Wednesday June 28th, 09:00-10:30

Conference Welcome:

Elisabetta Poluzzi, chair of the local committee

Katja Taxis, chair of EuroDURG

Björn Wettermark, chair of the scientific committee

PLENARY 1: Sustainability of drug utilization - economic, social and environmental

Chairs: Sabine Vogler**,** Fabrizio de Ponti

Speakers: Giampiero Mazzaglia, Aukje Mantel-Teeuwisse, Marmar Nekoro

Background

Sustainability can be defined as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs" The term was defined by the Bruntland commission in the late 1980s and United Nations subsequently launched 17 Sustainable Development Goals (SDGs), as a call for action by all countries. It is important to acknowledge that sustainability both relates to economic, social, and environmental aspects. Pharmaceuticals pose a challenge for the future in all these three aspects:

- medicine expenditure is rising more rapidly than health systems can afford
- there are large inequities in DU when comparing different countries and patient groups
- there is an increasing discussion on environmental burden of pharmaceuticals

Aims

To set the scene for the conference through addressing sustainability in drug utilization from the three different perspectives.

Description

The session starts with three short welcome talks, presenting the conference and the EuroDURG

It will be followed by three key note presentations about sustainability, each one 20 min + 10 min questions in the end

Wednesday June 28th, 11:00-12:30

W-KL1/OC1 - Adherence

Chairs: Gabriel Sanfélix-Gimeno**,** Enrica Menditto

Speaker: Alexandra L. Dima

Background

Medication adherence is unarguably a key aspect to improving chronic disease outcomes and reducing health care costs. Digitalisation is part of the future of drug utilization research and, specifically, in adherence research digitals tools will have an important role, for both measuring or monitoring adherence and for supporting patients' adherence by different actors at different levels (individual and healthcare system levels). Despite the opportunities offered by digital tools, they are not the unique solution and some limitations exist.

Aims

To give an overview of digital tools for adherence measurement and for adherence support interventions, advantages and disadvantages on using them, and some practical recommendations for researchers. To discuss other aspects of interest in the medication adherence field.

Description

The session will begin with an introduction to the use of digital tools for adherence research from an invited speaker. Different aspects of adherence will be discussed by contributors, followed by an open discussion with the audience. Oral presentation of 4 abstracts discussing different papers on the topic (15 mins each)

Wednesday June 28th, 11:00-12:30

W-KL2/OC2 - Impact of COVID-19 on DU

Chairs: Ana Tomas Petrovic, Francesco Trotta

Speaker: Mina Tadrous

Background

The novel coronavirus (COVID-19) pandemic caused a large shift in the delivery of health care, including drugs. This should be of consideration for anyone conducting future DU studies. During the pandemic, measures to tackle it varied, as did policies introduced to manage some of the issues (i.e. drug shortages) that occurred during the pandemic. Health-care systems were under severe pressure, which impacted management of chronic conditions, including the use of drugs. The pandemic was accompanied by a massive wave of false and misleading information, with potential impact on drug utilization, safety concerns and slowing down the implementation of recommended preventive measures.

Aim

Bring light to the key changes observed in drug utilization during and following the pandemic from a global perspective.

Description

The session will begin with an introduction from an invited speaker. Observed challenges in drug distribution and use, as well as potential national, regional and local solutions for the problems associated with the pandemic will be covered, as well as implications for future research considering the intricate changes observed. This will be followed by 4 oral submitted presentations.

Wednesday June 28th, 13:30-14:15

W-KL3: The value of the patient perspective on medicines use in DUR

Chairs: Anna Birna Almarsdóttir, Irina Iaru, TBC

Background

Patient perspective in healthcare decisions is increasingly gaining more attention in health care, in order to improve inappropriate use of medicines, which can affect patient's health and impact healthcare costs. Various terms are used for the patient perspective, such as patient insights, patient involvement, patient engagement, citizen-centeredness, and shared decision making. Good collaboration between patients, healthcare professionals and other relevant stakeholders, based on appropriate tools and techniques, is essential to successfully integrate the patient's perspective into decisions about medicines use. Qualitative data research exploring the patient perspective and quantitative measures that have high validity for patients' lives strengthen this process.

Aims

To raise awareness of the importance of exploring and integrating patient perspective on medicine use into DUR and to address different areas of research where patient perspective is increasingly needed and integrated.

Description

This session will focus on the importance of patient perspective in DUR, the importance of evaluating the patient perspective and using qualitative methods, and as it is expressed in quantitative ways through PROs, PROMs, and PREMs. The discussion will be followed by an interactive example: participants have to think about a study design to evaluate the reasons why patients or healthy people use certain medications. The rest of the session will be dedicated to the patient perspective from two different angles: the research, which is conducted *on* patients (patients as data providers), and the research *with* patients (the involvement of patients in defining research priorities, designing studies, etc.).

Wednesday June 28th, 13:30-14.15

W-KL4: eHealth, Digitalisation and Drug Utilisation Research

Chairs: Sean MacBride-Stewart, Katarina Gvozdanović

Speakers: Sean MacBride-Stewart, Lorenzo Chiari

Background

Advances in eHealth have significant impact both on drug utilization and on drug utilisation research. Increasing implementation of different eHealth IT solutions in healthcare influence the way medicine are prescribed, dispensed and used generally allowing better control of the process and more timely and relevant measurement of the key performance indicators. Due to digitalisation large amount of data is being electronically captured, many of it suitable for the research and clinical/policy decision-making purposes. Possibility of data linkage but also methodological advances in data analysis such as use of machine learning or AI allow us to combine and reuse the data to extract new knowledge more than ever before in history. In addition, eHealth prompts standardisation and accuracy of data leading to easier comparison and benchmarking of the drug use process within different hospitals, regions or countries.

Aims

To provide examples of some eHealth solutions (to be) implemented in EU and their impact on drug utilisation (research). To discuss new types of data that might become more readily available with digitalisation of healthcare and how it can be used to improve drug utilisation (research). To discuss the potential drawback of the increasing digitalisation in healthcare.

Description

The session will begin with an introduction to topic from an invited speaker, followed by an open discussion with the audience. NHS Scotland is making steady progress in digitising healthcare across all sectors with a focus on integration across all settings. Specific examples of new sources of drug utilization data include digitising of the prescribing and administration of medicines within hospital settings, the digitising of the prescribing and dispensing of medicines in community and the integration of systems to provide a digital record of prescribed medicines across all healthcare settings for individual patients. Specific examples of the use of richer datasets for drug utilisation research include the use of primary care prescription data to identify at-risk patients prioritised for advanced treatments for COVID-19 infections.

Wednesday June 28th, 16:15-17:45

W-WS1: Quality indicators and sustainable drug utilization

Facilitators: Bjorn Wettermark, Indre Treciokiene, Kristina Garuoliene

Background

When assessing the quality of medicine use, the focus is often on medication prescribing and dispensing or on medication taking. For explicit assessment, many tools, and quality and safety measures -also called quality indicators- have been developed, usually derived from literature reviews or guideline recommendations. A quality indicator is a measurable element of practice or performance for which there is evidence or consensus that it can be used to assess quality and thus in changing the quality of care provided. Sustainability in terms of equity, economy and environment has not been that well explored.

Aims

To describe different types of explicit indicators to assess quality use of medicines. How framework of quality indicator could be applied in measuring sustainable use of medicines.

Description

The session will begin with the general introduction to concept of quality indicators in drug utilization. The introduction will be followed by discussions in groups on different types of indicators with different sustainability perspectives and discussion with audience.

Target audience: Both academic and people in the health sector interested in rational use of drugs.

Schedule:
Introduction 15’
Workshop part 1 30’. Different disease areas.

- *Short presentation around the group - setting and the type of data you have access to*
- *What is the goal you want to achieve? What is problem/the area for improvement?*
- *Discuss on sustainability perspective (economic, equity and environment)*
- *Brainstorm potential indicators applicable to use with your data*

Presentation of potential indicators 15’
Workshop part 2 15’:

- *Select an indicator and complete the template on Padlet*

Discussion and wrap up 15’

Wednesday June 28th, 16:15-17:45

W-WS2: Outcome measures in studies on the quality of (de)prescribing in older people

Facilitators: Katja Taxis, Petra Denig, Monique Elseviers

Background

Suboptimal medication prescribing in older people has been a concern for many years. Several instruments, such as the STOPP/START criteria, have been developed to address overprescribing and underprescribing in this population. Recently, deprescribing has received a lot of attention, balancing the risks and benefits of long term use of chronic medication in frail older people. Many drug utilization studies are conducted to explore appropriate or inappropriate medication (de)prescribing, and also develop and evaluate interventions. There are, however, specific methodological challenges in this area. Of particular concern in any study is the choice of the outcome measures.

Aim

Exploring and discussing issues of outcome measures when studying quality of medicine prescribing in older people.

Target audience: Experienced researchers and newcomers to the area, as well as people involved in improving outcomes such as policy makers.

Schedule:
Introduction 30'

- *Measuring deprescribing*
- *Measuring burden including patient reported outcomes*
- *Measuring inappropriate drug prescribing (in databases)*

Workshop 45'

- *Work in groups of 8-10 participants*
- *Choose one of the research scenarios and discuss the outcome measures you want to select. Questions include: how to validate the outcome measure, limitations of the outcome measure, operationalization, analytical issues. Prepare a short pitch of max. 2 min to present your choices to the others.*

Presentation of the pitches, plenary discussion and wrap up 15'

Thursday June 29th, 09:00-10:30

T-KL5/OC3: Opportunities and challenges for comparison of drug utilization across countries

Chairs: Luciane Lopez, Sean MacBride-Stewart

Speaker: Monique Elseviers**,** Indre Treciokiene

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. Despite these differences CNC offers a wide range of opportunities to improve rational prescribing if taking into account the specific challenges related to this type of study designs

Aims

What are the opportunities and limitations to perform CNC studies anno 2023 and what are the future perspectives in this field?

Description

This session will start with a key note lecture (30'). First, an overview will be presented about the topics that can be handled in CNC studies in relation to the data sources available at the national level. Second, the methodological challenges of CNC studies will be highlighted offering tools to limit the validity of the comparison. Mention the guidelines. Third, future developments in the field of CNC research will be presented. The keynote lecture will be followed by the presentation of 4 selected abstracts in the field of CNC research (4x15').

Thursday June 29th, 09:00-10:30

T-KL6/OC4: Drugs & Environment

Chairs: Tanja Mueller, Francesco Barone Adesi

Speaker: Marmar Nekoro

Background

Global increase in use of pharmaceuticals brings many challenges, including environmental issues associated with medicine production, dispensing, use and disposal as pharmaceuticals and their residues reach the environment throughout drug life-cycle. This is not limited to human use, but also includes veterinary drugs. Detrimental environmental effects are known for number of pharmaceutical products, with different strategies to tackle this issue. Environmental DUR studies can bring to light issues that can help guide decision-making processes focusing on strategies contributing to health, environment and sustainability goals. Increasing availability of compiled information on concerns related to drugs in the environment brings opportunities for environmental DUR.

Aims

Describe contemporary advances in pharmacoenvironmentology and how DUR fits this bigger picture.

Description

Key note lecture covering contemporary advances in ecopharmacovigilance and pharmacoenvironmetology, covering broadly pathways of pharmaceuticals to the environment, their effects and holistic approach needed in tackling complex issue. Followed by 4 selected oral presentations.

Thursday June 29th, 11:00-12:30

T-KL7/OC5: Deprescribing: guidelines, implementation, and DUR research

Chairs: Anna Birna Almarsdóttir, Gianluca Trifirò

Speakers: Graziano Onder

Background

Deprescribing is currently a hot topic in an ageing society with a rising prevalence of patients with multimorbidity and polypharmacy. The concept of deprescribing relates to an active process with the goal of reducing the number of drugs taken by the patient and involves withdrawing inappropriate medicines in order to improve outcomes. It is important to take the view of the patients and their carers into account – that the patients use only the medications that they want and need. It is important to understand how it is implemented through guidelines into clinical practice, and to showcase what the role of DUR is in developing the concept.

Aims

First, to highlight how deprescribing as a process starts with the writing of evidence-based guidelines and is then implemented into practice. Second, to show the state of the art in DUR research on the concept of deprescribing.

Description

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

Thursday June 29th, 11:00-12:30

T-KL8/OC6: Machine Learning for Drug Utilisation Analysis

Chairs: Gisbert W. Selke, Ursula Kirchmayer

Speaker: Maurizio Sessa

Background

In drug utilisation research at the population level, the number of data points is often in the multi-million range, especially in secondary data research. While these data troves are being studied using the methods of classical statistics, the volume of data opens up new possibilities for analysis. This involves, e.g., advanced ways to identify groups and clusters, to identify patterns, and to predict future events. For instance, machine-learning methods have been used to predict adherence, side effects of polymedication, and likelihood of hospitalisation. On the other hand, results gained through machine-learning may be difficult to interpret intensionally, and there are also inherent dangers, e.g., through unintentional propagation of prejudices.

Aims

To map the potential application and the challenges of machine learning and artificial intelligence methods in drug utilisation research.

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.

Thursday June 29th, 13:30-14:15

PLENARY 2: Globalization of Medicines Use: Advances in DUR across the Globe

Chairs: Marion Bennie, Gisbert W. Selke

Speakers: Lisa Pont, DUR researchers outside Europe

Background

Medicines use is global and thus so is DUR. However, the development of DUR globally is in part a consequence of the data resources being generated through the clinical care of patients within health systems but also the access to these data and the workforce resources and skills focused on using these data to inform health policy, generate new evidence and support improvements in service delivery.

Aims

To present the range and diversity of DUR across the globe, consider the challenges facing the field of DUR and the opportunities for evidence generation on a global scale across our communities.

Description

The session will set the scene of the extent and scope of DUR across the globe, informed and drawn from our globalization section of the new DUR Methods book and then explore in depth two regions of the world to illustrate the range and depth of DUR and consider opportunities for collaboration on the global stage.

Thursday June 29th, 16:15-17:45

T-WS3: Challenges with new medications

Facilitators: Björn Wettermark, Sabine Vogler

Background

Many new medicines entering the market today differ from the new medications of one or two decades ago (e.g. the patient groups are more narrow, there is less evidence on efficacy from phase III RCTs, their treatment costs are highly higher and there are more one-shot therapies, etc.).

Overall, there are several challenges around the development and market launch of new medicines, such as high uncertainty / lack of robust evidence, different evidence requirements for marketing authorisation and pricing / funding, possibly misleading incentives, unaffordable policies, limited knowledge of what is the pipe-line, delayed market launch or non-availability in some countries. Drug utilization studies may help to manage their introduction and to improve appropriate use.

Aims

To outline key challenges with new medicines (with a focus of ATMPs) from a payer/healthcare perspective; To present how drug utilization research (DUR) may help and encourage participants to consider different approaches

Description

The session will start with introduction characterising today's drug markets and challenges (compared to 10 years ago) and mapping different challenges. Further discussion will focus on solutions considered feasible and appropriate to address the challenges of new medicines (in particular for ATMPs), including limitations in the policy solutions as well as in underlying drug utilization studies. In the session we will try to address which additional drug utilization studies would be needed to address the current challenges, possibilities of data collection in DUR and prioritization of policy measures. After the session, participants should be aware of more challenges (new perspectives), also globally and possible solutions using DUR.

Target audience: Any participant of the EuroDURG 2023 conference, e.g. g a student, a researcher, an expert in public administration or policy-maker (regardless of the level of knowledge).

Schedule:
Introduction 25'
Exploring how DUR could help in groups, written summary prepared 45'
Discussion and closing 20'

Thursday June 29th, 16:15-17:45

T-WS4: PROMs: added value for DU

Facilitators: Emma Dunlop, Marion Bennie

Background

Patient Reported Outcomes refer to how patients' rate or report their health, quality of life, or functional status-related outcomes, often to do with their healthcare or health interventions. Patient Reported Outcome Measures (PROMs) are the tools used to assess those outcomes.

PROMs are widely researched; from studies looking at PROMs design and validation, to their use in clinical trials, to studies exploring what matters most to patients and healthcare professionals' regarding how PROMs can be used as part of routine care; and more.

Aim

To explore what PROMs are, how they fit into drugs utilization research (DUR), and the opportunities and challenges PROMs data may bring now and in the future in DUR.

Description

Definition and overview of PROMs. Group discussions on 3 areas: what DUR questions could be addressed by PROMs data; what PROMs data would be most useful in DUR; and how can PROMs data and more traditional DUR data work together?

Target audience: Any DUR researcher, regardless of level of knowledge / experience of PROMs data.

Schedule:
Welcome & Introduction 5'
What are PROMs? 10'
Breakout sessions 35'

- Intro
- What PROMs are most important to measure in Drugs Utilization Research? What would be the most useful outcomes and/or PROMs tools that could be useful for DUR?
- Discussion on how PROMs data can be used alongside more traditional DUR data.
- Discussion on what current research questions/gaps in DUR could be addressed through PROMs data together with methods of data collection, data formats, challenges with and considerations of the data.

Discussion and wrap up 25'

Friday June 30th, 9:00-10:30

F-OC7: DUR in specific populations and therapeutic areas

Chairs: Ria Benko, Antonio Clavenna

Background

In descriptive drug utilisation studies, the goal is to describe the use and the quality of drug use in healthcare. To achieve this, the research has to focus on specific populations, diseases or groups of drugs. Specific population can be defined by various aspects such as sex, age groups (e.g. children, elderly), having specific state (e.g. pregnancy, end of life, emergency/disaster), settings (e.g. hospitalised patients, nursing home patients). In DU research the focus of the research is sometimes very inclusive in terms of therapeutic areas, but more often narrowed down to treatment of specific disease or drug group. The drug group of interest can be chosen by various peculiarities of the drug group: abuse/misuse potential and consequences, price/innovativeness, safety issues or the prevalence/importance of the disease they are used in.

Aim

To provide insight into recent research related to specific populations or drugs, especially focusing on emerging, popular or exceptionally interesting areas of DUR.

Description

Oral presentations of a number of selected abstracts providing illustrations of drug utilization research related to specific populations and/or therapeutic areas.

Friday June 30th, 9:00-10:30

F-OC8: Challenges in DUR

Chairs: Sean MacBride-Stewart,

Background

Many skills are needed to plan and conduct DUR studies including understanding of the conceptual framework, different data sources, regulations, study designs, terminology and biostatistical methods. Nowadays, healthcare generates almost a third of the world's data volume and this will continue to increase, opening many opportunities for DUR, but also bringing many challenges in planning and conducting DUR studies.

Aim

To provide insight into contemporary research related to specific challenges in planning and conducting drug utilization studies.

Description

Oral presentations of a number of selected abstracts.

Friday June 30th, 11:00-13:00

PLENARY 3: Unmet needs in drug utilization - clinical, patient and drug policy perspective
+
Celebrating 50 years of DUR

Chairs: Björn Wettermark, Elisabetta Poluzzi

Speakers: Björn Wettermark, Aukje Mantel-Teeuwisse and invited panelists

Background

Increasing discussions on rising drug costs and inappropriate drug use led to the birth of Drug Utilization research. In 1969, WHO organized its first meeting on Drug Consumption in Oslo. Now, 50 years have passed and we have seen a fantastic development in drug therapy. Several new and effective drugs have gained widespread use in the treatment of major diseases such as cardiovascular diseases, depression and diabetes mellitus. In recent years, science has witnessed further breakthroughs in molecular genetics, proteomics and combinational chemistry and large numbers of biopharmaceuticals enter the market, providing better treatment for areas with a previous unmet need such as cancer, autoimmune disorders and orphan diseases. Still, there are areas remaining with an unmet need. This could either be explained by the fact that there are no effective drugs available or that patients do not get access to them. There are also large areas for improvement in inappropriate drug use.

Aims

To provide an overview of the drug development during the last 50 years and key challenges remaining in terms of unmet need. To illustrate how future DUR studies may help in meeting this need.

Description

The session will present two key-note talks followed by a panel discussion. The two talks will focus on a) the fantastic drug development during the last 50 years, how has the drug utilization changed? b) update on the WHO priority medicine report. What is the situation today, which are the key unmet need or gaps where we have large disease burden in terms of DALY and no/poor treatment alternatives?

A panel discussion will follow addressing the gaps from different perspectives and how DUR may help. Do we agree with the gaps or do they differ depending on the perspective? How can drug utilization research contribute? Discussion with panellists.

Closing session

Ceremony celebrating the pioneers in DU during the first 50 years, awards (poster etc.), short speeches by local and scientific hosts. Closing of the conference.