



AUSTRALIAN AND NEW ZEALAND COLLEGE OF VETERINARY SCIENTISTS

MEMBERSHIP GUIDELINES

Equine Dentistry

INTRODUCTION

These Membership Guidelines should be read in conjunction with the *Membership Candidate Handbook*.

ELIGIBILITY

Refer to the *Membership Candidate Handbook*.

OBJECTIVES

To demonstrate that the candidate has sufficient knowledge of and experience in Equine Dentistry to be able to give sound advice in this field to veterinary colleagues.

LEARNING OUTCOMES

The candidate is expected to be able to confidently apply the following knowledge to the diagnosis and treatment of diseases of the oral cavity and related structures.

- A. A **basic**¹ knowledge of the basic principles of veterinary medicine and surgery
- B. A **sound** knowledge and competency in Equine Dentistry
- C. A **basic** knowledge of infection control and biosecurity principles

¹Knowledge levels:

Detailed knowledge — candidates must be able to demonstrate an in-depth knowledge of the topic including differing points of view and published literature. The highest level of knowledge.

Sound knowledge — candidate must know all of the principles of the topic including some of the finer detail, and be able to identify areas where opinions may diverge. A middle level of knowledge.

Basic knowledge — candidate must know the main points of the topic and the core literature

To demonstrate that the candidate has an understanding of the basic principles of medicine and surgery and sound knowledge and competency in Equine Dentistry. The candidate should have sound knowledge and understanding of all aspects of equine dentistry including the examination, diagnosis, treatment and prevention of diseases of the oral cavity of the horse.

1. Oral and Paradental Anatomy

- The osseous, nervous, muscular and vascular anatomy of the oral cavity and related structures.
- The dental and periodontal anatomy in particular, including an understanding of head shapes, dentition and occlusion.
- The sequence of tooth eruption and the significance of retained deciduous teeth. An understanding of the use of dentition for ageing the horse.

2. Oral Disease

The diagnosis and treatment of:

- Oral neoplasia
- Developmental and congenital abnormalities of the oral cavity including the dentition, retained deciduous teeth, abnormalities of wear, abnormal number of teeth, odontogenic tumours and cysts, stomatitis, gingivitis, periodontitis, periodontal abscess, dental caries, periapical abscess and dental trauma.
- Metabolic and endocrine disorders that may affect the oral cavity.
- Diseases that have oral manifestations or consequences, including viral, bacterial and fungal diseases.

3. Dental Instrumentation

- The range of hand and power instrumentation.
- The ability to demonstrate an understanding of the use of hand and power instrumentation and the indications for their uses.
- The maintenance of hand and power equipment.
- The reasons why a certain instrument is used in a specific situation.

4. Oral Radiology

- Extra and intra oral radiology.
- The use of parallel and bisecting angle techniques.
- Dental positioning.
- The ability to diagnose disease and trauma from dental radiographs.

5. Oral Surgery

- Indications for and techniques of extraction.
- Comparison of intra-oral, lateral buccotomy and trephination and repulsion techniques and the potential complications.
- The understanding of the use of controlled force.
- The different types of extraction instruments and how to use them.
- Fractures of the maxilla and mandible, their diagnosis and treatment.
- Mandibular symphyseal fractures, fractures involving the teeth.

- The use of intra-oral acrylics in fracture repair as well as plates, screws, pins, wires and external fixators.
 - The significance of brachygnathism and prognathism on the development of dental disease.
 - Suture materials, suturing techniques, wound healing and factors affecting such.
6. Restorative Dentistry
- The composition of, indications for and use of dental restoratives including amalgam, composite resin cements and glass ionomer cements.
 - Cavity design and preparation.
7. Orthodontics
- A knowledge of the common malocclusions seen and their management.
 - The ethics surrounding veterinary orthodontic procedures.
8. Endodontics
- Aetiology and pathogenesis of pulpal pathology.
 - The symptoms, clinical signs and treatment of endodontic disease. An understanding of endodontic techniques such as direct and indirect pulp capping, pulpotomy, pulpectomy, apexification and apicoectomy.
 - Endodontic emergencies, radiology, instrumentation, principles of treatment, and materials used including an understanding of the use of the different materials available.
 - Restorative techniques following endodontics.
 - The reimplantation of avulsed teeth, stabilisation, follow up treatment and prognosis.
9. Periodontal Disease
- Aetiology, pathogenesis, symptoms, clinical signs, periodontal probing, dental charting, treatment planning.
 - Treatment options available.
10. Biosecurity and Infection control
- On and off farm biosecurity practices and principles
 - Principles of Infection Control
 - Safe workplace practices – compliance with occupational and workplace safety legislation

EXAMINATIONS

For information on the both the standard and the format of the Written and Oral examinations, candidates are referred to the *Membership Candidate Handbook*. The Membership examination has **two separate, autonomous components**:

1. **Written Examination** (*Component 1*)
Written Paper 1 (two hours): Principles of the Subject
Written Paper 2 (two hours): Applied Aspects of the Subject
2. **Oral Examination** (*Component 2*)
Oral (approximately one hour)

The written examination will comprise of two separate two-hour written papers taken on the same day. There will be an additional 15 minutes perusal time for each paper, during which no writing on the examination paper is permitted. In each paper you are provided with five (5) questions to answer, worth 20 marks each, giving a total of 100 marks per paper. There is no choice of questions. Questions may be long essay type or a series of shorter answer sub-questions. Marks allocated to each question and to each subsection of questions will be clearly indicated on the written paper.

Written Paper 1:

This paper is designed to test the candidate's knowledge of the principles of Equine Dentistry as described in the Learning Outcomes.

Written Paper 2:

This paper is designed to (a) test the Candidate's ability to apply the principles of Equine Dentistry to particular cases/problems or tasks and (b) test the Candidate's familiarity with current issues in Equine Dentistry and recommended current diagnostic and management practices in Equine Dentistry.

Oral Examination:

This examination requires the candidate to demonstrate achievement of the above mentioned Learning Outcomes. The duration of this examination is approximately one (1) hour. A power point presentation is likely to be used during this examination. Ten (10) questions are presented with supporting information asked verbally in a face-to-face setting. The oral examination has a total of 100 marks with each question allocated 10 marks.

RECOMMENDED READING MATERIAL

The Candidate is expected to research the depth and breadth of the knowledge of the discipline. This list is intended to guide the Candidate to some core references and source material; the list is not comprehensive and is not intended as an indicator of the content of the examination. Candidates should consult with their mentor to formulate an appropriate reading program.

Texts:

Australian Equine Veterinary Association. (1981) Bain-Fallon Memorial Lectures. Surgery and Diseases of the Oral Cavity and Respiratory Tract. Artarmon.

Australian Equine Veterinary Association. (1993) Bain-Fallon Memorial Lectures. Equine head and hind limb medicine and surgery .Artarmon.

Australian Veterinary Dental Society Annual Conference Proceedings 1990 - current

Eisennienger, E. & Zetner, K. (1985) Veterinary Dentistry. Lea & Febiger, Philadelphia.

Kertez, P. (1993) A Colour Atlas of Veterinary Dentistry and Oral Surgery. Wolfe, London.

The Post-Graduate Committee in Veterinary Science. Proceedings 282. (1996) Equine Dental Surgery. Sydney.

Veterinary Clinics of North America. Equine Practice.

Wiggs. R.B. Lobprise, H.B. Veterinary Dentistry. Lippincott-Raven. Philadelphia.

Proffit Contemporary Orthodontics

Page and Schroeder Periodontitis in Man and Other Animals

Carranza Glickman's Clinical Periodontology

Cohen and Burns Pathways of the Pulp

Craig, Powers & Wataha Dental Materials

Baker and Easley (1999). Equine Dentistry 1st edition. Saunders

Baker and Easley (2005). Equine Dentistry 2nd edition. Elsevier Saunders

Baker and Easley (2010). Equine Dentistry 3rd edition. Saunders

Wilson G (2000). Equine Dentistry. Postgraduate Foundation in Veterinary Science, University of Sydney

Pence, P (2002). Equine Dentistry: A Practical Guide. Lippincott Williams & Wilkins

Allen, T (2003). Manual of Equine Dentistry. Mosby

Biosecurity Queensland (2013). Guidelines for veterinarians handling potential Hendra virus infection in horses. State of Queensland, Department of Agriculture, Fisheries and Forestry

Klugh, D (2010). Principles of Equine Dentistry. Manson

Journals:

AAEP Proceedings

Australian Veterinary Journal

Equine Practice

Equine Veterinary Education

Equine Veterinary Journal

Large Animal Veterinarian

Journal of Veterinary Dentistry

New Zealand Veterinary Journal

Journal of Endodontics

Journal of Periodontology

Journal of Clinical Periodontology

American Journal of Veterinary Research

Journal of the American Veterinary Medical Association

Seminars in Veterinary Medicine

FURTHER INFORMATION

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