

## Introduction To Pharmacokinetics

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Understand the principles involved in clinical pharmacokinetics and the associated practicalities.

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### What Is The Course About?

This course is designed for non-specialists working in the pharmaceutical industry who need an introduction to the principles involved in clinical pharmacokinetics and the associated practicalities. The course assumes no previous knowledge and works logically through the processes by which the body deals with drugs and parameters by which these processes are measured. The emphasis throughout is on these implications of these processes and measurements for real-life drug development.

This course covers:

- The theory of ADME
  - Key PK parameters
  - It's application
  - The practicalities
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### The Trainer

Dr Ian Dews

Ian is a qualified medic with more than 25 years of experience of drug development as both an investigator and a pharmaceutical physician. He is a director of a small consultancy company providing drug development and regulatory support to the pharmaceutical and medical device industries.

Ian's previous role was as European Director of Drug Development for a global, full service CRO where he was responsible for working with clients to develop compounds from the discovery stage through to the conclusion of clinical research. Prior to this, Ian was the European Medical Director of a global, full service CRO. In this role he was involved in the writing of Clinical Development Plans and Expert Reports and was responsible for the supervision of global drug development programmes.

He has acted as an investigator in more than 50 hospital clinical trials in the fields of heart failure, angina, hypertension, arrhythmia and clinical pharmacology. He is a key Rostrum trainer, and has been delivering successful courses since its inception in 1987.

Ian is a Fellow of the Faculty of Pharmaceutical Medicine and acts as a Senior Specialist Adviser within the Higher Medical Training programme of the Faculty.

#### **Course Fee: £599 +vat**

If you book on the course more than 9 weeks in advance, a 10% discount will be applied.

Location: The Regency Hotel, 100 Queens Gate, South Kensington, London, SW7 5AG

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# Programme

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### Introduction

- What is pharmacokinetics?
- Why does it matter?
- Where does it fit into drug development?

### The Theory

- Absorption
  - routes of administration
  - rate and extent of absorption
  - first pass metabolism
  - bioavailability and bioequivalence

### Distribution

- compartments
- dynamics of exchange

### Metabolism

- principles of metabolism
- sites of metabolism
- induction and inhibition of metabolic enzymes
- issues surrounding metabolites

### Excretion

- renal excretion of drugs
- biliary excretion and enterohepatic circulation
- other routes of excretion

### Key PK Parameters

- C<sub>max</sub>
- T<sub>max</sub>
- Half-life
- Area under curve
- Volume of distribution

### It's Application

- Choice of candidate molecules
- Formulation
- Prodrugs
- Drug accumulation
- Drug interactions
- Population pharmacokinetics

### The Practicalities

- Regulatory issues
- Study design
- Starting doses
- Study management
- Safety monitoring