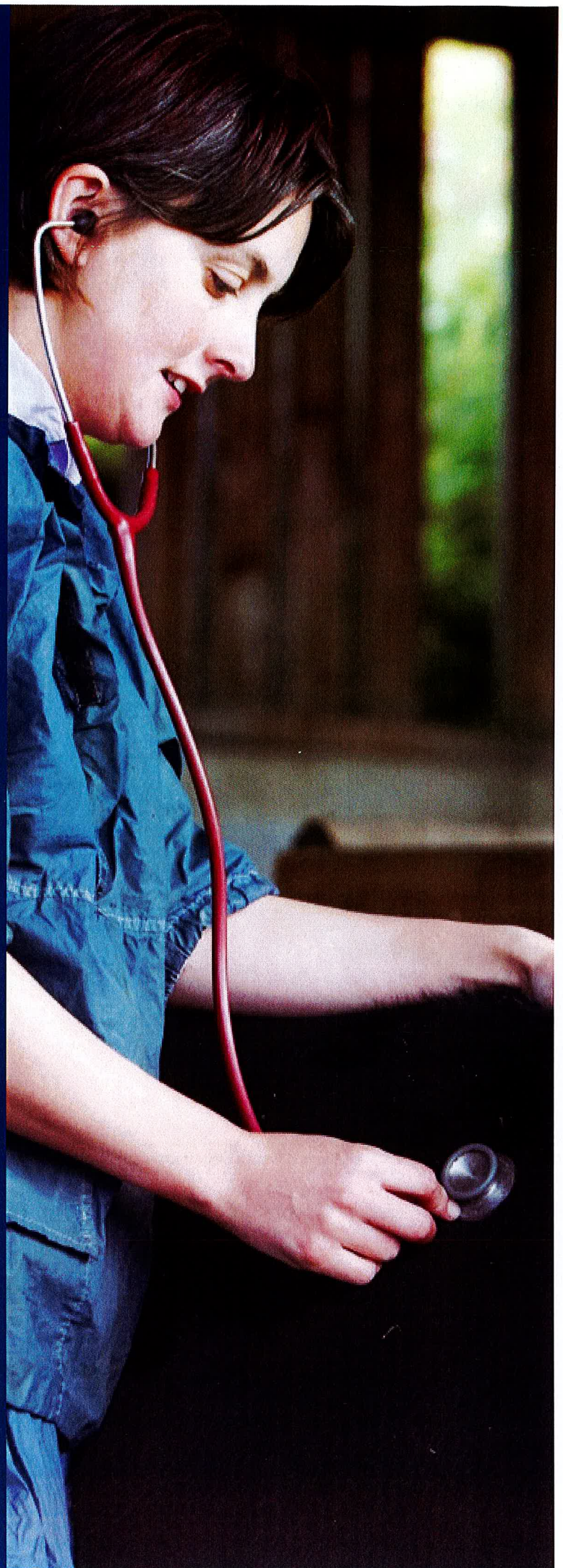


Day One
Competencies

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AVBC Day One Competencies

Document tendered by	Dr Ken Jacobs
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Introduction

Many international veterinary accreditation organisations use Day One Competencies (D1Cs) to convey their expectations of veterinary graduates on “Day One” of their professional careers. The competencies describe the knowledge, skills and abilities veterinarians must possess on “Day One” to serve the interests of their patients and society, and to meet accreditation and the profession’s requirements.

The AVBC has an essential role in determining the “standards of proficiency” for veterinary graduates practising in Australia and New Zealand. The standards for registration are a key benchmark that affects the approval of veterinary degree programs in Australasia and internationally. AVBC ensures accredited programs meet the standards for registration using the Accreditation Standards. D1Cs help inform these Accreditation Standards and provide guidance to students, schools, and the profession about what can reasonably be expected of a graduate at the start of their career.

While D1Cs are not the only standards or specifications that guide veterinary curricula, they are an important way for schools to benchmark the outcomes required for the profession. As the breadth and depth of veterinary knowledge is expanding rapidly, the D1Cs must be forward-facing so that schools carefully design curricula that prepare graduates who are ready for the first day of their careers and who have the knowledge and skills required for continued career development post-graduation. Competencies must also reflect current societal norms with respect to professional viewpoints and behaviour, as well as non-technical skills.

Competencies need to meet certain criteria:

1. They need to be general. Exhaustive lists of what is expected in terms of specific surgical and diagnostic procedures etc., are not within the scope of this document. If “Day One Competencies” are too prescriptive, they may restrict how education providers achieve these outcomes. Plus, such specificities vary over time and practice context. Veterinary schools need flexibility and scope to achieve these competencies using the available facilities and resources. By avoiding prescription, innovation in the development of veterinary curricula is also fostered.
2. Individual veterinary schools are expected to curate more specified lists of skills in which students are expected to become proficient, supporting overarching Day One Competency requirements. They must be carefully defined and recorded so veterinary students can be directly observed and assessed on their knowledge and/or skill acquisition and application.
3. While exhibiting variation, Australasian Accreditation Standards and their associated Day One Competencies need to harmonise with international veterinary accreditation standards to ensure that Australasian graduates meet the requirements expected in regions where their degree is immediately acceptable for registration. The opposite is also true – international

graduates with qualifications recognised by AVBC for immediate registration must meet standards consistent with an Australasian graduate.

4. They are of equal importance. The order in which the domains and competencies are listed in this document does not imply relative importance.
5. They are not intended to be applied across all animal species. Differential levels of expertise are anticipated, with graduates recognising which species will be most relevant to their intended career path and aligning skills development accordingly. Core domestic species serve as the foundation for skills demonstration, with extrapolation to other species applied as indicated.

It is important to note that competencies are attained through a developmental continuum that begins for students during their veterinary programs and continues after graduation. The AVBC competencies are targeted at the minimum level expected by ALL graduates on Day One. They are not written to exceed these expectations. As graduates move from "Day One" of their careers, they must receive support and mentorship from employers, colleagues and peers to continue to build upon these D1Cs. Graduates are expected to self-evaluate their skills on an ongoing basis and plan continuing professional development (CPD) programs to develop further skills and competence appropriate to their career intentions.

The Domains and Competencies in this document have been informed by the work of the American Association of Veterinary Medical Colleges (AAVMC) Competency Based Veterinary Education (CBVE) framework for veterinary education and clinical assessment, the Royal College of Veterinary Surgeons Day One Competences (2022), as well as the European Association of Establishments for Veterinary Education (EAEVE) Day One Competences and World Organisation for Animal Health (WOAH) recommendations on the Competencies of Graduating Veterinarians ('Day 1 graduates').

AVBC DOMAINS OF COMPETENCE

Nine Domains of Competence (DOC) have been identified by AVBC. There are multiple competencies within each DOC. Additional explanations of the context of some competencies are provided. The order in which the domains and competencies are listed in this document does not imply relative importance.

	1. Clinical Reasoning & Decision-making
	2. Individual Animal Care & Management
	3. Animal Population Care & Management
	4. Veterinary Public Health
	5. Communication
	6. Collaboration
	7. Professionalism & Professional Identity
	8. Financial & Practice Management
	9. Scholarship



DOMAIN 1: CLINICAL REASONING & DECISION-MAKING

The following 10 competencies include those relevant to clinical reasoning and decision-making processes that new graduates should apply when examining individual animals and animal populations.

	Competency	New graduate context
1	Obtain an accurate and relevant history of the individual animal or animal group and its/their management and environment.	
2	Handle, restrain and otherwise manage animal(s) safely and humanely, considering animal behaviour and welfare, and instruct others in helping the veterinarian perform these techniques.	New graduates should recognise normal animal behaviour and distinguish abnormal behaviour.
3	Perform a complete clinical examination relevant to presentation and context.	
4	Identify and prioritise problems to develop differential diagnoses and a diagnostic plan, then interpret clinical and diagnostic evidence to establish a diagnosis.	
5	Select appropriate diagnostic tests and techniques, including diagnostic imaging. Safely apply diagnostic techniques and safely collect, preserve and transport samples as applicable. Interpret results of diagnostics, accounting for their limitations.	The type of imaging modality, and level of expertise of use and interpretation, must align with expectations for a new graduate.
6	Develop appropriate treatment and preventive plans and administer appropriate treatments	
7	Tailor the diagnostic, treatment, preventive, and control plans when providing veterinary services, considering animal welfare, client expectations and economic contexts.	New graduates must be mindful of the welfare of the patient(s), whether for an individual animal or a group of animals. They should be able to contextualise and customise the patient's diagnostic, treatment and preventive health plans and provide a spectrum of care when there may be financial or other constraints.



DOMAIN 1: CLINICAL REASONING & DECISION-MAKING

	Competency	New graduate context
8	Utilise traditional and digital technologies and information sources to inform patient care and manage health data.	<p>New graduates should learn to apply digital technologies, including telehealth and real-time health monitoring. This does not require graduates to have a working knowledge of <i>all</i> technologies available - just those most relevant to their practice context.</p> <p>New graduates should also appreciate the value and use of traditional information resources, including personal communications.</p>
9	Adapt and apply knowledge and skills to varied scenarios and contexts, including where information is incomplete.	<p>New graduates should be able to make clinical decisions with an incomplete or unclear clinical picture or unclear diagnosis - for example, a case where a full range of diagnostics cannot be performed.</p> <p>The new graduate should be able to extrapolate core knowledge to novel species or situations.</p>



DOMAIN 2: INDIVIDUAL ANIMAL CARE & MANAGEMENT

	Competency	New graduate context
10	Safely perform sedation and general and regional anaesthesia; implement chemical methods of restraint.	New graduates should be able to sedate, anaesthetise and perform regional anaesthesia in relevant species.
11	Perform routine procedures, including surgeries, identifying associated indications and contraindications and adjusting the procedures as indicated.	New graduates must be able to perform routine procedures in an aseptic fashion. Clinical procedures appropriate for the new graduate include providing fluid therapy, performing dental examinations etc. New graduates are expected to be able to perform a laparotomy.
12	Assess and triage animals in an emergency, perform first aid to stabilise the patient, and refer promptly to appropriate colleagues as needed.	
13	Assess and manage pain.	It is a requirement to prevent, evaluate and score pain and alleviate suffering. Patients' comfort should be monitored proactively and advice given to promote patient wellbeing.
14	Recognise when euthanasia is appropriate and perform it humanely and safely.	Euthanasia should be carried out using an appropriate method whilst showing sensitivity to the owners and others and with due regard to the safety of those present. Confirmation of death should be performed.
15	Perform a systematic, gross postmortem examination, with attention to personal and staff safety, and report findings.	The new graduate should be able to differentiate normal from abnormal findings in the major species. A specialist level examination is not expected. Appropriate samples should be taken for additional testing as needed.



DOMAIN 3: ANIMAL POPULATION CARE & MANAGEMENT

	Competency	New graduate context
16	Assess and advise, at individual and population levels, on clinical and production factors such as the physical condition, welfare, nutritional status, performance and associated management factors of an animal/ group of animals.	
17	Apply principles of population medicine and epidemiological skills to investigate veterinary problems.	Investigations should consider compliance with legal regulations and economic realities where appropriate.
18	Implement and advise stakeholders on practices that promote animal welfare for an animal or group of animals.	New graduates should educate stakeholders on practices that promote animal welfare and advocate for the welfare of animals.
19	Recognise suspicious signs of reportable biosecurity risks (endemic, exotic and zoonotic diseases) and take appropriate action, including notifying the relevant authorities.	
20	Advise on and implement preventive programs appropriate to the species	



DOMAIN 4: VETERINARY PUBLIC HEALTH

	Competency	New graduate context
21	Use One Health principles in veterinary practice, promoting the health and safety of people and sustainability of the environment.	<p>The new graduate should appreciate the intersection of veterinary medicine with human medicine and environmental health (e.g. antimicrobial resistance, emerging infectious diseases).</p> <p>They should appreciate the role of the veterinarian in food safety. They should be able to advise on the management of animal waste, carcasses, and by-products.</p>
22	Develop, evaluate, recommend, and practise protocols for biosecurity, biosafety and infection prevention and control (IPC).	<p>The new graduate should be able to apply isolation, disinfection and disease management strategies to prevent disease transmission between animals, humans or self.</p>
23	Perform antemortem and postmortem inspection of animals and make appropriate decisions to protect the food chain and animal welfare at the point of slaughter.	<p>The new graduate should be able to correctly identify conditions affecting the quality and safety of products of animal origin, excluding those animals whose condition means their products are unsuitable for the food chain.</p> <p>It is acknowledged that in most contexts, people will receive further training from the statutory body.</p>
24	Apply veterinary elements of food safety standards and practices throughout the production chain, including on the farm and during food processing.	<p>New graduates need to recognise their role in the longitudinal protection of the food chain, particularly at the farm level.</p> <p>They need to apply food safety principles, such as HACCP, GHP, food business audit, and risk assessment.</p>



DOMAIN 5: COMMUNICATION

	Competency	New graduate context
25	Communicate effectively with clients, the public, professional colleagues, and responsible authorities, using language appropriate to the audience and context.	
26	Maintain accurate, consistent, and contemporaneous records in a clinic database, which allows for case transfer and protects client privacy.	Patient records should be sufficiently clear that they can be referred to by others and (if written by hand) be legible. Professional terminology should be used, avoiding idiosyncratic abbreviations or jargon.



DOMAIN 6: COLLABORATION

	Competency	New graduate context
27	Demonstrate inclusivity and cultural competence and act to respect and promote diversity in all elements of practice.	Diversity includes, but is not limited to, neurodiversity, physical diversity, cultural and linguistic diversity, ethnic and racial diversity, First nations diversity, sex, gender and sexuality diversity.
28	Work effectively as a member of a professional/ inter-professional team, fully recognising the contribution of each professional while promoting equity and inclusion.	Professional skills such as teamwork, leadership, collaboration, conflict resolution, and collegial interaction are essential to all forms of practice.
29	Collaborate with external referral, diagnostic and other professional services, including providing an appropriate history and clear communication.	Graduates should maintain an ongoing relationship, where possible, to aid the continuity of collaborative effort.



DOMAIN 7: PROFESSIONALISM & PROFESSIONAL IDENTITY

	Competency	New graduate context
30	Act professionally and ethically, compliant with legal and regulatory requirements of the relevant veterinary statutory body.	
31	Issue certificates, applying principles appropriate to the relevant veterinary statutory body.	
32	Prescribe, dispense and use medicines correctly and prudently, including recording and reporting adverse reactions, in accordance with legislation and current prescription guidelines.	<p>New graduates must understand and apply principles of judicious antimicrobial, anthelmintic and insecticide use to minimise the risk of residues and pathogen resistance.</p> <p>Medicines should be dispensed in accordance with regulatory and legal requirements (e.g., controlled substances, off-label/extra-label drug use).</p>
33	Engage in self-directed learning, continuing professional development and career planning, acknowledging the need for self-care in the context of maintaining competency.	<p>New graduates are not expected to know everything – they must engage in further learning to expand their Day One knowledge and skills in their area of practice and continue to assimilate the clinical advances that occur over their working life.</p> <p>Professional skills should be developed over time in areas such as, but not limited to, communication and leadership. They should appreciate the variety of career streams available to veterinary graduates.</p>
34	Recognise limitations of knowledge, skills and resources, consult with colleagues as needed, and identify situations in which referral is warranted.	<p>New graduates need to identify when they need advice, assistance and support from colleagues and when they need to refer a case to others.</p> <p>They should be comfortable consulting with experts within and outside the veterinary profession.</p>
35	Reflect on personal actions, including inviting and responding to constructive feedback on performance.	The new graduate should have the ability to appropriately respond to constructive feedback on performance and have the ability to critique their own decision-making processes, reflecting on performance and critical events and learning from the outcomes to guide their future practice.
36	Practise time management, including recognising the impact of time management on stakeholders and self.	The new graduate needs to be punctual for work obligations. They should recognise the need to allocate additional time for procedures and case workups until they gain confidence and experience in practice. They should prioritise tasks according to importance and urgency.



DOMAIN 8: FINANCIAL & PRACTICE MANAGEMENT

	Competency	New graduate context
37	Demonstrate fundamental knowledge of the organisation, management, business principles, legislation related to veterinary business(es), and personal financial management.	<p>The new graduate should know their own and their employer's responsibilities in relation to employment, professional and public liability.</p> <p>They should comply with workplace health and safety legislation, professional standards, protocols and policies of the workplace.</p> <p>Basic financial concepts should be understood, including an awareness of how fees are calculated and how income, overheads, and other expenditure affect the running of a veterinary business. Graduates should be able to contextualise their contributions to practice operations and/or profitability. They should have an awareness of essential personal finance and debt management skills.</p>
38	Promote health and safety of patients, clients, colleagues and themselves in the veterinary setting, including applying risk management principles to practice.	<p>New graduates should advocate for the health and safety of themselves and others. They should engage in self-assessment and attend to their mental and physical care and needs.</p> <p>They should be able to recognise signs of stress in themselves and colleagues and appreciate when professional support is appropriate.</p> <p>New graduates must appreciate the conceptual framework of risk assessment and risk management, such that this approach is an inherent component of their practice.</p>



DOMAIN 9: SCHOLARSHIP

Scholarship is academic study and the knowledge that is obtained from it.

	Competency	New graduate context
39	Critically review and evaluate evidence from traditional and digital resources, aligned to evidence-based veterinary practice.	<p>Evidence-based veterinary medicine (EBVM) is fundamental to the practice of veterinary science. New graduates must be able to appreciate the difference in value to be attached to different types of resources (oral, written, digital).</p> <p>They must be able to evaluate scientific papers, articles in the lay press and online information. They must be able to recognise commercial and other forms of bias.</p>
40	Contribute as appropriate to the advancement and dissemination of veterinary knowledge to improve the quality of animal care and public health.	<p>Australasian graduates are expected to apply professional-level research skills as part of their degree (i.e., aligned to AQF 8-9 levels).</p> <p>The principles learned are applicable in the practice of EBVM.</p> <p>New graduates should be aware of how the quality of animal care and public health can be improved through the dissemination of veterinary information. They can contribute to the dissemination of veterinary knowledge in many ways, for example participating in clinical research studies or creating client education factsheets.</p>

Abbreviations & Definitions

AQF	Australian Qualifications Framework ¹
Competency	An observable ability of a health professional related to a specific activity that integrates knowledge, skills and attributes. Since competencies are observable, they can be measured and assessed to ensure their acquisition. ²
Domain of Competence (DOC)	Broad distinguishable areas of competence that in the aggregate constitute a general descriptive framework for a profession. ³
Evidence Based Veterinary Medicine (EBVM)	Evidence-based veterinary medicine is the formal strategy to integrate the best research evidence available combined with clinical expertise as well as the unique needs or wishes of each client in clinical practice. ⁴
GHP	Good Hygienic Practices
HACCP	Hazard Analysis Critical Control Point
Infection Prevention and Control (IPC)	An evidence-based approach to prevent patients and health workers from being harmed by avoidable infections. ⁵
Neurodiversity	The virtually infinite neurocognitive variability within the human population. It points to the fact that everyone has a unique combination of abilities and needs. ⁶
One Health	An integrated, unifying approach that aims to sustainably balance and optimise the health of people, animals and ecosystems. It recognises the health of humans, domestic and wild animals, plants, and the wider environment (including ecosystems) are closely linked and inter-dependent. The approach mobilises multiple sectors, disciplines and communities at varying levels of society to work together to foster wellbeing and tackle threats to health and ecosystems, while addressing the collective need for clean water, energy and air, safe and nutritious food, taking action on climate change, and contributing to sustainable development. ⁷
Spectrum of Care	Provision of a continuum of acceptable care that considers available evidence-based medicine while remaining responsive to client expectations and financial limitations. ⁸

1 <https://www.aqf.edu.au/>

2 Frank, J.R., Snell, L.S., Ten Cate, O., et al. (2010) Competency-based medical education: Theory to practice. *Medical Teacher*, 32(8), 638-645.

3 Englander, R., Cameron, T., Ballard, A.J., et al. (2013) Toward a common taxonomy of competency domains for health professions and competencies for physicians. *Academic Medicine*, 88(8), 1-7.

4 Evidence-Based Veterinary Medicine Association. <https://www.ebvma.org/>

5 World Health Organisation (WHO): https://www.who.int/health-topics/infection-prevention-and-control#tab=tab_1

6 Singer J. <https://neurodiversity2.blogspot.com/p/what.html>

7 UN Environmental Programme (2021). Joint Tripartite (FAO, OIE, WHO) and UNEP statement in support of OHHLEP's definition of "One Health." <https://wedocs.unep.org/bitstream/handle/20.500.11822/37600/JTFOWU.pdf>

8 Brown, C. R., Garrett, L. D., Gilles, W. K., Houlihan, K. E., McCobb, E., Pailier, S., Putnam, H., Scarlett, J. L., Treglia, L., Watson, B., & Wietsma, H. T. (2021). Spectrum of care: more than treatment options. *Journal of the American Veterinary Medical Association*, 259(7), 712-717. Retrieved Oct 30, 2022, from <https://avmajournals.avma.org/view/journals/javma/259/7/javma.259.7.712.xml>

**Australasian Veterinary
Boards Council Inc.**

No. A00390074L

ABN 49 337 540 469

Level 8, 470 Collins Street
Melbourne Vic 3000

Tel: +61 3 9620 7844

www.avbc.asn.au

