

C-E.12 Equine Dental Anatomy and Physiology

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 an in-depth knowledge of the underlying theory of equine dentistry and to promote development of practical skills.

This module will also incorporate the generic skills of evidence-based medicine, clinical reasoning, literature review and critique, communication, clinical audit and reflection.

Learning Outcomes

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

1. critically evaluate the normal anatomy and physiology of the equine oral cavity and associated structures, and the developmental disorders of the equine oral cavity and how they affect normal function;
2. apply clinical reasoning skills and evidence-based medicine in the diagnostic approach and management of diseases relevant to the topics covered;
3. critically appraise the literature relevant to clinical cases in the topics covered, and how the literature can be used to inform practice;
4. critically reflect on the appropriate case for onward referral.

Module Structure

The syllabus will be divided into 4 study units, preceded by an introductory week, 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: Dental Anatomy and Anatomical Abnormalities

- The anatomy of the head, oral cavity and teeth
- Embryological development of the teeth
- The modified Triadan system of dental nomenclature
- Age by dentition - and its limitations - eruption of molars.
- Developmental abnormalities of dental tissues and structures including malocclusions

Study Unit 2: Dental Physiology and nutrition

- The chewing cycle and enamel points
- Function of the tables and transverse ridges

- Concepts of molar occlusion (lateral excursion)
- Affect of nutrition on dental health in the horse - variation between locations
- Effects of poor dentition on nutrition – analysis of long fibre in faeces
- Nutritional advice for horses with dental disease

Study Unit 3: The Dental Examination and Equipment

- Appropriate restraint, visual and manual examination
- Completion of a dental chart and formulation of individual dental maintenance schedules
- Recognition of clinical signs of dental disease - including oral ulceration, gingivitis, diastema, occlusal defects, dental fractures, quidding and weight loss
- Knowledge of regularly used dental equipment including floats speculums and power tools
- Maintenance of equipment in a clean and hygienic condition

Study Unit 4: Basic 'Floating' and Maintenance of dental health

- Reasons for floating
- Techniques for floating specific areas of the mouth
- Arguments for and against the creation of 'bit seats'
- Dangers of over treatment – smooth mouth and exposure of pulp cavities
- Wolf tooth extraction. The law and professional ethics as related to equine dentistry
- The Veterinary Surgeons Act
- Potential derogations under the VSA to permit equine dentistry by lay people
- Working with lay Equine Dental Technicians and other Veterinary Surgeons
- When to refer a case to a centre of excellence

Assessment Strategy

- **2 x 1500-word reflective case reports (60%)**
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 1-hour open book examination (30%)**
Based around clinical scenarios/cases, relevant to the module study units.
- **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 – 10 cases (pass/fail)**
The case log assessment is designed to assist the candidate in developing a solid foundation for everyday equine 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.