

C-E.6 Equine Lameness (A)

Credits: 10 (100 hours)

Provider: Veterinary Postgraduate Unit – School 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:

- A thorough understanding of the anatomical, physiological, immunological and pathological processes involved in the locomotor system and orthopaedic disease
- Familiarity with the principles and practical application of equine fracture repair including the emergency care of fractures. Knowledge of the more common internal fixation techniques.
- An understanding of the principles of treatment of equine joint disease and articular tissue, and basic knowledge of arthroscopic surgery in the equine.
- Knowledge of the principles of treatment of equine tendon injuries.
- Familiarity with muscle diseases of the equine and their treatment.
- Basic knowledge of neurology and neurological examination in relation to the locomotor system. Good understanding of neurological conditions causing gait deficits
- Thorough knowledge in the locomotor system of radiography, radiology and ultrasonography, and a basic understanding of scintigraphy and advanced diagnostic imaging techniques such as MRI and CT.
- Good understanding of other important lameness diagnostic techniques including regional and intra-synovial analgesia, laboratory methods and gait analysis.
- A sound understanding of the principles of physiotherapy and farriery and their use in clinical cases.
- An understanding of the use of anti-inflammatory drugs in the competitive horse or pony and their detection by chemical analysis.
- Knowledge of basic conditions affecting the neck, back and pelvis.
- Orthopaedic conditions of the head, including the temporomandibular joint and fractures of the upper / lower jaws and face.
- Surgical experience in the more commonly performed orthopaedic procedures. (See list below.)
- 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 dermatological 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.

Orthopaedic surgery list:

- periosteal transection and elevation
- transphyseal bridging
- inferior check ligament desmotomy
- palmar digital neurectomy
- amputation of the small metacarpal and metatarsal bones
- basic arthroscopic techniques
- harvesting of a cancellous bone graft
- application of a cast
- medial patellar desmotomy
- wire repair of rostral mandibular and incisor fractures

Aim of the Module

The aim of this module is to develop in-depth understanding of equine orthopaedic conditions from the diagnostic approach to the principles of treatment.

This module will also incorporate the generic skills of evidence based medicine, clinical reasoning, literature review and critique, communication, clinical audit and reflection.

Learning Outcomes

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

1. demonstrate a thorough understanding of the pathophysiology and treatment of orthopaedic diseases including joint, tendon and bone disease in adult horses;
2. utilise knowledge of the pathophysiology of disease, disease process and the scientific literature to inform their diagnostic approach to orthopaedic conditions in adult horses;
3. demonstrate a thorough understanding of orthopaedic disorders involving the neuromuscular system, back, neck and pelvis, incorporating recent research evidence into their clinical approach;
4. critically evaluate lameness cases that they have seen (including cases that were subsequently referred), reflect upon clinical work, including identifying potential clinical audit points translating to new protocols or measureable outcomes, recognising the truly unusual case and when a case is beyond personal or practice capabilities.

Module Structure

This module is divided up into 3 Study Units as outlined below:

Study Unit 1 Pathophysiology of joint, tendon and bone disease in adult horses

1. Joint disease
 - Pathophysiology (osteoarthritis and synovial infections)

- Principles of treatment (including anti-inflammatory medications and their detection)
2. Tendons
 - Pathophysiology degenerative, traumatic, infectious conditions
 - Principles of treatment
 3. Bones
 - Principles of bone healing, bone adaptation
 - Pathophysiology of disease/fracture/osseous infections
 - Emergency treatment of fractures
 - Including principles of fracture repair casting, splinting and general principles behind internal fixation techniques
 - Orthopaedic conditions of the head, including the temporomandibular joint and fractures of the upper / lower jaws and face

Study Unit 2 Diagnostic Approach to orthopaedic disease in adult horses

- Lameness diagnostic techniques including regional and intra-synovial analgesia, laboratory methods and gait analysis
- Imaging techniques

Study Unit 3 Orthopaedic disorders involving the back, neck and pelvis and neuromuscular system

1. Neck, back and pelvis
 - Knowledge of basic conditions affecting these areas
 - Physiotherapy and its role in veterinary practice
2. Muscle disease in horses
 - Metabolic, traumatic, DOMS etc.
3. Neurological disease
 - Neurological examination
 - Peripheral neuropathies

Assessment Strategy

3 x short answer question and/or MCQ tests, 1 x reflective case/essay at the end of the module (2000 words), 1 x journal critique/journal club presentation (pass/fail) and a portfolio of 10 cases.

Please note: Some of the cases presented in your case portfolio may require you to have performed certain procedures or techniques under the supervision of a veterinary surgeon with a suitable postgraduate qualification.