

## Liverpool John Moores University

Title: CLINICAL PHARMACOKINETICS  
Status: Definitive  
Code: **6000CKPHAR** (113210)  
Version Start Date: 01-08-2011

Owning School/Faculty: Pharmacy & Biomolecular Sciences  
Teaching School/Faculty: Pharmacy & Biomolecular Sciences

Team	Leader
Philip Rowe	Y
Charles Morecroft	

**Academic Level:** FHEQ6      **Credit Value:** 12.00      **Total Delivered Hours:** 41.00  
**Total Learning Hours:** 120      **Private Study:** 79

### Delivery Options

Course typically offered: Standard Year Long

Component	Contact Hours
Online	40.000

**Grading Basis:** 40 %

### Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Exam	AS1	On-line MCQ test	50.0	1.00
Practice	AS2	Coursework case study presentations	50.0	

### Aims

*To apply a knowledge of clinical pharmacokinetics to pharmaceutical care for patients*

### Learning Outcomes

After completing the module the student should be able to:

- 1 Demonstrate an understanding of the information conveyed by pharmacokinetic parameters.
- 2 Recognise those drugs for which pharmacokinetic considerations are likely to be of real clinical relevance.
- 3 Calculate initial dosage regimens, based upon individual patient characteristics, including consideration of any relevant pathological or physiological conditions.
- 4 Adjust dosage regimens on the basis of clinical endpoints and the results of therapeutic drug monitoring.

## Learning Outcomes of Assessments

The assessment item list is assessed via the learning outcomes listed:

EXAM	1	2	3	4
CW	1	2	3	4

## Outline Syllabus

*Section 1 Absorption, Distribution, Metabolism and Elimination of drugs including basic pharmacokinetic terminology and definitions and equations illustrated graphically and dynamically. General principles of empirical dose adjustment.*

*Section 2 Influence of anatomical, physiological and pathological changes on pharmacokinetic handling. IBW, dose weight, influence of age from premature neonate to elderly person, pregnancy, obesity, amputees, emaciation, body building etc. This material will be correlated with worked examples in other sections*

*Section 3 Assessment of renal function to include commentary on Cockcroft and Gault and MDRD methodology.*

*Section 4 Clinical pharmacokinetics of Aminoglycosides. Extended interval, Area Under the Inhibitory Curve (AUIC), individualised. (Vancomycin Pharmacokinetics?)*

*Section 5 Clinical pharmacokinetics of Digoxin and Digibind*

*Section 6 Clinical pharmacokinetics of Theophylline*

*Section 7 Clinical pharmacokinetics of Anticonvulsants*

*Section 8 The Pharmacokinetics of drug interactions. The time course of drug interaction, clinical significance of possible interactions and their likelihood. The development of skill sets to allow pharmacists to assess the likely significance of a drug interaction for a specific patient.*

## Learning Activities

The module will be delivered by distance learning through the University's Blackboard platform. The module comprises sections in which students will receive background information with appropriate additional reading and web-based links.

## References

<b>Course Material</b>	Book
<b>Author</b>	Up-to-date references will be provided, on-line, throughout the package
<b>Publishing Year</b>	0
<b>Title</b>	
<b>Subtitle</b>	
<b>Edition</b>	
<b>Publisher</b>	
<b>ISBN</b>	

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### Notes

there are no course notes