Veterinary Public Health

Overview

The module will examine the role of veterinarians and other related professionals in the protection of human health through the safe production of foods of animal origin, control of zoonotic disease and environmental contamination.

Subject areas: disease surveillance and risk analysis; zoonoses and their control; disseminating information on veterinary public health; quality and safety assurance in food production (meat, milk and eggs); development of disease control programmes.

Welcome to the course

Veterinary Public Health is a core module in the Veterinary Epidemiology and Public Health programme and may also be studied as a 240-hour individual module.

The importance of the study of veterinary public health (VPH) can be appreciated when you consider that most livestock production is ultimately geared toward the production of food for human consumption, such as meat, dairy produce and eggs. The production of safe and wholesome food must be the goal for any production enterprise, be it for domestic or international consumption.

This course will provide you with an overview of the role of the veterinary profession with respect to the protection of the health of the public. During the course, you will explore the avenues by which agents of disease can be transmitted from animals to people. You will be introduced to some of the methods that are used to evaluate the risk of transmission and consider how to protect the public from these hazards. Areas of controversy will be examined and you will be encouraged to reach your own informed views concerning these issues.

What will you learn from this course?

By the end of this course you should be able to:

- discuss the role of the veterinary profession in the protection of public health
- provide your own definition of ‘quantitative risk assessment’ and describe the key features of this approach
- explain the important epidemiological features of zoonotic diseases and relate these to control strategies
- outline the various stages of the food chain that lead ‘from farm to fork’ and identify critical stages at which risks to public health may occur
- make an informed criticism of reports or other publications that relate to issues of veterinary public health.

Course structure

The course consists of 13 units of study, all of which you should complete. They make up the following three modules.

Module 1: Principles of Veterinary Public Health

In the introductory module (Units 1–3) the diverse nature of VPH is explored and your perceptions of what constitutes VPH will be challenged. Integral to this will be the realisation that the study of this subject does not stop at the farm gate,but extends throughout the production and marketing chain to the retail outlet. These introductory units will also introduce you to the concept that food may constitute a hazard to human health and will show you how to measure the risk to consumer health. The third unit will outline some specific zoonoses and the factors that predispose to human infection.

Module 2: Control of Food Safety

The second module (Units 4–9) will build on the introductory module and you will concentrate on the control of the safety of particular food categories (e.g. red meat, dairy produce). By doing this, you will be able to focus the general approach developed in the introductory module onto specific areas of VPH.

Module 3: Contemporary Issues

The third module (Units 10–13) will allow you to explore a number of important contemporary issues in veterinary public health. The first of these issues is the One Health concept, and Unit 10 provides an introduction to the subject, discussing the contexts in which this concept can be applied. Also addressed in this module are antimicrobial resistance (Unit 11), the livestock–wildlife interface and its role in the transmission of zoonoses (Unit 12) and the place of veterinary public health in food security (Unit 13). The subject areas covered in this module are broad and these units provide you with the basis of key areas of discussion and debate.

Tutor-marked assignments

In addition to your work on the 13 units, you are required to complete and submit at least one tutor-marked assignment (TMA) for assessment. If you submit more than one – and you may submit up to two – your best TMA will be used in the calculation of your final mark. Full information on how to approach and submit TMAs is provided in the Programme Handbook and in the assignments themselves. You should bear in mind that your TMA will count for 20% of your final mark for the course.

Study time

The entire course, including revision and examination, is designed to take approximately 300 hours to complete. This is made up of 10–20 hours' study time for each unit, 10–20 hours for the TMA(s) – so that the units and assignments will require a total of about 240 hours – and the remaining time for personal study and revision. You may find that some units will take you more or less time than estimated, depending on your familiarity with the subject.

Assessment

Your work for this course will be assessed by means of an unseen written examination paper* which will take the form of essay questions. In addition, you must submit at least one and up to two TMAs.

The grade awarded will be based on the mark obtained in the written examination (80%) and on the mark for the compulsory assignment (20%).

For further information, you may also wish to view the videos by leading RVC academics discussing some of the module content:

- Prof Dirk Pfeiffer and Dr Christine Thuranira-McKeever discuss One Health: Video
- Prof Katharina Stärk discusses the spread of disease between animals and humans: Video

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*Since 2020, exams have been held online. Instructions will be communicated prior to the start of the exams session.