

C-VD.4 Equine Dermatology

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 would be expected to have knowledge of the following subjects:

Embryological development, anatomy, physiology and histology of normal skin and appendages, and response of the skin to insult

Basic understanding of the basic embryology, structure and function of the skin:

- Epidermis
 - Structure
 - Melanocytes and skin pigmentation
 - Dermo-epidermal junction
 - Dermis
 - Subcutis
 - Adnexae
 - Hair follicles and hair growth cycle
 - Atrichial and epitrichial glands
 - Sebaceous glands
 - Structure and function of the hoof
- Basic understanding of the innate and adaptive arms of the skin immune system
 - Appreciation of how the above factors relate to clinical disease

Common skin conditions

Familiarity with the clinical presentations and therapeutic options of the following common skin presentations affecting horses:

- Pruritus
- Alopecia
- Pigmentary disorders
- Crusting and scaling
- Erosive and ulcerative diseases
- Cutaneous swelling, nodules and tumours
- Pastern dermatitis
- Disorders of the foot
- Management of dermatophytosis in a yard

General approach to the equine dermatology case

- Full dermatology history-taking and interpretation
- General clinical examination including the physical examination of the skin
 - Understanding of the presentations of the clinical signs
 - Concept of primary and secondary lesions
 - Description of lesions (morphology)
 - Ability to relate lesions to the differential diagnosis

Diagnostic tests

Laboratory and other diagnostic techniques

- Examination for parasites
- Cytology
- Bacterial and fungal examinations
- Bacterial and fungal cultural techniques
- Intradermal and ELISA testing
- Indications for and techniques of skin biopsy
- Interpretation of a histopathology report

Therapeutics

- Legal aspects
 - cascade system
 - food producing animals
 - knowledge of withdrawal times for drugs (Jockey Club rules)
- Principles of therapy, including routes and vehicles for administration of drugs
- Actions, uses and potential side effects of general therapeutic groupings including:
 - Antibacterial agents
 - Demonstrate appropriate use of antibacterials in horses
 - Implications of resistance
 - Antiviral agents
 - Antifungal agents
 - Antiparasitic agents
 - Glucocorticoids
 - Other anti-inflammatory and immunomodulatory agents
 - Allergen specific immunotherapy
 - Hydrotherapy
 - Keratolytics and keratoplastics
 - Cytotoxic agents
 - Vitamins
 - Minerals

Aim of the Module

The aim of this module is to gain a sound understanding of equine dermatology including the fundamentals of anatomy, embryological development, physiology and histology of equine skin and a detailed knowledge of the common equine skin diseases, their diagnostic evaluation, therapy and management.

Learning Outcomes

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

1. demonstrate the ability to evaluate a clinical patient, including recognition of the significance of history and clinical signs, formulation of a differential diagnosis list and application of appropriate testing in reaching an accurate diagnosis;
2. demonstrate a critical awareness of the concepts of preventive health care relating to dermatology;
3. demonstrate the ability to recognise when a case is truly unusual, and become familiar with the information resources available to enable them to deal with such cases;
4. critically appraise the literature relevant to clinical cases in the topics covered and discuss how the literature can be used to inform practice while demonstrating the ability for critical reflection on their clinical work, including identifying potential clinical audit points translating to new protocols or measureable outcomes.

Module Structure

The syllabus will be divided into 5 study units

Study Unit 1 Embryology, Structure and Function

This unit will cover the embryological development, anatomy, physiology, immunology and histology of normal skin and appendages and the response of the skin to insult.

Study Unit 2 Approach

This unit will focus on the general approach to the equine dermatology case.

Study Unit 3 Diagnosis

This unit will review the diagnostic tests available in evaluating a dermatological case in the horse.

Study Unit 4 Clinical Presentations

This unit will review the clinical presentations of common skin presentations affecting horse

Study Unit 5 Therapeutics

This unit will cover the range of therapeutic options in equine dermatology and their application to specific disease states.

Assessment Strategy

4 x short answer question and/or MCQ tests, 1 x in-depth reflective case/essay at the end of the module (2000 words) and 1 x journal critique/journal club presentation (pass/fail)