

Endocrinology and Neurobiology

Module Code:	PHA5010-B
Academic Year:	2018-19
Credit Rating:	20
School:	School of Pharmacy and Medical Sciences
Subject Area:	Pharmacy
FHEQ Level:	FHEQ Level 5
Module Leader:	Dr Bishwa Tuladhar

Additional Tutors:
Dr Rajendran Gopalan, Dr Samantha McLean

Pre-requisites: Cardiovascular, Respiratory and Renal Systems 2017-18,

Co-requisites:

Contact Hours

Type	Hours
Lectures	33
Tutorials	12
Laboratory	2
Directed Study	153

Availability Periods

Occurrence	Location/Period
BDA	University of Bradford / Academic Year (Sept - May)

Module Aims

To facilitate the development of knowledge of the structure & function of the endocrine system and how it is disrupted in pathophysiological conditions. To review the structure and function of the autonomic nervous system and drug interactions. To illustrate how disruptions of the CNS (Central Nervous System) can lead to disease symptoms and to familiarise the students with the main drug classes to treat these conditions and provide a link between the biological sciences and therapeutics.

Outline Syllabus

Endocrinology. The major endocrine systems will be defined in terms of their anatomy, physiology, hormone secretion and control, hormone function (under both physiological and pathological conditions). The module will consider both systemic and local hormone systems. Drugs used to correct hormonal imbalances will be reviewed as well as the use of other endocrine-based therapies.

Neurobiology. Anatomy, physiology and pathophysiology of the autonomic nervous system. Neurotransmitter and receptors in autonomic nervous system. Cholinergic neurotransmission and effects of drugs. Noradrenergic neurotransmission and effect of drugs. Quantitation of drug action. Neuronal pathways and neurotransmitter distribution, integrative neuronal mechanisms, symptoms and pathophysiology of major disorders of the CNS (neurological and psychiatric), major drug groups for the treatment of the conditions described, drug abuse.

Module Learning Outcomes

On successful completion of this module, students will be able to...

- 1 Discuss the structure & function of the endocrine systems and their role in homeostasis.
- 2 Explain the effects of hormone deficiency and excess.
- 3 Explain how disruptions of the CNS can lead to symptoms of disease.
- 4 Explain the mechanism of action of the major classes of drug used to treat conditions of the CNS.
- 5 Collect, evaluate and draw conclusions from clinical data using sources of information available within the discipline.
- 6 Use effective written and oral communication and IT skills to acquire, review and present information.

Learning, Teaching and Assessment Strategy

Information outlining the knowledge and understanding required of this module will be delivered in lectures and tutorials. Self-directed learning to support each topic will take place in your directed study time. This will develop your cognitive skills and reinforce the taught component which will be highlighted in lectures and reviewed in tutorials, practicals and workshops. A formative assessment will be used to monitor your progress. Your knowledge base of the material will be assessed by a closed book examination comprising MCQ/EMQ questions and short answer questions. Your deeper understanding of the pathophysiology and clinical applications will be assessed by an oral presentation and case study.

Mode of Assessment

Type	Method	Description	Length	Weighting	Final Assess'
------	--------	-------------	--------	-----------	---------------

Summative	Presentation	Oral Presentation on an allocated topic related to endocrinology or neurobiology Mid Semester 2	10 minutes	10%	No
Summative	Examination - MCQ	Written examination (MCQ + short answers) End Semester 2	2 hours	70%	Yes
Summative	Coursework	Case Study Mid Semester 1	-800 words	20%	No

Legacy Code (if applicable)

PH-5114L

Reading List

To view Reading List, please go to [rebus:list](#).