2017\_22



#### AUSTRALIAN AND NEW ZEALAND COLLEGE OF VETERINARY SCIENTISTS

#### **FELLOWSHIP GUIDELINES**

#### Feline Medicine

#### ELIGIBILITY

- 1. The candidate must meet the eligibility prerequisites for Fellowship outlined in the *Fellowship Candidates Handbook*.
- 2. Membership of the College, in either Small Animal Medicine or Medicine of Cats, must be achieved prior to the Fellowship examination.

#### **OBJECTIVES**

To demonstrate that the candidate has attained sufficient knowledge, training, experience and accomplishment to meet the criteria for registration as a specialist in Feline Medicine.

#### **LEARNING OUTCOMES**

- 1. The candidate will have a **detailed**<sup>1</sup> **knowledge** of:
  - 1.1. the aetiology, pathogenesis, pathophysiology, epidemiology, investigation, diagnosis, differential diagnosis and treatment/management/prevention of feline diseases of all body systems other than those specifically listed in Points 2 and 3
  - 1.2. current literature and concepts in the field of feline medicine
  - 1.3. measures to reduce public health risks of zoonotic diseases transmitted by cats.
- 2. The candidate will have a sound knowledge of:
  - 2.1. feline anatomy, physiology, immunology, reproduction and nutrition

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<sup>&</sup>lt;sup>1</sup> 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.

- 2.2. pharmacology, chemotherapy, sedation, anaesthesia, analgesia and critical care in cats
- 2.3. diagnostic procedures in feline medicine
- 2.4. diseases of the skin, eyes and reproductive system in cats
- 2.5. feline diseases exotic to Australia and New Zealand especially those that could be of potential significance to feline health in Australasia, e.g. rabies.
- 3. The candidate will have a **basic knowledge** of:
  - 3.1. feline behavioural disorders.
  - 3.2. Radiation therapy.
- 4. The candidate will be able to do the following with **detailed**<sup>2</sup> expertise:
  - 4.1. collect, record, and analyse clinical data in complex feline cases and make sound clinical judgements based on that data
  - 4.2. provide high quality care for cats with the most efficient use of resources in a manner that is responsive to the owner's needs and wishes
  - 4.3. communicate with clients, referring veterinarians and peers
  - 4.4. evaluate and incorporate new scientific information relevant to the practice of feline medicine
  - 4.5. advance knowledge in feline medicine through clinical innovation, research and publication.
- 5. The candidate will be able to interpret the following:
  - 5.1. with **detailed expertise**:
    - 5.1.1. clinical pathology data
    - 5.1.2. the results of radiography and ultrasonography
    - 5.1.3. the results of routine ECG.
    - 5.1.4 the results of computed tomography and magnetic resonance imaging.
  - 5.2. with sound expertise:

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<sup>&</sup>lt;sup>2</sup> 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.

# 5.2.1.the results of fluoroscopy, electromyography, nerve conduction studies, and brainstem auditory evoked response evaluation.

The candidate will be able to perform the following technical procedures:

- 5.3. with **detailed** expertise:
  - 5.3.1. physical and neurological examinations
  - 5.3.2. blood pressure measurement
  - 5.3.3. fluid therapy
  - 5.3.4. blood transfusion
  - 5.3.5. routine electrocardiography
  - 5.3.6. routine radiography
  - 5.3.7. joint fluid aspiration
  - 5.3.8. transtracheal aspiration and bronchoalveolar lavage
  - 5.3.9. routine body cavity centesis (thoracic, abdominal, pericardial)
  - 5.3.10. bone marrow biopsy and aspiration
  - 5.3.11. routine biopsy procedures (fine needle aspiration and cutting needle core samples, with and without imaging guidance)
  - 5.3.12. cerebrospinal fluid collection
  - 5.3.13. endoscopy of the respiratory and alimentary tracts (interventional/therapeutic endoscopy)
  - 5.3.14. administration of cytotoxic chemotherapy.
  - 5.3.15. enteral nutrition tube placement.
- 5.4. with sound expertise:
  - 5.4.1. thoracostomy tube placement.

#### 5.5. with **basic expertise**:

- 5.5.1. arterial blood gas collection
- 5.5.2. central line placement and central venous pressure measurement
- 5.5.3. ultrasonography
- 5.5.4. electrocardiography (ambulatory event-based and continuous recorders)

- 5.5.5. electromyography, nerve conduction studies, brainstem auditory evoked response evaluation
- 5.5.6. partial and total parenteral nutrition
- 5.5.7. peritoneal dialysis
- 5.5.8. gastric lavage.

## **EXAMINATIONS**

Refer to the Fellowship Candidates Handbook, Section 5.

The Fellowship examination has four separate, autonomous components:

- 1. Written Paper 1 (Component 1) Principles of the Subject (four hours)
- 2. Written Paper 2 (Component 2) Applied Aspects of the Subject (four hours)
- 3. **Practical Examination** (Component 3) Practical (three hours plus one hour review)
- 4. **Oral Examination** (Component 4) Oral (1.5 to two hours)

The written examination will comprise of two separate four-hour written papers taken on two consecutive days. There will be an additional 20 minutes perusal time for each paper, during which no writing on the examination paper is permitted. Each paper will contain five (5) questions to answer, each worth 48 marks, giving a total of 240 marks per paper. Questions may be long essay type, a series of shorter answer sub-questions, or multiple-choice questions.

There is no choice of 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 Feline Medicine as described in the Learning Outcomes using essay-style, short answer and note-point formats. 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 Feline Medicine to particular cases/problems or tasks, and to (b) test the Candidate's familiarity with the current practices and issues that arise from activities within the discipline of Feline Medicine in Australia and New Zealand using essay-style, short answer and note-point formats.

#### **Practical Examination:**

The practical examination is designed to test practical aspects of the learning objectives and will focus predominantly on complex case presentations as would be appropriate for specialist referral level practice. To pass this examination, candidates must be able to compose short written answers (each requiring 5–15 minutes) pertaining to case-based material presented. Candidates must demonstrate deep understanding and practical application of equipment used in Feline Medicine. No perusal time will be given for the practical exam. The practical will consist of a series of fifteen (15) questions with sub-questions, equating to a total of 150 marks. Marks allocated to each question and to each sub-section will be clearly indicated on the written paper. Patient images or videos, radiographs, ultrasound images, CT studies, MR images, ECG recordings, cytology images as well as copies of pathology, radiography or other ancillary test reports are likely to be used during this examination.

Following the 3-hour examination, an additional period of 1-hour will be allowed during which the candidate is permitted to review and amend their written answers. The candidate will not have access to the examination question booklet or associated material during this period of time.

#### **Oral Examination:**

The oral examination may cover case-based material or more general discussion, including areas of recent interest or controversy in Feline Medicine. The oral examination is designed to test practical aspects of the learning objectives. To pass this examination, the candidate must demonstrate the required level of knowledge in the learning objectives and to support their opinions with citations of the veterinary literature. Five (5) cases or topics are presented with supporting questions asked verbally in a face-to-face setting. The oral examination has a total of 100 marks with each case allocated 20 marks. Images, pathology reports and other clinical data may be used during this examination.

## TRAINING PROGRAMS

Refer to the Fellowship Candidates Handbook, Section 4.3.

- Fellowship training in Feline Medicine requires a minimum of three years (144 weeks) of directly supervised training (DST) (at least 35 hours each week) at an approved facility. At least 94 weeks is to be spent in clinical practice including a four week externship. Eight weeks is to be spent in training in related disciplines, and the remaining period is to be spent on other requirements including clinical research, conference attendance and participation and the preparation of presentations and publications and 4 weeks annual leave / year.
- 2. It is expected that the primary supervisor holds feline-specific specialist qualifications.

## TRAINING IN RELATED DISCIPLINES

Refer to the Fellowship Candidates Handbook, Section 2.4.2.

The appropriate related disciplines for feline medicine include canine medicine, anatomic pathology, clinical pathology, diagnostic imaging, feline behaviour, small animal anaesthesia, cardiology, dermatology, emergency care, critical care, ophthalmology, neurology, and oncology.

It is a requirement of Fellowship training in feline medicine that the candidate spend time in each of the following training in related disciplines areas:

- Diagnostic imaging
- Neurology
- Oncology
- Cardiology

#### EXTERNSHIPS

Refer to the Fellowship Candidates Handbook, Section 2.4.1.

All candidates must complete at least one externship in Feline Medicine. An externship may be carried out as two by two-week blocks, or a one by four-week block.

Approval may be sought for an externship in Small Animal Medicine at a facility that has a high feline caseload. The externship supervisor may have small animal or internal medicine qualifications.

#### ACTIVITY LOG SUMMARY (Appendix 1)

The Activity Log Summary (ALS) must be recorded throughout the supervised training program in the primary discipline. An example of the Activity Log Summary template is included in Appendix 1. It is recommended that the candidate logs at least 500 cases during the training program. For at least 50% of these cases the candidate should be the primary clinician.

Complex cases may be logged in **up to two categories**; eg a cat with chronic kidney disease and diabetes mellitus can be logged in 'endocrine' and 'renal'.

## ACTIVITY LOG (Appendix 2)

In addition to completing an Activity Log Summary candidates must also complete a Case Log **during their first year of training for a period of three months**. This is to be submitted with the first annual supervisor report (as appropriate) along with the Activity Log Summary. An example of the Case Log is included in Appendix 2.

#### PUBLICATIONS and PRESENTATION REQUIREMENTS

Refer to the Fellowship Candidates Handbook, Section 2.10

Publications in Small Animal Medicine in which both feline and canine species are represented would be considered relevant to the discipline of feline medicine.

#### **PRESENTATIONS:**

In accordance with the Fellowship Candidate's Handbook, candidates in Feline Medicine are expected to present at a national or international conference in the subject of Feline Medicine. Prior approval of the presentation is recommended.

#### **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 and source material. *The list is not comprehensive and is not intended as an indicator of the content of the examination*.

#### Core textbooks<sup>3</sup>:

Ettinger SJ & Feldman EC, editors. *Textbook of Veterinary Internal Medicine*. *Vols 1–2*. 7th edn. Saunders, Philadelphia, 2010 and later editions if available.

Little S. *The Cat: Clinical Medicine and Management*. 1st Ed, Elsevier Saunders, 2012 and later editions if available.

Greene CE, editor. *Infectious Diseases of the Dog and Cat.* 4th edn. Elsevier Science Health Division, 2012 and later editions if available.

Bonagura JD, editor. *Kirk's Current Veterinary Therapy*. Saunders, Philadelphia. Recent issues: XIV (2008), XV (2014) and later editions if available .

August JR, editor. *Consultations in feline internal medicine*. All editions to date. Elsevier Saunders, St Louis. Editions 5, 6 and later should be considered "Core" Textbooks, earlier editions can be considered "Recommended".

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<sup>&</sup>lt;sup>3</sup> Definitions of Textbooks:

**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.

Norsworthy, editor. *The Feline Patient*. 4<sup>th</sup> Edn. Wiley-Blackwell. 2010 (later editions if available).

Harvey, A and Tasker S. BSAVA Manual of Feline Practice. Wiley-Blackwell. 2013.

## **Additional References:**

#### Feline Medicine:

Sherding RG, editor. *The cat — diseases and clinical management. Vols 1–2.* 2nd edn. Churchill Livingstone, New York, 1994.

Candidates must be aware that some of this material is now outdated and use of up-to-date texts and current peer reviewed literature is necessary in order to differentiate outdated from unchanged data.

#### **Internal medicine:**

Nelson RW & Couto CG, editors. *Small Animal Internal Medicine*. 4th edn. Mosby, St Louis, 2009.

#### Dermatology

Guaguère E & Prelaud P, editors. A Practical Guide to Feline Dermatology. Merial, 2000.

Scott DW, Miller WH & Griffin CE, editors. *Muller & Kirk's Small Animal Dermatology*. 7th edn. Saunders, Philadelphia, 2013.

#### Endocrinology

Feldman EC & Nelson RW et al. *Canine and Feline Endocrinology*, 4th edn. Elsevier Saunders, 2015.

#### Gastroenterology

Hall EJ, Simpson JW & Williams DA, editors. *BSAVA Manual of Canine and Feline of Gastroenterology*. 2nd edn. Blackwell Publishing, Oxford, 2005 and later editions if available.

Steiner J. Small Animal Gastroenterology. Schlutersche, Hannover, 2008.

#### Immunology

Day MJ. *Clinical Immunology of the Dog and Cat.* 2nd edn. Manson Publishing, London, 2012.

### Neurology

Thomson and Hahn. *Veterinary Neuroanatomy, A Clinical Approach*. Saunders Elsevier, 2012,

DeLahunta A & Glass E. *Veterinary Neuroanatomy and Clinical Neurology*. 3rd edn. Saunders Elsevier, St Louis, 2009.

Oliver JE, Lorenz MD & Kornegay JN, editors. *Handbook of Veterinary Neurology*. 4th edn. Saunders, Philadelphia, 2004.

## Nutrition

Case LP, Carey DP, Hirakawa DA & Daristotle L. *Canine and feline nutrition*. 3rd edn. Mosby, St Louis, 2011.

## Oncology

Ogilvie GK & Moore AS, editors. *Feline Oncology: A Comprehensive Guide to Compassionate Care*. Veterinary Learning Systems, Trenton, 2001.

Withrow and MacEwen's *Small Animal Clinical Oncology*. 5th edn. Elsevier Saunders, Philadelphia, 2013.

## Ophthalmology

Barnett K & Crispin SM. Feline Ophthalmology. An atlas & text. Saunders, London 1998

#### **Pathology (Clinical)**

Latimer KS, Mahaffey EA & Prasse KW. *Duncan & Prasse's Veterinary Laboratory Medicine*. 5th edn. Wiley-Blackwell, 2011.

#### Pharmacology

Maddison JE, Page SW & Church D. *Small Animal Clinical Pharmacology*. 2nd edn. Saunders, Edinburgh, 2008.

Plumb DC. Veterinary Drug Handbook. 8th edn. Wiley-Blackwell, 2015.

#### Physiology

Guyton AC & Hall JE, editors. *Textbook of Medical Physiology*. 13th edn. Elsevier Saunders, 2015.

#### Cardiology

Fox PR & Sisson D. *Textbook of Canine and Feline Cardiology: Principles and Clinical Practice*. 2nd edn. Saunders, Philadelphia, 1999.

Kittleson MD & Kienle RD. Small Animal Cardiovascular Medicine. Mosby, St Louis, 1998.

Ware W.A. Cardiovascular Disease in Small Animal Medicine. Manson Publishing Ltd, 2011

#### **Core Journals**<sup>4</sup>:

Journal of Feline Medicine and Surgery Journal of Veterinary Internal Medicine Journal of Small Animal Practice Journal of the American Animal Hospital Association Journal of the American Veterinary Medical Association Veterinary Clinics North America-Small Animal Practice

#### **Recommended Journals:**

Australian Veterinary Journal Australian Veterinary Practitioner The Veterinary Record The Veterinary Journal American Journal of Veterinary Research Compendium of Continuing Education for the Practising Veterinarian

#### **Additional Reading Materials:**

The candidate should read widely, especially in relation to information presented at seminal conferences such as ACVIM, College Science Week, and ECVIM.

**Additional Reading Materials:** 

Conference proceedings (e.g. ACVIM, ECVIM and College Science Week), other

<sup>&</sup>lt;sup>4</sup> Definitions for Journals:

**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.

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

### **FURTHER INFORMATION**

For further information contact the College Office

| Telephone:      | International +61 (07) 3423 2016   |
|-----------------|--|
| Email:          | examinations@anzcvs.org.au   |
| Web:            | www.anzcvs.org.au  |
| Postal Address: | Building 3, Garden City Office Park, 2404 Logan Road<br>EIGHT MILE PLAINS QLD 4113 Australia |

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## Appendix 1 – Activity Log Summary

| Case Numbers                | Primary  |       | Assistant | Assistant |       |  |
|-----------------------------|----------|-------|-----------|-----------|-------|--|
|                             | Referral | Other | Referral  | Other     | Total |  |
| Gastroenterology/Hepatology |          |       |           |           |       |  |
| Behaviour                   |          |       |           |           |       |  |
| Cardiovascular              |          |       |           |           |       |  |
| Dermatology                 |          |       |           |           |       |  |
| Endocrinology               |          |       |           |           |       |  |
| Heamolymphatic              |          |       |           |           |       |  |
| Hernia/Body Cavities        |          |       |           |           |       |  |
| Musculoskeletal             |          |       |           |           |       |  |
| Neurology                   |          |       |           |           |       |  |
| Oncology                    |          |       |           |           |       |  |
| Ophthalmology               |          |       |           |           |       |  |
| Reproductive                |          |       |           |           |       |  |
| Respiratory                 |          |       |           |           |       |  |
| Nephrology/Urology          |          |       |           |           |       |  |
| TOTALS                      |          |       |           |           |       |  |

| Total |
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Other (specify)

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## Appendix 2 – Activity Log

| Patient<br>Identifier | Date | Age | Sex | Breed | Referral<br>/Other | Primary/<br>Assist | Emergency<br>/Routine | Clinical<br>Signs | Diagnostic<br>tests | Diagnosis | Body<br>System | Treatment | Outcome | Procedures |
|-----------------------|------|-----|-----|-------|--------------------|--------------------|-----------------------|-------------------|---------------------|-----------|----------------|-----------|---------|------------|
|                       |      |     |     |       |                    |                    |                       |                   |                     |           |                |           |         |            |
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