



AUSTRALIAN AND NEW ZEALAND COLLEGE OF VETERINARY SCIENTISTS

FELLOWSHIP GUIDELINES

Small Animal Surgery

ELIGIBILITY

1. The candidate shall meet the eligibility prerequisites for Fellowship outlined in the *Fellowship Candidate Handbook* (**Appendix 3**).
2. Membership of the College in Small Animal Surgery is a prerequisite to Fellowship unless a candidate is approved for Fast Tracking. See Fellowship Candidate Handbook (2.13) for eligibility criteria.

OBJECTIVES

To achieve sufficient knowledge, training, experience, and accomplishment to meet the criteria for registration as a specialist in Small Animal Surgery in Australia and New Zealand.

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

For the purpose of this document, 'small animal' is defined as the dog and cat.

1. The candidate will have a **detailed**¹ knowledge of:
 - 1.1. the surgical anatomy of the small animal
 - 1.2. small animal physiology and pathophysiology as it applies to surgical diseases

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.

- 1.3. the principles of surgery and use of implants and biomaterials
 - 1.4. the aetiology and pathogenesis of small animal surgical diseases
 - 1.5. the diagnosis, differential diagnoses, treatment and prognosis of small animal surgical diseases
 - 1.6. diagnostic tests and procedures as they apply to the diagnosis and management of small animal surgical diseases including but not limited to clinical pathology, histopathology, radiology, ultrasound, electromyography, arthroscopy, myelography, computed tomography, magnetic resonance imaging, and scintigraphy (for additional information see **Appendix 2**)
 - 1.7. minimally invasive surgical techniques, including but not limited to arthroscopy, laparoscopy and thoracoscopy
 - 1.8. anaesthesia and analgesia as they apply to the management of small animal surgical disease and peri-operative care (for additional information see **Appendix 2**)
 - 1.9. critical care and emergency medicine as they apply to the management of small animal surgical disease and peri-operative care (for additional information see **Appendix 2**)
 - 1.10. pharmacology and chemotherapeutics as it applies to the management of small animal surgical diseases
 - 1.11. tumour biology and clinical oncology as it applies to small animal surgery.
2. The candidate will be able to, with a **detailed² level of expertise**:
- 2.1. perform the breadth of surgical procedures in small animals listed in the Case Minima Table table (see below) to a proficient level as supervised and assessed by ANZCVS registered specialist small animal surgeons or equivalent ACVS or ECVS registered specialist surgeons
 - 2.2. analyse clinical data and interpret diagnostic results to formulate and apply management plans to treat complex small animal surgical diseases
 - 2.3. evaluate and incorporate relevant published scientific information in the management of small animal surgical diseases
 - 2.4. communicate effectively with clients, referring veterinarians and peers
 - 2.5. provide the highest quality care for small animals with the most efficient use of resources in a manner that is responsive to the owner's needs and wishes

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.

- 2.6. advance the knowledge of Small Animal Surgery through clinical investigation, research and publication.

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 (two hours)

The written examination will comprise of two separate three-hour written papers. Written paper 1 and 2 will be taken on two consecutive days and may include a series of short answer questions, multiple choice questions or may require an essay-type response. Each written exam is worth a total of 180 marks and all questions must be answered. The number of marks allocated to each question and any subquestions will be clearly indicated within the written examinations. An additional 20 minutes perusal time is allowed for each paper during which no typing is permitted.

Written Paper 1 (180 marks):

This paper is designed to test the candidate's knowledge of small animal physiology and pathophysiology, the pathogenesis of disease, pharmacology and chemotherapeutics, and the principles of surgery as described in the learning outcomes (1).

Written Paper 2 (180 marks):

This paper is designed to test the candidate's ability to apply the principles of small animal surgery to clinical circumstances and to test the candidate's familiarity with the current practices and issues that exist within the discipline of small animal surgery as outlined in the learning outcomes (1) and (2).

Practical Examination (150 marks):

This examination will consist of a series of 15 case-based questions with each question containing a series of short answer sub-questions. The questions can be related to images, videos and/or examples of diagnostic imaging or tests. Allocated marks to each question will be clearly indicated.

Oral Examination (100 marks):

The oral examination is of up to two hours duration and may consist of questions of a theoretical and practical nature. The oral examination is designed to test all aspects of the Learning Objectives. Candidates may be asked to discuss detailed case material. A number of cases are presented with supporting questions asked verbally in a face-to-face

setting. Images, CT scans, histology slides, MRI scans, radiographs, laboratory data, results of relevant additional diagnostic tests may be used during this examination.

Achievement Standard:

The candidate’s ability to practically manage and perform the breadth of procedures described in the Case Minima Table (section 2.1 of Learning Outcomes in this document) will be assessed directly by the candidate’s supervisors and indirectly by the Training and Credentials Committee of the Board of Examiners. Section 2.4 and 2.5 of the Learning Outcomes will be assessed by the candidate’s primary supervisor. The candidate’s performance in the formal examination process described above will be assessed by an Examination Committee comprised of registered small animal surgery specialists not including the candidate’s primary supervisor.

The following table is a guide to the expectations of the Examination Committee. The assessable criteria will be drawn from the Learning Outcomes listed in section 1 and 2 of this document.

Expectation	Comment
Recall information, facts and data from the literature	Referencing may be requested. Appropriate referencing comprises of noting the <i>name</i> of <i>one</i> of the authors and the <i>year</i> of publication. No additional information is required. For example, questions may ask specific information, specific information from cited articles or literature, or require an assessment of the broader literature.
Show a clear understanding of terminology, concepts, cause and effect and ‘pathophysiology’.	Appropriate use of scientific and veterinary terminology is required.
Apply scientific information, rules and concepts to new situations	
To identify contentious scientific and clinical issues and discuss arguments for and against	Referencing the scientific literature will be required. Justification of your arguments will be expected.
An ability to critically evaluate the scientific and clinical evidence to make and justify a decision	
An ability to consider future directions for topics related to the management of small animal surgical patients based on the scientific literature and recent scientific research	

TRAINING PROGRAMS

Refer to the *Fellowship Candidate Handbook*, Section 3.3

1. The training program must provide intensive training in small animal surgery under direct supervision at a specialist level.
2. The training program requires three years (144 weeks) of directly supervised training (DST) (at least 38 hours each week) at an approved facility:
 - 2.1. at least 96 weeks is to be spent in clinical practice including a four-week externship
 - 2.2. eight weeks is to be spent in training in related disciplines
 - 2.3. the remaining period (40 weeks) is to be spent on other requirements including clinical research, conference attendance and participation and the preparation of presentations and publications
 - 2.4. four weeks annual leave/year.
3. It is a requirement that all Fellowship candidates commencing a training program have two supervisors nominated (*Fellowship Candidate Handbook 2.7.2*), a primary and secondary supervisor. Both must hold a Fellowship or equivalent and be registered as a small animal surgical specialist in Australia or New Zealand and be pre approved by the College. Each supervisor must currently be practicing at least 25 hours per week in small animal surgery. Both the primary and the secondary supervisor must individually provide direct supervision for a minimum of 30% of the residency each, ie a minimum of 27 weeks each, spread over the 3 years. The supervisors can be in the same or different facilities, but both must be pre-approved by the College prior to commencement of a residency. It is acceptable to have Auxillary Supervisors (who also hold a Fellowship or equivalent in small animal surgery and are registered as small animal surgical specialists in Australia or New Zealand) contributing to the training. Where auxillary supervisors are present, there is an expectation of regular dialogue between the primary supervisor and auxillary supervisors to ensure the candidate is making appropriate progress.
4. Direct supervision means simultaneous physical presence of a supervisor and the candidate. The supervisor is scrubbed in together with the candidate as Primary or Assistant surgeon and logged in the Activity Log Summary as the supervising surgeon. After the first 12 months of training, and at the supervisors discretion, a surgical procedure may also be considered as directly supervised when the candidate has previously performed the surgical procedure under direct supervision and has achieved a standard of competence to act as the primary surgeon without the supervisor scrubbed in. In these instances the supervisor should be immediately available (i.e. in the same building) if required to assist with the procedure. The supervisor and candidate must still discuss all aspects of the case management.
5. The candidate must be actively involved in the provision of a surgical emergency service with the same supervision requirements as outlined above. As part of the

residency program pre-approval, the supervisor will need to confirm active involvement in providing a surgical emergency service (see surgical emergency supervisor template – proposal and report - **Appendix 1**). Evidence of this commitment must be provided in the credentials document, activity log summary and case minima table. Surgical emergency cases that do not meet this criteria cannot be included in the activity log summary or case minima table.

6. The candidate should be able to demonstrate active participation in formal teaching conferences such as clinico-pathologic case conferences, resident seminars and teaching and case rounds. They are expected to attend relevant scientific meetings and conferences. A minimum of five seminar presentations must be made by the candidate during the training period and reported in the credentials document using the appropriate form in **Appendix 1**. The candidate is required to present at least one scientific paper at a national or international surgical meeting or conference and this presentation must be pre-approved by the College. *Fellowship Candidate Handbook* (2.10) – the presentation must be at least 12 minutes long with questions from the audience at the end and attended by surgical specialists external to the candidates facility.
7. The Chapter requires the candidate to complete an **Activity Log Summary** (ALS) (**Appendix 1**). The ALS is a table listing each case in sequential manner. The ALS should include a minimum of 400 directly supervised surgical procedures over the training period. 160 of the 400 cases must be obtained whilst the supervisor is physically scrubbed in with the candidate. Cases must be of the type seen in surgical referral institutions which are considered to be specialist procedures. The minimum numbers of specific surgical procedures per body system must be accomplished. The minimum numbers of surgical cases that must be managed by the candidate are shown in the following table. Any single case can be allocated to a single organ system that most appropriately describes the major clinical problem. The candidate should attempt to gain as broad a range of experience as possible. A narrow range of experience within each category (e.g. 80% cystotomies or visceral biopsies) will not meet the minimum requirements. The procedures listed in each category are examples. Candidates need not necessarily accomplish these examples nor restrict themselves to these examples.

Cases suitable for inclusion are those supervised cases where the candidate is directly involved in the decision and planning of the surgical case and is the Primary or Assistant Surgeon. The candidate is the Primary Surgeon when he or she plans and performs the essential parts of the surgical procedure. The candidate should be the Primary Surgeon in at least 160 of the cases. Revisit appointments on the same case for the same presenting problem are NOT to be entered separately in the Activity Log Summary.

The Chapter requires the candidate to document out-patients that are seen over the training period in the Activity Log Summary. Out-patient cases are all those that undergo evaluation and management for a major surgical procedure, whether or not the surgical procedure is then performed. Outpatients **cannot** be included in the case

minima table (see example in ALS provided). Evaluation and managements include, but are not limited to orthopaedic examination, endoscopic examination and lameness investigation.

Exotic/non-feline or non-canine patient surgeries can be included in the ALS, but **cannot** be included in the case minima table.

The Activity Log Summary should also document if a procedure is classified as an emergency surgical procedure (**Appendix 1**).

Candidates need to also provide an **Case Minima Table (CMT) (Appendix 1)**. The CMT is a tabulated listing of the number of cases in each category, including number of emergency cases (> 40 cases), numbers of Feline cases (> 10% cases) and Canine cases (>50% cases). The supervisor must complete a cover letter to accompany the ALS, CMT and a document confirming the candidate is contributing to an emergency surgery service (**Appendix 1**) to satisfy credential document requirements.

For general information regarding the Activity Log Summary and Case Minima Table refer to the *Fellowship Candidate Handbook 2023*.

8. Candidates applying for retrospective approval of training or fast tracking based on eminence must be a resident of Australia or New Zealand.
9. All Small Animal Surgery Fellows must comply with any Australian and New Zealand College requirement for quality assurance and recertification.
10. It is a requirement of the chapter that Small Animal Surgical Fellows must agree to contribute to Membership and/or Fellowship examinations as an examiner **at least twice** in the first 10 years after achieving Fellowship of the College.
11. It is a credentialing requirement of the chapter that Small Animal Surgical Fellowship candidates submit four approved multiple-choice questions (4 x MCQs), on topics nominated by the chapter, that meet the College and chapter (Subject Examination Committee = SEC) requirements as eligible questions. These will contribute to a bank of questions for future examination use.

See form in Appendix 1.

CATEGORY	Minimum NUMBER*
<p>Neurological surgery</p> <p>Includes disc decompression, fenestration, fracture stabilisation, atlantoaxial stabilisation, and cauda equina procedures</p>	40
<p>Thoracic surgery</p> <p>Includes intercostal thoracotomy, median sternotomy and/or thoracoscopic procedures for exploratory thoracotomy, excision and biopsy of tumours, foreign bodies, patent ductus arteriosus, lung lobectomy, pericardiectomy, cardiac surgery</p>	20
<p>Gastrointestinal surgery</p> <p>Includes biopsies of liver, pancreas and gastrointestinal tract, gastric and intestinal resections, anastomosis, gastropexy, liver lobectomy, portosystemic shunts, cholecystectomy, cholecystoenterostomy, partial pancreatectomy and may be via celiotomy, laparotomy or laparoscopic procedure.</p>	70
<p>Abdominal surgery</p> <p>Includes abdominal surgery not associated with gastrointestinal or urogenital tracts, i.e. splenectomy, adrenalectomy, inguinal hernia, diaphragmatic hernia, perineal hernia and may be via celiotomy, laparotomy or laparoscopic procedure..</p>	20
<p>Urogenital surgery</p> <p>Includes cystotomy, cystostomy, partial cystectomy, colposuspension, ectopic ureters, urethrostomy, urethrotomy, nephrectomy, ovariectomy for pyometron or tumour, prostatic surgery, SUB placement and may be via celiotomy, laparotomy or laparoscopic procedure.</p>	30
<p>Head/neck surgery</p> <p>Includes upper airway, ear, salivary gland, rhinotomy, sinusotomy, nasal planum, cleft palate, mandibular or maxillary fractures, mandibulectomy, maxillectomy, thyroidectomy, arytenoid lateralization procedures.</p>	25
<p>Skin/Reconstructive surgery</p> <p>Includes skin grafts, axial pattern flaps, pedicle flaps, degloving injuries, anal saccullectomy, skin and subcutaneous tumours</p>	45
<p>Orthopaedic surgery</p> <ul style="list-style-type: none"> • Osteosynthesis • Joint Surgery • Arthroscopic surgery • Other orthopaedic procedures 	<p>50</p> <p>50</p> <p>30</p> <p>20</p>
Total	400

TRAINING IN RELATED DISCIPLINES

Refer to the Fellowship Candidate Handbook, section 2.4.2

Candidates for Fellowship in Small Animal Surgery must spend 8 of the **144** weeks supervised full time (minimum of 38 hours per week) in the related disciplines training as per the following:

- Small Animal Medicine (2 weeks, minimum 76 hours) (with the recommendation that the trainee gain exposure to specialists in internal medicine, neurology, cardiology and oncology)
- Diagnostic Imaging (2 weeks, minimum 76 hours)
- Anaesthesia and analgesia (1 week, minimum 38 hours)
- Emergency and Critical Care (1 week, minimum 38 hours)
- Clinical and Gross Pathology (2 weeks, minimum 76 hours)

Related disciplines training must be undertaken with a specialist in that discipline, or other person approved by the TCC. Guidelines for TRD are to be found in **Appendix 2**.

All proposed TRDs need to be pre-approved by the College. As part of their credentials document, candidates will provide a TRD Report form, including individual days and hours and some detail of daily activities (**Appendix 1**).

EXTERNSHIPS

Refer to the Fellowship Candidate Handbook, section 2.4.1

All candidates must complete at least one (1) externship of a minimum of four weeks (minimum of 38 hours per week) in Small Animal Surgery to allow exposure to other specialists and facilities.

All proposed Externships need to be pre-approved by the College. As part of their credentials document, candidates will provide an Externship Report form, including individual days and hours and summary of daily activities. The individual cases should be recorded in the main Activity Log Summary (**Appendix 1**).

PUBLICATIONS AND PRESENTATIONS

Refer to the *Fellowship Candidate Handbook*, Section 2.10

Two (2) first author publications accepted in peer reviewed journals are required. At least one of the two publications must be of an original research project for which the candidate had primary responsibility.

Second author papers are not acceptable.

The publications must cover at least two (2) of the following categories: neurological surgery, thoracic surgery, gastrointestinal surgery, urogenital surgery, other abdominal surgery, head/neck surgery, skin/reconstructive surgery and orthopaedic surgery.

Papers must be about an aspect relevant to Small Animal Surgery.

Papers must each cover a different topic and not largely similar material.

Conference abstracts are not acceptable as publications for credentials purposes.

Candidates must seek pre-approval of papers prior to submitting their credential documents (see form in Appendix 1).

ANNUAL REVIEW

Candidates are required to submit an Annual Candidate Report by 31st July each year during their training period. Supervisors are required to submit an Annual Supervisor Report by 31st July each year, signed by both the primary and secondary supervisors. These reports will include the current ALS and CMT. See the *Fellowship Candidate Handbook* (2.7.4) for more details.

RECOMMENDED READING LIST

The candidate is expected to be familiar with the depth and breadth of the published scientific literature related to small animal surgery. The following list is not comprehensive and is not intended as an indicator of the content of the examination. Study of the reading list should be supplemented with relevant additional textbooks, journal articles, conference proceedings and other learning aids to ensure adequate knowledge of the subject area.

The candidate should consult with their supervisor to ensure their scholarly training is sufficient to prepare them for the formal examinations.

Textbooks³

Tobias K. and Johnston S. *Veterinary Surgery: Small Animal* (2nd ed), Elsevier, 2018

Brinker WO, Piermattei D and Flo G. *Handbook of Small Animal Orthopedics and Fracture Repair*. (5th Ed), Elsevier, 2016.

Griffon D. and Hamaide A. *Complications in Small Animal Surgery*, Wiley (1st Ed) 2016

Kudnig S.T. and Seguin B. *Veterinary Surgical Oncology 2nd edition* Wiley Blackwell 2022

Knowledge of basic and applied physiology, pharmacology, anesthesia, and basic applied anatomy (including surgical approaches) is assumed. Guidance for revision on these topics include the following textbooks:

- Cunningham's Textbook of Veterinary Physiology Elsevier (5th Ed), 2012
- Hermanson JW, Evans HE, de LaHunata A. *Miller's Anatomy of the Dog*, Elsevier, (5th Ed), 2019.
- Lumb and Jones. *Veterinary Anesthesia and Analgesia*, Blackwell Publishing, (5th Ed), 2015. *Chapters 1-36, 44-45, 53-57.*
- Boothe DM. *Small Animal Clinical Pharmacology and Therapeutics*, Elsevier, (2nd Ed), 2011. *Chapter 6 (Principles of Antimicrobial Therapy), Chapter 7 (Antimicrobial Drugs), Chapter 19 (GI Physiology), Chapter 29 (Anti-*

Inflammatory Drugs).

- Piermattei's Atlas of Surgical Approaches to the Bones and Joints of the Dog and Cat, Elsevier, (5th Ed), 2013

Journals⁴

FOR THE LAST FIVE YEARS (up until December of the year prior to examination)

- Journal of American Veterinary Medical Association
- Journal of Feline Medicine & Surgery
- Journal of Small Animal Practice
- Veterinary Comparative Orthopedics and Traumatology
- Veterinary Surgery

Questions relating to specific journal articles come from the literature published within the last five years.

FURTHER INFORMATION

For further information contact the College Office

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APPENDIX 1

Links provided below for forms available on the website.

Additional templates attached.

1. Activity log summary (ALS) ([example-als-surgery](#))
2. Case Minima Table (CMT)
3. Supervisor cover letter for ALS
4. Supervisor cover letter for CMT
5. Oral presentation pre-approval template (national or international conference) [Presentation proposal](#)
6. Seminar presentation report template (teaching requirement)
7. Pre-approval publications (research and secondary publication) [Publications-pre-approval](#)
8. Externship proposal template [Externship-proposal](#)
9. Externship report template [Externship-report](#)
10. TRD proposal template [Training Related Discipline proposal](#)
11. TRD report template [Training Related Disciplines report](#)
12. Surgical emergency service proposal template
13. Surgical emergency service report template
14. Confirmation of submission of 4 x MCQs

APPENDIX 1

ACTIVITY LOG SUMMARY

DATE :
SUBJECT: Small Animal Surgery

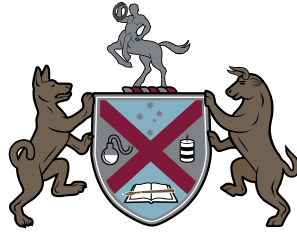
NAME:

Case #	Date	Case Id	Species	Category	Procedure	Emergency Surgery (Y/N)	Primary Surgeon (Y/N)	Supervising Surgeon
1	3-Jul		Feline	Neurological Surgery		N	Y	
-	4-Jul		Canine	Outpatients		N	N	
2	6-Jul		Canine	Gastrointestinal surgery		Y		
3	6-Jul		Feline	Abdominal surgery		N		
4	8-Jul		Feline	Urogenital surgery		N		
5	9-Jul			Head and neck				
6				Skin/recon surgery				
7				Orthopaedic surgery				
-				Outpatients				
8				Skin/recon surgery				
9				Urogenital surgery				
10				Thoracic surgery				

**CASE MINIMA TABLE
(CMT)**

Small Animal Surgery (Fellowship)

CATEGORY	CASE MINIMA	
	<i>Case numbers</i>	<i>Minimum required:</i>
Surgery:		
Neurological	1	40
Thoracic	1	20
Gastrointestinal	1	70
Abdominal	1	20
Urogenital	1	30
Head/neck	1	25
Skin	2	45
Orthopaedic surgery:		
Osteosynthesis	1	50
Joint	0	50
Arthroscopic	0	30
Other orthopaedic	0	20
Species:		
Canine	2	>50%
Feline	3	>10%
	5	
Number of cases as Primary surgeon		
	1	>160
Outpatient cases	2	
Emergency Surgery cases	1	40



**AUSTRALIAN AND NEW ZEALAND COLLEGE OF VETERINARY
SCIENTISTS
Supervisor cover letter for Activity Log Summary Template**

To: The Training and Credentials Committee

Re: **Activity Log Summary for Small Animal Surgery Fellowship Candidates**

Name of Small Animal Surgery Fellowship Candidate:

.....

Name of primary supervisor:

.....

Name and address of training institution (where emergency surgical service was provided):

.....

.....

I hereby attest that the Activity Log Summary provided by this candidate is a true and accurate demonstration of involvement in surgical cases in accordance with the requirements set out in the Fellowship Subject Guidelines.

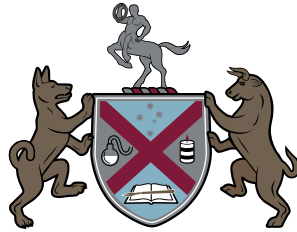
Surgical cases that have not met these criteria have not been included in case minima table.

Signed **(Primary Supervisor)**

Dated

Signed **(Secondary Supervisor)**

Dated



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

Supervisor cover letter for Case Minima Table Template

To: The Training and Credentials Committee

Re: Case Minima Table for Small Animal Surgery Fellowship Candidates

Name of Small Animal Surgery Fellowship Candidate:

Name of primary supervisor:

Name and address of training institution (where emergency surgical service was provided):

.....

.....

I hereby attest that the Case Minima Table provided by this candidate is a true and accurate summary of surgical cases (including primary or secondary involvement, category, species, and emergency surgeries) in accordance with the requirements set out in the Fellowship Subject Guidelines.

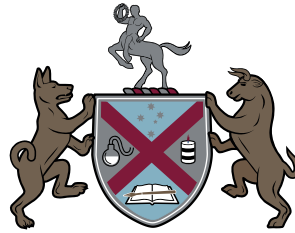
Surgical cases that have not met these criteria have not been included in case minima.

Signed **(Primary Supervisor)**

Dated

Signed **(Secondary Supervisor)**

Dated



AUSTRALIAN AND NEW ZEALAND COLLEGE OF VETERINARY SCIENTISTS
Surgical teaching requirement Report Template

To: The Training and Credentials Committee

Re: SEMINAR PRESENTATIONS – SMALL ANIMAL SURGERY (FELLOWSHIP)

CANDIDATE:

PRIMARY SUPERVISOR:.....

PRIMARY TRAINING FACILITY:.....

Date	Meeting	Title of Presentation	Length (mins)	Internal/external to candidate's facility	External surgical specialists present (Y/N)	Name of convenor/ Contact for convenor (eg email or phone)

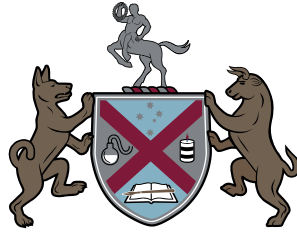
I confirm the above information is accurate –

Signed (Candidate)

Dated

Signed (Primary Supervisor)

Dated



**AUSTRALIAN AND NEW ZEALAND COLLEGE OF VETERINARY
SCIENTISTS
Surgical Emergency Service Proposal Template**

To: The Training and Credentials Committee

Re: **Provision of surgical emergency service**

Name of Small Animal Surgery Fellowship Candidate:.....

Name of Primary Supervisor:

Name and address of proposed training institution (where emergency surgical service will be provided):

.....
.....

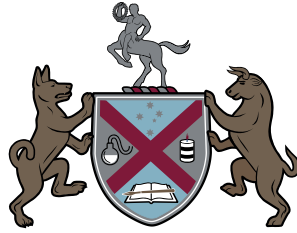
I hereby attest that the candidate will be actively involved in the provision of a surgical emergency service with supervision requirements consistent with the fellowship Subject Guidelines over the duration of the training program.

Evidence of this commitment will be provided in the credentials document as a report and within the activity log & activity log summary.

Surgical emergency cases that do not meet these criteria cannot be included in the activity log summary or case minima table.

Signed **(Primary Supervisor)**

Dated



**AUSTRALIAN AND NEW ZEALAND COLLEGE OF VETERINARY
SCIENTISTS
Surgical Emergency Service Report Template**

To: The Training and Credentials Committee

Re: **Provision of surgical emergency service**

Name of Small Animal Surgery Fellowship Candidate:

Name of primary supervisor:

Name and address of training institution (where emergency surgical service was provided):

.....
.....

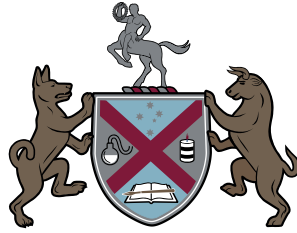
I hereby certify that the candidate was actively involved in the provision of a surgical emergency service with supervision requirements consistent with the fellowship Subject Guidelines over the duration of the training program.

Evidence of this commitment has been provided within the activity log and activity log summary.

Surgical emergency cases that have not met these criteria have not been included in the activity log summary or case minima table.

Signed **(Primary Supervisor)**

Dated



**AUSTRALIAN AND NEW ZEALAND COLLEGE OF VETERINARY
SCIENTISTS**
**Provision of Multiple Choice Questions (MCQs) by Small Animal Surgery
Fellowship Candidates**

To: The Training and Credentials Committee

Re: Provision of acceptable MCQs

Name of fellowship candidate:

Name of primary supervisor:.....

Name and Address of Training facility:

I confirm that 4 x MCQs have been submitted and approved by the SEC by the above candidate.

Signed (Candidate)

Dated

Signed (Primary Supervisor)

Dated

APPENDIX 2:

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

Throughout the three year training program, the Fellowship candidate in Small Animal Surgery must be exposed to and actively involved in training in related veterinary 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 two weeks full time must be devoted exclusively to the study and practice of each of these related disciplines. 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 small animal medicine

The two weeks full time training must be **directly supervised** by a Fellow of the ANZCVS (Small Animal Medicine, Canine Medicine or Feline Medicine), or a Diplomate of the ECVIM or ACVIM, **The role of the supervisor is to provide guidance and training in internal medicine as it applies to the small animal surgical patient.**

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

1. Formulation of a treatment plan that encompasses the medical needs of the surgical patient. Developing the ability to consider an overall view of the patient's situation should be promoted.
2. Monitoring the patient's response to treatment and modifying treatment as indicated.
3. Medical conditions that may affect the patient during anaesthesia, surgery or recovery.
4. Medical treatment as an alternative or as a complement to surgical treatment in selected conditions.
5. Indications for laboratory and other diagnostic tests and interpretation of results

Training in the related discipline of diagnostic imaging

The two weeks full time training must be **directly supervised** by a Fellow of the ANZCVS (Veterinary Radiology), or a Diplomate of the ECVDI or ACVR, **The role of the supervisor is to provide guidance and training in diagnostic imaging as it applies to the small animal surgical patient.**

Training in this discipline is an extremely important component of the three year training program. In many centers, especially for emergency admissions, the surgeon will be directly responsible for performing (or supervising the performance of) and interpreting diagnostic imaging studies. It is essential that the Fellowship candidate be competent in performing or supervising imaging studies, particularly using radiography, and ultrasonography, 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 small animal surgical patient:

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

1. Radiography including digital radiography, contrast radiography and fluoroscopy
2. Ultrasonography including ultrasonography of the musculoskeletal system, abdomen and thorax
3. Nuclear scintigraphy
4. Computed tomography (CT)
5. Magnetic resonance imaging (MRI)
6. Storing images and construction of reports

Training in the related disciplines of anaesthesia and pain management. Plus training in related disciplines of critical care and emergency medicine.

One week in anaesthesia/analgesia and one week in emergency and critical care. Each full time training week must be **directly supervised** by a Fellow of the ANZCVS or equivalent (Anaesthesia and Analgesia) and (Veterinary Emergency and Critical Care). **The role of the supervisor in each TRD week is to provide guidance and training in the discipline of anaesthesia and pain management; and critical care/emergency medicine as it applies to the small animal surgical patient.** A specialist in anaesthesia and a specialist in Veterinary Emergency and Critical Care must sign off and be ultimately responsible for each specific Training in Related Discipline requirements.

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 small animal surgical patient:

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
3. Critical care
 - 3.1. Fluid and electrolyte disorders and their therapy
 - 3.2. Electrolyte disorders and their therapy
 - 3.3. Acid base disorders and their therapy
 - 3.4. Blood component therapy
 - 3.5. Nutrition and metabolism in critically ill surgical patients
 - 3.6. Vascular access
 - 3.7. Haemodynamic monitoring
 - 3.8. Disorders of circulatory flow; haemorrhage and hypovolaemia, colloid and crystalloid resuscitation, cardiac failure
 - 3.9. Monitoring the critically ill patient
4. Pain management
 - 4.1. Basic physiology of acute and chronic pain

- 4.2. Pathophysiological effects of pain in small animals
- 4.3. Recognition and monitoring of pain in small animals
- 4.4. Prevention and control of pain: pre-emptive analgesia, post-operative analgesic techniques, management of acute (including post-operative) and chronic pain
- 4.5. Alternatives for pain management in small animals: drugs administered systemically (including as continuous rate infusion), epidural analgesia. Drug actions and interactions, indications and contraindications, and potential adverse effects.
5. Anaesthesia
 - 5.1. Pre-operative assessment and patient preparation: pre-anaesthetic evaluation and premedication
 - 5.2. Equipment used in general anaesthesia delivery and monitoring
 - 5.3. 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.
 - 5.4. Application of analgesic techniques before, during and after a surgical procedure and knowledge of their influence on the course of anaesthesia
 - 5.5. Anaesthesia induction, maintenance and recovery techniques in small animals
 - 5.6. Tranquilization and anaesthesia in small animals
 - 5.7. Airway maintenance, oxygenation and ventilation, acute respiratory failure
 - 5.8. Special anaesthetic considerations: anaesthesia of the neonate, geriatric patient, patient with systemic disease (eg. SIRS), neurological, renal, liver or respiratory disease and the trauma patient. Anaesthesia of small animals with acute abdomen and other acute abdominal surgeries
 - 5.9. Monitoring during anaesthesia, effects on the respiratory and CV systems and support of these systems during anaesthesia
 - 5.10. Prevention and management of anaesthetic accidents and crises
 - 5.11. Post anaesthetic complications including the prevention, diagnosis and management of post-anaesthetic lameness in small animals
 - 5.12. Current techniques used during recovery from general anaesthesia
 - 5.13. Local and regional anaesthesia techniques used in small animals including dental nerve blocks, epidural and spinal anaesthesia.

Training in the related discipline of veterinary pathology

The two weeks full time training must be **directly supervised** by a Fellow of the ANZCVS (Veterinary Pathology), a Diplomate of the ECVP or ACVP, **The role of the supervisor is to provide guidance and training in pathology including the study and practice of current techniques used in tissue pathology and relevant aspects of microbiology, haematology, immunology and clinical chemistry as it applies to the small animal surgical patient.**

Topics to be reviewed throughout the training program and techniques to gain practical experience will include but are not limited to the following as they apply to the small animal surgical patient:

1. A basic review of quality assurance and quality control to provide the Fellowship candidate with an awareness of quality issues and procedures that reflect best practices for in-hospital testing and for commercial reference laboratories. Aspects that are unique to veterinary medicine, and small animal in particular, which may require adaptation from techniques developed for human testing or which may require special veterinary knowledge for interpretation should be included.
2. Basic knowledge of the time required to perform commonly requested tests and examinations.
3. An introduction to clinical pathology laboratory techniques including haematology, chemistry, and cytology of blood, peritoneal fluid and synovial fluid, and aerobic and anaerobic culture techniques.
4. Review of common stains used for cytologic and histopathologic examination of samples.
5. Current techniques for the collection, transport, storage and preparation of a variety of surgical tissue biopsies.
6. Current techniques for the collection, transport, and storage of a variety of body fluids (including blood, synovial fluid, peritoneal fluid and CSF) and aspirates for laboratory evaluation including cytology and culture.
7. Post mortem examination; systematic gross evaluation of the small animal and collection of samples for additional testing.
8. Interpretation of laboratory results, understanding of pathologic and cytologic terminology and communication with the pathologist.

APPENDIX 3

FELLOWSHIP CANDIDATE HANDBOOK (refer to website)