**EPA COURSE TITLE**  
Problem solving in psychopharmacotherapy using pharmacokinetic and pharmacogenetic tests

**COURSE DIRECTOR**  
Pierre Baumann, Switzerland

**COURSE CO-DIRECTORS**  
N/A

**COURSE LEVEL**  
Basic and medium level (may be adapted according to the audience)

**EDUCATIONAL INTENTIONS/COURSE OUTCOMES**

Many problems such as non-response, pharmacokinetic interactions with clinical consequences and adverse effects (pharmacovigilance) may be observed in patients submitted to psychopharmacotherapy. These risks are increased in patients belonging to the category of “special populations”: elderly patients, children and adolescents, patients with a genetic particularity of metabolism or suffering from somatic or psychic comorbidities. Therapeutic drug monitoring (TDM) in the blood of neuropsychiatric patients as well as pharmacogenetic tests are useful to solve problems in psychopharmacotherapy and thus improve efficacy and safety of drug treatment. The aim of this course is first to summarize some basic knowledge on the pharmacogenetics and pharmacokinetics of psychotropic drugs, mainly as an introduction for those psychiatrists not yet familiar with TDM. Psychiatrists who already have experience in this field will have their knowledge updated: recent progress will be illustrated by clinical situations, which will be discussed in an interactive way. An update (2018) of a widely used consensus paper with recommendations on the optimal use of pharmacokinetic and pharmacogenetic tests will be summarized and submitted for discussion. After this course, participants will be able to use TDM and pharmacogenetic tests as tools for optimising psychopharmacotherapy.

**COURSE DESCRIPTION**

The course director participated to the different Consensus Guidelines for Therapeutic Drug Monitoring (TDM) which were published since 2004 and which were very recently updated and considerably extended (Hiemke et al., 2018). This document, which is freely available (www.agnp.de) will be used as a basic instrument for the structure of the course. During the whole course, several clinical situations will be presented which will yield the opportunity to illustrate some pharmacokinetic and pharmacogenetics principles. E.g., among the clinical situations, drug-drug interactions in patients suffering from comorbidities which require comedications, or of non-response which recommend combination treatments will be treated. Based on international recommendations (PharmGKB, FDA, etc), the question on the usefulness of pharmacogenetics tests (cytochrome P-450, ABCB1) will be discussed and illustrated by clinical situations, where a combination of TDM and pharmacogenetics tests may be an advantage. Finally, special emphasis will be laid on the practical aspects of TDM, and the interpretation of results, using an interactive approach.

**PREREQUISITE KNOWLEDGE**  
N/A

**COURSE METHODS AND MATERIAL**  
Oral general presentation and presentation of cases and situations, interactive (eg questions by the audience concerning special situations experienced in their practice). Slide projection (beamer), handouts of the slides

**TARGET AUDIENCE**  
Psychiatrists in private practice, psychiatrists and psychologists working in psychiatric hospitals, in liaison psychiatry, residents. Staff from pharmaceutical companies.
| LANGUAGE(S) | English, German, French, (Italian) |