



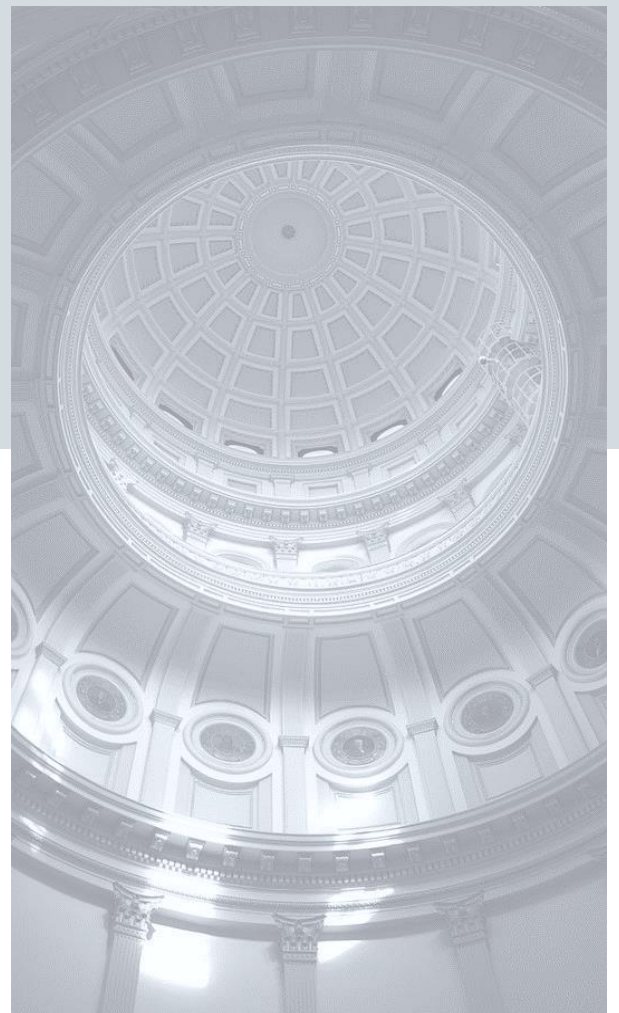
COLORADO

**Department of
Regulatory Agencies**

Colorado Office of Policy, Research &
Regulatory Reform

2021 Sunrise Review

Veterinary Technicians



October 15, 2021



COLORADO

**Department of
Regulatory Agencies**

Executive Director's Office

October 15, 2021

Members of the Colorado General Assembly
c/o the Office of Legislative Legal Services
State Capitol Building
Denver, Colorado 80203

Dear Members of the General Assembly:

The General Assembly established the sunrise review process in 1985 as a way to determine whether regulation of a certain profession or occupation is necessary before enacting laws for such regulation and to determine the least restrictive regulatory alternative consistent with the public interest. Pursuant to section 24-34-104.1, Colorado Revised Statutes (C.R.S.), the Colorado Office of Policy, Research and Regulatory Reform (COPRRR) at the Department of Regulatory Agencies (DORA) undertakes a robust review process culminating in the release of multiple reports each year on October 15.

A national leader in regulatory reform, COPRRR takes the vision of their office, DORA and more broadly of our state government seriously. Specifically, COPRRR contributes to the strong economic landscape in Colorado by ensuring that we have thoughtful, efficient and inclusive regulations that reduce barriers to entry into various professions and that open doors of opportunity for all Coloradans.

As part of this year's review, COPRRR has completed its evaluation of the sunrise application for the regulation of veterinary technicians and is pleased to submit this written report.

The report discusses the question of whether there is a need for regulation in order to protect the public from potential harm, whether regulation would serve to mitigate the potential harm and whether the public can be adequately protected by other means in a more cost-effective manner.

To learn more about the sunrise review process, among COPRRR's other functions, visit coprrr.colorado.gov.

Sincerely,

Patty Salazar
Executive Director



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Background

Sunrise Process

Colorado law, section 24-34-104.1, Colorado Revised Statutes (C.R.S.), requires that individuals or groups proposing legislation to regulate any occupation or profession first submit information to the Department of Regulatory Agencies (DORA) for the purposes of a sunrise review. The intent of the law is to impose regulation on occupations and professions only when it is necessary to protect the public health, safety or welfare. DORA's Colorado Office of Policy, Research and Regulatory Reform (COPRRR) must prepare a report evaluating the justification for regulation based upon the criteria contained in the sunrise statute:¹

- (I) Whether the unregulated practice of the occupation or profession clearly harms or endangers the health, safety, or welfare of the public, and whether the potential for the harm is easily recognizable and not remote or dependent upon tenuous argument;
- (II) Whether the public needs, and can reasonably be expected to benefit from, an assurance of initial and continuing professional or occupational competence;
- (III) Whether the public can be adequately protected by other means in a more cost-effective manner; and
- (IV) Whether the imposition of any disqualifications on applicants for licensure, certification, relicensure, or recertification based on criminal history serves public safety or commercial or consumer protection interests.

Any professional or occupational group or organization, any individual, or any other interested party may submit an application for the regulation of an unregulated occupation or profession. Applications must be accompanied by supporting signatures and must include a description of the proposed regulation and justification for such regulation.

Methodology

During the sunrise review process, COPRRR staff performed a literature search; contacted and interviewed the sunrise applicant; reviewed licensure laws in other states; and interviewed stakeholders. To determine the number and types of complaints filed against veterinary technicians in Colorado, COPRRR staff contacted state agencies and associations.

¹ § 24-34-104.1(4)(b), C.R.S.

Profile of the Profession

Veterinarians are healthcare professionals who diagnose, treat and perform surgery on animals. The range of services veterinarians provide includes, but is not limited to:²

- Health and wellness evaluations and assessments,
- Preventative medicine (including rabies vaccinations and others),
- Prescribing medications,
- Performing surgery,
- Rehabilitation, and
- Palliative care.

Additionally, veterinarians treat injuries and illnesses of pets and other animals utilizing a variety of medical equipment such as surgical tools, x-ray and ultrasound machines.³

Veterinarians are ultimately responsible for the overall day-to-day operations that occur where veterinary medicine is practiced, regardless of the setting.

Veterinary technicians, who are the subject of this sunrise review, are also healthcare professionals, and they assist veterinarians with a variety of duties related to patient (animal) care. The duties veterinary technicians perform, include, but are not limited to:⁴

- Taking vital signs, drawing blood and gathering medical histories;
- Providing emergency first aid;
- Collecting specimens;
- Assisting in research;
- Performing laboratory procedures;
- Preparing animals and equipment for surgical procedures;
- Administering medications and vaccines prescribed by a veterinarian;
- Taking and processing x-rays; and
- Educating animal owners.

Veterinary technicians work in a variety of settings, but according to the Bureau of Labor Statistics, the primary workplaces are animal hospitals and veterinary clinics.⁵

² Ross University, School of Veterinary Medicine. *What Do Veterinarians Do?* Retrieved June 3, 2021, from <https://veterinary.rossu.edu/about/news/what-do-veterinarians-do>

³ U.S. Bureau of Labor and Statistics. *Occupational Outlook Handbook - Veterinarians*. Retrieved June 3, 2021, from <https://www.bls.gov/ooh/healthcare/veterinarians.htm>

⁴ California University of Pennsylvania. *What does a Vet Tech Do?* Retrieved July 6, 2021, from <https://www.calu.edu/academics/undergraduate/associate/veterinary-technology/what-does-a-vet-tech-do.aspx>

⁵ California University of Pennsylvania. *What does a Vet Tech Do?* Retrieved July 6, 2021, from <https://www.calu.edu/academics/undergraduate/associate/veterinary-technology/what-does-a-vet-tech-do.aspx>

Other workplace settings include:⁶

- Laboratories,
- Zoos,
- Animal shelters,
- Universities, and
- United States Department of Agriculture.

Many veterinary technicians who practice in Colorado have obtained certification through the Colorado Association of Certified Veterinary Technicians, the sunrise applicant (Applicant). In order to qualify for certification, a candidate is required to graduate from an American Veterinary Medical Association (AVMA)-accredited veterinary technician program. In Colorado, the following schools offer AVMA-accredited (two-year degree) programs:

- Apex College of Veterinary Technology,
- Bel-Rea Institute of Animal Technology,
- Colorado Academy of Veterinary Technology,
- Colorado Mountain College,
- Community College of Denver,
- Front Range Community College,
- Pima Medical Institute (Colorado Springs and Aurora campuses), and
- Western Colorado Community College.

Once a candidate completes an AVMA-accredited program, he or she is eligible to take the Veterinary Technician National Examination (VTNE), which is administered by American Association of Veterinary State Boards. The VTNE consists of 170 multiple-choice questions, 150 of which are scored and 20 of which are pilot questions.⁷ The VTNE must be completed in three hours.⁸

The VTNE contains the following domains and the number of questions for each domain:⁹

- Pharmacy and Pharmacology - 18;
- Surgical Nursing - 17;
- Dentistry - 12;
- Laboratory Procedures - 17;
- Animal Care and Nursing - 30;
- Diagnostic Imaging - 11;
- Anesthesia - 22;

⁶ California University of Pennsylvania. *What does a Vet Tech Do?* Retrieved July 6, 2021, from <https://www.calu.edu/academics/undergraduate/associate/veterinary-technology/what-does-a-vet-tech-do.aspx>

⁷ *VTNE Veterinary Technician National Exam*, American Association of Veterinary State Boards, (2021). p.3.

⁸ *VTNE Veterinary Technician National Exam*, American Association of Veterinary State Boards, (2021). p.3.

⁹ *VTNE Veterinary Technician National Exam*, American Association of Veterinary State Boards, (2021). p.18.

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- Emergency Medical/Critical Care - 12; and
 - Pain Management/Analgesia - 11.

The VTNE is offered at PSI testing centers throughout the country and includes centers in Centennial, Colorado Springs, Denver, Durango, Fort Collins, Grand Junction, Pueblo, and Wheat Ridge.¹⁰

The fee to take the VTNE is \$330.¹¹

Once a candidate passes the NTVE, he or she may receive a certification from the Applicant. In order to maintain a valid certification, veterinary technicians must complete 20 hours of continuing education every two years. At least 10 hours of continuing education are required to be medically related.

The employment of veterinarian technicians is expected to grow 15 percent between 2019 and 2030.¹² One reason for the expected growth is the increase in consumers' pet-related spending.¹³ As of May 2020, the median annual wage for veterinary technicians was \$36,260.¹⁴

¹⁰ PSI Testing Centers. *Veterinarians Technicians National Examination*. Retrieved July 6, 2021, from <http://online.goamp.com/CandidateHome/displayTCList.aspx?pExamID=21621&pClientCode=AAVSB>

¹¹ American Association of State Veterinary Boards. *Submit Your Online Application*. Retrieved July 6, 2021, from <https://www.aavsb.org/vtneoverview/theonlineapplication>

¹² U.S. Bureau of Labor and Statistics. *Occupational Outlook Handbook - Veterinary Technologists and Technicians*. Retrieved August 10, 2021, from <https://www.bls.gov/ooh/healthcare/veterinary-technologists-and-technicians.htm#tab-6>

¹³ U.S. Bureau of Labor and Statistics. *Occupational Outlook Handbook - Veterinary Technicians*. Retrieved August 10, 2021, from <https://www.bls.gov/ooh/healthcare/veterinary-technologists-and-technicians.htm#tab-6>

¹⁴ U.S. Bureau of Labor and Statistics. *Occupational Outlook Handbook - Veterinary Technicians*. Retrieved August 10, 2021, from <https://www.bls.gov/ooh/healthcare/veterinary-technologists-and-technicians.htm#tab-5>

Proposal for Regulation

The Colorado Association of Certified Veterinary Technicians (Applicant) submitted a sunrise application to the Colorado Office of Policy, Research and Regulatory Reform within the Department of Regulatory Agencies for review in accordance with the provisions of section 24-34-104.1, Colorado Revised Statutes (C.R.S.). The application identifies registration of veterinary technicians as the appropriate level of regulation. The application further proposes that in order for veterinary technicians to become registered by the State of Colorado, they should obtain certification by the Applicant.

The Applicant asserts that registering veterinary technicians would:

- Increase credential portability across states, allowing for accurate reporting of malpractice incidents in the state and across state lines;
- Enable accurate tracking of certified veterinary technicians within Colorado; and
- Assure proper task delegation by licensed veterinarians.

The Applicant also requested mandatory continuing education for veterinary technicians, and submitted the application required under section 24-34-901, C.R.S. The application requests that veterinary technicians complete 20 hours of continuing education every two years.

Summary of Current Regulation

Federal Laws and Regulations

Currently, there are no federal laws requiring veterinary technicians to be licensed, certified or registered.

The Colorado Regulatory Environment

Colorado does not license, certify or register veterinary technicians. However, veterinary technicians perform duties under the supervision of a licensed veterinarian. The Colorado Veterinary Practice Act provides that direct supervision occurs when, “the supervising licensed veterinarian is readily available on the premises where the patient is being treated.”¹⁵

The Veterinary Medicine Rules and Regulations also provide that under indirect supervision,

the licensed veterinarian may direct or supervise the authorized delegated treatment or collecting of diagnostic information of a patient at a ‘veterinary premises’ without being on the premises.¹⁶

Regulation in Other States

According to the sunrise application, 41 states currently regulate veterinary technicians. In an attempt to understand the regulatory environment in other states, the Colorado Office of Policy, Research and Regulatory Reform (COPRRR) staff contacted several states contiguous to Colorado: Arizona, Kansas, Oklahoma, Nebraska and Utah.

To be eligible for licensure in each of the states contacted for this sunrise review, applicants must complete an American Veterinary Medical Association-accredited program of study and pass the Veterinary Technician National Examination.

COPRRR requested data related to disciplinary actions imposed on veterinarian technicians in each of the states referenced above, but the data received included disciplinary actions for a variety of licensees, including licensed veterinarians. As such, COPRRR staff was unable to discern how many disciplinary actions were imposed on veterinary technicians.

¹⁵ § 12-315-104(6), C.R.S.

¹⁶ 4 C.C.R. § 727-1.4 C State Board of Veterinary Medicine Rules.

Analysis and Recommendations

Public Harm

The first sunrise criterion asks:

Whether the unregulated practice of the occupation or profession clearly harms or endangers the health, safety, or welfare of the public, and whether the potential for harm is easily recognizable and not remote or dependent on tenuous argument.

Before moving forward in the analysis of harm concerning veterinary technicians, it is important to identify what constitutes harm to the public. Veterinary technicians serve an important role as they assist veterinarians with a variety of duties related to patient (animal) care.

There are a variety of situations where veterinary technicians could harm consumers, such as providing substandard care to patients or providing incorrect medication to patients.

There are also instances when veterinary technicians have diverted drugs for their own use.

In order to determine whether the regulation of veterinary technicians is necessary in Colorado, the Colorado Office of Policy, Research and Regulatory Reform (COPRRR) staff requested that the sunrise applicant and other stakeholders provide specific examples of harm, which are highlighted below accompanied by COPRRR's analysis. The first 10 examples occurred at the Colorado State University Veterinary Hospital in Fort Collins.

Example 1

In 2020, a licensed veterinarian prescribed Vetsulin to be given to a dog. A non-certified veterinary technician used regular insulin without realizing it was the incorrect drug. The regular insulin has a higher concentration, and could have resulted in an overdose to the patient. The patient survived the medication error.

Analysis

This example demonstrates an instance where the non-certified veterinary technician made a mistake that could have resulted in an unnecessary overdose, and even possible death of the dog.

It is unclear whether the non-certified veterinary technician simply made a mistake or whether it was a competency-related issue where he or she was unaware of the different types of insulin utilized by veterinarians. Regardless, this example highlights an instance that could result in formal discipline to the practitioner if a regulatory program existed.

This example shows there may be a need for regulatory oversight for veterinary technicians. Regulatory oversight could serve two purposes. First, it would ensure that practitioners achieve the minimum level of competency to practice safely. Second, a regulatory program enables the State of Colorado to impose formal discipline for violations of the practice act, including substandard practice.

Example 2

In 2020, a non-certified veterinary technician attempted to sedate a patient with Dexmedetomidine, but accidentally administered the reversal drug, Atipamezole, intravenously, instead of the sedation drug. Atipamezole can cause rapid relaxation of vascular tone and bradycardia, which can lead to cardiovascular collapse.

Analysis

The example highlighted above illustrates an instance where a non-certified veterinary technician made a mistake that could have resulted in unnecessary complications or even death of the patient. However, the information provided did not identify whether the patient suffered any side effects, but the possibility is present.

In this example it is unclear whether the non-certified veterinary technician made a mistake or whether it was a competency -related issue where he or she did not know the difference between the medications, as well as the potential ramifications for not using the correct medication.

This example also shows there may be a need for regulatory oversight for veterinary technicians. Regulatory oversight could serve two purposes. First, it would ensure that practitioners achieve the minimum level of competency to practice safely. Second, a regulatory program enables the State of Colorado to impose formal discipline for violations of the practice act, including substandard practice.

Example 3

In 2019, a certified veterinary technician was starting her shift and noticed that a patient's chart did not have any record of urination for 18 hours, while under the care of a non-certified veterinary technician. The certified veterinary technician checked the patient's kennel, and discovered the kennel soaked in urine. Also, when cleaning the kennel, the certified veterinary technician discovered a medication in the kennel. Due to the lack of care of the patient by the non-certified veterinarian technician, it was unclear when or if the medication was ingested by the patient.

Analysis

This example demonstrates an instance where the non-certified veterinary technician appears to have failed to properly attend to the animal, although no harm was alleged. It is not clear whether this example was competency-related or whether it occurred due to carelessness.

However, if a regulatory program were in place, the veterinary technician could have been investigated for standard of practice issues.

Example 4

While a patient was under anesthesia, a non-certified veterinary technician left the operating room after taking the patient off the ventilator. After a short period of time, it was noticed that a valve that provided oxygen to the patient was closed while the patient was on a three-liter bag. Barotrauma and death are possible complications related to this equipment error. In this instance, the patient was not harmed.

Analysis

This example demonstrates an instance where the actions of a veterinary technician could have harmed a patient. The example shows that the veterinary technician was either incompetent in his or her knowledge of the proper procedure of removing a patient from a ventilator or he or she was careless. If competency was the issue, requiring veterinary technicians to possess a minimum level of competency may serve to enhance consumer protection. Completing an accredited program of study and passing an examination that assesses competency could address any competency-related issues concerning veterinary technicians.

Example 5

A lethargic ferret in need of diagnostics was restrained by a veterinary technician (it is unknown if the veterinary technician was certified) for a blood draw. After the blood draw, the ferret was transported to the Colorado State University Veterinary Hospital for further diagnostics, including additional blood work and radiographs, which required the assistance of veterinary technicians. After the procedures, the ferret went into cardiac arrest and was not able to be resuscitated. An autopsy on the ferret suspected intrathoracic hemorrhaging possibly caused by venipuncture (puncture of a vein).

Analysis

This example illustrates an instance when a ferret died, likely due to the actions of veterinary technicians. The example does not identify whether the veterinary technicians were certified. Certified veterinary technicians complete a minimum level of education and pass an examination, which demonstrates an initial level of competency. If they were not certified, this instance could show that competency was an issue. If competency was the issue, requiring veterinary technicians to possess a minimum level of competency may serve to enhance consumer protection. Completing an accredited program of study and passing an examination that assesses competency could address any competency-related issues concerning veterinary technicians.

However, if the veterinary technicians in this example were certified, a regulatory program could have imposed formal discipline on the practitioners for failing to adhere to generally accepted standards of practice, which could enhance consumer protection.

Example 6

A non-certified veterinary technician attempted to express (place pressure on the bladder so the animal can urinate) the bladder of a large canine. The dog was elderly and had recently been hit by a vehicle and sustained multiple fractures. During the expression, the bladder ruptured causing an uroabdomen, which is the leakage of urine into the abdominal cavity. This is a known risk of the procedure in trauma cases. The patient needed additional surgery to repair the ruptured bladder.

Analysis

This example details an instance where the patient may have been harmed by the actions of a veterinary technician. However, the example states that there is a known risk when the expression of a bladder is done on patients that have

incurred trauma. The example states that the dog had recently been hit by a vehicle and sustained multiple fractures.

In fact, the non-certified veterinary technician could have performed the expression correctly and there was an unfortunate circumstance that caused the ruptured bladder. As a result, this example does not detail an instance where the non-certified veterinary technician lacked competency to appropriately perform his or her duties.

Example 7

Two non-certified veterinary technicians were restraining a bird for a blood draw, and a laceration occurred on the left side of the bird's neck. The laceration was repaired, and the bird had no other injuries.

Analysis

This example details an instance where a bird's neck was lacerated while two non-certified veterinary technicians were restraining it. However, the example does not provide sufficient detail to determine whether the non-certified veterinary technicians lacked the competency to effectively perform their duties. The bird could have simply attempted to pull away from the non-certified veterinarian technicians causing the bird to sustain its own injury. This example does not provide enough detail to determine whether the non-certified veterinary technicians' actions were incorrect.

As such, it is questionable whether this example would justify state regulation of veterinary technicians.

Example 8

In 2021, a non-certified veterinary technician removed an intravenous catheter by cutting the tape that was holding the catheter in place. During the removal process, the veterinary technician lacerated the patient's leg with scissors, and the patient was subsequently sedated for wound cleaning and closing.

Analysis

This example delineates an instance where a non-certified veterinary technician harmed a patient with scissors. Although unfortunate, this example does not highlight an instance where the veterinary technician demonstrated incompetence; instead, perhaps he or she was simply careless or it may have been a standard of care issue.

Since this example appears to be related to carelessness, and not competency, it is questionable whether this example would justify state regulation of veterinary technicians.

Example 9

A non-certified veterinary technician handed an unlabeled blood sample to a certified veterinary technician. The results of the blood sample revealed that a patient had hypokalemia (low levels of potassium in the blood), which necessitated an additional drug to be added to an existing bag of fluids being administered. Because the non-certified veterinary technician failed to label the blood sample, the certified technician administered the additional drug to the incorrect patient. The error was discovered by the certified veterinary technician one to two hours after the administration of the additional drug to the wrong patient. Both patients survived the medication error.

Analysis

This example demonstrates an instance where the actions of a non-certified and certified veterinary technician had the potential to harm patients. Although in this example, harm was averted. In the example it is unclear whether the non-certified veterinary technician lacked competency or was careless in failing to label the blood sample. If competency was the issue, requiring veterinary technicians to possess a minimum level of competency may serve to enhance consumer protection. Completing an accredited program of study and passing an examination that assesses competency could address any competency-related issues concerning veterinary technicians.

Additionally, if the certified veterinary technician failed to adequately ensure that the proper medication was being administered to the correct patient, it may have resulted in him or her failing to comply with generally accepted standards of practice. If there were a regulatory program in place, either one or both of the veterinary technicians in this example could have been subject to formal discipline, which could enhance consumer protection.

Example 10

A non-certified veterinary technician passed out while working due to administering hydromorphone to herself. The non-certified veterinary technician was ultimately fired, but is still able to practice in Colorado.

Analysis

This example demonstrates that the non-certified veterinary technician was clearly participating in an illegal activity (diversion of controlled substances), which may lead to criminal charges. The example also appears to be an intentional act and not competency-related.

Importantly, the advent of a regulatory program for veterinary technicians would authorize the regulator to impose discipline on the practitioner for issues such as diversion, which could offer enhanced consumer protection.

Other Examples of Harm

During the course of this sunrise review, there were several instances where the State Board of Veterinary Medicine (Board) issued cease and desist orders to veterinary technicians for performing veterinary duties without the requisite license.

- A veterinary technician was sent several cease and desist orders by the Board for practicing veterinary medicine.
- A veterinary technician was involved in an incident where an animal was strangulated during medical treatment not supervised by a veterinarian.
- A veterinary technician, who was a high school work study student, performed an equine rectal palpation, which constitutes the practice of veterinary medicine. The owner of the horse filed the complaint as there are risks associated with this type of procedure, which prohibits non-veterinarians from performing this task.
- A veterinary technician was trained to perform cat neuters, which are considered surgery. Only licensed veterinarians are authorized to perform surgery on animals.
- A veterinary technician was trained on the job to perform cat neuters. The veterinary technician performed cat neuters where animals died. Only licensed veterinarians are authorized to perform surgery on animals.
- A certified veterinary technician was performing surgical procedures. Only licensed veterinarians are authorized to perform surgery on animals.
- A veterinary technician advertised that she had a mobile vaccination service, and could diagnose cattle, calves and disease in animals.
- A veterinary technician administered medications and vaccines without veterinary supervision.

As highlighted above, there were several instances where the Board issued cease and desist orders to veterinary technicians. Clearly, many of the cease and desist orders contained instances where the veterinary technician was practicing veterinary medicine. It is unclear whether the veterinary technicians who received cease and desist orders from the Board were aware that it is not permissible to practice veterinary medicine without a license.

Importantly, some of the cease and desist orders highlighted situations where the actions of veterinary technicians caused severe harm and even the death of patients.

The following are additional instances where the Board imposed discipline on veterinarians; veterinary technicians were involved in various violations of the practice Act.

- A veterinarian was disciplined for improper supervision for allowing a veterinary technician to perform a dental examination and cleaning. There were also complications with the anesthetic on the animal.
- A veterinarian allowed a veterinary technician to preform mass removal surgery.
- A veterinarian allowed a veterinary technician to perform cat neuters.
- A veterinarian allowed a veterinary technician to perform a surgical extraction on a horse.
- A veterinarian allowed veterinary technicians to administer rabies vaccines to animals, which is prohibited under the practice act. The veterinarian also allowed veterinary technicians to perform various surgeries, such as declaws and neuters. The veterinarian allowed a veterinary technician to diagnose and treat patients as well as prescribe medications.

As highlighted above there were several instances where the Board imposed discipline on veterinarians when veterinary technicians were involved. Although the referenced discipline was warranted by the Board, if a regulatory program was in place, the veterinary technician could have been disciplined as well. This is important because without disciplinary authority over veterinary technicians, the same veterinary technicians who were referenced in the examples could continue to practice, potentially putting additional patients in danger.

Also, as referenced above, there were some instances where veterinary technicians performed surgeries. Veterinary technicians are not trained nor are they authorized to perform surgery, and therefore, should be responsible for their actions. As such, implementation of a regulatory program for veterinary technicians would enable the State of Colorado to impose discipline for such violations.

Additionally, the following examples of harm from the Board detail instances where the actions of veterinary technicians resulted in the death of patients, but the veterinarian was formally disciplined.

- A veterinary technician performed an improper intubation of a dog, which resulted in death.
- A veterinary technician performed improper perioperative anesthetic monitoring, which resulted in the death of the patient.
- A veterinary technician left a valve closed and caused the death of a cat during dental cleaning.

The examples above clearly detail the improper actions of veterinary technicians that resulted in the death of patients. Although the veterinarians were rightfully disciplined by the Board, there is currently no regulatory mechanism to discipline the veterinary technicians for their actions. The absence of formal regulation of veterinary technicians could compromise the protection of patients.

Additionally, the examples of harm identified in this sunset review demonstrate that there were many instances where the actions of veterinary technicians harmed patients. Although many of the examples of harm did not result in the death of a patient, harm may have occurred from the patient experiencing uncomfortable or painful situations. Some of the examples were competency-related and others were perhaps due to carelessness, but regardless, the implementation of a regulatory program could potentially address those situations by authorizing formal discipline of the veterinary technicians involved.

Further, some examples of harm highlighted above delineate instances where a licensed veterinarian was formally disciplined due to the actions of a veterinary technician. Although veterinarians are ultimately responsible for the overall actions within a veterinary setting, practitioners, including veterinary technicians, who harm patients should be responsible for their actions and be subject to formal discipline in a regulatory program.

Need for Regulation

The second sunrise criterion asks:

Whether the public needs and can reasonably be expected to benefit from an assurance of initial and continuing professional or occupational competence.

This criterion addresses the proposition of whether the state should require a certain level of education and/or impose a requirement that veterinary technicians pass an examination before practicing in Colorado.

During this sunrise review, there was evidence presented via examples of harm provided by the sunrise applicant and other stakeholders that certain veterinary technicians do not possess adequate skills, education or competence to practice safely. Specifically, many of the examples provided were related to veterinary technicians, such as improper intubation and improper perioperative anesthetic monitoring. As a result, the implementation of minimum requirements, such as the passage of an examination, possessing a minimum level of experiential training or education to practice as a veterinary technician in Colorado may adequately address competency issues related to veterinary technicians.

The sunrise Applicant also requested mandatory continuing education (CE) for veterinary technicians, and submitted the application required in section 24-34-901, Colorado Revised Statutes. Specifically, the mandatory continuing education application would require 20 hours of CE, which is currently required for veterinary technicians who have obtained certification through the Applicant. That is, if the regulatory program for veterinary technicians proposed by the Applicant is created, all veterinary technicians would be required to complete 20 hours of CE.

The examples of harm provided for this sunset review appear to indicate that there are instances where veterinary technicians lacked competency. Since a demonstration of initial competency is typically required in regulatory programs, it is reasonable to conclude that the public could benefit from an initial demonstration of competency.

However, it is unclear whether CE is a necessary tool for veterinary technicians to continue to practice safely.

Alternatives to Regulation

The third sunrise criterion asks:

Whether the public can be adequately protected by other means in a more cost-effective manner.

Public protection for consumers could be realized in a cost-effective manner by requiring certification by the Applicant.

To obtain a certification by the Applicant, candidates are required to pass the Veterinary Technician National Examination (VTNE). In order to maintain a valid certification, veterinary technicians must complete 20 hours of continuing education every two years. At least 10 hours of continuing education are required to be medically related.

Obtaining a certification from the Applicant ensures that veterinary technicians are uniquely qualified to practice as veterinary technicians.

The certification offered by the Applicant is utilized by many practitioners in Colorado. Therefore, certification by the Applicant may be a viable option and alternative to state regulation.

The Applicant has the disciplinary authority to revoke a practitioner's certification for ethical violations. However, since that certification is voluntary, an individual may continue to practice if his or her certification is revoked.

Collateral Consequences

The fourth sunrise criterion asks:

Whether the imposition of any disqualifications on applicants for licensure, certification, re-licensure, or recertification based on criminal history serves public safety or commercial or consumer protection interests.

Although the sunrise application did not specifically reference criminal history as a disqualification for veterinary technician regulation, the application requested that the same framework highlighted in the pharmacy technician sunrise review be utilized. The pharmacy technician sunrise application proposed using an applicant's criminal history as a disqualifier for pharmacy technician regulation.

During the course of this sunrise review, a single example of harm was provided that would justify a criminal history background check. The example was from the veterinary hospital in Fort Collins, where a non-certified veterinary technician passed out while working due to administering hydromorphone to herself. The veterinary technician stole the drug from the workplace.

Since only one instance of harm was provided that would necessitate a criminal history background check, the implementation of such a requirement appears to be unnecessary.

Conclusion

The sunrise application requested registration of veterinary technicians in Colorado. Further, the sunrise application states that regulating veterinary technicians would:

- Increase credential portability across states, allowing for accurate reporting of malpractice incidents in the state and across state lines,
- Enable accurate tracking of certified veterinary technicians within Colorado, and
- Assure proper task delegation by licensed veterinarians.

In veterinary clinics, hospitals and other settings, veterinarians work with veterinary technicians. As a result, the proper actions of veterinary technicians, both in competency and integrity, are essential. Consumers and patients (animals) rely heavily on the actions of veterinary technicians to ensure, among other things, that they are competently working with veterinarians.

It is important to note that veterinary technicians perform duties under the supervision of a licensed veterinarian, and the veterinarian is ultimately responsible for all veterinary-related activities. This is consistent with other health care settings where a practitioner is ultimately responsible for all activities. For example, in an operating room where humans are treated, a licensed physician is ultimately responsible for

medical-related activities. However, there are a variety of practitioners, including but not limited to nurses and surgical technicians and assistants who are working in the same operating room with the physicians and are they are also regulated by the State of Colorado.

Veterinarians rely on veterinary technicians to complete a variety of tasks. It is important for public safety to ensure that veterinary technicians are competent to practice safely, and if they are not practicing safely, it is important that a regulatory authority have the ability to discipline them as appropriate.

As identified in the examples of harm provided by the sunrise applicant, as well as other stakeholders, there were several instances where the actions of veterinary technicians harmed patients, even causing death in several instances. There was also at least one instance where a veterinary technician was participating in criminal activity, by stealing medications while working in a veterinary hospital setting.

Therefore, there is evidence to support the creation of a regulatory program for veterinary technicians. Since the examples of harm provided for this sunset review appear to indicate that there are issues related to competency with some veterinary technicians, a competency-based regulatory program should be created.

Such a program would serve two purposes. First, it would establish a minimum level of competency. This could be achieved by requiring veterinary technicians to obtain a degree from an accredited training program, such as an American Veterinary Medical Association-accredited program, and pass an examination, such as the Veterinary Technician National Examination. Upon completion of these requirements, veterinary technicians could then possess a minimum level of competency, as well as an understanding of the appropriate duties that are permissible while practicing as a veterinary technician.

Once veterinary technicians successfully complete the referenced requirements, they would be eligible to apply for registration with the State of Colorado. A registration program, among other things, would enable the State of Colorado to impose discipline on practitioners who violate the practice act, which would serve to enhance consumer protection.

Further, the sunrise Applicant requested mandatory continuing education (CE) for veterinary technicians. Specifically, the mandatory continuing education application would require 20 hours of CE, which is currently required for veterinary technicians who have obtained certification through the Applicant, which is the basis for the Applicant's proposal.

Since the examples of harm provided to this sunrise review appear to be related to initial competency of uncertified veterinary technicians, the implementation of a continuing education requirement appears to be unnecessary.

To address the harm identified in this sunrise review, the General Assembly should create a regulatory program whereby veterinary technicians complete an accredited training program and pass a competency-based examination. However, in recognition of the extraordinary strains placed on Colorado's health-care workforce during the COVID-19 pandemic, the General Assembly should delay the passage of, or the effective date of, any such legislation until at least 2023.

Recommendation - Regulate veterinary technicians.