

## C-E.5 Basic Equine Surgery

**Credits:** 10 (100 hours)

**Provider:** Veterinary Postgraduate Unit – Institute of Veterinary Science

### RCVS Content Covered

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

- Demonstrate a thorough understanding of the principles of surgery, including:
  - (a) **WOUNDS AND WOUND HEALING**
    - A sound knowledge of the principles of wound healing of all tissues.
    - An understanding of the influence of surgical interventions and other interventions on wound healing such as healing after the use of diathermy, cryosurgery, chemotherapeutic agents and radiation therapy.
    - The principles and use of drains in wounds.
    - The role of bandaging and casting in wound management.
  - (b) **THE CONTROL OF SURGICAL INFECTION**
    - Concepts of contamination risks in traumatic and surgical wounds.
    - Modern concepts of asepsis, sterilisation, theatre design and surgical protocol.
    - The epidemiology of surgical infection.
    - Nosocomial infections.
    - The rational use of antibiotics in surgery.
  - (c) **INSTRUMENTATION**
    - A general knowledge of instruments used in all aspects of equine surgery.
    - Knowledge of suture patterns and materials and their role in wound healing
- Show familiarity with principles and practical application of equine general anaesthesia and physical/chemical restraint.
- Demonstrate a general knowledge of the anatomy and physiology of all tissues.
- Show thorough understanding of diagnostic techniques including the principles and application of common imaging techniques and selection of procedures for diagnosis.
- Demonstrate an understanding of clinical pathology including techniques for the sampling of fluids and tissues and the principles of sample handling. Interpretation of haematological, biochemical and fluid/tissue sample results.
- Demonstrate an understanding and a basic knowledge of postoperative complications; the pathophysiology of shock; principles of haemostasis, transfusions and fluid therapy; care and nutrition of the surgical patient.
- Surgical experience to a reasonable level and to include commonly performed techniques in either soft or orthopaedic equine surgery (see list on the next page for soft tissue surgery and C-E.6 Lameness A and C-E.7 Lameness B for orthopaedic surgery).

- 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 surgical 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.

## **LIST OF SOFT TISSUE SURGERY PROCEDURES**

### **Integument**

- The management of skin wounds.
- The use of plastic procedures and skin grafting.
- The management of skin tumours.

### **Head and Neck**

- Conditions of the mouth (including the teeth), salivary glands and oesophagus.
- Conditions of the upper respiratory tract including nasal passages, paranasal sinuses, pharynx, larynx, guttural pouches and trachea.
- Conditions affecting the head and neck.

### **Urogenital Tract**

- Surgical disorders of the male reproductive tract.
- Surgical disorders of the female reproductive tract.
- Surgical disorders of the bladder and urethra.

### **Abdominal Wall and Alimentary Tract**

- Surgical approaches to the abdomen and methods of closure.
- Exploration of the abdomen
- External and internal hernia repair
- Enterotomy

## **Aim of the Module**

The aim of this module is to:

- increase your depth of knowledge of the basic principles and their practical application in equine surgery including the principles of anaesthesia and physical/chemical restraint, instrumentation, the control of surgical infection and post-operative complications, and the principles of wound healing;
- develop your diagnostic approach and treatment of common surgical disorders, using the principles of clinical reasoning and evidence based practice, with a focus on soft

tissue surgery affecting the integument, head and neck, urogenital tract and abdominal wall and GIT.

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

## Learning Outcomes

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

1. in depth knowledge of surgical principles and their practical application in equine surgery including the principles of anaesthesia and physical/chemical restraint, instrumentation, the control of surgical infection and post-operative complications, and the principles of wound healing;
2. critical review of current peri operative protocols in equine surgery, and the ability to develop new protocols using an evidence based approach;
3. clinical reasoning skills and the use of evidence based medicine in the diagnostic approach and treatment of common surgical disorders with a focus on soft tissue surgery affecting the integument, head and neck, urogenital tract and abdominal wall and GIT;
4. the ability to critically appraise the literature relevant to surgery involving the integument, head and neck, urogenital tract and abdominal wall and GIT and the development of new protocols using an evidence based approach;
5. the ability to review and reflect on your clinical work, including identifying potential clinical audit points translating to new protocols or measureable outcomes.

## Module Structure

This module will be divided into 5 study units:

### Study Unit 1 Principles of Equine Surgery

*Principles of anaesthesia and restraint  
Instruments, sutures and surgical wound healing  
Control of surgical infection  
Postoperative complications*

### Study Unit 2 Soft Tissue Surgery I: Wound management and surgery of the integument

*Principles of acute wound management  
Management of skin wounds, skin grafts and failure of wound healing  
Management of skin tumours*

### Study Unit 3 Soft Tissue Surgery II: The head and neck

*Diagnostic approach and principles of treatment of conditions of the head and neck*

### Study Unit 4 Soft Tissue Surgery III: The urogenital tract

*Diagnostic approach and principles of treatment of conditions of the male and female reproductive tract and disorders of the bladder and urethra.*

## **Study Unit 5 Soft Tissue Surgery IV: The abdominal wall and gastrointestinal tract**

*Diagnostic approach and principles of treatment of conditions of the abdominal wall and gastrointestinal tract.*

### **Assessment Strategy**

3 x open book examinations using a range of short answer questions, 2 x reflective case reports (1500 words each), 1 x journal critique/journal club presentation (pass/fail) and a portfolio of 20 cases.

There must be at least one case from the four case type headings (listed below) included. The delegate must perform at least 5 surgeries supervised by an Equine Clinician with a RCVS Certificate in Advanced Equine Practice (Basic Equine Surgery) or higher (Equine Surgery or other specialist qualification (eg Dip ECVS, Dip ACVS)). The delegate must be the primary clinician on a minimum of 10 cases

Integument  
Head and neck  
Urogenital tract  
Abdominal wall & GIT

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.