REGULATORY CONSIDERATIONS OF THE USE OF Artificial Intelligence in Veterinary Medicine

American Association of Veterinary State Boards
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AAVSB
AMERICAN ASSOCIATION OF VETERINARY STATE BOARDS

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AAVSB Position Statement on Artificial Intelligence

The American Association of Veterinary State Boards (AAVSB) supports innovation. We recognize the potential benefits that **Artificial Intelligence (AI)** and other emerging technologies may offer the veterinary profession. However, **Licensees** must understand the risks and limitations of AI to protect the standard of **Patient** care and prevent unlicensed practices. They must also maintain full transparency regarding AI use, safeguard **Client** data privacy, and, when appropriate, obtain **Informed Consent** for the use of AI.

The AAVSB encourages Member **Boards** to educate Licensees on the regulatory considerations of AI use in veterinary medicine. Licensees and **Facilities** must comply with their jurisdiction's Veterinary Practice Act and other applicable federal and jurisdictional laws.

Artificial Intelligence (AI)

The simulation of human intelligence in machines or software designed to perform tasks such as visual perception, speech recognition, decision-making, and language translation.

Board**

The governmental agency empowered to credential and regulate the practice of veterinary medicine in any of the States and Commonwealths of the United States, its territories, the District of Columbia, and insular possessions of the United States, individual provinces of Canada, and additional comparable entities.

Client**

A person who has entered into an agreement with a Veterinarian for the purposes of obtaining veterinary medical services.

***AAVSB-defined terms*

Informed Consent**

When a Veterinarian has informed the Client or the Client's authorized representative, in a manner understood by the Client or representative, of the diagnostic and treatment options, risk assessment, and prognosis, and the Client has consented to the recommended treatment.

Licensee**

A Person licensed under [the Practice] Act.

Patient**

Animal(s) or group of Animals receiving veterinary care from a Veterinarian or Veterinary Technician.

Veterinary Facility**

Any building, place, or Mobile Unit from which the practice of Veterinary Medicine and Veterinary Technology is conducted.

Introduction

This paper examines the regulatory considerations of AI use in veterinary medicine. As AI and other emerging technologies become more widely adopted, the need arises for clear guidance from regulatory bodies on its responsible use to protect Patients and the public.

Along with federal agencies and other jurisdictional boards, veterinary regulatory Boards are primary authorities over Veterinarians and Veterinary Technicians. Therefore, Boards are positioned to define best practices on the use of emerging technologies such as AI.

In North America, there are currently no federal premarket approval requirements for AI (defined as Software as a Medical Device, or SaMD) used in veterinary medicine. This may create the false impression that no regulations apply. **On the contrary, the responsibility for appropriate use of AI rests entirely with the Licensee, and their decisions and actions *are* regulated.**

This is similar to the use of extralabel drugs on animals. With extralabel drugs, veterinarians weigh the benefits against the uncertainty of a drug lacking premarket approval or postmarket monitoring. While the actual AI-enabled device may not require premarket approval or regulation, its *use* by Licensees is subject to regulatory requirements.

Veterinary regulations exist to protect the health and welfare of both the public and animals. When new technology introduces potential negative side effects, regulators should offer guidance. Regulators should carefully consider their roles in protecting the public and supporting innovation. Many AI applications may help Veterinarians achieve quicker interventions or more accurate diagnoses. Administrative AI devices have the potential to reduce Licensee workloads and increase time for Patient care, which may help prevent burnout. Boards can help Licensees understand the

Introduction CONT.

appropriate use of AI through guidance documents or other educational materials.

This paper introduces this topic to the AAVSB's Member Boards. It identifies potential intersections between AI use and existing regulations. To prevent misunderstanding among Licensees, regulations can and should be explicitly applied to this emerging technology. The AAVSB encourages its Member Boards to identify areas that require more clarification in their practice acts and to inform their Licensees of these clarifications. This is a rapidly evolving topic. Some information in this document may become outdated soon after publication. Regardless, foundational principles remain relevant.

Definitions

*Defined terms are capitalized throughout the document
**AAVSB-defined terms

Artificial Intelligence (AI): The simulation of human intelligence in machines or software designed to perform tasks such as visual perception, speech recognition, decision-making, and language translation.

Augment: To enhance or improve (not replace) human capabilities.

Automation bias: The tendency to trust automated systems or technology even when contradictory evidence exists.

Board**: The governmental agency empowered to credential and regulate the practice of veterinary medicine in any of the States and Commonwealths of the United States, its territories, the District of Columbia, and insular possessions of the United States, individual provinces of Canada, and additional comparable entities.

Client**: A person who has entered into an agreement with a Veterinarian for the purposes of obtaining veterinary medical services.

Computer Vision: The field of AI that enables computers and systems to interpret, understand, and process visual data that approximates human visual perception.

Electronic Medical Record (EMR): A digital system that stores and manages a Patient's medical record and Client information.

Informed Consent**: When a Veterinarian has informed the Client or the Client's authorized representative, in a manner understood by the Client or representative, of the diagnostic and treatment options, risk assessment, and prognosis, and the Client has consented to the recommended treatment.

Generative vs Traditional (Nongenerative) AI: Generative AI creates new content such as text, images, or music by learning patterns from existing data, while traditional (non-generative) AI analyzes existing data to make predictions, classifications, or decisions based on predefined rules. Applications may use both forms of AI.

Licensee**: A Person licensed under [the Practice] Act.

Natural Language Processing (NLP): A subfield of AI focused on enabling computers to process, understand, and generate human language.

Patient**: Animal(s) or group of Animals receiving veterinary care from a Veterinarian or Veterinary Technician.

Robotics: The integration of intelligent systems and machines that are designed to perform tasks autonomously or semi-autonomously, often with the ability to interact with their environment.

Veterinary Facility**: Any building, place, or Mobile Unit from which the practice of Veterinary Medicine and Veterinary Technology is conducted.

Applications of AI in Veterinary Medicine

AI is increasingly being used in veterinary medicine. It offers the potential to improve accuracy, enable early detection, streamline communication, and reduce known biases. However, it also introduces risks. AI-enabled tools may include imperceptible biases or generate inaccurate diagnoses. Both may decrease the quality of care for Patients.

Natural Language Processing (NLP)

Subfield of AI concerned with enabling computers to process, understand, and generate human language.

This paper does not attempt to describe every use of AI in veterinary medicine. It is impossible for the AAVSB, Licensees, or Boards to accurately or comprehensively predict how AI will be used in professional tasks. The following are areas where some Licensees may currently be utilizing AI tools. Boards may choose to focus primarily on these voluntary use cases.

Natural Language Processing (NLP)

Natural language processing (NLP) AI can mimic human speech and automate routine administrative tasks. These may include client communication, appointment scheduling, billing, and inventory management. NLP AI tools can also help with medical record keeping. For example, some tools can perform speech-to-text transcriptions or create clinical notes in a SOAP format. These applications may reduce a veterinarian's non-clinical work to allow more time for Patient care.

In research, AI can analyze large datasets from clinical trials, genetic studies, and scientific literature. This can accelerate the development of new treatments and therapies, identify potential drug candidates, and uncover disease mechanisms. AI-driven predictive analytics examine datasets such as medical records. This can more quickly alert veterinarians of patterns and predict health issues in individual animals or herds for early intervention and treatment. It is also used in disease surveillance to track, predict, and more quickly respond to outbreaks.

Applications of AI in Veterinary Medicine CONT.

Computer Vision

Computer Vision is another primary application of AI in veterinary medicine. Its use can aid in diagnostic imaging. Algorithms can analyze radiographs to detect abnormalities such as tumors, fractures, or infections. This has the potential to improve the speed and accuracy of diagnostic imaging, but this has not yet been proven in veterinary medicine.

Computer Vision AI can segment lesions to optimize radiation therapy planning. Its pattern recognition ability is used in pathology and cytology. This use case may lead to more accurate patient positioning, enhanced image quality and detail, streamlined workflow and preliminary image assessments, and decreased response time. Through radiomics, Computer Vision may also be able to more readily and accurately detect otherwise imperceptible abnormalities.

Augment

To enhance or improve (not replace) human capabilities.

Computer Vision

The field of AI that enables computers and systems to interpret, understand, and process visual data in a comparable way to how humans perceive and understand visual information.

Robotics

The integration of intelligent systems and machines that are designed to perform tasks autonomously or semi-autonomously, often with the ability to interact with their environment.

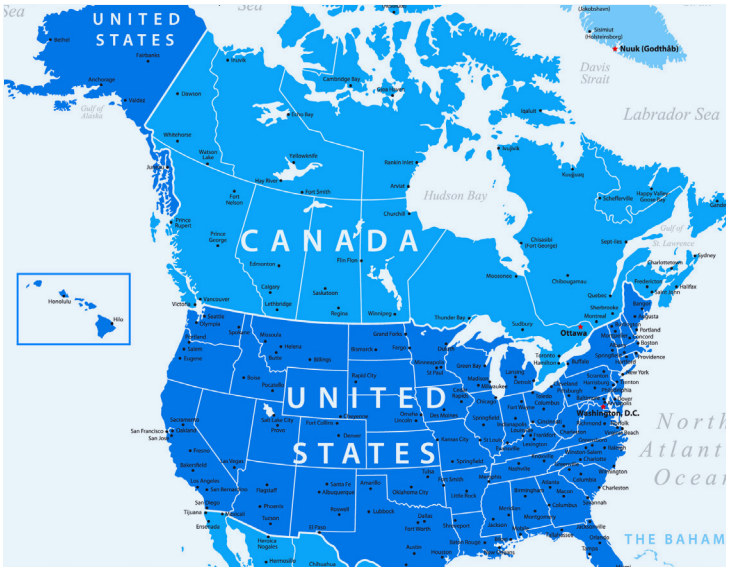
Robotic Systems

AI-powered **robotic** systems, while less common in veterinary medicine than in human healthcare, have applications in surgery. These systems can assist with preoperative and intraoperative planning, and control instruments to perform precise or automated tasks. These systems are designed to **augment** a surgeon's skills rather than replace them. The surgeon remains fully responsible for Patient safety and outcomes.

Beyond surgery, robotic AI devices can perform tasks such as herd drone surveillance, cleaning, and disinfection, further enhancing efficiency and care. AI-enabled wearable devices can monitor vital signs and activity levels in poultry, livestock, zoo, wildlife, and companion animals, allowing early detection of potential health concerns.

Current Regulatory Frameworks

Lessons may be learned and best practices applied from current policy and regulatory frameworks in human medicine.



In 2021, the US FDA, Health Canada, and the UK's Medicines and Healthcare Products Regulatory Agency issued ten guiding principles for Good Machine Learning Practice (GMLP) in medical device development. While not legally binding, these principles aim to ensure the safety, effectiveness, and quality of AI-enabled medical devices. They emphasize multidisciplinary expertise, robust software engineering and cybersecurity practices, representative datasets, tailored model designs, human-AI collaboration, clinically relevant testing, transparency, and ongoing monitoring and risk management.

Canada's Pan-Canadian AI Strategy emphasizes ethical AI development and use. The strategy promotes innovation while ensuring adherence to ethical standards and respect for fundamental rights. The Personal Information Protection and Electronic Documents Act (PIPEDA) governs data privacy, requiring consent for data collection, accuracy of data, and strong security measures. These requirements extend to AI applications and ensure ethical handling of personal information.

Medical devices, including SaMDs, are categorized into one of four classes. Class I represents the lowest risk and Class IV the highest. Before importing or selling a Class II, III, or IV medical device in Canada, the manufacturer is required to obtain a Medical Device License for that device. All Class III and Class IV medical devices undergo a review of submitted evidence for safety and effectiveness. Currently, veterinary devices are not subject to Medical Devices Regulations. Manufacturers are not required to notify Health Canada of their intention to market a device exclusively intended for use with animals.

Current Regulatory Frameworks CONT.

In the United States, the Food and Drug Administration (FDA) provides guidance on the incorporation of SaMD into human medical devices. It emphasizes the need for transparency, robustness, and continuous monitoring of AI systems to ensure ongoing safety and efficacy. SaMDs are subject to FDA review based on a risk classification from I (low risk) to III (high risk). However, although the FDA regulates devices intended for use in animals using post-market authority, the human classifications (Class I-III) are not applicable.

The FDA does not have the legal authority to require any premarket notification review process for animal devices. Licensees should be aware that even if a device with applications in both human and veterinary medicine was reviewed by the FDA as part of the required premarket notification and review for human devices, the FDA's review would not have covered the animal uses.

At the jurisdictional level, many states and provinces in North America enforce consumer data protection and security laws. In 2024, California passed AB-2013, requiring companies to disclose the types and sources of data used to train **generative AI** models. This law could apply to a wide range of AI uses and increase transparency in AI development. It does not discriminate between applications, and may also apply to AI used in the veterinary profession. It is possible that other jurisdictions in North America will follow suit in the future.

Generative vs Traditional (Nongenerative) AI

Generative AI creates new content such as text, images, or music by learning patterns from existing data, while traditional (non-generative) AI analyzes existing data to make predictions, classifications, or decisions based on predefined rules. Applications may use both forms of AI.

Regulatory Considerations

*Practice acts do not regulate the specific tools that are used in veterinary medicine. However, practice acts do regulate **how** the tools are used.*
A scalpel is not regulated by a practice act, but the use of it is.

Although AI may greatly aid in the practice of veterinary medicine, it also has inherent limitations and risks. With no established repositories for reporting errors, AI devices may fail unpredictably in ways that are difficult to identify. Licensees should recognize that AI is only as reliable as the data it was trained on.

They should also operate cautiously, given AI's "black box" nature. This means its internal workings are not visible to the user. AI devices do not disclose how they generate results and may not "show their work." Licensees should never assume the accuracy of an AI output. They must be able justify their medical decisions with their own professional judgment.

The AAVSB believes there are **five primary regulatory principles** to consider:

1. Unlicensed practice of veterinary medicine
2. Standards of practice
3. Medical recordkeeping
4. Data storage and Client confidentiality
5. Appropriate Informed Consent

Examples of these considerations are provided in Table 1 on the next page. Given the rapidly evolving nature of AI, this information should be treated as illustrative rather than exhaustive. Veterinary professionals should evaluate all uses of AI on a case-by-case basis. The determination of how the Licensee has demonstrated due diligence and professional judgment with the use of AI is similar to other clinical decision-making considerations during Board disciplinary discussions.

The conclusions of the below discussion are twofold. **First, the use of AI in veterinary medicine is regulated because the practice of veterinary medicine is regulated. Second, Boards should consider educating their Licensees about how the use of this technology falls under pre-existing laws and regulations within their jurisdiction.**

Boards may determine that the pre-existing language and the Licensee's professional judgment is

Regulatory Considerations CONT.

adequate. If additional regulatory language is deemed necessary, the AAVSB suggests that Boards focus on either clarifying existing regulations or addressing the highest-risk uses of AI. Creating language for every use of emerging technology is impossible. Furthermore, attempts to do so may run the risk of stifling innovation that could advance Patient care.

Table 1 *The following are examples of how the AAVSB interprets this risk spectrum. These examples serve to illustrate the AAVSB's view that 1) risk increases with decreasing human input, and 2) risk increases with decreased data security.*

ACTIVITY	REGULATORY CONSIDERATIONS	RISK LEVEL
Using AI transcribing device in a closed and secure system	• Medical Recordkeeping • Data Security	Low
Using AI transcribing device that is connected directly with an open AI system	• Medical Recordkeeping • Data Security • Informed Consent	High
Using AI radiology services in conjunction with Veterinarian review	• Standards of Practice • Data Security • Informed Consent	Medium
Using AI radiology services without Veterinarian review	• Medical Recordkeeping • Data Security • Informed Consent • Unlicensed Practice	High
Using AI-connected devices for herd surveillance	• Standards of Practice • Informed Consent	Low
Using an AI-summary of medical records, with Veterinarian review of the results	• Medical Recordkeeping • Standards of Practice • Data Security • Informed Consent	Medium
Using AI to generate a differential list and treatment plan with no Veterinarian review of the results	• Medical Recordkeeping • Data Security • Informed Consent • Unlicensed Practice	High

Regulatory Considerations CONT.

Unlicensed Practice of Veterinary Medicine

In most North American practice acts, the practice of veterinary medicine is limited to those that are licensed within that Jurisdiction. Many practice acts also contain a prohibition against aiding an unlicensed individual to practice veterinary medicine, and may contain "duty to report" clauses that require a Licensee to report such practice.

AAVSB PAM language, Section 401 a (13), "Grounds, Penalities, and Reinstatements":	"Engaging in, or aiding and abetting any individual engaging in the practice of Veterinary Medicine or Veterinary Technology without a license, or falsely using the title of Veterinarian, or Veterinary Technician or a derivative therof."

While AI devices are not individuals, Boards may opt to consider if this applies to AI developers or Licensees that use AI to replace, rather than augment, the Veterinarian in the practice of veterinary medicine. Likewise, Veterinarians must ensure that AI enhances, rather than replaces, their clinical judgment. This involves critically evaluating AI-generated outputs and only integrating them into clinical decisions after considering the specific needs and context of each Patient.

NLP can assist by reviewing and generating medical records using keywords, written summaries, or transcribed exam notes and conversations. The Veterinarian remains solely responsible for finalizing the medical record. Similarly, while NLP can summarize medical records when they are transferred from one Veterinary Facility to another, it is essential for the Veterinarian to identify and ensure the inclusion of salient information from that medical record.

If AI is used to summarize medical textbooks or clinical studies, the Veterinarian is responsible for verifying the accuracy of the summary and any resulting decisions. Chatbots are used to answer routine questions but must not provide a diagnosis or treatment plan. This may become a large risk to public protection as owners rely more and more on the internet for medical advice. Unfortunately, this is an area that is difficult to regulate without federal oversight as the Board's ability to stop this practice is significantly limited.

Regulatory Considerations CONT.

When using Computer Vision to analyze radiographs or cytology slides, the responsibility for interpreting findings and determining the diagnosis must rest with the Veterinarian. **Automation bias** remains a particular risk in this usage, made worse by potential errors in AI outputs that may confuse results.

Boards may someday need to address complaints involving surgeries performed by AI-powered surgical robots. AI is presently being used to augment, not replace, surgeons. However, the evolving technology raises questions about regulatory oversight. For example, what happens if a veterinary surgeon remotely supervises a procedure from a different Jurisdiction? It would need to be determined which Jurisdiction's laws apply and where complaints should be submitted.

Standards of Practice

Boards require Licensees to maintain a standard of practice. A common misconception is that the use of AI will automatically improve patient care. AI in veterinary medicine lacks standardized benchmarking. Without safeguards, this could result in substandard care. For example, generative AI may produce inaccurate information based on poor training data. Or, it may fabricate information, conversations, and medical summary information. These errors can only be identified and corrected by a Licensee's expertise.

Automation Bias

The tendency to trust automated systems or technology even when contradictory evidence exists.

Traditional AI devices are not risk-free. Their effectiveness depends on the quality of the data on which they are trained. Before incorporating any AI application into practice, Licensees must educate themselves on both the limitations and the development process of each device, including the

Regulatory Considerations CONT.

training data used. AI devices that do not readily provide performance and evaluation data should be avoided. Unfortunately, this information is not typically reported for AI devices in veterinary medicine. Finally, veterinary professionals should not assume that AI devices approved by the FDA for human use are suitable for *animal* care.

Understanding data accuracy is crucial when using any diagnostic tool, as it helps with the determination about whether a result is likely to be correct. Ideally, data accuracy should be available for each diagnostic tool, broken down by species, breed, and abnormality. However, such information does not exist for AI. Therefore, Veterinarians must use their professional judgment to assess whether an AI-generated finding is plausible. This can only be achieved if the Veterinarian understands the AI's training methods and dataset and the device's rationale behind the outcome.

If AI is used to assist with diagnostics, such as in radiography or pathology, the Veterinarian must ensure that experts or specialists were involved in the device's development, training, validation processes, and real-world use. This transparency in the device's strengths and weaknesses facilitates informed decisions in clinical practice. AI should also serve as an augmentation to a Veterinarian's knowledge and skill, not a replacement. For example, a general Licensee without training in interpreting MRI images should not rely on AI to make diagnostic decisions in this area. A skilled expert should always be available to review and flag questionable results.

When seeking a specialist's opinion on radiographic or cytological images, the Licensee knows that the specialist has undergone extensive training through residency programs and certification exams to ensure that they possess equal or greater knowledge than the average Licensee. This standard does not apply to AI, including those that use Computer Vision. While such devices may have been trained on extensive datasets, their accuracy is limited to the quality and breadth of the data used, as well as the device's validation and retraining processes.

For example, if an AI device has never been trained on skull radiographs from a large range of dog breeds, it may misdiagnose an English Bulldog with significant and multiple pathologies due to a lack of breed-specific knowledge. Currently, no certified AI training datasets exist

Regulatory Considerations CONT.

for veterinary applications, no AI devices undergo pre-market testing or approval, and key aspects of ethical machine learning development are absent. The risk of misinterpretation rests solely with the Veterinarian.

Using AI to aid clinical decisions may one day become a catch-22 for Veterinarians. As AI advances, it is possible that consulting with AI may become common practice. Failure to do so may be considered below the standard of care. Regardless, Veterinarians should always be prepared to justify why they agree or disagree with an AI output if one is used. Veterinarians should be made aware of the risk of blindly following recommendations without clinical reasoning.

This is similar to seeking the opinion of a specialist. If the Veterinarian that holds the Veterinary-Client-Patient Relationship disagrees with a consulted specialist, that rationale is documented in the medical record and discussed with the Client as part of the decision-making process.

When using an AI-driven robotic or monitoring device, the Veterinarian must ensure that it was trained on a population similar to their Patient(s). The diversity in patient morphology and phenotype in veterinary medicine far exceeds that in human medicine. For example, if an AI-monitored wearable was used to detect health in a herd, alerts might be deleteriously absent if that device was trained on a herd of Tennessee fainting goats. The AI device would have learned that occasional myotonia and collapse was “normal.”

The above lapses in professional judgment may factor into a Board’s disciplinary process. While it

Regulatory Considerations CONT.

may be unreasonable to expect the average Licensee to understand minute details of each AI device, Licensees should practice due diligence to understand as much as possible prior to use. Licensees should not use technology they do not adequately understand.

Medical Recordkeeping

Many devices use NLP to assist in generating medical records. When using these systems, Licensees must thoroughly review all AI-generated records to ensure their accuracy. AI may fabricate inaccurate content or infer details based on prior interactions or limited training datasets, which can lead to incorrect or irrelevant information.

Similarly, AI used for responding to client emails or writing discharge instructions may insert incorrect clinical advice for that specific Patient by drawing from prior records of previous Patients. For example, the post-spay discharge instructions for a healthy young animal will be different from those for a diabetic geriatric animal.

All AI risks the introduction of bias from the developer or dataset, demanding careful review of the outputs. In all cases, the responsibility for the final contents of any communication lies with the Licensee. With transcribing tools, Boards may opt to consider if the original recording is also part of that medical record. If so, is it subject to the same privacy, storage, and retention regulations as those of other conventionally generated medical records? Should it be noted if that Medical Record was generated using AI software? The AAVSB encourages Boards to clearly communicate these requirements to Licensees.

Electronic Medical Record (EMR)

A digital system that stores and manages information about a patient's medical history and care and can include information such as patient signalment, laboratory results, radiology images, and treatment plans.

Proper Data Storage and Confidentiality

Data privacy and security are critical. Both jurisdictional Boards and federal agencies may impose specific requirements regarding the confidentiality of medical records and Client information. Just as with **electronic medical records (EMRs)**, Veterinary Facilities must comply with applicable data protection laws to ensure that personal or sensitive information used by AI systems is properly protected and encrypted. These laws are evolving to keep pace with the integration of AI, and both Licensees and regulators should try to stay informed about new developments.

Regulatory Considerations CONT.

Both AI developers and Veterinary Facilities must implement robust security measures to prevent data breaches or unauthorized access, and to comply with jurisdictional data storage, security, and privacy requirements. These conditions apply to data stored both within the Veterinary Facility or at an off-site location ("through the cloud"). Prior to adopting an AI device, the Licensee must understand these safeguards and ensure continued compliance.

Licensees must also consider the intentional release of information. AI devices require periodic training or may require transmitting practice data back to developers. Licensees should avoid using AI systems that do so without adequate safeguards, such as anonymization or encryption. Some companies currently include clauses allowing the use or sale of practice data without notifying the practice owner. Such agreements should be avoided to protect Client confidentiality and the integrity of the practice. Before adopting any AI device, Licensees should carefully review the terms of service with the provider.

Appropriate Informed Consent

When the above requirements are understood and met, Licensees should obtain appropriate Informed Consent before using AI by explaining the benefits, risks, and limitations of these technologies.

The level of risk associated with each application should guide the level of Informed Consent required. The more closely an AI application approximates real-world veterinary practices, the greater the risk. Similarly, the less human involvement in a veterinary practice, the greater the risk. Regulators may wish to consider the level of risk when determining Licensee accountability in both guidance documents and disciplinary cases.

At a minimum, the AAVSB believes that Informed Consent should be obtained when AI assists in writing or summarizing medical records, transmits unencrypted/unprotected Client data, or plays a role in clinical decision-making, diagnostics, or treatment. Transparency in how Client and Patient data is handled should be part of this conversation. The AAVSB strongly encourages Boards to consider providing instructive guidance documents on this specific topic to alleviate Licensee confusion.

Regulatory Considerations CONT.

It may not be necessary to inform clients when AI is used for routine, low-risk administrative tasks, such as generating reminder emails, if standard data privacy and storage requirements are met. EMRs are well-established in veterinary medicine and these systems are periodically maintained. It is not common for Veterinary Facilities to obtain Informed Consent before entering Client data into the EMR, but it is the Facility's responsibility to ensure that the data is secure.

If an AI device is used within a secure system for administrative purposes, it may not be necessary to obtain consent. Likewise, AI may be integrated into other medical devices and systems, such as to reduce noise or provide quality assurance in radiology, without necessitating consent. As AI is increasingly used in these applications, obtaining Informed Consent for every low-risk use cases will become impossible or unreasonable.

When a phone call is recorded for quality assurance purposes, many Jurisdictions require that the caller be notified at the beginning of the call. This practice has become standard. Similarly, if an AI device is used to transcribe an exam, the Client should be notified and allowed to opt out. This could be achieved through signage in the exam room. Even for minor tasks such as reviewing past medical records to generate reminders within the EMR system, the Client should be informed and allowed to opt out. Boards may need to consider whether opting in is considered Informed Consent.

If AI is involved in any part of the decision-making process or direct Patient interaction, the AAVSB believes that written Informed Consent should be obtained each time the AI device is used. Clients may have different preferences for AI use depending on the stakes of the decision—such as confirming a normal radiograph reading versus performing a metastasis check via thoracic radiographs. Important information to relay to the Client includes the Veterinarian's experience with the device, details about training method and dataset, any known limitations or accuracy shortfalls, and human involvement in the process. For each decision, options that solely involve human input should be offered as an alternative. As with all decisions requiring Informed Consent, this discussion and the Client's decision must be documented in the medical record.

Conclusion

Artificial intelligence has the potential to enhance the practice of veterinary medicine by supporting clinical decision-making, aiding in diagnostics, and reducing Licensee time spent on non-clinical tasks. However, this potential must be carefully balanced with the associated risks.

Veterinary Licensees should educate themselves on the specific risks and benefits of each application. Due to the constant creation and adoption of novel uses for this technology, it is impossible to regulate specific applications. Rather, the user of AI, the Licensee, is subject to current and applicable regulations. They are the responsible party for all subsequent decisions.

Licensees should be made aware that any errors or issues arising from AI use fall solely on them and the Veterinary Facility. Before implementing any AI device, professionals must ensure they comply with current laws and stay informed about emerging ones. The AAVSB believes that its Member Boards are the best sources for this communication.

There is more work to be done on educating Licensees about transparency as it relates to this technology. The AAVSB encourages its Member Boards to consider creating guidelines on transparency and Informed Consent. It is critical that this transparency not place undue administrative burden on Licensees and Veterinary Facilities. Guidelines also must not hinder access to AI-powered innovations that can improve the quality of care.

Half of the jurisdictional Boards in North America regulate Veterinary Facilities. While much of the regulatory action discussed in this paper occurs on a complaint-driven basis, Veterinary Facility inspection and registration is a chance for proactive education and corrective measures before a member of the public is harmed. The AAVSB encourages those Boards that inspect Veterinary Facilities to consider this opportunity. Lastly, Boards may wish to add data storage and confidentiality measures to their Veterinary Facility requirements, if not already present, and evaluate methods by which Veterinary Facilities obtain Informed Consent for AI uses.

AAVSB Next Steps

The AAVSB encourages discussion of this important topic within its Member Boards, and between the Boards and their Licensees. To support this conversation, AAVSB subject matter experts are available to AAVSB Member Boards.

The AAVSB is researching the creation of new standards and applying model regulatory language for the use of AI in veterinary medicine.

A companion summary document has been produced along with this paper for Member Boards to distribute to their Licensees, if desired. The AAVSB can work with Boards to edit it per their specific needs.

As always, the AAVSB is available to support its Member Boards with this discussion in whatever capacity is needed.

About Us

The American Association of Veterinary State Boards (AAVSB) is a 501(c)(3) nonprofit corporation headquartered in Overland Park, Kansas. We are an association of veterinary medicine regulatory boards whose membership includes licensing bodies in 63 jurisdictions, including all of the United States, the District of Columbia, Puerto Rico, the U.S. Virgin Islands, and the ten Canadian provinces.

Our Mission

To support and advance the regulation of veterinary medicine.

Our Vision

The AAVSB provides comprehensive information and services to enhance the efficiency of veterinary regulation.

Our Values

- Protection of the public
- Reliability & accuracy
- Ethics & integrity
- Service excellence
- Active inclusion, participation, & collaboration
- Stewardship of resources

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Further Reading

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