C-SAS.6 Small Animal Orthopaedic Surgery (A)

Credits: 10 (100 hours)

Provider: Veterinary Postgraduate Unit – School of Veterinary Science

RCVS Content Covered

Click **here** to view the module content as outlined by the RCVS.

Aim of the Module

The aim of this module is to develop in depth understanding of the principles of tissue healing and the physiological consequences of surgery on all body systems, and an ability to critically appraise current working practices with regard to preparation and management of the orthopaedic patient, the surgical environment, staff and instruments. It is anticipated that the information gained in this module be used to modify working practices and upgrade to 'best practice' techniques.

Learning Outcomes

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

1. critically evaluate the pathophysiology and presentation of the common orthopaedic surgical conditions affecting small animals, including the relationship between orthopaedic surgery and the overall health status of the patient, and the role of surgical trauma in this relationship, and apply this knowledge in the diagnostic evaluation and surgical treatment of cases;
2. critically evaluate the role of asepsis, the preparation of theatre, personnel and patient for orthopaedic surgery and the importance of post-surgical nursing, nutrition and post-operative rehabilitation;
3. critically evaluate the pharmacology and use of the major drug groups, especially antimicrobials, their applicability to the various orthopaedic surgical procedures;
4. apply clinical reasoning skills and evidence-based medicine in the diagnostic approach and management of surgical diseases relevant to the topics covered;
5. critically appraise the literature relevant to clinical cases in the topics covered, and how the literature can be used to inform practice;
6. critically reflect on the appropriate case for onward referral.

Module Structure

The syllabus will be divided into 6 study units, each containing basic lecture and reading material supported by weekly interactions in the form of asynchronous case-based discussions, other discussions and/or synchronous journal clubs/literature critiques.

Study Unit 1 Bone biology: This unit will review the biology of normal and diseased bone and the fracture healing processes; and the basic biomechanics of bone and fracture repair.

Study Unit 2 Fracture management: This unit will cover pre-operative assessment and planning of the fracture case with treatment of associated injuries; Post-operative management; Surgical anatomy; Thorough knowledge of fracture stabilisation techniques; Understanding of the principles of AO/ASIF and biological osteosynthesis; Management of fore- and hindlimb, skull, spine and pelvic fractures with particular attention paid to open fractures and fractures affecting articular surfaces or growth plates.

Study Unit 3 Complications of fracture management: This unit will cover fracture disease, forms of abnormal union and osteomyelitis.

Study Unit 4 Pathogenesis and management of angular limb deformities: This unit will cover angular deformities of the limbs.

Study Unit 5 Metabolic bone disease: This unit will cover the aetiology, pathogenesis and treatment of Craniomandibular, Metaphyseal and Hypertrophic osteopathies, nutritional bone disorders and Panosteitis.

Study Unit 6 Bone tumours: This unit will cover the biology, diagnosis and treatment of osteosarcomas and review the treatment of other malignant bone tumours.

Assessment Strategy

- **3 x 1500-word reflective case reports (90%)**
  On a topic related to the relevant study units, students are required to reflect on their own practice, using evidence-based veterinary medicine to inform their reflection. Reflective case reports are written following the format of published case reports in the veterinary literature. The case report component of the assessment must be passed for successful completion of the module, and is non-compensatory with other assessments, however there is compensation between case reports. Case reports are also submitted to a discussion board for critique and discussion by/with peers. A proportion of marks for this assessment are also allocated to this discussion element.
- **1 x written journal critique (not more than 500 words) and short oral presentation of the critique (15 minutes) (10%)**
  Hosted by a staff member online synchronously using MS Teams. Students present their critique to the group, and the tutor and the students then hold a discussion of all papers. These are assessed on the submitted critique as well as the discussion.
- **1 x case log – 20 cases (pass/fail**)
  The case log assessment is designed to assist the candidate in developing a solid foundation for everyday practice and demonstrate the necessary knowledge and skill base in the clinical setting**.**

Assessments are submitted sequentially with feedback being given between assessments to aid in the development of writing skills.

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.