

Faculty of Medicine



FARM2240 Pharmacokinetic and clinical biology

[30h+15h exercises] 4 credits

This course is taught in the 2nd semester

Teacher(s): Roger-K. Verbeeck, Pierre Wallemacq (coord.)
Language: French
Level: Second cycle

Aims

The purpose of this lecture is to demonstrate and emphasized the clinical interest in optimizing some therapeutics. It is crucial for future health specialists to be aware that number of physiopathological situations can influence drug disposition (age, renal or hepatic insufficiency, drug interactions,#). The lecture will demonstrate that both pharmacokinetics and therapeutic drug monitoring are necessary in this approach.

Main themes

Chronic administration, different dosage regimen, pathologies (renal or hepatic), age (children or elderly) and overdosing (toxicokinetics) will be discussed regarding the pharmacokinetics modifications involved. The different mechanisms causing drug interactions will be reviewed. Major analytical methods used in therapeutic drug monitoring including some pitfalls are described, together with the main pharmacological class taking advantage of therapeutic drug monitoring (aminoglycosides, immunosuppressive drugs, antiepileptics, cardiotonics,#).

Content and teaching methods

The method is based on a 30h academic lecture (option B),and for those students selecting this lecture as major option A, a commented review of the literature is requested for a topic proposed by the lecturers in the field of clinical pharmacokinetics, therapeutic drug monitoring or clinical pathology. An oral presentation will be organised for these last students.

Other information (prerequisite, evaluation (assessment methods), course materials recommended readings, ...)

Pre-requisite: lecture of general pharmacology including pharmacokinetics, drug metabolism, clinical biochemistry and general pathology.

Evaluation: written exam, seminar including oral presentation by students (option A)

Academic staff: 2

Lectures are given with power-point slides shows accessible through the website iCampus

Other credits in programs

ESP3DS/TI Diplôme d'études spécialisées en santé publique (santé au travail - toxicologie industrielle)