Unit 73: Ophthalmic and Vision Science: Applied Microbiology

Level:	**4**
Unit type:	**Optional (Ophthalmology)**
Credit value:	**6**
Guided learning hours:	**52**

Unit summary

In this unit, you will gain an understanding of the practical application of microbiology principles and practice within an ophthalmic and vision science setting. You are required to understand the causes, routes of transmission and procedures to reduce and prevent healthcare-associated infections across healthcare and within 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

AC1.1 includes:

- bacteria
- fungi
- protozoa
- viruses.

AC1.2 includes:

- bacteria
- fungi
- protozoa
- viruses.

AC1.3 includes:

- mutualism
- commensalism
- parasitism.

AC2.2 includes:

- bacteria

- chlamydiae
- viruses
- fungi
- acanthamoeba.

AC2.3 should involve **one** type of microbe relevant to own area of work.

AC3.1 examples of hospital-acquired infections include:

- adenovirus in ophthalmic settings.

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 **in own area of work and in accordance with Standard Operating Procedures (SOPs)** to achieve the learning outcomes and the unit.

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Understand the different categories of microbes and their classification	1.1	Describe the classification of different types of microbes			
		1.2	Explain the distinguishing features of different types of microbes			
		1.3	Explain the symbiotic relationships between humans and microbes			
		1.4	Explain the concepts of pathogen, infection and contagion, normal flora and opportunistic infections			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
2	Understand how specimens are collected and transported, and how microbes are identified in the laboratory	2.1	Explain procedures for microscopy and culture of microorganisms in the laboratory			
		2.2	Discuss procedures for specimen collection from the eye and how they are transported to the laboratory			
		2.3	Explain the laboratory identification of a type of microbe relevant to own area of practice			
		2.4	Explain local protocols and procedures for sight-threatening corneal ulcers and endophthalmitis			
3	Understand the causes and routes of transmission of healthcare-associated infection (HAI) and procedures to reduce and prevent healthcare-associated infections	3.1	Explain procedures for containing outbreaks of HAI			
		3.2	Explain the sources and routes of transmission of healthcare-associated infections			
		3.3	Evaluate the principles and methods of antisepsis and disinfection in healthcare			
		3.4	Discuss the additional procedures that may be undertaken when a patient with a known or suspected eye infection is examined in an eye clinic			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
4	Understand the relevant workplace policies and procedures in an ophthalmic setting	4.1	Evaluate the standard precautions for infection control in own area of practice			
		4.2	Explain how maintaining a sterile field reduces the risk of transmission of infection			
		4.3	Explain the procedures for laying out and clearing away instruments for a minor surgical procedure or intravitreal injection			
		4.4	Evaluate the protocols and procedures undertaken prior to, during and following intraocular surgery that reduce the risk of endophthalmitis			

Learner name: _____ Date: _____

Learner signature: _____ Date: _____

Assessor signature: _____ Date: _____

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