C-E.2 Equine Cardiovascular and Respiratory Disease

Credits: 10 (100 hours)

Provider: Veterinary Postgraduate Unit – Institute of Veterinary Science

RCVS Content Covered

The following outlines the modular content as set out by the RCVS.

At the end of the module, candidates should be able to:

- Demonstrate thorough understanding of the anatomical, physiological, immunological and pathological processes involved in thoracic disease, including the relationships between the cardiovascular and respiratory systems and the overall health status of the patient.
- Show familiarity with principles and practical application of equine exercise physiology.
- Demonstrate understanding of the biology of micro-organisms and parasites that are associated with equine cardiovascular and respiratory diseases and be able to apply this knowledge to pathogenesis and methods of diagnosis, treatment and control.
- Show thorough familiarity with the clinical presentation, diagnosis, treatment and prevention of diseases of the equine upper and lower respiratory tract, heart, blood vessels and pleural cavity.
- Demonstrate understanding and promote concepts of a problem-orientated approach in horses of all age groups presenting with reduced exercise tolerance, respiratory noise, nasal discharge, epistaxis, coughing, respiratory distress, cardiac murmurs, cardiac arrhythmias, fainting, collapse, haemorrhage, peripheral oedema and vascular lesions.
- Demonstrate understanding and promote concepts of preventive health care relating to the equine area, including consideration of disease control regulations of the Jockey Club and other regulatory bodies in the equestrian industry.
- Review and constructively criticise current literature in the subject area, to enable them to determine its relevance to their current practice.
- Utilise their understanding of Evidence Based Medicine and Decision Analysis to develop practical diagnostic and treatment protocols for their patients.
- Use available resources and communicate with owners in such a way as to achieve optimum results in their practice circumstances in relation to cardiovascular cases.
- Review the outcomes of at least part of their clinical work, using the process of clinical audit to improve performance.
- Recognise when a case is truly unusual, and become familiar with the information resources available to enable them to deal with such cases.
- Recognise when a case is beyond their personal or practice capabilities, and provide an effective channel of referral.

Aim of the Module

The aims of this module are to develop knowledge/skills of disease and disorders involving the cardiovascular and respiratory systems in horses and their management, including preventive health strategies.

Learning Outcomes

By the end of this module successful candidates will be able to:

1. using case based examples, systematically apply the principles of equine cardiovascular and respiratory physiology and disease to the practice situation incorporating clinical reasoning skills and evidence based veterinary medicine;
2. synthesise appropriate protocols for diagnosis, treatment and control of different types of equine cardiovascular and respiratory diseases;
3. critically appraise literature relevant to the respiratory and cardiovascular systems and explain how the literature can be used to inform practice;
4. critically review and reflect on your clinical work, including identifying potential clinical audit points translating to new protocols or measureable outcomes;
5. apply your knowledge of infectious respiratory disease to design preventive health care for horses, including consideration of disease control regulations of regulatory bodies in the equestrian industry.

Module Structure

The syllabus will be divided into 4 study units:

Study Unit 1 Principles of cardiovascular and respiratory disease
Anatomical, physiological, immunological and pathological processes involved in thoracic disease, including the relationships between the cardiovascular and respiratory systems and the overall health status of the patient.
The principles and practical application of equine exercise physiology.

Study Unit 2 Cardiovascular Disorders
Clinical presentation, diagnosis, treatment and prevention of diseases of the equine cardiovascular system
Using a problem-orientated approach in horses of all age groups presenting with cardiac murmurs, cardiac arrhythmias, fainting, collapse, haemorrhage, peripheral oedema and vascular lesions.

Study Unit 3 Respiratory Disorders
The clinical presentation, diagnosis, treatment and prevention of diseases of the equine upper and lower respiratory tract and pleural cavity
Use of a problem-orientated approach in horses of all age groups presenting with reduced exercise tolerance, respiratory noise, nasal discharge, epistaxis, coughing, respiratory distress.

Study Unit 4 Infectious respiratory disease and Preventive Health
Preventive health care relating to the equine area, including consideration of disease control regulations of the Jockey Club and other regulatory bodies in the equestrian industry.
The biology of micro-organisms and parasites that are associated with equine cardiovascular and respiratory diseases to pathogenesis and methods of diagnosis, treatment and control.

Assessment Strategy

2 x open book examinations using a range of short answer questions, 1 x reflective case reports (1500 words), 1 x protocol and outline for clinical audit (1500 words) and 1 x journal critique/journal club presentation (pass/fail)

PLEASE NOTE**:** It is your responsibility to ensure that you have access to sufficient appropriate cases where you were the primary decision maker to produce adequate material for the module. This may not be possible with some internship positions. You must also be aware of any limitations of your facilities that may make the accumulation of appropriate cases difficult or impossible.