



AUSTRALIAN AND NEW ZEALAND COLLEGE OF VETERINARY SCIENTISTS

FELLOWSHIP GUIDELINES

Equine Dentistry

ELIGIBILITY

1. The candidate shall meet the eligibility prerequisites for Fellowship outlined in the *Fellowship Candidate Handbook*.
2. Membership of the College must be achieved prior to the Fellowship examination.
3. Membership must be in Small Animal Dentistry, Equine Dentistry, Equine Medicine, or Equine Surgery.

OBJECTIVES

To demonstrate that the candidate has:

1. attained sufficient knowledge, training, experience, and accomplishment to meet the criteria for registration as a specialist in Equine Dentistry.
2. achieved extensive practical experience and accomplishment relevant to Australia or New Zealand and an understanding of Equine Dentistry on a global basis.
3. become recognised as an authority by veterinary colleagues and by other professional people working in the field.

RESPONSIBILITY

It is the candidate's responsibility to ensure they have fulfilled all the requirements of the training program guidelines prior to submitting their credentials for eligibility for examination.

LEARNING OUTCOMES

The field of equine dentistry includes the examination, diagnosis and treatment of diseases of the oral cavity, the paranasal sinuses and associated structures.

1. The candidate will have a **detailed**¹ knowledge of:
 1. the embryologic development, anatomy, physiology and function of the normal equine oral cavity, dentition, periodontal anatomy, and paranasal sinuses.
 2. the aetiology, pathogenesis, diagnosis, differential diagnosis, treatment, prognosis and prevention of equine oral, dental and sinus diseases including:
 - 2.1. developmental and congenital abnormalities
 - 2.2. infectious and inflammatory disorders
 - 2.3. metabolic and endocrine disorders
 - 2.4. neoplasia and paraneoplastic disorders
 - 2.5. behavioural disorders
 - 2.6. systemic diseases including viral, bacterial, and fungal infections with oral cavity or dental involvement
 3. the aetiology, pathogenesis, clinical signs, diagnosis and treatment of equine periodontal disease, periodontal surgery, and dental prophylaxis.
 4. the principles of oral, dental and sinus surgery including:
 - 4.1. Surgical principles including aseptic technique, instrument and tissue handling
 - 4.2. wound healing, haemostasis and wound infection
 - 4.3. indications for and techniques of tooth extraction including oral extraction, minimal invasive screw extraction and pin repulsion
 - 4.4. the principles of fracture healing and repair
 - 4.5. the diagnosis, management and prognosis of fractures of the maxilla, mandible and sinus
 - 4.6. teeth fractures and fracture repair including the use of intraoral acrylics, plates, screws, pins, wires and external fixators
 - 4.7. repair of oronasal fistulae
 - 4.8. repair of oroantral fistulae
 - 4.9. management of luxated and avulsed teeth
 - 4.10. the use of implants.
 - 4.11. Paranasal sinus access techniques including trephination, bone flaps and minimally invasive access including sinuscopy
 5. the principles of orthodontics including:
 - 5.1. the clinical signs, diagnosis, and management of malocclusions

¹ Knowledge 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.

- 5.2. tooth movement and the forces required to move teeth
- 5.3. the use and application of active and passive orthodontic appliances
6. the principles and application of endodontics including:
 - 6.1. aetiology and pathogenesis of pulpal pathology
 - 6.2. the clinical signs and treatment of endodontic disease
 - 6.3. endodontic techniques
 - 6.4. endodontic emergencies
7. the principles of restorative dentistry including:
 - 7.1. Restorative principles and applications relevant to equine dentistry
 - 7.2. composition of, indications for and use of dental restorative materials
 - 7.3. cavity design and preparation
8. the range and use of dental hand and power instrumentation in equine veterinary dentistry and the indications for their use.
9. the pharmacology and pharmacokinetics of drugs and therapeutic products used in equine veterinary dentistry.
10. the principles of surgery including aseptic technique and tissue and instrument handling as they apply to the field of equine dentistry.
11. the principles of imaging including radiology, CT, MRI and scintigraphy as these modalities apply to the equine oral cavity and related structures.
12. the principles of anaesthesia and analgesia as they apply to the management of diseases of the equine oral cavity and related structures.
2. The candidate will have a **basic** knowledge of:
 - 2.1. comparative oral anatomy in mammals
3. The candidate will be able to perform the following, with a **detailed**² level of expertise:
 - 3.1. standard dental equilibration and odontoplasty
 - 3.2. treatment and therapeutics of periodontal disease
 - 3.3. vital pulpotomy
 - 3.4. endodontic therapy
 - 3.5. perform restorative dentistry
 - 3.6. intra-oral extraction of cheek teeth
 - 3.7. Minimally invasive means of extraction of cheek teeth

² **Skill levels:**

Detailed expertise – the candidate must be able to perform the technique with a high degree of skill and have extensive experience in its application. The highest level of proficiency.

Sound expertise – the candidate must be able to perform the technique with a moderate degree of skill and have moderate experience in its application. A middle level of proficiency.

Basic expertise – the candidate must be able to perform the technique competently in uncomplicated circumstances.

- 3.8. surgical extraction of incisors, canine teeth, wolf teeth or cheek teeth
- 3.9. mandibular or maxillary fracture fixation
- 3.10. involved oral surgical procedures including sinus surgery
- 3.11. miscellaneous soft tissue oral surgery
- 3.12. malocclusion treatment and management including orthodontic treatment
- 3.13. critically evaluate the current veterinary literature and opinions in the field of equine dentistry

EXAMINATIONS

Refer to the *Fellowship Candidate Handbook*, Section 5.

The Fellowship examination has four separate, autonomous components:

1. **Written Paper 1** (Component 1)
Principles of the Subject (three hours)
2. **Written Paper 2** (Component 2)
Applied Aspects of the Subject (three hours)
3. **Practical Examination** (Component 3)
Practical (three hours)
4. **Oral Examination** (Component 4)
Oral (up to 90 minutes)

The written examination will comprise of two separate three-hour written papers taken on two consecutive days. There will be an additional 20 minutes perusal time for each paper, during which no typing is permitted. The exam may include a series of short answer questions, multiple-choice questions or may require an essay-type response. The exam is worth a total of 180 marks and all questions must be answered. Marks allocated to each question and to each subsection of questions will be clearly indicated within each 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. Answers may cite specific examples where general principles apply but should primarily address the theoretical basis underlying each example.

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 to (b) test the Candidate's familiarity with the current practices and current issues that arise from activities within the discipline of Equine Dentistry in Australia and New Zealand.

Practical Examination:

The practical examination is designed to test practical and clinical aspects of the Learning Outcomes. It will consist of case-based questions equating to a total of 180 marks. Each question will contain a series of smaller sub-sections.

The questions will be short answer questions and may relate to images, videos and/or examples of diagnostic imaging. Written answers will be required. No perusal time will be given for the practical exam. Marks allocated to each question and to each sub-section will be clearly indicated on the written paper.

Oral Examination:

The oral examination will consist of questions of a theoretical and practical nature. This examination is designed to test aspects of the Learning Objectives. Candidates may be asked to discuss detailed case material, cases are presented with supporting questions asked verbally in a face-to-face setting. The oral examination is worth a total of 160marks. Images, CT scans, histology slides, radiographs, laboratory data and results of relevant additional diagnostic tests are likely to be used during this examination.

TRAINING PROGRAMS

Refer to the *Fellowship Candidate Handbook*, Section 2.3

1. The training program must provide intensive training in equine dentistry under direct supervision at a specialist referral level.
2. The training program requires two years (96 weeks) of directly supervised training (DST) at an approved facility. Training may also be taken as a part-time or alternative training program as per the fellowship candidate handbook.
3. The candidate is expected to attend relevant scientific meetings and conferences and attendance at international veterinary dental conferences is highly recommended.

8. ACTIVITY LOG AND CUMULATIVE ACTIVITY LOG SUMMARY

Refer to the *Fellowship Candidate Handbook*, Section 2.8 and 2.9

CUMULATIVE ACTIVITY LOG SUMMARY

The Cumulative Activity Log Summary (ALS) must be recorded throughout supervised training in the primary discipline. This is outlined in Section 2.8 of the *Fellowship Candidate Handbook*. The template for the ALS must be submitted for approval with the Training Program document.

ACTIVITY LOG

1. The Chapter requires the candidate to document a minimum of 240 equine dental cases and the breadth of training should include cases spanning the breadth of the categories listed under "Activity Log Categories". Cases must be of the type seen in referral practice which are considered to be specialist procedures. The minimum numbers of specific procedures must be accomplished by the candidate are shown in the following table. Any single case can be allocated to a single category that most appropriately describes the type of case. The candidate should attempt to gain as broad a range of experience as possible. Exceeding the minimum threshold of cases does not guarantee the required level of competency to pass the Fellowship examination.
2. The candidate is to provide an imaging log including 25 cases of sets of radiographs as described in the activity log. The radiographic log is to focus on radiographic technique and must show the candidates ability to perform and document standard radiographic views of the equine head.
3. Cases suitable for inclusion are those supervised cases where the candidate is directly involved in the decision and planning of the case and is the Primary clinician. The candidate is the Primary clinician when he or she plans and performs the essential parts of the dental procedure. Revisit appointments on the same case for the same presenting problem are NOT to be entered separately in the Activity Log.

Activity Log Categories (and minimum case numbers)

Odontoplasty (30 cases)

Standard dental equilibration (30 cases)

Oral Medicine (10 cases)

Cases that involve diagnostic tests that would not be included under any other category. This would include work-ups including radiographs but no surgical procedure (limit of 5 cases), incisional biopsy or cytology, sialography or other tests not including CBC, biochemistry and urinalysis

Periodontics (50 cases)

Treatment of periodontal disease (25 cases)
Involved periodontal treatment including diastemata (25 cases)

Endodontics (10 cases)
vital pulpotomy (5 cases)
endodontic treatment (5 cases)

Restorative dentistry (20 cases)
Limit of 15 cases of one type (infundibular restorations, peripheral caries of canines or incisors or restorations following endodontics)

Oral surgery (75 cases)
Intra-oral extraction of cheek teeth (15 cases)
Complex cheek tooth extraction performed by MTE, buccotomy and lateral alveolectomy or minimal invasive pin repulsion (15 cases) (limit of 10 cases of any one type)
Wolf tooth extractions (5 cases) (not more than one case per patient)
Surgical extraction of incisors or canine teeth (10 cases)
Mandibular or maxillary fracture fixation (2 cases)
Other oral surgical procedures not included in other categories (28 cases) (for example sinus surgery, tongue laceration repairs, oral mass removal)

Orthodontics (20 cases)
Malocclusion treatment and management (18 cases). Maximum number of 12 cases in any one malocclusion category
Application of an orthodontic retention device (2 cases)

Imaging Log (25 cases)
Provide evidence of radiographic log for

- Incisor and canine radiographs (5 sets)
- Mandibular cheek teeth (5 sets)
- Maxillary cheek teeth (5 sets)
- Sinus radiographs (5 sets)
 - TMJ or associated structures (5 sets)

7. TRAINING IN RELATED DISCIPLINES

Refer to the *Fellowship Candidate Handbook*, Section 2.4.2

Candidates for Fellowship in Equine Dentistry must spend **6** of the **96** weeks supervised time in the related disciplines training as per the following:

- Equine Surgery (80 hours, 2 weeks)
- Veterinary Radiology / Diagnostic Imaging (80 hours, 2 weeks),
- Anaesthesia (40 hours, 1 week)
- Equine medicine (40 hours, 1 week)

Related disciplines training must be undertaken with a specialist, or other person approved by the TCC, in that discipline. Guidelines for TRD are to be found in Section 2.4.2 of the *Fellowship Candidate handbook*, candidates are also directed to the learning outcomes of this document.

9. EXTERNSHIPS

Refer to the *Fellowship Candidate Handbook*, Section 2.4.1

An externship of at least six (6) weeks must be completed during the training program. This can be done in one block or in multiple blocks of a minimum of two weeks. The supervisor for the externship must meet the requirements of a primary supervisor.

Externships allow exposure to other specialists, facilities and a greater range of cases. They should be used to gain exposure to areas within the program which are deficient, particularly with respect to subject areas that may be under-represented in the Activity Log Summary.

SUPERVISORS

Refer to the *Fellowship Candidate Handbook*, Section 2.7

It is now a requirement that all Fellowship candidates commencing a training program from January 2020, have two supervisors nominated. All candidates are encouraged to have two supervisors, no matter when their program commenced. The primary and secondary supervisor are chosen by the candidate and approved by the TCC at the time of Training Program Document approval. The availability of two supervisors will provide candidates with more support and broader learning opportunities to facilitate gaining a wider breadth of knowledge.

Supervisor(s) must hold a Fellowship or equivalent or be a specialist registered in Australia or New Zealand in the discipline in which the candidate has chosen to study. Equivalent qualifications include Diplomates of the American or European Colleges or Fellowships or Diplomates of the Royal College of Veterinary Surgeons.

Supervisors must be currently practicing at least 25 hours per week in the relevant discipline.

The Secondary Supervisor is a person with the specialist qualifications in equine dentistry, equine surgery, equine medicine, equine imaging or in small animal or non-species specific dentistry who could act as a backup during times throughout the program or when the primary supervisor is absent. Secondary supervisors are expected to participate in the training program on a regular basis and are also expected to participate in the annual supervisor meeting.

8. PUBLICATIONS

Refer to the *Fellowship Candidate Handbook*, Section 2.10

One (1) first author publications accepted in peer reviewed journals are required. Second author publications are not acceptable. Examples of appropriate journals are suggested under the recommended reading list.

The publication must be original and relevant to equine dentistry. Conference abstracts are not acceptable as publications for credential purposes.

In addition:

Evidence that the candidate has given at least one oral presentation focused on equine dentistry at an approved scientific meeting prior to the credential date. This can be at a national or international conference, suitable examples include the Australian Veterinary Association Annual Conference, New Zealand Veterinary Association Annual Conference, American Association of Equine Practitioners Annual Convention, Veterinary Dental Forum and the European Veterinary Dental Forum.

9. RECOMMENDED READING LIST

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 (indicated by an *) and source material. The list is not comprehensive and is not intended as an indicator of the content of the examination.

Candidates at Fellowship level are expected to have library search skills and be aware of recent publications and advances in equine veterinary dentistry.

Texts:

1. *Core:³

Easley J. Dixon P.M. du Toit N. Equine Dentistry and Maxillofacial Surgery. Cambridge Scholars Publishing, 2022

Lobprise H.B. Dodd J.R. Wiggs's Veterinary Dentistry 2nd Ed. Wiley Blackwell, 2019.

Auer J.A. Stick J.A. Kümmerle J.M. Prange T. Equine Surgery 5th edition. Saunders, Philadelphia, 2018. Chapters 1-7, 9-17, 24-25, 29-30, 44, 75-77, 86, 103, 104

2. Additional:

Sakaguchi R, Ferracane J. Powers J. Craig's Restorative Dental Materials. Mosby, 2018.

Easley J. Dixon P.M. Schumacher J. Equine Dentistry 3rd ed. Saunders, Philadelphia, 2010.

Fehrenbach, M.J. Popowics T. Illustrated Dental Embryology, Histology, and Anatomy, 5th ed. London: ElsevierSaunders, Philadelphia, 2019.

Newman M.G. Takei H.H. Klokkevold P.R. Carranza FA. Newman and Carranza's Clinical Periodontology, 13th ed. Saunders, Philadelphia, 2018.

Berman L.H. Hargreaves K.M. Cohen's Pathways of the Pulp, 12th ed. St. Louis, Elsevier, 2021.

³ Textbook Definitions:

Core textbook – candidates are expected to own a copy of the textbook and have a detailed knowledge of the contents.

Recommended textbook – candidates should own or have ready access to a copy of the book and have a sound knowledge of the contents.

Additional references – candidates should have access to the book and have a basic knowledge of the contents.

Additional Reading Materials - These are conference proceedings, other non-refereed publications and other journals that would offer some information in the subject area including differing points of view but are not required reading.

All textbooks are listed in alphabetical order.

Nanci A. Ten Cate's Oral Histology, 9th ed. St. Louis: Elsevier. 2018

Holmstrom S.E. Frost P. Eisner E.R. Veterinary Dental Techniques for the Small Animal Practitioner. 3rd Ed. Saunders, Philadelphia, 2004.

Journals:

1. * Core:⁴

Australian Equine Veterinarian
 Australian Veterinary Journal
 Equine Veterinary Education
 Equine Veterinary Journal
 Journal of Veterinary Dentistry
 Veterinary Clinics of North America Equine Practice
 Veterinary Radiology and Ultrasound
 Veterinary Surgery

2. Additional:

American Journal of Veterinary Research
 Frontiers in Veterinary Science
 Journal of the American Veterinary Medical Association
 Veterinary Record

3. Additional reading materials

AAEP Proceedings

⁴ Journal Definitions:

Core Journal – candidates are expected to have ready access to either print or electronic versions of the journal and have a detailed knowledge of the published articles in the subject area.

Recommended Journal – candidates should have ready access to either print or electronic versions of the journal and have a sound knowledge of the published articles in the subject area.

Additional Journal – candidates should be able to access either printed or electronic versions of the journal and have a basic knowledge of the published articles in the subject area.

Candidates are expected to examine relevant journal articles from the last 10 years of publication in addition to heavily referenced or landmark papers. All textbooks are listed in alphabetical order

FURTHER INFORMATION

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Appendix 1: Example Activity Log (Template)*: Equine Dentistry**

DATE (S)	*CATEGORY	CLINIC CASE ID	PATIENT DETAILS: ID, SPECIES.	PRESENTATION	DIAGNOSTIC TESTS	DIAGNOSIS	TREATMENT	OUTCOME	**INITIALS
1/11/11			5yo TB gelding	Unilateral nasal discharge	Oral exam, xray, endoscopy	Periapical abscess 108	Intra-oral extraction	Discharge resolved 2 weeks	
2/3/11			5yo SB mare	Dysmastication	Oral exam	Missing 309 Overgrowth 209	Staged reduction	Resolved after 3 treatments at 3 monthly intervals	
3/5/11			4yo Shetland gelding	Exposed pulp 101	Oral Exam, X Ray	Vital101	VP	Healthy tooth on 6m post op X-ray	

* **CATEGORY:** for cumulative breakdown, Refer to Subject Guidelines.

** **INITIALS:** of Clinicians/Investigators – please asterisk the Primary Clinician/Investigator/Surgeon

***An excel spreadsheet will be provided to candidates

Signature of supervisor: _____

Appendix 2: Example Activity Log Summary (Template)*: Equine Dentistry

NAME:

SUBJECT:

DATE:

Number of Cases

CATEGORY	JAN	FEB	MAR	APRIL	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	Current TOTAL	Previous TOTAL	Cumulative TOTAL	Required total
Odontoplasty																30
Oral Medicine																10

Periodontics:																				50
Endodontics:																				10
Restorative Dentistry																				20
Oral Surgery:																				75
Orthodontics																				20
Imaging																				25
Current TOTAL																				
Previous TOTAL																				
Cumulative TOTAL																				240

*An excel spreadsheet will be provided to candidate

APPENDIX 3: LIST OF LEARNING OUTCOMES FOR TRAINING IN RELATED DISCIPLINES (TRD)

Throughout the 96 weeks training program, the Fellowship candidate in Equine Dentistry must be exposed to and actively involved in training in related disciplines. The Fellowship candidate is encouraged to develop a working relationship with one or more specialists in each discipline to facilitate **regular discussion and interaction regarding case management.** In addition, involvement, and participation of a specialist in these disciplines in clinical rounds and seminars attended by the Fellowship candidate is encouraged, as is participation of the Fellowship candidate in relevant rounds and seminars specific to this discipline.

In addition, a minimum of 40 to 80 hours (i.e. one to two weeks full time) must be devoted exclusively to the study and practice of each of these related disciplines (specified below). The Fellowship candidate must ensure that this time is spent effectively in consolidating knowledge and skills and in covering aspects of this discipline that will not be addressed adequately during the remainder of their program. The Fellowship candidate is expected to be proactive in searching out opportunities, materials, and expert tuition and in compiling and organizing relevant material for future reference.

Training in the related discipline of Equine Surgery

The 80 hours of training must be **directly supervised** by a Fellow of the ANZCVS, or a Diplomate of the ECVS or ACVS, or exceptionally- and with prior approval from the credentials committee- another recognised expert. **The role of the supervisor is to provide guidance and training in Equine surgery as it applies to the Equine Dental patient.**

Essential areas that should be covered include but are not limited to:

1. Principles of surgery including aseptic technique, instrument, and tissue handling
2. Principles of fracture repair, needed equipment and its application
3. Formulation of a treatment plan that encompasses the needs of the surgical patient. Developing the ability to consider an overall view of the patient's situation should be promoted
4. Monitoring the patient's response to treatment and modifying treatment as indicated.
5. Medical conditions that may affect the patient during anaesthesia, surgery, or recovery
6. Medical treatment as an alternative or as a complement to surgical treatment in selected conditions

Training in the related discipline of Veterinary Radiology/Diagnostic Imaging

The 80 hours of training must be **directly supervised** by a Fellow of the ANZCVS (Veterinary Radiology), or a Diplomate of the ECVDI or ACVR, or exceptionally - and with prior approval from the credentials committee - another recognised expert. **The role of the supervisor is to provide guidance and training in diagnostic imaging as it applies to the Equine Dental patient.**

Training in this discipline is an extremely important component of the two-year training program. It is essential that the Fellowship candidate be competent in performing or supervising imaging studies, particularly using radiography, ultrasonography and CT and is able to perform the immediate and timely interpretation of findings, correlate these studies with clinical findings and make appropriate decisions for determining the treatment of the patient. A methodical and thorough approach to interpretation of images must be developed.

Topics to be reviewed throughout the training program, and techniques to gain practical experience with, include but are not limited to the following as they apply to the equine dental patient:

Principles, indications, limitations, application, and interpretation of the following imaging modalities:

1. Radiographic technique including radiographic hygiene
2. Radiography including digital radiography, contrast radiography and fluoroscopy
3. Ultrasonography as applicable to equine dentistry
4. Nuclear scintigraphy
5. Computed tomography (CT)
6. Principles of Magnetic resonance imaging (MRI) and case selection as applicable to equine dentistry
7. Storing images and construction of reports

Training in the related discipline of Veterinary Anaesthesia and Pain Management

The 40 hours of training must be **directly supervised** by a Fellow of the ANZCVS (Anaesthesia), Diplomates of the ECVA or ACVA, or exceptionally - and with prior approval from the credentials committee - another recognised expert. **The role of the supervisor is to provide guidance and training in the discipline of anaesthesia and pain management as it applies to the equine dental patient.**

Topics to be reviewed throughout the training program and techniques to gain practical experience with include but are not limited to the following as they apply to equine dentistry patients:

1. Review of basic physiology-cardiovascular physiology, respiratory gas transport, the GI barrier; regulation of arterial blood pressure, blood and ECF volume, local control of blood flow.
2. Review of pathophysiology-infection and inflammation, fever, sepsis and SIRS, disorders of haemostasis, multi-organ failure.

Pain management

Basic physiology of acute and chronic pain

Pathophysiological effects of pain in the equine

Recognition and monitoring of pain in the equine

Prevention and control of pain: pre-emptive analgesia, post-operative analgesic techniques, management of acute (including post-operative) and chronic pain

Alternatives for pain management in the equine: drugs administered systemically (including as continuous rate infusion). Drug actions and interactions, indications and contraindications, and potential adverse effects

Anaesthesia

Pre-operative assessment and patient preparation: pre-anaesthetic evaluation and premedication

Equipment used in general anaesthesia delivery and monitoring

Pharmacology of drugs used for sedation/ tranquilization, analgesia, muscle relaxation and anaesthesia. Drug action and interaction. The effect of drugs on gastrointestinal motility, the cardiovascular and respiratory systems

Application of analgesic techniques before, during and after a surgical procedure and knowledge of their influence on the course of anaesthesia

Anaesthesia induction, maintenance and recovery techniques in the equine

Sedation and anaesthesia in the equine

Airway maintenance, oxygenation and ventilation, acute respiratory failure

Monitoring during anaesthesia, effects on the respiratory and CV systems and support of these systems during anaesthesia

Prevention and management of anaesthetic accidents and crises

Current techniques used during recovery from general anaesthesia

Local and regional anaesthesia techniques used in the equine including dental nerve blocks

Training in the related discipline of Equine Medicine

The 40 hours of training must be **directly supervised** by a Fellow of the ANZCVS (Equine Medicine), Diplomates of the ACVIM or ECEIM, or exceptionally - and with prior approval from the credentials committee - another recognised expert. **The role of the supervisor is to provide guidance and training in the discipline of Medicine as it applies to the equine dental patient.**

Topics to be reviewed throughout the training program and techniques to gain practical experience with include but are not limited to the following as they apply to equine dentistry patients:

1. Procedures for examination and investigation of internal medicine cases, with special emphasis on
 1. gastro-intestinal disease
 2. infectious disease
 3. cardio-pulmonary disease
 4. Neurologic disease
2. Choice of relevant laboratory tests for different conditions, and interpretation of laboratory results
3. Choice of other diagnostic modalities for different conditions, and interpretation of results
4. Formulation of a treatment plan
5. Action, interaction and side effects of drugs
6. Medical treatment as an alternative or as a complement to surgical treatment in selected conditions
7. Medical conditions that may affect the patient during anaesthesia, surgery or recovery
8. Principles and application of biosecurity with relevance to equine dentistry

Specific point to be covered

Fluid and electrolyte disorders and their therapy

Acid base disorders and their therapy

Blood component therapy

Nutrition and metabolism in critically ill surgical patients

Vascular access

Haemodynamic monitoring

Disorders of circulatory flow; haemorrhage and hypovolaemia, colloid and crystalloid therapy