



National Unit specification: general information

Unit title: Pharmacology: Medicines Used in the Treatment of Clinical Conditions

Unit code: FH2C 12

Superclass: PE

Publication date: August 2012

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Version: 03

Summary

This Unit is designed to develop knowledge, understanding and problem solving skills regarding the actions and uses of drugs in relation to the treatment of clinical conditions. This Unit is a mandatory Unit of the National Certificate in Pharmacy Services but can also be taken as a free-standing Unit.

It is designed primarily for staff working in or towards a career in the healthcare sector. However this Unit may also be suitable for somebody with an interest in the subject area.

Outcomes

- 1 Demonstrate knowledge and understanding of use and actions of drugs in relation to the treatment of clinical conditions.
- 2 Solve problems regarding the use and action of drugs in relation to clinical conditions.

Recommended entry

While entry is at the discretion of the centre, candidates would normally be expected to have knowledge and experience of the basic principles of human physiology and pharmacology. This could be demonstrated by candidates attaining:

- ◆ Pharmacology: An Introduction
- ◆ Standard Grade Biology at a minimum of Grade 3 or equivalent
- ◆ Higher Human Biology, NQ Unit Human Physiological Processes (or equivalent)

National Unit specification: general information (cont)

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Credit points and level

2 National Unit credits at SCQF level 6: (12 SCQF credit points at SCQF level 6*)

**SCQF credit points are used to allocate credit to qualifications in the Scottish Credit and Qualifications Framework (SCQF). Each qualification in the Framework is allocated a number of SCQF credit points at an SCQF level. There are 12 SCQF levels, ranging from Access 1 to Doctorates.*

Core Skills

Opportunities to develop aspects of Core Skills are highlighted in the support notes of this Unit specification.

There is no automatic certification of Core Skills or Core Skill component in this Unit.

National Unit specification: statement of standards

Unit title: Pharmacology: Medicines Used in the Treatment of Clinical Conditions

Acceptable performance in this Unit will be the satisfactory achievement of the standards set out in this part of the Unit specification. All sections of the statement of standards are mandatory and cannot be altered without reference to SQA.

Outcome 1

Demonstrate knowledge and understanding of use and actions of drugs in relation to the treatment of clinical conditions.

Performance Criteria

- (a) Indications for the use of drugs for specified conditions are described correctly.
- (b) The modes of action of drugs in relation to specified conditions are described correctly.
- (c) Side-effects and other problems relating to the use of drugs are described correctly.

Outcome 2

Solve problems regarding the use and action of drugs in relation to the treatment of clinical conditions.

Performance Criteria

- (a) Relevant information is selected appropriately.
- (b) Information is accurately processed.
- (c) Conclusions drawn are valid.

National Unit specification: statement of standards (cont)

Unit title: Pharmacology: Medicines Used in the Treatment of Clinical Conditions

Evidence Requirements for this Unit

Evidence is required to demonstrate the candidates have achieved all Outcomes and Performance Criteria.

Outcomes 1 and 2 should be assessed under controlled conditions by two closed-book assessments of one hour 30 minutes duration each covering all of the above Performance Criteria. One assessment should cover gastrointestinal and nutrition, respiratory, ear, nose and throat, cardiovascular, genito-urinary. The second assessment should cover nervous, endocrine, musculoskeletal and skin. Candidates must be provided with the appropriate British National Formulary (BNF) for Outcome 2.

Outcome 1

- ◆ Candidates must correctly describe the appropriate indications for the use of drugs for clinical conditions in each major body system.
- ◆ Candidates must correctly describe the modes of action of drugs in relation to clinical conditions in each major body system.
- ◆ Candidates must correctly describe side-effects and other problems relating to the use of drugs.

Outcome 2

- ◆ Candidates must select the relevant information regarding the use and action of drugs for the treatment of a clinical condition.
- ◆ Candidates must process the information accurately.
- ◆ Candidates must produce evidence that their conclusions are valid.

National Unit specification: support notes

Unit title: Pharmacology: Medicines Used in the Treatment of Clinical Conditions

This part of the Unit specification is offered as guidance. The support notes are not mandatory.

While the exact time allocated to this Unit is at the discretion of the centre, the notional design length is 80 hours.

Guidance on the content and context for this Unit

Drugs used in the treatment of common Clinical Conditions for the major body systems listed below.

Outcomes 1 and 2

(a) Gastrointestinal and Nutrition

- ◆ Antacids, antispasmodics, ulcer-healing drugs.
- ◆ Antidiarrhoeals, laxatives.
- ◆ Local preparations for anal and rectal disorders.
- ◆ Drugs used to treat anaemias and other blood disorders.
- ◆ Oral nutrition, Minerals and Vitamins.

(b) Respiratory, Ear, Nose and Throat

- ◆ Bronchodilators, corticosteroids, cromoglicate, related therapy and leukotrine receptor antagonists.
- ◆ Drug used to treat allergic conditions.
- ◆ Cough preparations.
- ◆ British Thoracic Society (BTS) guidelines.

(c) Cardiovascular

- ◆ Positive inotropic drugs.
- ◆ Diuretics.
- ◆ Anti-arrhythmic drugs.
- ◆ Beta-blockers, drugs affecting the renin-angiotensin system and other antihypertensives, nitrates, calcium channel blockers and potassium channel activators.
- ◆ Sympathomimetics.
- ◆ Anticoagulants, antiplatelets, fibrinolytics.
- ◆ Lipid regulating drugs.
- ◆ Drugs used to treat glaucoma.

National Unit specification: support notes (cont)

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(d) Nervous

- ◆ General Anaesthesia: intravenous, inhalational, antimuscarinic, sedatives and anxiolytics, analgesics, muscle relaxants, anticholinesterases, antagonists for central and respiratory depression, local anaesthesia.
- ◆ Hypnotics and anxiolytics, drugs, used in psychoses and related disorders, antidepressants.
- ◆ Drugs used in nausea and vertigo.
- ◆ Analgesics.
- ◆ Antiepileptics.
- ◆ Drugs used in parkinsonism and related disorders, drugs for dementia.

(e) Endocrine

- ◆ Drugs used in diabetes.
- ◆ Thyroid and anti-thyroid drugs.
- ◆ Corticosteroids.
- ◆ Sex hormones including contraceptives.
- ◆ Drugs affecting bone metabolism.
- ◆ Drugs used in obstetrics.

(f) Genito-Urinary

- ◆ Treatment of vaginal and vulval conditions.
- ◆ Drugs used for genito-urinary disorders.

(g) Musculoskeletal

- ◆ Drugs used in rheumatic diseases and gout.
- ◆ Drugs used in neuromuscular disorders.
- ◆ Drugs used for the relief of soft-tissue inflammation.

(h) Skin

- ◆ Topical local anaesthetics and antipruritics.
- ◆ Topical corticosteroids.
- ◆ Preparations for eczema and psoriasis.
- ◆ Acne and rosacea.
- ◆ Anti-infective skin preparations.
- ◆ Wound dressings.

National Unit specification: support notes (cont)

Unit title: Pharmacology: Medicines Used in the Treatment of Clinical Conditions

Guidance on learning and teaching approaches for this Unit

The learning and teaching of pharmacology is most effective when concepts, principles and theories are set in a relevant context e.g. by making reference to applications of pharmacology in healthcare situations.

Learning and teaching approaches should include lectures, individual and group work reinforced by handouts and worksheets which should incorporate problem-solving exercises. Worksheets should be designed to encourage students to use a wide range of textbooks and reference sources to solve problems.

This Unit must be taught by a pharmacist, pharmacy technician, or pharmacologist. If the Unit is taught by a pharmacologist, the Unit must be planned with input from a pharmacist or pharmacy technician to ensure that the Unit content is placed within a pharmacy context.

Opportunities for developing Core Skills

There is no automatic certification of Core Skills or Core Skills components for this Unit, however there may be opportunities to develop components of the Core Skill of Problem Solving at SCQF level 5.

Guidance on approaches to assessment for this Unit

Outcomes 1 and 2 should be assessed under controlled conditions by two closed-book assessments of one hour 30 minutes duration each covering all of the above Performance Criteria. One assessment should cover gastrointestinal and nutrition, respiratory, ear, nose and throat, cardiovascular and genito-urinary. The second assessment should cover nervous, endocrine, musculoskeletal and skin.

Candidates must be provided with the appropriate British National Formulary (BNF) for Outcome 2.

Achievement of Outcomes 1 and 2 could be demonstrated by use of a cut-off score. Any cut-off score must be commensurate with the minimum evidence requirements of the Unit specification.

Opportunities for the use of e-assessment

E-assessment may be appropriate for some assessments in this Unit. By e-assessment we mean assessment which is supported by Information and Communication Technology (ICT), such as e-testing or the use of e-portfolios or e-checklists. Centres which wish to use e-assessment must ensure that the national standard is applied to all candidate evidence and that conditions of assessment as specified in the Evidence Requirements are met, regardless of the mode of gathering evidence. Further advice is available in *SQA Guidelines on Online Assessment for Further Education (AA1641, March 2003)*, *SQA Guidelines on e-assessment for Schools (BD2625, June 2005)*.

National Unit specification: support notes (cont)

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Disabled candidates and/or those with additional support needs

The additional support needs of individual candidates should be taken into account when planning learning experiences, selecting assessment instruments, or considering whether any reasonable adjustments may be required. Further advice can be found on our website www.sqa.org.uk/assessmentarrangements.

History of changes to Unit

Version	Description of change	Date
02	Amendments to wording within the 'Guidance on learning and teaching approaches in this unit', bottom paragraph.	10/10/2011
03	Inconsistency across units in Recommended entry Clarification of the wording to avoid ambiguity and over/under assessment. Correction of typos and editing (cut and paste) errors in text.	10/08/2012

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