

C-SAS.7 Small Animal Orthopaedic Surgery (B)

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, successful candidates should be able to:

1. critically evaluate the anatomical, physiological, immunological and pathological processes in orthopaedic disease involving joint, tendon and muscle, including the relationship between orthopaedic surgery and the overall health status of the patient, and the role of surgical trauma in this relationship;
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 applying current evidence-based medicine in order to achieve optimal patient outcomes ;
3. apply clinical reasoning skills and evidence-based medicine in the recognition of clinical presentations, diagnostic approach and management of the common orthopaedic surgical conditions involving joint, tendon and muscle affecting small animals;
4. critically appraise the literature relevant to clinical cases in the topics covered and how the literature can be used to inform practice;
5. critically reflect on the appropriate case for onward referral.

Module Structure

The syllabus will be divided into 7 study units, each containing 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 - Basic Science:

- Anatomy and physiology of joints, muscle, tendon and ligaments.

Study Unit 2 - Joint disease:

- Aetiology, pathogenesis and treatment of osteoarthritis, osteochondrosis, immune-mediated joint disease, infective arthritis and tumours arising from and affecting joints.

Study Unit 3 - Investigation:

- Investigation of joint disease including the analysis of synovial fluid and the synovial lining;
- Interpretation of haematology, biochemistry and serology (ANA, RF and Borrelia) results relevant to joint disease;
- Principles and application of arthroscopy.

Study Unit 4 - Imaging:

- Radiography (plain and contrast) of joints;
- Principles and application of CT, MRI, scintigraphy and ultrasound where relevant to joint disease.

Study Unit 5 - Treatments - general:

- Surgical anatomy of joints;
- The diagnosis and management of fractures and luxations of joints;
- The indications and techniques of arthrodesis.

Study Unit 6 - Treatments - specific joint disorders:

- Aetiology, diagnosis and treatment of specific disorders (indicated in brackets) affecting the following joints:
- Temporomandibular (dysplasia along with genetics and control schemes, and bone disorders);
- Shoulder (osteochondritis dissecans, muscle and/or tendon injuries causing lameness);
- Elbow (dysplasia, Incomplete ossification of the humeral condyle, elbow replacement);
- Carpus (ligamentous injuries);
- Hip (dysplasia along with genetics and control schemes, Perthes disease, and hip replacement);
- Stifle (patellar instability, cruciate ligament disorders including use of tibial osteotomies, meniscal injuries, lateral collateral, medial collateral and straight patella ligament disorders, disorders of the muscles and tendons arising adjacent to the joint, osteochondritis dissecans);
- Hock joint (osteochondritis dissecans, shear injuries).

Study Unit 7 - Muscle and tendon injuries:

- Grading of severity of muscle and tendon injuries;
- Clinical signs and classification of muscle and tendon injuries;
- Treatment of muscle and tendon injuries (particularly the Achilles tendon);
- Clinical signs and treatment of muscle contractures (infraspinatus, quadriceps).

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 group discussion (10%)**
Hosted by a staff member online synchronously using MS Teams. 2-4 students critique the same paper, and then discuss their critiques and any variations with 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.