

Ref. No.	C-VD.1
Title:	Veterinary Dermatology Anatomy, Physiology and Pathology of the Skin
Category and Value:	C - 10 credits
Notional Study Hours:	100

Aim

The aim of this module to develop depth and breadth of knowledge of the normal structure and function of the skin and its appendages and how these are altered in disease states. In undertaking the module, candidates will also develop their skills in critical evaluation of their own clinical practice and show self-direction in developing strategies for continuous improvement in the future.

Learning Outcomes

- At the end of the module, successful candidates should be able to:
- demonstrate in-depth understanding of the anatomy and histology of the skin and epidermal appendages, their embryological development and the changes seen in disease;
- demonstrate in-depth knowledge of skin physiology in health and disease, including immunology, wound healing and hormonal influences;
- demonstrate a logical, reasoned and systematic approach to sample collection and pathological evaluation in the investigation of dermatological conditions, demonstrating the ability to incorporate clinical reasoning and evidence based practice;
- critically evaluate their clinical work to improve performance;
- review and constructively criticise current literature in the subject area;
- recognise when a case is unusual or atypical, and become familiar with the information resources available to enable them to deal with such cases.

Module Content

1. Structure and Function of Normal Skin and Epidermal Appendages

This covers the anatomy and histology of the skin and epidermal appendages. The focus is on the interaction between structure and function and how this can be altered during disease processes. This would include epidermal proliferation, differentiation and desquamation, in relation to their relevance to, and impact on, the common skin diseases.

2. Skin Physiology

This covers physiology relevant to dermatological structures. The focus will be on normal defence mechanisms and how these are altered in disease states. This would include: the principal defence mechanisms of the skin, including both physical and humoral mechanisms, with an awareness of the innate and adaptive arms of the skin immune system:

- Skin surface protection, immunological and non-immunological
- Inflammation and pruritus
- physiology of wound healing
- physiology of thyroid, adrenal and pituitary endocrinology as they relate to the skin in health and disease

3. Pathology Relevant to Dermatology

- This covers pathology relevant to the diagnosis of dermatological conditions. The focus will be on critical analysis of procedures, specifically the diagnostic accuracy and limitations of any diagnostic procedure. This would include:
 - surface skin and ear sampling techniques and the interpretation of cytology from common inflammatory skin diseases
 - normal versus pathogenic microbial flora of the skin and ear canal and the ability to differentiate these using in-house sampling techniques and laboratory submissions, including a basic knowledge of culture requirements
 - the ability to understand how cutaneous pathology leads to the development of the skin lesions seen grossly and the difference between primary and secondary skin lesions
 - the appropriate tests for ecto- parasites
 - the appropriate use of skin biopsy and the basics of dermatohistopathological reaction patterns: how to obtain a sample and the information which the pathologist can and cannot provide
 - haematology / clinical chemistry/ urinalysis as related to skin disorders
 - tests for endocrinological disorders affecting the skin and when they are appropriate
 - the indications for intradermal testing/ allergen specific serology/ limited antigen food trials and their limitations

Suggested Assessment Strategy

1. Short essay questions (500 words) at the end of study units 1 and 2 (1 hour duration);
2. A MCQ test at the end of the module (1 hour duration);
3. A written and/or oral critique of an original research paper in the veterinary literature relevant to a topic within this module;
4. Portfolio of cases (20 case log book)
5. A reflective case report of 2000 words focussing on diagnostic approach to a dermatological case.