



## Workshop 2: Adherence Data Analysis

### Faculty (in alphabetical order):

[Dr. Samuel Allemann](#), PhD, RPh, Clinical Pharmacist (University of Basel, Switzerland) and Medication adherence expert (Swiss Pharmacists' Association, Switzerland)

[Prof. Dr. Rebecca Bartlett Ellis](#), PhD, RN, Associate Professor, Assistant Dean for Graduate Programs, School of Nursing (Indiana University, USA)

[Dr. Alexandra Dima](#), PhD, CPsychol, Senior Research Fellow (Université Claude Bernard Lyon 1, France),

[Prof. Dr. Marie Schneider](#), PhD, RPh, Chair of Adherence and Interprofessionality (University of Geneva, Switzerland)

[Dr. Isabella Locatelli](#), PhD, Statistician (University of Lausanne, Switzerland)

[Prof. Dr. Bernard Vrijens](#), PhD, Invited professor of Biostatistics (Liège University, Belgium) & CEO, Scientific Lead (AARDEX Group, Belgium)

[Prof. Dr. Ira Wilson](#), PhD, MD, MSc, FACP, Professor and Chair of Health Services, Policy and Practice, Professor of Medicine (Brown University, USA)

[Dr. Hans Wouters](#), PhD, Senior Researcher (GPRI, Netherlands)

### Introduction:

The 2020 ESPACOMP Data Analysis workshop will take place online together with the annual conference.

Following the data analysis workshops at the Annual Meetings in 2018 and 2019, participants expressed interest for more practical sessions on estimating adherence from Electronic Healthcare Databases (EHD) and Electronic Monitoring (EM) data, and opportunities to exchange and feedback on concrete examples and own research experiences. Therefore, in the 2020 workshop we aim to provide more practical tools for researchers to collect/extract and analyze adherence data, focusing on design and reporting, and practical guidance on conducting analyses in example studies proposed by participants themselves.

Data analysis examples will be provided following Open Science principles of transparency and reproducibility, using the statistical programming language R. Materials and recommendations for course preparation on R basics, adherence concepts, research design, and R scripts for adherence analysis will be provided. Participants will be invited to propose examples from their own work for discussion during the online sessions.

The workshop will be facilitated by Samuel Allemann (Switzerland), Rebecca Bartlett-Ellis (US), Alexandra Dima (France), Isabella Locatelli (Switzerland), Marie Schneider (Switzerland), Bernard Vrijens (Belgium), Ira Wilson (USA) and Hans Wouters (NL).

It will consist of two 2-hour webinars and individual preparatory work before each webinar following the materials provided online. The program will start with a general overview of the topic followed by small group work on practical examples (proposed by participants or provided by tutors, as applicable). Participants will have the opportunity to present case studies and propose questions for discussion during the webinars.

**Webinar 1:** 16:00-18:00 CET, Tue 27 October

**The ABC, EMERGE and TEOS frameworks and applications to study design and data analysis**

**Webinar 2:** 14:00-16:00 CET, Tue 17 November

**Analysing adherence data from Electronic Healthcare Databases (EHD) and Electronic Monitoring (EM)**

This workshop is intended for researchers and advanced students interested to estimate adherence from electronic monitoring and/or electronic healthcare databases. It will include new materials adding to previous ESPACOMP courses, but attendance to prior courses is not a requirement; the course could also represent a starting point to adherence research as individual recommendations will be provided for further study.

### ***Learning objectives:***

By the end of the workshop, participants will be able to:

- (1) Use the ABC taxonomy, EMERGE guidelines and TEOS framework to interpret published studies.
- (2) Design and report their own study/analysis according to these guides.
- (3) Explain the different measurement options available from EM and/or EHD.
- (4) Calculate adherence to medications for a sample dataset (personal or example study).
- (5) Describe different practical challenges in adherence study design / data analysis and possible solutions.

### ***Learning methods:***

Video presentations and online materials.

Interactive discussions; small group and individual work.

Conferencing tool to be confirmed closer to the date.

***Maximum number of participants:*** 15

### ***Requirements for participation:***

Upon registration, participants will be asked to provide information on prior training and work experience in statistics (including R & R Studio), relevant work / interest in adherence research, and expectations from the workshop.

Video presentations and materials will be made available 2 weeks before the first online session, together with instructions for preparing own materials and questions. At this moment, participants will be invited to register for presenting an example study (10 mins presentation) & related questions for group work.

They will be required to familiarize themselves with the materials provided (and with R and R Studio) before the first online session.