UNIVERSITY OF LIVERPOOL

C-VDI.1 Imaging in Practice

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 aims of this module are to:

1. advance candidates' knowledge and understanding of diagnostic imaging and to develop new and advanced skills to practice diagnostic imaging safely and effectively;
2. enable the candidate to critically evaluate their own standards of practice and develop strategies for continuous improvement in the future.

Learning Outcomes

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

1. apply the principles of safe and effective radiographic practice in order to exercise initiative and personal responsibility with relation to safety of patients and personnel, positioning, processing and image quality;
2. apply clinical reasoning skills and evidence-based medicine to select and apply appropriate diagnostic techniques as part of the overall investigation of a case;
3. critically appraise current diagnostic imaging techniques and reflect on personal development to improve technique;
4. critically appraise the literature relevant to clinical cases in the topics covered and how the literature can be used to inform practice.

Module Structure

The syllabus will be divided into 3 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 Clinical Radiology
Producing good quality radiographic images through a comprehensive understanding of equipment physics and settings. Radiation safety: recognising and minimising the risks involved with radiographic procedures, and correct use of protective equipment. Correct positioning of patients, including use of restraint methods, to obtain good quality images. Use of contrast media, and procedures for performing basic contrast techniques. Identifying and minimising faults due to film processing and handling.

Study Unit 2 Radiographic anatomy and principles of interpretation
The normal radiographic anatomy of large and small animal patients: including the abdomen, thorax, axial and appendicular skeleton. The principles of radiological interpretation, and the application of these principles when evaluating radiological signs in relation to clinical problems.

Study Unit 3 Ultrasound and advanced imaging
The principles of diagnostic ultrasonography and its application in veterinary practice. Normal ultrasound appearance of the abdomen and thorax of large and small animals; recognising ultrasonographic changes in the normal architecture of the major organs and the significance of these changes. Normal ultrasound appearance of the distal limb of the horse. The principles of computed tomography, magnetic resonance imaging and scintigraphy and their use and application in veterinary practice.

Assessment Strategy

- **1 x 1500-word reflective case reports (30%)**
  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.
- **2 x 1-hour open book examination (60%)**
  Based around clinical scenarios/cases, relevant to the module study units.
- **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 – 50 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.