ABVMA
Alberta Veterinary Medical Association

May 12, 2023

Agricultural Service Board Executive Committee
c/o Mr. Sebastian Dutrisec
Chair, ASB Committee
Delivered Via Email

Dear Mr. Dutrisec and the Agricultural Service Board Provincial Committee Members,

Re: Response to ASB Resolutions 1-23 and 2-23

The Alberta Veterinary Medical Association (ABVMA) is the professional regulatory organization responsible for regulating and supporting the profession of veterinary medicine in Alberta. This includes regulatory oversight and advocacy for both Alberta's veterinarians and veterinary technologists (RVT's). There are 3982 professionals practicing in Alberta which is comprised of 1925 practicing veterinarians and 2057 technologists many of whom are practicing medicine within one of the 580 veterinary practices located throughout Alberta. Less than half of those practices are located in rural Alberta.

We would like to thank the Agricultural Service Board for your willingness to address the shortage of veterinary professionals in Alberta. You recently passed two resolutions, Resolution 1-23, Creation of a Mid-level Alberta Veterinary Medical Association (ABVMA) Professional Designation and Resolution 2-23 Rural Veterinary Students. We recognize that these two resolutions are intended to provide some solution to this complex problem of veterinary professional labour shortage, especially as they affect rural animal owners. While we recognize the intention of the resolutions, we would like to provide some updates on the activities we have been undertaking that will hopefully provide some insight and will allow us to further our discussion with you on some key activities for which we would seek your support.

Our association works closely with partner organizations including the Alberta Veterinary Technologists Association (ABVTA), University of Calgary's Faculty of Veterinary Medicine (UCVM), the intensive livestock sector, the Rural Municipalities of Alberta, Alberta Municipalities, and the Alberta government. Together we have been actively engaged in addressing the issue of veterinary professional shortages which are at a crisis level not only in Alberta but globally. Although labor shortages affect both mixed animal and companion animal veterinary practice, we have been especially aware of the acute need of veterinary professionals in rural communities.

In 2020, ABVMA undertook a workforce study with the support of the Alberta government. This report was completed in 2021 and underscored the crisis level shortage of veterinarians and veterinary technologists in the province. Today we need nearly 900 professionals that includes at minimum 377 veterinarians and 487 technologists. In less than 20 years we will need three and

Bldg #3, Elm Business Park, Suite 104, 9452–51 Ave NW, Edmonton, AB T6E 5A6
P: 780-489-5007 | F: 780-484-8311 | W: **www.abvma.ca**

a half times that amount. Even today, in 2023 the professional job vacancy rate exceeds the provincial job vacancy rate and attrition in clinical practice remains high at 3% for veterinarians and 8% for RVT's. We know that with Alberta having the highest pet ownership rate in Canada at 65% and with continued growth of foundational livestock production, the demand for veterinarians and technologists is increasing.

We also know that educational seats are not keeping pace to the demand of students. In the Alberta Budget 2022-23, the Alberta government committed $69 million to UCVM to expand the veterinary program from 50 students to 100 students over 3 years. This was a generational investment and was the first time since the inception of the school in 2005 that money was allocated to veterinary medicine in Alberta. Of note, you must be an Alberta resident to attend UCVM making this a critical investment in veterinary education of Alberta students. Additionally in budget 2022, money was available for colleges offering animal science programs including registered veterinary technologist education.

We also recognize that only 7-9% of the veterinarians registered to practice in Alberta are international trained veterinarians. With a global shortage of veterinarians, it is competitive to attract professionals from an accredited school. Internationally trained veterinarians require support to ensure successful placement. Alberta does not have an bridging program at UCVM which will allow more veterinarians from non-accredited schools to come to Alberta.Receiving some short-term training in the form of a micro-credentialing program will augment their veterinary knowledge and skills to ensure they are at the Canadian standard that animal owners expect.

Despite the 50 additional seats allocated under budget 2022, we believe that was a start and not an ending. There is a need to expand seat capacity at UCVM and the four technical colleges in Alberta offering veterinary technologist (animal health technology) education in Alberta. We also believe that further collaborative work needs attention to attract and retain professionals in rural communities in Alberta. We want to assure you that we have been addressing this issue with our partners as a profession. We need the assistance of stakeholders like you to also make positive strides to growing a veterinary workforce that comes and stays in rural practice. We need to ensure we are working collaboratively and with an understanding of the complexity of the issues.

Resolution 2-23

As per resolution 2-23, one of the ways you have identified to help rural Alberta veterinary shortages is by *"…directing the University of Calgary to adjust admissions to the Faculty of Veterinary Medicine for students from rural areas applying by providing credit for rural acuity and prioritize students who intend to specialise in large animal practice and return to work in rural areas following completion of their program"*. As a profession we work closely with the UCVM and are very pleased that, beginning with the class admitted in the fall of 2022, they have changed their selection policy and process to acknowledge that academic ability is necessary but not sufficient. There is three step process that includes:

1. Confirm Academic Ability: the qualified pool consists of Alberta residents who have a minimum GPA of 3.0 on their four most recent full-time terms of undergraduate education, a passing grade in 10 of the required courses and a score of at least 495 on the MCAT within 3 years of application.

2. File Review: each qualified applicant's file is reviewed by 3 members of the file review subcommittee to score "goodness of fit" for the UCVM DVM program, which includes assessment of rural attributes. The top 128 are invited for an interview.

3. Non-academic attributes: are evaluated which includes multiple mini-interviews and an on-site essay. The activities of the rural students are highlighted including their hobbies, agriculture experience, work experience, etc.

Interestingly, of the 50 students accepted in 2022 who will graduate in 2026, 36.5% identify their home as an acreage or farm within a community of less than 10,000 population. 32.7% identify themselves as residing within a metropolitan region of more than 50,000 people. The data from this class supports us saying that rural students are being accepted to the veterinary program. Additional data for the class to be admitted in the fall of 2023 will be available shortly ABVMA is pleased that UCVM has made significant changes to its admissions process and requirements that are not solely academically focused and that consider a student's overall qualifications which will not disadvantage a rural student.

UCVM has also provided information on where the veterinary graduates go upon graduation. Out of the 273 graduates from 9 graduating classes, 195 veterinarians, or 71% are registered to practice in Alberta. Of the 195 veterinarians working in Alberta, 92 (47%) are working in small communities (defined as a community of less than 37,000 people) and 83 (43%) are working in large urban communities (defined as a community with population greater than 100,000. The remainder will work in academia, industry, or other animal facilities such as feedlots and zoos. This means that of all the 273 graduates of UCVM since inception, 33.7% are working in a small community in Alberta.

The data supports that not only are rural based students being selected for the veterinary program at UCVM, but they are also returning to those smaller communities. Despite this, we recognize that there are not enough graduates for the demand making increasing capacity of seats critical for Alberta. We also note that graduates are returning to rural Alberta and mixed animal practice, but they are not staying. Retention is an issue for veterinarians and technologists in rural Alberta because of a number of factors among which include reliable broadband services, livable housing, and daycare options.

Resolution 1-23

We also want to address the issue raised by ASB's resolution 1-23 that requests "*The Alberta Minister of Job, Economy, and Northern Development work with the ABVMA to create a Mid-Level Veterinary Professional designation within the Veterinary Profession Act to address the rural veterinary shortage and provide mid-level supportive care to Alberta livestock producers with veterinary oversight, including but not limited to:*

1. *Pregnancy checking*
2. *Vaccination*
3. *Semen testing*
4. *Blood draws*
5. *Injections*
6. *Catheterization*

7. *Wellness checks*
8. *Renewing prescriptions*
9. *Establishing required relationship for producers to purchase prescribed medicines."*

The veterinary profession is facing shortages of veterinary technologists that exceeds normal practice standards. There is a demand for veterinary technologists with recent graduates having no delay for job entry. The four veterinary technology (animal health technology) programs in Alberta are competitive meaning there are more qualified applicants than there are seats for all the students looking for technologist education. Quite simply, there is not enough educational capacity to graduate enough veterinary technologists and there is a need for further government investment in the veterinary technology educational programs.

Attraction of veterinary technologists from other jurisdictions including Canada, the US and international is minimal largely because of the non-competitive wages in Alberta. Retention is an issue in rural Alberta due to the low wages and physical demands of the job combined with a lack of services such as daycare, options for livable, affordable housing and educational options for children. Ninety-eight per cent (98%) of technologists are female, they are on average between 25 and 29 years of age and remain in clinical practice for an average of 9.31 years. In a recent compensation survey, it was found that while the average hourly compensation for veterinary technologists in urban Alberta is $27.07, the average hourly rate in rural Alberta practice is only $24.95. Technologists are choosing the career but not staying in it making turnover within the profession very high. We do not believe that a new level of professional will address these issues facing a technologist. In fact, adding in an additionally trained professional will place greater financial strain on the veterinary practice and higher fees for veterinary service will result.

The ABVMA policy regulating delegation of veterinary services to a registered veterinary technologist (RVT) has been updated as of February 2023 with both the veterinarians and veterinary technologists working collaboratively and in agreement to this new professional standard. This was in collaboration with the Alberta Veterinary Technologists Association (ABVTA). It is accepted that the barrier to increasing the engagement of veterinary technologists in veterinary practice is mainly culture in veterinary practices and is not a regulatory barrier. Updated policy seeks to encourage increased engagement of veterinary technologists in practice.

Under the Veterinary Profession General Regulation, sec 9(2), veterinarians may delegate veterinary medical services to registered veterinary technologists. A veterinarian-client-patient relationship (VCPR) must exist prior to delegation of any medical task. The VCPR exists by virtue of the registered veterinarian having sufficient knowledge of a person's animals by examination of the animals, and/or medically appropriate and timely visits to the premises where the animals are kept.

The scope of practice that may be delegated by a veterinarian to a veterinary technologist, pursuant to a VCPR being in place between the client and the veterinarian, is defined as:

> *(2) A technologist may practice all aspects of veterinary medicine other than (a) making a diagnosis (b) determining a course of treatment (c) applying surgical techniques.*

Registered Veterinary Technologists (RVTs) are allowed, by legislation, to perform a broad scope of primary animal health care tasks and veterinary practice activities. RVTs are

precluded from making a diagnosis, determining a course of treatment (which includes prescribing medications), or performing any surgical procedure. RVTs may appropriately perform triage in the absence of a VCPR.

Whether a specific veterinary medical procedure is delegated, and the level of supervision required for RVTs performing various tasks is determined by the veterinarian's assessment of the competency of the technologist, the complexity of the task and the risk to the patient and client. The veterinarian is responsible for verifying the competency or skill level of the employee to whom any procedure is delegated. Verification is achieved by observing and evaluating to the satisfaction of the individual registered ABVMA member.

Certain higher risk procedures, such as administering anesthesia, while they may be delegated, require a higher level of supervision by a veterinarian given the risks and obligation to protect the public interest.

The following skills are medical in nature, constitute the practice of veterinary medicine, pose a risk to the patient and the public, and therefore can only be delegated to a registered veterinary technologist.

Client Relations/Practice Management • Obtain client informed consent. • Administer and maintain Infection Prevention and Control and biosecurity protocols and staff education with a focus on limiting hospital-acquired infection, recognition of potentially infectious patients, isolation protocols • Develop and provide client education on topics including clinical nutrition, tube feeding care, • diabetes management, behaviour, post chemotherapy care • Discharge medical/surgical patients with communication of medical instructions • Participate in the development, implementation and review of practice policies, protocols and procedures • Perform patient triage including teletriage
Pharmacy • Prepare and dispense pharmaceuticals, including performing final check • Prepare and administer medications i.e. calculate, reconstitute, dilute oral and parental, IV fluid rates, constant rate infusions • Educate clients regarding prescribed drugs i.e., indications and contraindications, handling, storage, administration, side-effects, drug interactions, safety for patient and humans • Use and explain the 5 rights of pharmaceuticals and biologics • Respond to abnormal and normal responses to medication • Handle, measure and administer controlled substances • Maintain controlled substance acquisition and usage logs Nursing Procedures
Nursing Procedures • Perform a comprehensive physical examination including assessments and documentation of findings including mentation, heart rate, pulse rate, respiratory rate, heart/lung sounds, body condition score, pain score, hydration

- Perform venipuncture for treatment or blood sampling including identifying appropriate and inappropriate sites and blood volumes
- Administer oral and parenteral medications
- Administer biologicals (including rabies)
- Express anal sacs
- Perform fluorescein staining, Schirmer tear test and tonometry
- Establish and manage intravenous access sites as determined by the patient conditions and therapy required
- Administer and maintain fluid therapy
- Assess volume status and administer crystalloid and colloids via infusion pump or drip set. Assess response to fluid therapy plan 5
- Collect and administer blood and blood products, monitor administration, and adjust administration as required
- Place and maintain of advanced catheters such as PICC lines, intraosseous, arterial, central, catheters
- Perform and evaluate invasive (pressure transducer or aneroid manometer) and non-invasive blood pressure measurement. (oscillometric, Doppler, etc)
- Perform thoracocentesis and non-surgical chest tube placement
- Maintain chest, tracheotomy, pharyngostomy, nasogastric, esophagostomy tubes
- Place and care for urinary catheters
- Collect urine samples including by cystocentesis (including ultrasound guided)
- Setup and evaluate normal vs abnormal ECG
- Apply established emergency protocols for CPR e.g. RECOVER CPR Algorithm
- Perform appropriate wound care
- Administer enemas
- Perform tattoo
- Insert microchip
- Trim hooves
- Clean sheath
- Calculate and administer nutritional support using a variety of techniques (esophagostomy, nasogastric, parenteral)
- Perform nasogastric intubation
- Use esophageal feeder
- Apply and remove bandages and splints
- Remove sutures or staples
- Remove casts
- Perform rehabilitation techniques including massage therapy, cryo/heat therapy, range of motion, low level laser therapy, shockwave therapy
- Explain timing and types of pregnancy testing
- Semen collection
- Electrostimulation and semen collection for breeding soundness examination
- Perform artificial insemination
- Assist and prepare for large animal reproductive procedures including embryo flush, oocyte aspirations, endometrial biopsies etc
- Assist with birthing, both routine and dystocia
- Provide resuscitation and nursing care to neonates

Peri and IntraOperative Procedures

- Organize medical records/consent forms, review pre-operative evaluation, evaluate current patient status, organize, and implement anesthesia
- Perform a surgical clip and aseptic prep application
- Perform set-up, maintenance, troubleshooting and operation of surgical equipment including suction, cautery, laser and fiberoptic equipment
- Aseptically handle tissues, instruments, and supplies during surgery
- Administer post-operative care including hydrotherapy, orthopedic, and neurological care Perform the role of laser safety officer

Dental Prophylaxis

- Perform scaling and polishing, subgingival scaling, root planing and curettage
- Probe, measure, and chart pockets with a periodontal probe; grade periodontal disease; complete dental chart
- Obtain diagnostic images using intraoral radiology positioning
- Perform dental anesthesia blocks
- Perform flotation of equid teeth Rabbit and rodent non-surgical occlusal adjustment and correction

Anesthesia

- Review patient history, PE, and diagnostic results in collaboration with a veterinarian to assign patient anesthetic status score (ASA)
- Assign appropriate numerical pain score after reviewing patient history and physical examination in conjunction with evaluation of any prescribed analgesic plans to provide effective pain management
- Set up, test, and/or troubleshoot anesthesia machines and breathing circuits
- Develop patient-specific anesthetic protocols for veterinarian review and implementation to provide effective pain management and maximum anesthetic
- Calculate dosages for and administer injectable analgesics and anesthetics as prescribed by the veterinarian
- Perform regional nerve blocks i.e. dental, biopsy site, testicular, linea, distal limb
- Perform epidural anesthesia Utilize ECG, capnography, pulse oximetry, blood pressure monitors and thermometers to assess patient status and anesthetic depth
- Use clinical signs and monitoring equipment to monitor patient status in all stages of anesthesia
- Record and maintain anesthesia and operative medical records
- Evaluate the effects of common pre-anesthetic, induction, and maintenance drugs, recognize, and respond to adverse reactions, complications, or emergencies
- Use and assess peripheral nerve simulation
- Monitor and evaluate appropriate extubation time, anesthetic recovery, postoperative care, and pain management during the recovery period

Diagnostic Procedures

- Perform urinalysis
- Perform CBC
- Identify blood, external and internal parasites
- Perform blood chemistry tests
- Perform serologic tests
- Perform bacteriologic procedures
- Examine canine vaginal smears

• Assist in collecting, preparing, and appropriately evaluating transudate, exudates & cytologic specimens e.g. joint, cerebrospinal, airway and body cavity • Perform and evaluate fine needle tissue aspirates and impression smears • Perform point of care tests e.g. lactate, blood glucose, ketostix Collect and evaluate skin scrapings • Perform blood type and cross match, and evaluate results • Prepare and stain bone marrow specimens • Examine semen • Evaluate blood gases • Perform California mastitis test • Perform necropsy procedures including collecting photographs, videos and tissue samples Prepare samples for analyses and submission • Perform the role of lab quality assurance officer
Diagnostic Imaging • Operate and maintain xray, CT and MRI machines to produce diagnostic images • Calculate and administer contrast media via different routes for contrast studies • Maintain and utilize ultrasound to obtain diagnostic images* • Perform the role of radiation quality assurance officer • * Council has established policy for pregnancy detection by ultrasound in beef cattle and small ruminants
Euthanasia • Discuss quality of life assessments with client • Administer premedication and euthanasia solution with or without client present • Confirm patient is deceased * Council has established policy for pregnancy detection by ultrasound in beef cattle and small ruminants

While engagement of the RVT in clinical practice has been improving, the ABVTA and ABVMA continue to work on educating practice owners and staff on utilization of technologist and retention strategies. A new class of professional as suggested by this resolution will not improve utilization of RVT's, and a new professional will take considerable time to establish. The expectation would be that ABVMA membership and stakeholders would need to be consulted on the scope of practice and utilization of the professional. Further, the current legislation provides that the scope of practice that may not currently be delegated to am RVT is narrow – making diagnosis, surgery and determining the course of treatment. Any scope of practice afforded to a new professional designation would venture into the scope of practice for a veterinarian. A new curriculum would need to be developed at colleges and would require extensive consultation and ongoing advocacy for additional public dollars for this educational program. Legislation would need to be changed to accommodate this new professional which is at the discretion of the provincial government. We estimate this process to take 4-6 years with dedicated work from the profession, academia, government, and stakeholders including ASB.

The concept of a "mid-level practitioner" has been discussed across Canada and in the US. While it is acknowledged that at some point it may play a role in delivery of veterinary medical servcies, there is an unrecognized opportunity to leverage improved engagement of veterinary technologists in clinical practice.

While we appreciate ASB's interest in and resolutions related to the veterinary professional workforce shortage, we believe that time will be better spent working with Alberta's post-secondary institutions to ensure that the veterinary professional educational programming is relevant and meeting the needs of animal owners. Micro-credential programs at Alberta's technical colleges for RVT's will provide a technologist interested in expanding their knowledge and skills an opportunity in a shorter program of study. In our study of the labour issues, we believe these actions will improve retention of RVT's much better than a new classification of professional that will take, considerable time and money to implement.

We also believe that rural communities need to be engaged in attraction programs to their communities. Providing veterinary students with a positive experience for summer employment in a rural veterinary practice requires a community to be engaged and welcoming to that student. Municipalities that have housing that is affordable and livable will be attractive to a student and professional. Local bursaries are helpful, but success will be best achieved when your local veterinary practices are engaged, and the definitions of eligibility are not narrowly defined.

We also believe that engagement with younger students, those in junior high and high school, about the value of veterinary medicine is helpful to ensuring there is a continued stream of qualified applicants to the veterinary medicine programs. Providing incentives such as scholarships to local students who pursue veterinary medicine and return to the local rural community to practice, may also be an important tool to recruitment and retention of rural veterinary professionals. UCVM is open to providing assistance to municipalities to support recruitment of students.

We together with UCVM and ABVTA would appreciate an opportunity for our delegation to meet with the ASB Provincial Committee members to discuss the labour issues, provide relevant information on activities and to determine further ways our organization can work collaboratively with the ASB's. We would appreciate an opportunity to meet with you in July 2023.

Thank you again for the interest and willingness of the ASB to address the workforce issues facing the veterinary medical profession. It is our intention to work collaboratively with stakeholders to find the best solutions to the problem which is compounded by the global shortage. I can assure you that Alberta is taking the lead in Canada to address this issue and we appreciate the opportunity to work with you in the days ahead.

Sincerely,

Phil Buote
Interim Registrar and CEO, ABVMA