Unit 74: Ophthalmic Pharmacology

Level: 4

Unit type: Optional (Ophthalmology)

Credit value: 6

Guided learning hours: 48

Unit summary

In this unit, you will gain an understanding of ophthalmic pharmacology, beginning with the general principles and the principles and methods of ophthalmic drug formulation and delivery to the eye. You will be expected to know the major categories of ophthalmic diagnostic and therapeutic drugs, their indications, mode of action and adverse effects and the operational policies in your own area of practice.

Unit assessment requirements

There are no specific assessment requirements for this unit. Please refer to the assessment strategy in *Annexe B*.

Additional information

Learning outcome 1 spans:

- pharmaceutics
- pharmacokinetics
- pharmacodynamics
- therapeutics.

AC1.2 includes:

- chemical name
- generic name
- proprietary name.

AC1.3 should include drugs used for diagnostic purposes, rather than for treatment:

- topical
- local
- systemic
- enteral
- parenteral.

AC1.4 includes:

- barriers to their distribution.

AC1.5 could include:

- how they can interact with receptors or interfere with enzyme function
- how the effect of drugs is related to their concentration.

AC2.1 includes:

- measures to reduce the risk of microbial contamination in eye medication containers.

AC3.1 to 3.3 include for:

- local anaesthetics
- dyes and stains
- mydriatics and cycloplegics
- anti-infective drugs
- anti-inflammatory drugs
- drugs for treating glaucoma
- ocular lubricants and decongestants.

AC4.1 includes:

- prescription
- administration
- supply and dispensing of drugs
- application of ophthalmic drugs in practice
- concordance
- compliance
- adherence.

Learning outcomes and assessment criteria

To pass this unit, learners need to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements that the learner is expected to meet to achieve the learning outcomes and the unit.

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Understand the general principles of pharmacology	1.1	Explain the terms pharmaceutics, pharmacokinetics, pharmacodynamics and therapeutics			
		1.2	Explain drug nomenclature and the difference between generic and proprietary names for drugs			
		1.3	Explain the routes by which drugs are administered			
		1.4	Explain how drugs are absorbed into the body across cell membranes and distributed within the body			
		1.5	Explain how drugs can affect the body			
		1.6	Explain how drugs can be biologically transformed, detoxified, and excreted			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
2	Understand the principles and methods of ophthalmic drug formulation and delivery to the eye	2.1	Explain the different formulations and packaging of topical ophthalmic drugs			
		2.2	Explain how topical, periocular and intraocular ophthalmic drugs penetrate ocular tissues and are eliminated from the eye			
		2.3	Explain the blood-eye barriers and how systemic drugs penetrate ocular tissues			
3	Understand the major categories of ophthalmic diagnostic and therapeutic drugs, their indications, mode of action and adverse effects	3.1	Explain the major categories of ophthalmic diagnostic and therapeutic drugs			
		3.2	Explain the mode of action of the major categories of ophthalmic diagnostic and therapeutic drugs			
		3.3	Discuss the adverse effects of the major categories of ophthalmic diagnostic and therapeutic drugs			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
4	Understand the operational drug policies in own area of practice	4.1	Explain what is meant by prescription, administration, supply and dispensing of drugs			
		4.2	Evaluate how adherence to treatment can be improved with patient communication and education			
		4.3	Explain the regulatory requirements for the storage and disposal of medicines in own area of practice			
		4.4	Discuss different kinds of adverse drug reactions, their management, and procedures for documentation and reporting			
		4.5	Explain the tests, procedures and treatments that are performed in own area of practice that require the administration of drugs			

Learner name: _____ Date: _____

Learner signature: _____ Date: _____

Assessor signature: _____ Date: _____

Internal verifier signature: _____ Date: _____
(*if sampled*)