinara Feliciano, Fernando Belissimo-Rodrigues, Leonardo Pereira
- **132** *“Variations in antibiotic prescribing for children – Hungary, 2017”* – [Githa Fungie Galistiani](#), Mária Matuz, Balázs Babarczy, Renáta Papp, Ágnes Hajdu, Ria Benkő
- **14** *“The impact of law enforcement on the dispensing of antibiotics without prescription in Saudi Arabia: findings and implications”* – Alian Alrasheedy, [Brian Godman](#), Muath Alsalloum, Feras Almuqbil, Muaath Almuzaini, Bandar Alkhayl, Ahmed Albishri, Faisal Alharbi, Saleh Alharbi, Abdullah Alodhayb, Abubakr Alfadl, Mohammed Anaam
- **51** *“Eight-year study of antibiotic utilisation in the Republic of Srpska (2010-2017 years); findings and implications”* - Mirjana Đermanović, Vanda Marković-Peković, Ljubica Bojanić, [Brian Godman](#), Kristina Zrnić

F-TS 9: Evolving data streams

Background:

New digital technologies – e.g. fitness apps – are increasingly being adopted within our everyday lives, and are also reshaping interactions between health practitioners and patients. These digital solutions have the potential to generate new data streams to gain greater insight into patient care pathways, including the use and effect of medicines.

Aims:

To explore how evolving data streams can be/are being used to explore and understand better the impact of medicines at both an individual level to support clinical care and at a population level to derive the impact and value of medicines.

Description:

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

Chairs: Marion Bennie & Ramune Jacobsen

Schedule:

Speaker: **Dr Natasja Kingod**, Steno Diabetes Centre Copenhagen, Denmark

“How can new data streams add value to current data assets used to understand the effect/side effects of medicines?” (30 min)

Oral presentations of 4 selected abstracts providing illustration of collection and use of innovative data streams, e.g. sensors, social media, PROMs (15 min each):

- **127** *“Patients address more than medication related problems with their pharmacist – A video observation study of clinical medication reviews”* – Linda van Eikenhorst, Katja Taxis, Nanda Boekhoudt, Marina Makhaeil, Han de Gier, Liset van Dijk
- **62** *“The Danish translation of the Medicines-Related Quality of Life scale from the patient perspective”* – Ina Vierø Rinder, Laura Victoria Jedig Lech, Anna Birna Almarsdóttir
- **33** *“Monitoring burden and benefits of medication for overactive bladder: combining electronic health records and patient reported outcomes”* – Karin Hek, Leán Rolfes, Linda E. Flinterman, Saskia Vorstenbosch, Eugène van Puijenbroek, Robert Verheij, Liset van Dijk
- **15** *“What do prostate cancer patients and clinicians want from an app and a dashboard to collect Patient Reported Outcomes (PROMs) as part of routine care?”* – Emma Dunlop, Jennifer Laskey, Tanja Mueller, Aimee Ferguson, Kelly Baillie, Julie Clarke, Marion Bennie

Early-career researcher event

Background:

Early-career researchers in drug utilisation can benefit from networking and knowledge sharing to boost their knowledge of drug utilization methodology, as well as to facilitate the generation of research ideas and the development/implementation of international research projects.

Aims:

To initiate networking activities for early-career researcher in drug utilisation.

Description:

This will be a short, informal session over lunch, while enjoying food. It will start with informal networking and continue with discussions in smaller groups on issues of network building and funding, as well as publishing, opportunities and strategies.

Chairs: Tanja Mueller & Ramune Jacobsen

Schedule

- Introduction by the Chairs (10 min)
- Formal networking: introducing yourself to the people around you (5 min)
- Discussions in groups (15 min)
- Panel round up and planning further actions (15 min)

Plenary 3: Emerging capabilities to generate medicines intelligence data at scale

Background:

Currently we witness a disruption in providing health care and in how data are captured, due in large part to an increased and quickly escalating use of AI, social media, online consulting, personal genomics services, and portable health monitoring devices. The data thus generated are harvested by health care providers and big commercial enterprises, but are of great interest to drug utilization researchers. This development opens up for many questions related to potential use, validity, patient empowerment, and privacy.

Aims:

To provide insight into the emerging technologies that will enable new data capture at scale, which opportunities these will offer to drug utilization research, and which challenges they will bring from a researcher and citizen perspective.

Description:

This plenary session will focus on the current and future data collection possibilities within DUR and will contain two key-note talks. The session opens with Dr Miklós Szócska who has been a key partner in various international projects in the area of eHealth and Big Data solutions; followed by Dr Kingod, an anthropologist who has studied the patient voice with respect to their use of social media to deal with health issues.

Chairs: Anna Birna Almarsdóttir & Katja Taxis

Schedule:

Speaker 1: **Dr Miklós Szócska**, Director of the Health Services Management Training Centre, Semmelweis University, Hungary

“Opportunities offered by machine learning/artificial intelligence approaches applied to routine health and care data”

View from a policy level (30 min).

Speaker 2: **Dr Natasja Kingod**, Steno Diabetes Centre Copenhagen, Denmark

“Data shared by patients on social media – a new way to learn about medicines use”

Visions for the possibilities that this type of data has for patient-oriented DUR (30 min).

F-WS 2: Drug Utilisation Research as a tool in the introduction of new medicines

Background:

All healthcare systems face the challenge of managing the introduction of new expensive medicines within limited resources. Some of these new therapies are innovations, while others add limited value. 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 on, e.g., physicians prescribing behaviour and characteristics of patients initiated on the drugs, as well as pharmacoepidemiological studies on 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.

The drug market has changed with a lot of new biological medicines being introduced. There are also a large number of medical devices and other medication-related tools that are introduced. Still, the methods developed in DUR may be valuable to apply and good drug utilization studies to monitor the introduction of new innovations are urgently needed.

Aims:

To explore how drug utilization studies can contribute to improve lifecycle management of new innovations in healthcare. There will be a specific focus on medicines, but the methods may be applicable also to other technologies.

Description:

The workshop will begin with an overview on different types of drug utilization studies and how they may contribute to our knowledge about drug utilization patterns and the benefit/risk and place in therapy of the drugs. This is followed by an introduction to the new drug market, i.e. drugs identified through horizon-scanning that are likely to be introduced during the coming years. 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 some examples of new drugs.

Chair: Björn Wettermark & Marion Bennie

Schedule:

Speaker 1: **Professor Björn Wettermark**, University of Uppsala, Sweden

“What drug utilization studies may be conducted in different phases of the medicine life cycle” – introduction to session (30 min)

Speaker 2: **Professor Ylva Böttiger**, Linköping University, Sweden

“Drug marketing strategies in a changing drug market; implications for health care”

- Discussion round
Method: each group is asked to design a drug utilization study to assess the introduction of a certain type of new drug – a biosimilar; a cancer medicine; an orphan drug; or an immune therapy (45 min)
- Summary and conclusions, Chairs (15 min)

F-TS 10: Opioid-use and risk of opioid-related harm

Background:

In the past two decades, opioid prescribing has more than doubled worldwide, especially in North America, Western and Central Europe, and Australia. The sharp rise of opioids in the Western countries has coincided with increasing opioid-related mortality. In the United States, the 'opioid epidemic' developed in parallel with the growing prevalence of chronic pain, opioid prescribing, and hence opioid-related harm and drug misuse. With the influence of global pharmaceutical marketing strategies, it is vital to develop evidence of opioid utilization to inform the risk management and medicine optimization strategies for opioid use and chronic pain management.

Aims:

To explore the current evidence of opioid utilization, risk of opioid-related harm and medication optimization strategies for patients with chronic pain.

Description:

This session will begin with a keynote lecture highlighting the issues and challenges in chronic pain management and opioid optimization. This will identify priority research areas. We will advocate the opportunities to collaborate in the Global Opioid Utilisation Research (GOUR) network to develop the evidence to use in policy and the management of opioids. This will be followed by short presentations on opioid utilization research, opioid-related harm and medication optimization strategies.

Chair(s): Douglas Steinke & Ulf Bergman

Schedule:

Speaker: *Dr Li-Chia Chen*, University of Manchester, UK

"Applying drug utilization research to tackle the challenges of optimizing opioid utilization and chronic pain management" (30 min)

Oral presentations of 4 selected abstracts illustrating research around opioids or pain medication utilization and medication optimization strategies (15 min each):

- **65** *"Tramadol use in Romania during 2014 – 2018"* – [Irina Cazacu](#), Camelia Bucsa, Cristina Pop, Anamaria Cristina, Bogdan Apan, Cristina Mogosan
- **173** *"Use of tramadol and other opioids following media attention"* – Anne Mette Skov Sørensen, [Lotte Rasmussen](#), Martin Thomsen Ernst, Stine Hasling Mogensen, Mona Vestergaard Laursen, Espen Jimenez Solem, Anton Pottegård
- **133** *"Prescriptions of rapid onset fentanyl in Dutch primary care"* – [Yvette Weesie](#), Karin Hak, Marcel Bouvey, Liset van Dijk
- **69** *"Is opioid prescribing in out-of-hours primary care followed by prescriptions from the patient's own daytime general practitioner?"* – [Willemijn Meijer](#), Yvette Weesie, Tessa Jansen, Marcel Bouvy, Robert Verheij, Liset van Dijk, Karin Hek

F-TS 11: Cardiovascular diseases and diabetes

Background:

Cardiovascular and diabetes therapies have represented one of the main topics for Drug Utilisation Research (DUR) in the last two decades, especially in terms of appropriateness of and adherence to drug use. How newer medicines (and newer evidence from RCTs) are impacting on the habits of prescribers and patients represents a current research question for DUR. This is particularly the cases regarding PCSK9 inhibitors (lipid lowering class) and SGLT2 inhibitors (antidiabetic therapy).

Aims:

To define potential approaches to monitor drug utilisation in chronic therapies when new and old medicines coexists.

Description:

This session will begin with a methodological focus on trajectory analysis, followed by 4 accounts on different experiences in addressing DUR needs in cardiovascular disease and diabetes.

Chairs: Elisabetta Poluzzi & Ramune Jacobsen

Schedule:

Speaker: *Rosa Gini*, Tuscany Health Agency, Italy

“Trajectory identification in chronic cardiovascular treatment and their role in drug utilization appropriateness assessment” (30 min)

Oral presentations of 4 selected abstracts providing illustration of DUR around cardiovascular and diabetes treatments (15 min each):

- **109** *“Trend of antihypertensive medicine use in the Baltic states between 2014 and 2018”* – Indre Treciokiene, Jolanta Gulbinovic, Björn Wettermark, Katja Taxis
- **42** *“Low adherence to statin treatment during the first year after an acute myocardial infarction is associated with increased second year mortality risk – an inverse probability of treatment weighted study on 54,872 patients”* – Kani Khalaf, Jonhell Kristina, Pete C. Austin, Patrik Tyden, Patrik Midlöv, Raquel Perez-Vicente, Juan Merlo
- **89** *“Sex differences in cardio-metabolic treatment among patients with type 2 diabetes”* – Sieta de Vries, Eugene van Puijenbroek, Peter Mol, Petra Denig
- **90** *“The first year experience of PCSK9 inhibitors availability in Tuscany: a regional multi-database drug utilisation study”* – Ippazio Cosimo Antonazzo, Carlo Piccinni, Aldo P. Maggioni, Antonella Pedrini, Silvia Calabria, Giulia Ronconi, Letizia Dondi, Nello Martini, Giuseppe Roberto, Tiziana Sampietro, Francesco Sbrana, Beatrice Dal Pino, Federico Bigazzi, Giuseppa Lo Surdo, Elisabetta Volpi, Stefania Biagini, Rosa Gini

S-TS 12: The re-rewarding of primary data collection and field research

Background:

Anno 2020, drug utilization (DU) research is concentrated on the analysis of complex sets of interconnected administrative and health databases offering attractive results. Results of this ‘big data’, however, often lack insight into in-depth aspects of drug utilization. Additionally, there is the emerging problem that patient level data is not available and/or not accessible in many parts of the world. Both lead to the development of innovative methods of field research mainly developed in countries with limited access to DU data.

Aims:

This session aims to present creative and innovative methodological approaches of field research to counter the limitations of big data and to employ possible sources of information in resource-restricted settings.

Description:

In an initial talk, examples of methods used to overcome the lack and/or the limitations of DU databases will be presented; this will be followed by presentations of selected abstracts handling this topic.

Chairs: Claudia Osorio de Castro & Douglas Steinke

Schedule:

Speaker: *Professor Monique Elseviers*, Universities of Antwerp and Ghent, Belgium

“Creative methodologies of primary data collection and field research in resource-restricted settings: examples, opportunities and limitations” (30 min)

Oral presentations of 4 selected abstracts (15 min each):

- **41** *“Individual and contextual determinants of out-of-pocket expenditures on medicines in primary care”* – Tatiana Luz, Jéssica Alvez, Lilianny Carvalho, Maria Angélica Bueno, Leila Passagli
- **116** *“Self-reported causes of hypoglycaemia and problems with self-management of blood-glucose treatment in type 2 diabetes patients: a survey study”* – Stijn Crutzen, Tessa van den Born-Bondt, Petra Denig, Katja Taxis
- **159** *“Demographic and clinical factors that impact importance attached to drug effects: a preference study among type 2 diabetes patients”* – Sonia Roldan Munoz, Douwe Postmus, Sieta T. De Vries, Arna H Arnardottir, İlknur Dolu, Hans Hillege, Peter G.M. Mol
- **52** *“Nurses’ role in inter-professional pharmaceutical care in 14 European countries: a qualitative interview study in pharmacists, physicians and nurses”* – Elyne De Baetselier

S-TS 13: Drug utilisation in pregnancy and paediatrics

Background:

Pregnant women and children are considered “therapeutic orphans”, and in these populations the evaluation of the pattern of drug utilization is particularly relevant for monitoring the appropriateness of drug prescriptions; preventing the use of drugs with unfavourable benefit/risk ratio; and identifying unmet needs that deserve more research.

Drug use in pregnancy is sometimes necessary. Untreated diabetes, epilepsy, severe mental illnesses and infections in pregnancy are examples where the underlying illness itself may be harmful to the foetus, and thus require treatment. In contrast, superfluous use of drugs may also occur during pregnancy, with potential negative consequences to the health of the woman and the unborn child. New medications enter the market, while the burden of various disorders in pregnant women as well as those in childbearing age may also change over time. Regulatory actions and changes in clinical guidelines may also impact prescribing patterns before, during and after pregnancy. Therefore, drug utilisation studies describing medication use during these periods are important, as these also set the basis and priorities for analytic pharmacoepidemiological studies in pregnancy. Children are, together with the elderly, the age group with the highest prevalence of drug prescriptions. Drugs are mainly prescribed for mild diseases and inappropriate use is common. With the exception of the evaluation of antibiotic use, indicators of inappropriateness are lacking.

Substantial health benefits could be obtained by preventing incorrect use of drugs and by improving the prescription of drugs to pregnant women and children.

Aims:

To give an overview of hot topics, state-of-the-art methods and recent trends in Drug Utilisation Research (DUR) studies in pregnancy (e.g. anti-epileptics, retinoid acids etc.) and in the paediatric population across Europe and worldwide.

Description:

This session will include a key note lecture and short presentations of research projects related to medication use among pregnant women and children.

Chairs: Antonio Clavenna & Gabriel Sanfelix-Gimeno

Schedule:

Speaker: **Dr Barbara Mostacci**, Neurological Science Institute, Bologna, Italy

“Safety of antiepileptic use in women with childbearing potential: collaboration between clinicians and DURers is needed” (30 min)

Oral presentations of 3 selected abstracts providing illustrations of drug utilization research around pregnancy and paediatrics (15 min each):

- **11** *“Use of different types of gonadotropins for infertility treatment: different patterns and time trends in a central Italian region”* - [Alessandro Cesare Rosa](#), Valeria Belleudi, Antonio Addis, Andrea Ciardulli, Marina Davoli, Ursula Kirchmayer

- **34** *“Use and choice of contraception among valproate-treated females aged 14 – 45 years in comparison with the general population in Scotland and the impact of regulatory safety guidance”* – Stuart McTaggart, Gavin MacColl, Karen Gronkowski, Marion Bennie
- **151** *“In utero opioid exposure and risk of ADHD in childhood: A Scandinavian registry study”* – Marte Handal, Svetlana Skurtveit, Ingvild Odsbu, Kieler Helle, Mette Nørgaard, Buket Öztürk, Angela Lupatelli, Hedvig Nordeng, Ingunn Olea Lund, Sonia Hernandez-Dias, Mollie Wood, Vidar Hjellvik, Milada Mahic

S-TS 14: Deprescribing

Background

Deprescribing is understood as the planned process of reducing or stopping medications that may no longer be of benefit or may be causing harm, with the goal of reducing medication burden or harm while improving quality of life. The underlying understanding of this process is that patients should receive only those medications they need and want. The evidence underpinning deprescribing in clinical practice remains, however, uncertain. Hence, much research is currently being undertaken in this area in order to strengthen the evidence base underpinning deprescribing; studies range from quantitative research evaluating deprescribing interventions to qualitative studies investigating barriers and facilitators to implement deprescribing interventions in practice.

Aims

To give an overview of current research with a focus on deprescribing policies and interventions across Europe.

Description

This session will comprise short presentations of research projects conducted across Europe.

Chairs: Katja Taxis & Balázs Hanko

Schedule:

Oral presentations of 5 selected abstracts (15 min each):

- **163** *“Don’t stop me now? The continuation of statins among newly admitted nursing home residents”* – [Lucas Morin](#), Jonas Wastesson, Kristina Johnell
- **21** *“I simply don’t know because I don’t know which drugs I get: A qualitative study of perspectives on deprescribing among older adults with limited life expectancy and their relatives”* – [Carina Lundby](#), Trine Graabæk, Jesper Ryg, Jens Søndergaard, Anton Pottegård, Dorthe Susanne Nielsen
- **119** *“Attitudes of older patients towards deprescribing in general and regarding diabetes and cardiovascular medication”* – [Stijn Crutzen](#), Jamila Abou, Sanne Smits, Gert Baas, Jacqueline Hugtenburg, Petra Denig, Petra Taxis
- **28** *“Attitudes of community-dwelling older adults and caregivers towards deprescribing in French-speaking countries”* – [Barbara Roux](#), Carolin Sirois, Anne Spinewine, Anne Niquille, Nicole Ouellet, François-Xavier Sibille, Catherine Péteïn, Olivia Dalleur, Chantal Csajka, Claire Villeneuve, Marie-Laure Laroche
- **23** *“Development of a deprescribing manual for the COFRAIL study, a cluster-randomised controlled trial in primary care”* – [Nina-Kristin Mann](#), Sven Schmiedl, Jens Abraham, Attila Altiner, Andrea Icks, Achim Mortsiefer, Brigitt Wiese, Stefan Wilm, Petra A. Thürmann, on behalf of the COFRAIL study group

Plenary 4: Combating antibacterial resistance – a One Health approach

Background:

Antimicrobial resistance (AMR) is a major public health concern with rapidly increasing global significance. One of the main drivers of AMR is the consumption of antimicrobials. Reversing antimicrobial resistance burden needs global collaboration and share of knowledge on effective multi-facet interventions.

Aims:

To provide state-of-the-art data on antimicrobial resistance, antimicrobial use and consequences worldwide by using the One-Health approach (human and veterinary). To provide guidance by demonstrating effective interventions and major barriers.

Description:

The session will present two key-note talks; while the first talk will focus on important worldwide trends of antimicrobial resistance and its direct and indirect consequences, the second will highlight effective interventions that have been successfully implemented and had long term effect.

Chairs: Ria Benko & Marion Bennie

Schedule:

Speaker 1: **Dr Dominique Monnet**, Head of Programme, Antimicrobial Resistance and HAI Programme, European Centre for Disease Prevention and Control (ECDC), Sweden

“European burden of antimicrobial resistance and its relationship to antimicrobial use”

Demonstrating state-of-the-art antimicrobial use data and trends across both hospital and ambulatory care sectors, with reference to the One Health concept integrating human, veterinary and agriculture sectors. The focus will be on EU/EEA countries (30 min).

Speaker 2: **Dr Esmita Charani**, Senior Lead Pharmacist, NIHR Health Protection Research Unit for Healthcare Associated Infections and Antimicrobial Resistance, Imperial College London, UK

“Effective interventions improving and changing care”

Presenting solutions for both ambulatory and hospital care, taking into consideration resource limited settings; and discussing important barriers of effective interventions/implementations (30 min).

Closing of the conference (30 min)

Awards: Poster awards & other awards

Closing remarks: Ria Benko & Marion Bennie