





## Report ISPE-EuroDURG Summer School on Drug Utilization Research

The aim of the Summer School was to train researchers in drug utilization research, to provide opportunities for networking and to introduce researchers to the community of pharmacoepidemiology/DUR.

Organised by ISPE-EuroDURG members: Bjorn Wettermark, Monique Elseviers, Marion Bennie, Ria Benko, Katja Taxis

Time/Place: 26-29 June 2019 in Stockholm County facilities at Magnus Laduläsgatan 63, Södermalm, Stockholm, Zweden

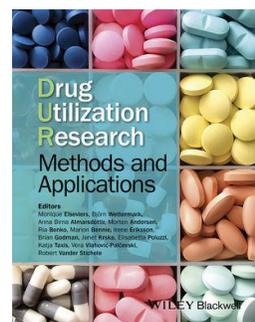
Participants: 30 participants from all over the world. The majority of participants were PhD students or postdocs. Some health professionals, researchers and policy makers.

The DUR Summer School course consisted of lectures, seminars and workshops to provide participants with a thorough methodological background on drug utilization research (datasources, study design, measurements methods, statistical/analytical methods, qualitative research methods, cross national studies) and examples of applications (DUR in older people, antimicrobials, adherence, DUR and health policy). Critical appraisal of the literature was practiced in an interactive workshop in small groups. Participants also presented an overview of their own research and discussed this in small groups. The outline of the full programme is given in Appendix 1.

The content of the Summer School was based on book initiated and edited by the ISPE-EuroDURG group: The Drug Utilization Research: Methods and Applications. Elseviers M, Wettermark B et al. (Ed). John Wiley and Sons, Ltd (2016). Participants valued the course very much.

There was also time for networking and fun during the social programme including the welcome reception and the dinner/boat trip enjoying a long sunny summer night in Stockholm.

Figure 1 is a word cloud based on each participant submitting up to three ideas to take home from the Summer School. In the formal evaluation participants valued the course very highly and gave on average 9 out of 10 points. Gaining new insights, learning about statistics and methods, getting ideas for own research, especially during the interactive sessions and networking opportunities were often mentioned on the evaluation forms.





**Impressions of the DUR  
Summerschool**



## **Appendix 1: Overview of the programme of the DUR Summerschool**

### **W1: Introduction to DUR (BW)**

Aim: To provide an overview of what DUR is, its history and how DUR may contribute to rational use of medicines in the society.

### **W2: Study designs in DUR (ME+BW)**

Aim: To present the major descriptive and analytical study designs in DUR illustrated with various examples

### **W3: Statistics 1 Descriptive methods + visualization (ME+RB)**

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

### **T1: Data sources for DUR (IE+ED+ME)**

Aim: To give an overview of different secondary data sources used in DUR and their strengths and limitations. To outline the difference between primary and secondary data collection and provide some general recommendations on how to conduct a survey.

### **T2A: Qualitative methods (SKS)**

Aim: To introduce qualitative methods in DUR, illustrated with an example on a qualitative study on general practitioners attitudes to sex, gender and prescribing.

### **T3B: Classification systems and measurement units (MH)**

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

### **T3A: Applied Adherence (ME+panel)**

Aim: To illustrate different concepts and methods in adherence research

### **T3B: Applied Elderly (KT+KSM)**

Aim: To show how DUR can contribute to improve DU in the elderly. Examples will also be given from the studies on inappropriate use of medicines in the elderly in primary care in Stockholm.

### **T4: Determinants (BW + all)**

Aim: To provide an understanding on the key determinants behind drug use

### **T5: Statistics2: (ME + LK)**

Aim: To increase the awareness of more advanced analytical methods in DUR. Interrupted time series analysis will be illustrated with an example of a scientific investigation on the effect of a regulatory safety warning.

### **F1: Drug expenditures – Contribution to health Policy (MB+TF)**

Aim: To give an overview on how DUR may help policymakers in promoting rational use of drugs. A case story will be given on how drug utilization studies were used to facilitate a safe introduction of direct acting new anticoagulants in atrial fibrillation in Stockholm.

### **F2: Developing quality indicator (BW + all)**

Aim: To provide insight in how quality indicators are developed and opportunities to derive such indicators depending on the different types of data that are available.

### **F3A: Applied Comparative studies (ME+BW)**

Aim: To get the participants to know the value of comparative studies and how these can be conducted at different levels from individual patient groups or providers to countries.

### **F3B: Applied Antibiotics (RB)**

Aim: To illustrate how DUR is used in the field of antibiotics, as a tool to identify problems and support changes to combat the increasing threat of antimicrobial resistance.

### **F4A: Use Administrative database (MH + ED)**

To get an understanding on how aggregated and individual level dispensing data can be analyzed. The session will be carried out as exercises based on data from Stockholm region

**F4B: Systematic Review (KT+IE)**

Aim: To show how a systematic review should be conducted in DUR presenting the tools used in Cochrane reviews.

**F5: Presentation own research topics (All)**

Aim: To let all participants share their own research experiences and ideas and get feedback from the teachers. To facilitate transfer of knowledge from the course to concrete action in reality.

**S1: Critical appraisal paper (ME+BW+all for presentations)**

Aim: to practice critical appraisal of methods and presentation of results in DUR

**S2: DU as essential part of pharmacoepi (BW+MB+KT)**

Aim: To summarize the whole course, bring pieces together and provide some examples on the interplay between DUR, pharmacoepidemiology and other related disciplines. To inspire the participants with some examples where DUR has made changes. And, finally, to inspire them to engage in the key international networks and conferences – ISPE-EuroDURG, SIG-DUR, ISPE.