

## **Workbook : Basic Clinical Pharmacology – Kinetics & Dynamics.**

This workbook has been designed to be used in conjunction with the course reading booklet. You are free to complete as few or as many of the tasks as you wish. The workbook can then be added to your CPD portfolio as evidence of your activity. It also provides room for you to reflect your thoughts in relation to this course and your learning experience.

### **Self-assessment : Section 1. Pharmacokinetics.**

<b>1</b>	Give a definition of the term ' pharmacokinetics'.
<b>2</b>	List the main methods of drug administration, and give an example for each that you may encounter in your practice.

<b>3</b>	What does 'bioavailability' mean?
<b>4</b>	What four stages make up ADME ? 1. 2. 3. 4.
<b>5</b>	List the factors that may affect absorption, giving a brief explanation of each.

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6	What is the role of protein binding in drug distribution ?
7	Why do you think human beings have developed the blood : brain barrier?

8	Which structures are responsible for drug metabolism ?
9	What role does the CYTP450 system play in drug metabolism ?

<b>10</b>	Why do we need Phase 2 metabolism ?
<b>11</b>	Where are drugs excreted?
<b>12</b>	What might happen to drug excretion if there is a change in blood pressure ?

<b>13</b>	What is entero-hepatic shunting, and how is it useful in drug delivery?

**Self-assessment : Section 2. Pharmacodynamics.**

<b>1</b>	Define the term 'pharmacodynamics'.
<b>2</b>	Name the main systems in the body where drugs act, and give an example of each system, together with a drug with affects that system that you have come across in your practice.



3	What does the term 'affinity' mean ?
4	What is : a. an agonist ?  b. an antagonist ?  c. a complete agonist ?  d. a partial agonist ?

<b>5</b>	Name the four main receptor superfamilies.
<b>6</b>	What mechanisms can control ion channel action ?

<b>7</b>	Give an example of a tyrosine kinase receptor, and briefly describe how it works.
<b>8</b>	What makes steroid receptors different from other receptor types ?

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Thinking about how steroid receptors work, predict the kind of problems a patient might experience when taking corticosteroids over a period of time. Why might these problems occur ?

**Reflection.**

Take some time to think about the learning that you have completed using this course. Was it useful, was it interesting, was it applicable to your practice? Is there anything in particular you have gained from the course, and does it encourage you to alter your practice? Have you enjoyed it?

These are all questions you should ask yourself before you complete your reflective account below, as these are key points that you need to mention.

How much time have you spent completing this course?	
Did you complete the course on your own, or as part of a learning group?	

Your general reflective account :

Key Learning / Practice points (list up to 5) :

1.

2.

3.

4.

5.

If you feel you have any further comments to make about your learning, please use the space below.



