



Module Specification

Applied Paramedic Pharmacology

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Contents

Module Specification	1
Part 1: Information	2
Part 2: Description	2
Part 3: Teaching and learning methods	4
Part 4: Assessment.....	5
Part 5: Contributes towards	6

Part 1: Information

Module title: Applied Paramedic Pharmacology

Module code: UZYSV6-15-3

Level: Level 6

For implementation from: 2024-25

UWE credit rating: 15

ECTS credit rating: 7.5

College: College of Health, Science & Society

School: CHSS School of Health and Social Wellbeing

Partner institutions: None

Field: Allied Health Professions

Module type: Module

Pre-requisites: None

Excluded combinations: None

Co-requisites: None

Continuing professional development: No

Professional, statutory or regulatory body requirements: None

Part 2: Description

Overview: This module is designed to help develop knowledge around pharmacology and therapeutics within paramedic practice. Contemporary paramedic practice calls for a greater awareness of medications and pharmacology alongside a need to understand the legal obligations when safely supplying and administering medicines.

This module aims to build upon existing knowledge of medicines administered by

paramedics and develop a wider knowledge of medicines beyond that of the Joint Royal Colleges Ambulance Liaison Committee (JRCALC). An understanding of pharmacodynamics and pharmacokinetics can be used to evaluate a patient's current medication to form part of clinical reasoning. Although most paramedics administer drugs within acute emergency settings as there are an increasing variety of roles available, a broader awareness of pharmacology will allow clinical decisions to be made based on a risk versus benefit basis.

Features: Not applicable

Educational aims: This module aims to build upon existing knowledge of medicines administered by paramedics and develop a wider knowledge of medicines beyond that of the Joint Royal Colleges Ambulance Liaison Committee (JRCALC). An understanding of pharmacodynamics and pharmacokinetics can be used to evaluate a patient's current medication to form part of clinical reasoning. Although most paramedics administer drugs within acute emergency settings as there are an increasing variety of roles available, a broader awareness of pharmacology will allow clinical decisions to be made based on a risk versus benefit basis.

Outline syllabus: Introduction: An overview of pharmacology and therapeutics in pre-hospital emergency, critical and urgent care:

Medicines, ethics, the law and safe practice

How drugs work: Pharmacokinetics and pharmacodynamics and the therapeutic response across the life-span

Principles of drug administration and calculating dosage

Indications, contra-indications, side-effects and dosages of pharmacotherapy affecting:

The central nervous system

The cardiovascular system

The respiratory system

The digestive system

The endocrine system

Indications, contra-indications, side-effects and dosages of:

Analgesic and anti-inflammatory pharmacotherapy

Antibiotic pharmacotherapy

Sedative and anaesthetic pharmacotherapy

Anti-emetic pharmacotherapy

The harmful effects of drugs including adverse drug reactions, interactions and allergic response

Overdose and recognition of toxidromes.

Part 3: Teaching and learning methods

Teaching and learning methods: Independent learning includes hours engaged with essential reading, revision and maintaining a portfolio

Contact Hours: The programme will be entirely delivered using a blended learning methodology; incorporating technology enhanced learning material, online web content, video presentations, lectures, seminars.

The total notional study time for each module is calculated to be 150 hours, divided between student independent time (114 hours) and student/lecturer interaction time (36 hours).

The contact time with the students is approximately 36 hours for each module. Different methods to deliver course content will be chosen to provide the best possible learning experience to students.

Module Learning outcomes: On successful completion of this module students will achieve the following learning outcomes.

MO1 Apply knowledge of pharmacodynamics and pharmacokinetics to medications utilised by paramedics and specialist paramedics.

MO2 Critically analyse the impact of patient and medication factors, including co-morbidities and polypharmacy, on the administration of medication including on physical and mental well-being and healthcare provision.

MO3 Safely and effectively apply clinical reasoning to decisions about drug selection and administration including an applied understanding of pharmacology which considers relevant physiological and/or pathophysiological changes.

MO4 Evaluate medicines legislation and safe practices within medicines management including the recognition and management of adverse drug reactions.

Hours to be allocated: 150

Contact hours:

Independent study/self-guided study = 114 hours

Face-to-face learning = 36 hours

Reading list: The reading list for this module can be accessed at [readinglists.uwe.ac.uk](https://uwe.rl.talis.com/modules/uzysv6-15-3.html) via the following link <https://uwe.rl.talis.com/modules/uzysv6-15-3.html>

Part 4: Assessment

Assessment strategy: Summative assessment

Assessment Task 1 (100%): 2.5 hour unseen exam.

This assessment evaluates the student's general knowledge and understanding of all aspects of paramedic administered therapeutics. Within professional practice, students need to have quick recall of accurate facts and to be able to apply knowledge reactively to situations that they are presented with. To reflect professional practice, this assessment is conducted as a campus invigilated exam.

Formative assessment will take place through online quizzes, mock exams and tutorial support.

Assessment tasks:

Examination (First Sit)

Description: 2.5 hour unseen exam

Weighting: 100 %

Final assessment: Yes

Group work: No

Learning outcomes tested: MO1, MO2, MO3, MO4

Examination (Resit)

Description: 2.5 hour unseen exam

Weighting: 100 %

Final assessment: Yes

Group work: No

Learning outcomes tested: MO1, MO2, MO3, MO4

Part 5: Contributes towards

This module contributes towards the following programmes of study:

Paramedic Science [Glenside] BSc (Hons) 2022-23