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| Preparation for Prescribing: Medicine Management & Applied PharmacologyGuidance for programme leaders |

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**APPENDIX:**

ACTIVITIES Document with best practice answers

# INTRODUCTION

Welcome to the Health and Education Co-operative (HEC) **Preparation for Prescribing: Medicine Management & Applied Pharmacology** resource. The resource is hosted on our HealthVLE platform.

The resource has been developed by an established collaborative group of Non-Medical Prescribing (NMP) programme leaders and University academics who have a clear understanding of the learning needs of health and social care professionals who are required, on registration, to be suitably prepared to undertake Continuing Professional Development programmes in prescribing practice, consultation skills, applied pharmacology and medicine management.

The resource gives students easy access to all the essential information they need. It also aims to further support their development by:

* highlighting key texts for further reading
* facilitating self-assessment and reflection
* supporting revision and ongoing learning.

Programme Leaders can use the resource to:

* support directed study
* aid delivery of taught sessions
* inform directed or classroom based group work
* supplement and build upon existing programme content
* form part of an assessment process.

The content of the resource reflects the standards and professional expectations laid down by professional, regulatory bodies eg:

* the Nursing and Midwifery Council (NMC)
* the Health and Care Professions Council (HCPC)
* the General Pharmaceutical Council (GPhC)

The content also reflects the competencies published by the Royal Pharmaceutical Society (2016): *A Competency Framework for all Prescribers*.

# USING THE RESOURCE

There are a variety of ways to use the resource within your programme. However you choose to use it, always give your students clear instructions for its use within your programme.

Professional regulatory bodies will have accredited your programme. The way content is delivered and assessed will have been agreed as part of the accreditation process. This might impact the way you can use the resource. You may need to seek approval for a programme amendment to use it to its full potential.

The amount of content and number of activities contained within different modules varies. Please familiarise yourself with the resource contents before using it in your programme. This will help ensure you allow students adequate time to complete any work they are set.

You should also tell students which activities to undertake, and if they should submit or present any of the work generated from those activities.

Examples of how you might use the resource in your programme are:

## DIRECTED STUDY TO PREPARE FOR A SESSION

You might direct the students to complete a module as the foundation for a later session. You may timetable directed study time for this work. Or you may include it in time allocated for wider reading.

You might choose to do this as a self-assessment exercise to encourage students to identify their own specific learning needs.

## DIRECTED STUDY TO REPLACE A SESSION

Ask students to complete a module themselves rather than delivering a session. If you do this, allow time on the next taught day for students to ask questions about the work they have undertaken.

You might also direct students who have missed a session to complete the related module(s).

## DIRECTED STUDY TO BUILD ON A SESSION

You may choose to deliver a shorter taught session and direct students to use the resource to explore key issues in more depth.

## DIRECTED STUDY TO PREPARE FOR A DISCUSSION OR PRESENTATION

Some module activities ask students to reflect upon key issues and apply them to their own practice. Use these reflections as the basis for facilitated group discussions.

Other activities ask students to gather information and could be developed into presentations. Assign different activities to students so a range of information is presented to the full group.

## CONTENT FOR TAUGHT SESSIONS

You may wish to use some of the resource as part of the taught content of a session.

The scenario videos are particularly useful for generating discussion. Module quizzes could be undertaken as a group within sessions.

## ASSESSMENT

You may choose to use the resource as preparation for an assessment. Alternatively, assessed portfolios could include written work completed during module activities.

## STUDENT-INITIATED USE

You can direct students to use the resource to support their own learning. This would be separate from any other usage you have specified. Uses you might suggest to students include:

* Revision for assessments
* Revisiting a subject to gain more understanding
* Developing a deeper knowledge of a topic
* Refreshing their knowledge on a topic after completing the course

Remember: it is important to give your students clear instruction on what they MUST complete and what is optional for your programme.

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# ACCESSING THE RESOURCE

## ACCESS FOR STUDENTS

As a programme leader you will need to request access for your student cohorts. We have a standard template form you can use for this purpose. The template and instructions for completing the template are available here: [request cohort accounts](https://hecooperative.freshdesk.com/a/solutions/articles/16000108171)

Please let your students know when their accounts are being created. Each student will receive an email when we create the accounts. The email contains a link they can use to set their password and access the resource. Students should check their spam/junk email folders if they do not receive our email.

Student access to the course will expire on the date their course ends. Each student also has the option to create a personal account on the HealthVLE. Students can access additional HEC learning and CPD resources from their personal account.

## ACCESS FOR ACADEMIC STAFF

You and your colleagues will have ongoing access to the resource. Please send an email to support@hecooperative.co.uk to request an account for a new colleague.

# NAVIGATING THE RESOURCE

## GETTING STARTED

The resource comprises a number of nested modules. This is equivalent to the standard folder structure in any shared or personal storage drive.

At the top level the resource is divided into three parts. Sub-modules covering key topic areas sit within the top level modules. The course content sits within the sub-modules.

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|  | Modules (and sub-modules) are identified by a folder icon |
|  | Content to be completed is identified by a book icon |
|  | Once content is completed the folder or book icon is replaced by a tick |

## MODULE CONTENT & STRUCTURE

All modules have a standard appearance and structure:

A **short description** introduces the module. Module contents (either sub-modules or content) are then listed below the description.

**Module content** combines text, images, video and audio files, as well as links to external websites. Activities also appear throughout the content.

Some sub-modules include a short **quiz** to test student knowledge and understanding. Students must score at least 80% to complete the quiz. They can take a quiz as many times as they like.

Any **references** in a module are listed together in the final content block.

## MOVING THROUGH THE RESOURCE

We developed the resource to work through from start to finish. We ordered the content to aid learning. That said, you do not have to use the whole course, or work through all the content in sequence.

When viewing content for the first time you will see a button labelled 'Mark as complete and go to next resource'. If you click the button the system will mark that content as complete. Your course completion percentage climbs as you complete the content.

If you return to already completed content you see two buttons:

* Next sequential resource - this option allows students to step through the content again for revision of modules
* Next incomplete resource - this option takes you to the earliest incomplete content within the resource

Wherever you are in the course breadcrumbs are available to take you back to the start (Home):

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| Breadcrumb links - |  |

Also, clicking 'View Course Map' will display a table of contents you can use to jump to any part of the course.

## COMPLETION RECEIPTS & CERTIFICATES

Overall course completion percentage is always displayed to students. As students complete individual modules (when the folder icon is replaced by a green tick) they unlock completion receipts. Students can download receipts for completed modules **from the course overview screen**.

Once the course is 100% complete a course completion certificate becomes available. Students can download a course completion certificate **from their profile**.

A sample completion receipt / certificate is shown here. The QR code (top left hand corner) is unique and can be used for authentication.

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# HELP & SUPPORT

## REPORTING PROBLEMS

You can contact us to report any problem in one of two ways:

* use the Report an Issue button, available everywhere in the resource at the bottom of the screen.
* send an email to support@hecooperative.co.uk

The NMP programme leads and university academics who developed the content also maintain and update it. If you notice anything we need to review please do let us know.

You should also let us know about any account or access related issues. Students can let us know about any issues they encounter in the same way.

## GIVING FEEDBACK

We welcome feedback on all aspects of the HealthVLE and the Preparation for Prescribing resource. Your feedback helps us identify changes and improvements we can make.

Use the Give Feedback button to contact us anonymously. We cannot respond to anonymous feedback so **please do not use this option to report a problem**.

## OTHER SUPPORT

The NMP programme leads and other academics who work with the HE Co-op have many years' experience using our resources in their own programmes. They will be happy to share their knowledge and discuss different ways to use it.

If you would like to speak to any of them please let us know by sending an email to support@hecooperative.co.uk.

# RESOURCE STRUCTURE

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| **Part 1** |
| * Consultation, Communication & Clinical Decision Making (part 1)
	+ Effective Communication
	+ Assessment and Examination
	+ References
* Pharmacology (part 1)
	+ Basic Pharmacology - An Introduction
	+ Pharmacodynamics
	+ Pharmacokinetics
	+ **Quiz - Pharmacology (part 1)**
	+ References
* Prescribing Safely, Appropriately & Cost Effectively (part 1)
	+ Safe drug calculation
	+ References
* Public Health (part 1)
	+ Your Public Health Role
	+ Smoking Cessation
	+ **Quiz - Public Health (part 1)**
	+ References
* Legal and Professional Frameworks for Medicines Management and Non-Medical Prescribing (part 1)
	+ Medicines Legislation
	+ References
* Prescribing Professionally (part 1)
	+ Applying the Professional Frameworks for Non-Medical Prescribing
	+ Patient Records and Documentation
	+ Patient Confidentiality
	+ Professional Ethics
	+ **Quiz - Prescribing Professionally (part 1)**
	+ References
* Prescribing Governance (part 1)
	+ Evidence-Based Practice
	+ Prescription Pad and Data Security
	+ **Quiz - Prescribing Governance (part 1A)**
	+ The Importance of Reporting Errors
	+ **Quiz - Prescribing Governance (part 1B)**
	+ References
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| **Part 2** |
| * Pharmacology (part 2)
	+ Pharmacodynamics
	+ Pharmacokinetics
	+ Adverse Drug Reactions
	+ **Quiz - Pharmacology (part 2)**
	+ References
* Consultation, Communication & Clinical Decision Making (part 2)
	+ Effective Communication
	+ Assessment and Examination
	+ Concordance, Adherence and Negotiating a Contract
	+ History Taking, Clinical Decision Making and Diagnosis
	+ References
* Prescribing Governance (part 2)
	+ Clinical Governance
	+ **Quiz - Prescribing Governance (part 2)**
	+ References
* Prescribing Safely, Appropriately & Cost Effectively (part 2)
	+ Preparing to Study the Principles of Prescribing Practice
	+ Safe Drug Calculation
	+ References
* Public Health (part 2)
	+ Vaccination
	+ Specific Public Health Issues
	+ **Quiz - Public Health (part 2)**
	+ References
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| **Part 3** |
| * Pharmacology (part 3)
	+ Pharmacology & Individual Variability
	+ Adverse Drug Reactions
	+ Drug Interactions
	+ **Quiz - Pharmacology (part 3)**
	+ References
* Consultation, Communication & Clinical Decision Making (part 3)
	+ Consultation Models
	+ References
* Factors that Influence Prescribing (part 3)
	+ Influences on Prescribing
	+ **Quiz - Factors Influencing Prescribing (part 3)**
	+ References
* Prescribing Safely, Appropriately & Cost Effectively (part 3)
	+ Principles of Prescribing Practice
	+ Monitoring
	+ Essentials for Safe Prescribing
	+ References
* Legal and Professional Frameworks for Medicine Management and Non-Medical Prescribing (part 3)
	+ Prescribing Unlicensed Medicines and Off-Licence/Off-Label
	+ Legal Mechanisms for Prescribing, Supply and Administration of Medicines
	+ **Quiz - Legislative Frameworks (part 3)**
	+ References
* Public Health (part 3)
	+ Prescribing for Specific Groups
	+ References
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**APPENDIX**

**Activities Document**

Each section of the resource has one or more activities. A guidance document with best practice answers has been put together to help support academics new to teaching prescribing within the UG nursing curricular.



Below is an example of a best practice answer included in the above activities guide. (Please note these activities are licenced for use within the resource – not for printing out or disseminating separately).

***Example***

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| P3 Activity 1:Before you begin to develop your understanding of the mode of action of drugs, it is important for you to review your understanding of related anatomy and physiology and remind yourself of some key definitions.As you will see, drugs work in a variety of ways in the body. They may affect the way in which a cell functions, inhibit or activate enzyme systems in the body or directly influence other biological systems.• Review your knowledge and understanding of the basic human cell. You will need to focus specifically on:• the structure of the cell membrane (fluid-mosaic model)• the role of cell surface receptors and ion channels• the processes of diffusion, facilitated diffusion, osmosis and active transport• Develop your knowledge of the function of an 'enzyme' and give examples of enzyme reactions in the body |

**Suggested content**:

Fluid Mosaic Model (Singer & Nicholson 1972)

Students need to describe the structure of the Fluid Mosaic Model of the cell membrane proposed by Singer & Nicholson in 1972.
It comprises the following:

1) a bilayer of phospholipids which allows for fluidity and movement

2) Protein molecules: these are either intrinsic (fully embedded in the membrane) or extrinsic (partially embedded).
They act as a) Channel proteins which allows the movement of large molecules or those that are hydrophilic (water-liking) through the membrane b) Transport proteins which act as carrier system.
This process is energy requiring e.g., active transport

3) Cholesterol which provides stability to the membrane

4) Glycolipids & Glycoproteins – act as cell surface receptors e.g., binding sites for hormones

Define: Diffusion: net movement of substances e.g., gases, solutes from a high concentration to a low concentration.
This is a passive process i.e., not requiring energy e.g. movement of oxygen from the alveoli to the capillary network

Facilitated diffusion: as above but requires energy in the form of ATP

Osmosis: the net movement of solvents e.g., water across a selectively permeable membrane from a low concentration solution (i.e., dilute solution with lots of water) to a more concentrated solution (i.e., less water)

Active transport: movement of ions or molecules across a selectively permeable membrane against a concentration gradient i.e., from a low to a high concentration. Because this process is against the concentration gradient it requires energy in the form of ATP. May involve the action of carrier proteins

Enzyme: a protein, biological catalyst which regulates the rate of chemical reactions in the body. They are not changed by the reaction. Enzymes work within specific environmental conditions
e.g., PH, temperature. There are many examples of enzyme reactions in the body e.g., digestive enzymes.