

AVMA Practice Advisory Panel

# FINAL REPORT ON TELEMEDICINE

01.13.17



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## Disclaimer

This report was prepared by the AVMA Practice Advisory Panel and is provided for informational purposes only regarding the use of telehealth and telemedicine in the veterinary profession. The information in this report has not been approved by the AVMA Board of Directors or the House of Delegates, and it is not to be construed as AVMA policy on this matter. This report is not intended as a definitive statement on the subject but rather to serve as a resource providing practical information for the reader. Neither this report nor other guidance provided by the AP is intended to interfere with or otherwise restrict electronic communications conducted by regulatory authorities in carrying out their assigned duties relative to animal health and welfare issues. If you would like to provide feedback regarding the report's contents, please send your comments to [Telemedicine@avma.org](mailto:Telemedicine@avma.org).

## 1. EXECUTIVE SUMMARY

The AVMA Board of Directors (BOD) assigned the telemedicine issue to the Practice Advisory Panel (AP) for its deliberation and advisement to the BOD on the AVMA's leading role in guiding the profession's responsible use of telemedicine by establishing policy, guidelines, and best practices and by developing resources for practicing veterinarians.

The AP developed from within its membership a Telemedicine Subcommittee, which in turn facilitated establishment and operation of five telemedicine working groups comprised of more than 50 volunteers. The AP is grateful to the numerous volunteers who served on the working groups, providing their expertise and time in tackling complicated issues of telemedicine.

This final report of the AP provides the BOD with the AP's recommendations and guidelines on telemedicine issues. Guidelines and recommendations provided in this document should not be construed to alter the scope of practice of any health-care provider or authorize the delivery of veterinary health-care services not authorized by law. In fact, these guidelines and recommendations support a consistent standard of care and scope of practice regardless of the delivery tool or business model used to enable practitioner-client communications. A practitioner using telemedicine services in the provision of veterinary services must take appropriate steps to establish the veterinarian-client-patient relationship (VCPR) as defined by the laws and regulations of the relevant state authority and conduct all appropriate evaluations and other services consistent with standards of care for the particular patient presentation. Some situations and patient presentations are appropriate for the utilization of telemedicine services, while others are not. The practitioner is responsible for making this determination and, in doing so, must adhere to applicable laws and standards of care.



Telemedicine is a tool of practice, not a separate discipline within the profession. The AP recognizes that using telemedicine in the delivery of veterinary medical services offers benefits to animal owners, animal patients, and the profession itself. The appropriate application of telemedicine can enhance animal care by facilitating communication, diagnostics, treatments, client education, scheduling, and other tasks within the veterinary profession. Practitioners must apply existing laws and regulations to the provision of telemedicine services in the state they have license to practice veterinary medicine.

The AP recommends that telemedicine shall only be conducted within an existing VCPR, with the exception for advice given in an emergency care situation until that patient(s) can be seen by or transported to a veterinarian. Without a VCPR, telemedicine should not be practiced, and any advice given should remain in general terms, not specific to an individual animal, diagnosis, treatment, etc. Thus, nonclient electronic communications should be in the nonclinical realms of mHealth, web content, and other messaging. The AP also recommends that the AVMA expect practitioners who provide veterinary care, electronically or otherwise, maintain the highest degree of professionalism. Additional recommendations are made by the AP throughout the report and are summarily compiled in Section 8 of this report.

## 2. METHOD OF DELIBERATION

The AVMA Board of Directors (BOD) assigned the issue of telemedicine to the Practice Advisory Panel (AP) for its deliberation along with other issues encompassed within the AP's charge. The AP established from within its membership a Telemedicine Subcommittee, tasked to:

- Evaluate whether the AVMA Model Veterinary Practice Act requires modification to address telemedicine,
- Consider guidelines for when telemedicine is and is not appropriate in veterinary medicine, and
- Help ensure that the AP completes the telemedicine assignment from the BOD.

On the basis of work of the AP Subcommittee on Telemedicine, the AP established five virtual working groups (WGs), consisting of more than 50 volunteers, to complete work in strategic phases.

### **Phase one:** March – May 2016

- **WG on the State of Telemedicine and Comparative Uses**  
Tasked to assess present uses of telemedicine, compare uses across health-care sectors, and forecast future uses of telemedicine as it relates to veterinary medicine in a summary that advises the AP as well as other AVMA leadership and membership. The WG consisted of 11



members possessing a range of essential competencies and perspectives, such as veterinary practice, communications, consulting and referral, service or industry supportive to animal health, insurance provider or advisor, and health-care IT or informatics.

- **WG on the Regulatory and Legal Aspects of Telemedicine**

Tasked to comprehensively search, compile, distill, and summarily convey the breadth and depth of telemedicine regulations in an end product designed to advise the AP and other AVMA leadership. The WG consisted of 11 members possessing a range of essential competencies and perspectives, such as an attorney, practitioners, and consultants as well as members experienced in organized veterinary medicine, veterinary medical specialty boards, and state regulatory boards.

- **WG on Telemedicine Technologies and Applications**

Tasked to provide the AP with perspectives on how telemedicine technologies and applications may be used appropriately and securely to advance veterinary medicine. The WG consisted of 12 members possessing a range of essential competencies and perspectives, such as practice, economics, ethics, legal training, and communications, and those with experience in telemedicine technologies, services, development, and marketing.

#### **Phase two: May – August 2016**

- **WG on Telemedicine Guidelines**

The Working Group on Telemedicine Guidelines (WG) was established by the AVMA's Practice Advisory Panel (AP) to advise the AP on guidelines for what AVMA should advocate as proper use of telemedicine in veterinary medicine. Along with telemedicine position statements from various human health-care sectors, the results of AVMA's phase 1 telemedicine working groups served as springboards for the WG's deliberations. The WG consisted of 12 members possessing a range of essential competencies and perspectives, such as clinical practice, consultant services, organized veterinary medicine, academia, and regulatory boards.

#### **Phase three: August – November 2016**

- **WG on Telemedicine Education for Providers**

The Working Group on Telemedicine Education and Outreach (WG) was established by the AVMA's Practice Advisory Panel (Panel) to develop plans and materials to help educate others regarding appropriate use of telemedicine in the veterinary profession as well as to advise the



Panel regarding intended target audiences, messages to each, formats and avenues for messaging, and other aspects related to education and outreach on telemedicine in the veterinary profession. The WG consisted of 11 members in addition to a Panel member serving as the WG's Chair. Collectively, the WG consisted of a range of essential competencies and perspectives, such as veterinary practice, law, communications, organized veterinary medicine, academia, consulting and referral, industry, and those with experience in education and outreach.

### 3. DEFINITIONS

#### 3.1. Veterinarian-client-patient relationship (VCPR)

The [VCPR](#) is the basis for interaction among veterinarians, their clients, and their patients. In addition to the discussion of VCPRs in Section III of the [AVMA's Principles of Veterinary Medical Ethics](#), below is the AVMA's current definition of "veterinarian-client-patient relationship" (VCPR) as it appears in subsection 20 of the AVMA [Model Veterinary Practice Act](#).

"Veterinarian-client-patient relationship" means that all of the following are required:

- The veterinarian has assumed the responsibility for making medical judgments regarding the health of the patient and the client has agreed to follow the veterinarian's instructions.
- The veterinarian has sufficient knowledge of the patient to initiate at least a general or preliminary diagnosis of the medical condition of the patient. This means that the veterinarian is personally acquainted with the keeping and care of the patient by virtue of:
  - a timely examination of the patient by the veterinarian, or
  - medically appropriate and timely visits by the veterinarian to the operation where the patient is managed.
- The veterinarian is readily available for follow-up evaluation or has arranged for the following:
  - veterinary emergency coverage, and
  - continuing care and treatment.
- The veterinarian provides oversight of treatment, compliance and outcome.
- Patient records are maintained.

This definition of the VCPR differs from that embodied in federal regulation [21 CFR 530.3\(i\)](#), among [states](#), and that of the American Association of Veterinary State Boards' (AAVSB) [Practice Act Model](#).



The WGs and AP recognize that there are locations, such as Alaska, Maine, Washington, and the District of Columbia, that did not have VCPR regulations as of the June 2015 date of the last AVMA search of the regulation.

### 3.2. Practice of veterinary medicine

The practice of veterinary medicine is defined in each state's practice act, some of which heavily rely on the AVMA's [Model Veterinary Practice Act](#). Below is an excerpt from the MVPA.

"Practice of veterinary medicine" means:

- To diagnose, prognose, treat, correct, change, alleviate, or prevent animal disease, illness, pain, deformity, defect, injury, or other physical, dental, or mental conditions by any method or mode; including the:
  - performance of any medical or surgical procedure, or
  - prescription, dispensing, administration, or application of any drug, medicine, biologic, apparatus, anesthetic, or other therapeutic or diagnostic substance, or
  - use of complementary, alternative, and integrative therapies, or
  - use of any procedure for reproductive management, including but not limited to the diagnosis or treatment of pregnancy, fertility, sterility, or infertility, or
  - determination of the health, fitness, or soundness of an animal, or
  - rendering of advice or recommendation by any means including telephonic and other electronic communications with regard to any of the above.
- To represent, directly or indirectly, publicly or privately, an ability and willingness to do an act described in subsection 16(a).
- To use any title, words, abbreviation, or letters in a manner or under circumstances that induce the belief that the person using them is qualified to do any act described in subsection 16(a).

### 3.3. VCPR in conjunction with the MVPA

Section 5 of the AVMA Model Veterinary Practice Act clearly states the VCPR requirement in practicing veterinary medicine (see below), and the AP underscores the importance of these requirements even when utilizing telemedicine.

*"No person may practice veterinary medicine in the State except within the context of a veterinarian-client-patient relationship."*

*"A veterinarian-client-patient relationship cannot be established solely by telephonic or other electronic means."*

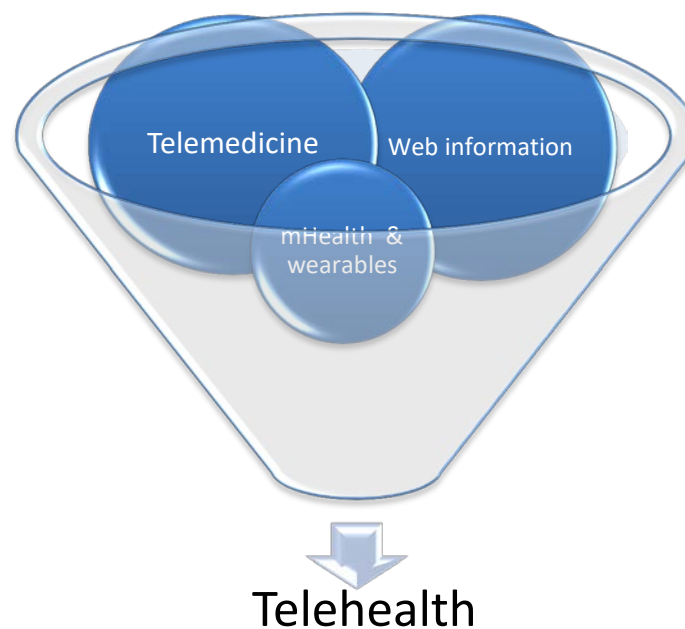




### 3.4. Telehealth, telemedicine, and mHealth

Telehealth, telemedicine, and mHealth are related; however, the AP is aware of confusion about the terms and mistaken use of the terms interchangeably. The AP recognizes that numerous definitions of telemedicine exist (104 peer-reviewed definitions identified in a 2007 study<sup>1</sup>). For clarity related to this document and other guidance from the AP, the AP defines the terms as follows.

- **Telehealth:** the overarching term that encompasses all uses of technology geared to remotely deliver health information or education.
- **Telemedicine:** the use of medical information exchanged from one site to another via electronic communications to improve a patient's clinical health status.
- **mHealth or mobile health:** a subcategory of telehealth that employs mobile devices. Some mHealth applications and wearables (e.g., [Veterinary AliveECG](#) and [Sonon](#) ultrasound) are designed to augment animal health care within VCPRs, while others (e.g., [FitBark](#), [SigaRuminant](#), and [Horse Health Tracker](#)) are designed and marketed directly to consumers for their education and animal monitoring without clinical input (no VCPR).



<sup>1</sup> Sood SP, Negash S, Mbarika VW, et al. Differences in public and private sector adoption of telemedicine: Indian case study for sectoral adoption. *Stud Health Technol Inform* 2007;130:257–268..

### 3.5. Consultant and veterinarian of VCPR

The AP understands that there may be confusion regarding roles and responsibilities of the veterinarian of VCPR compared with roles and responsibilities of consultants; thus, clarifying differences is important.

**Veterinarian of VCPR:** a licensed veterinarian who has established and is working within a VCPR.

- Communicates directly with the animal owner or other caretaker.
- Is ultimately liable for patient care.
- Because multiple veterinarians may have VCPRs with the same client and patient concurrently, the AP intentionally uses the term “veterinarian of VCPR” instead of “primary veterinarian.”

**Consultant:** an individual from whom the veterinarian of VCPR seeks advice in management of a given case (individual patient, herd, flock, etc.) .

- Communicates with the veterinarian of VCPR, not the animal owner or other caretaker.
- Does not establish a VCPR, but advises the veterinarian of VCPR.

## 4. TELEMEDICINE

Telemedicine has arisen as one of the greatest opportunities and challenges facing medicine in the digital age. For human medicine, telemedicine facilitates consultation, patient monitoring, the delivery of consumer information and educational materials, and improved patient care in underserved and remote areas. The AP is aware that there is growing support for an interstate licensing bill for telemedicine.

As expected, telemedicine has spread into the veterinary medical field as well. Both the internet and a dramatic increase in consumer use of mobile technology have driven awareness of the availability of online resources and sparked creation of an increasing number of applications (apps) that provide basic telemedicine services to animal owners. Although the currently available apps are aimed primarily at pet owners, telemedicine impacts multiple aspects of clinical veterinary practice across species.

The use of telemedicine and digital consulting apps in the veterinary field has been the subject of controversy, with impassioned views from different sides of the issue. On one hand, there are concerns regarding liability, potential for violating the VCPR, and challenges of providing veterinary consultation without a hands-on examination. On the other hand, the technology is more likely to increase in use, giving the profession an opportunity to shape the direction of telemedicine for optimal animal health and welfare benefits.

Controversial aspect of telemedicine in veterinary medicine were further brought into the national spotlight in early 2015, when a Texas veterinarian, disciplined for violating the state's practice act, filed a lawsuit against the state board. The U.S. Court of Appeals for the Fifth Circuit found that the Texas state board's requirement that a physical examination of the animal or premises must occur for a valid VCPR does not violate the First or Fourth Amendment. The Texas law challenged in that lawsuit contained language similar to the AVMA Model Veterinary Practice Act, stating that the VCPR cannot be established solely through electronic or telephone means. The AP is aware that most states have not adopted such specific language, therefore making it even more difficult to predict how courts may rule in the future on the topic of veterinary telemedicine.

#### **4.1. Telemedicine in relation to the VCPR**

The AP recognizes that telemedicine is a rapidly evolving field with the potential to improve the quality of care for animals, and the AP feels that the profession should be committed to investigating all methods of obtaining information about its patients for the purposes of providing safe, competent veterinary care. At this point, the definition of the VCPR does not need to change to encompass the tools of telemedicine; however, the AP understands that in the future as technologies and medicine advance, in-person examination may be among options, but not the only option, to satisfy VCPR requirements.

The AP recognizes that remote technologies currently available to the profession do not fulfill the profession's needs for thorough, in-person examinations, which employ all of a veterinarian's senses and expertise and elicit animal responses, all of which are imperative because veterinary patients cannot verbally convey histories or symptoms. Nonetheless, the AP acknowledges that advances in technologies have made it easier for veterinarians to remotely gather adequate patient information for the provision of *continued* care that would have previously required in-person rechecks.

#### **4.2. Telemedicine in production and companion animal medicine**

The AP perceives **production medicine** as currently being more conducive than other practice segments to utilizing client-facing telemedicine because of factors relating to well-established, preventive herd/flock health programs as well as vertical or other integration platforms within production systems. For instance, a vertically integrated poultry system may have a veterinarian at location A and a trained technician under indirect supervision at location B. If an animal health issue arises at location B, part of the response may include the technician collecting data (photographs, videos, production/facility records, etc.) and submitting samples. The veterinarian at location A receives the electronic information from the technician and then may direct veterinary medical intervention, wait for lab results, request additional information, etc. Examples of telehealth that have been used for years in production paradigms include automated monitoring systems that record and transmit information such as animal

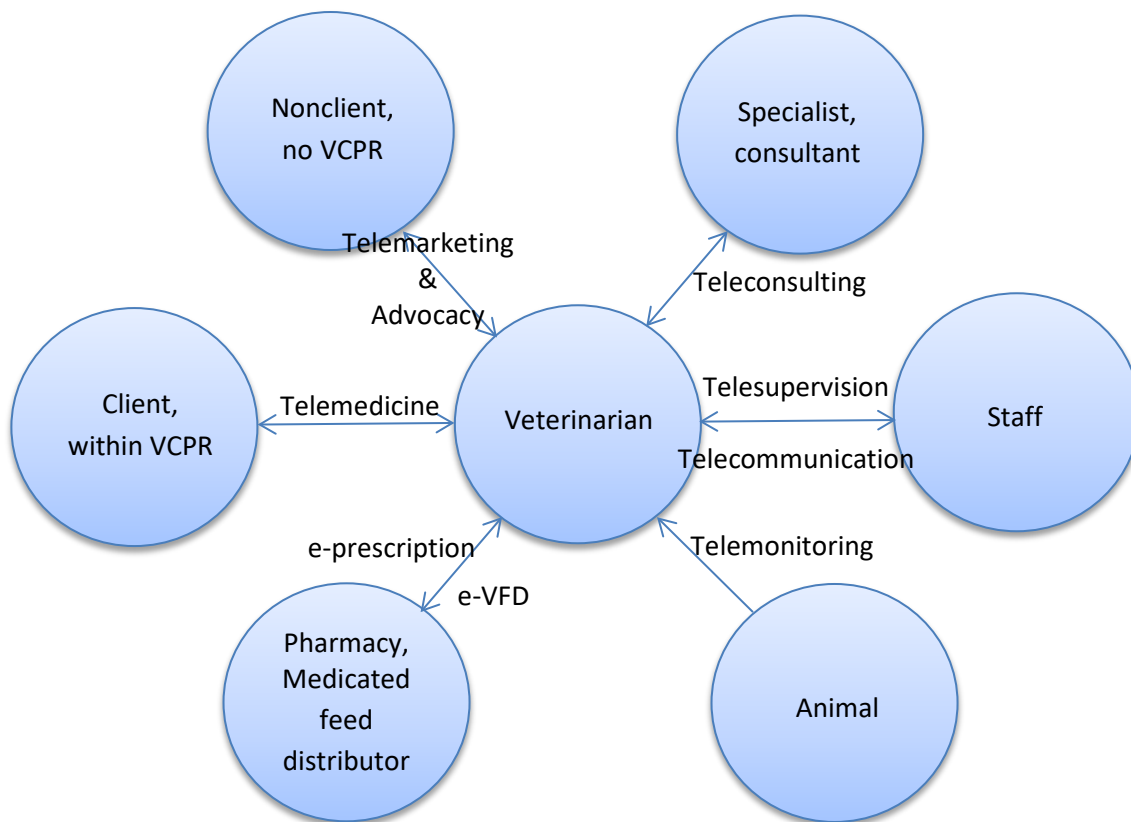


activity, feed intake, milk production, etc. Such e-records not only are used by production facilities, but also can signal when veterinary intervention may be needed and provide valuable information to the veterinarian.

**Companion animal medicine** has used telemedicine for decades, but primarily in the teleconsulting arena (telecardiology, teleneurology, telepathology, teleradiology, etc.) and less so in the client-facing arena (mostly focusing on telephone calls, texts, etc.). While companion animal owners in general may not have been utilizing consumer-directed telehealth devices, systems, or apps as long as or to the extent of producers, it seems that companion animal owners are definitely being targeted now by device manufacturers and app developers. Some of these telehealth items may be useful for veterinarians and thus overlap into telemedicine. Navigating this overlap, ensuring compliance with practice regulations and standards, and being pressured by a society expecting similar telemedicine options from their veterinarian as they get from their physician seem to contribute to confusion over telemedicine more for companion animal practices than production animal practices.

### 4.3. Categories of telemedicine

Telemedicine may be divided into categories based on who is involved in the communication (e.g., veterinarian with veterinarian, veterinarian with staff, veterinarian with established client, and veterinarian with nonclient). The following diagram provides multiple electronic communication pathways, including telemedicine. [Appendix A](#) provides a brief sampling of telehealth and telemedicine providers and platforms; inclusion does not imply AP endorsement.



#### 4.3.1. Client-facing telemedicine

For this discussion, clients are animal owners or other caretakers with whom the veterinarian has a valid VCPR. The AP emphasizes the benefits of a hands-on evaluation of our veterinary patients to help establish a VCPR.

Client-facing telemedicine models exist that allow the veterinarian to gather all essential veterinary medical information from the animal owner (or other caretaker), access the patient's medical records, and conduct a virtual exam of the patient through real-time video or by attached pictures in store and forward modalities.

Telemedicine is a vital tool for the veterinary profession and seems to be greatly desired by society. Utilizing telemedicine appropriately can augment animal health and welfare while also enhancing client education, compliance, and satisfaction.

The AVMA [Model Veterinary Practice Act](#) states, "A veterinarian-client-patient relationship cannot be established solely by telephonic or other electronic means."

Furthermore, telemedicine diminishes hurdles to veterinary medical care posed by distance, time, and human resource restrictions. The more accessible veterinarians and their trained support staff are to clients, the less likely those clients are to turn to nonveterinarians for information, guidance, or other help.

Examples: client portals; emails, texts, or telephone calls regarding appointments, progress, or results; emergency calls.

The AP recommends:

- That the AVMA encourage applications and other platforms that appropriately help connect/reconnect existing clients to their established health-care team and veterinarian of VCPR.
- That the AVMA encourage practitioners to utilize emerging technologies to enhance their accessibility and client communications.

#### **4.3.2. Nonclient, public-facing electronic communications**

Nonclients are individuals with whom the veterinarian does not have a valid VCPR, and without a VCPR, telemedicine should not be practiced. Any advice given should remain in general terms, not specific to an individual animal, diagnosis, treatment, etc. Thus, nonclient electronic communications should be in the nonclinical realms of mHealth, web content, and other generalized messaging.

##### ***4.3.2.1. Credentials and disclaimers***

The credentials of all advice givers as well as disclaimers on all resources need to be prominent so as not to mislead readers. An example of a disclaimer actually found by a WG member after searching a site offering animal health-care advice states, "for educational and entertainment purposes only."

##### ***4.3.2.2. Educational websites and applications***

Educational websites and applications have value, but do not substitute for proper veterinary care. Furthermore, the information on such websites and applications should not convey specifics of treatments. Providing general information about diseases, conditions, injuries, behaviors, and other topics pertaining to animals as well as conveying why an animal with a given issue needs to be seen, monitored, rechecked, etc. by a veterinarian is helpful. General promotion of appropriate vaccinations and other aspects of preventive health is also beneficial.

#### **4.3.2.3. Connection platforms**

Nonclient applications and website content that connect animal owners (or other caretakers) with veterinarians are resources with great potential. Such platforms help connect owners and caretakers with veterinarians so that the animals get the medical care needed, thus enhancing animal health and welfare in general and potentially contributing to practice profitability. AVMA should encourage applications and other platforms that appropriately help connect animal owners (or other caretakers) with veterinarians licensed to practice in their area.

#### **4.3.2.4. Telemarketing for second opinion**

Some platforms specifically market second opinion packages, including review of records. This, as well as other teleconsultations that exist with the public and outside of valid VCPRs, is a concern. The AVMA's policy on [Remote Consulting](#) further supports the concern.

- The arrangement and review of the record is outside of a VCPR because the marketing provider has not physically examined the animal and does not plan to physically examine the animal; thus, it does not qualify as a true second opinion.
- Such marketed arrangement and review of records is not the same as a second opinion sought by a veterinarian of VCPR through consultation with specialists, nor is it the same as an owner having two different veterinarians physically examine the animal(s) in conjunction with record review.

### **4.3.3. Consultant-facing telemedicine**

For decades, veterinarians operating within valid VCPRs have electronically consulted specialists for assistance with their patients. Such teleconsulting should be allowed to continue and to utilize ever-increasing technologies for the betterment of patient care.

Examples of teleconsultations:

- Electronic conversations by telephone, videoteleconferencing, texts, etc.
- Transferring/sharing electronic records, digital radiographs, ECGs, ultrasounds, etc.
- Telecardiology, teleneurology, telepathology, teleradiology, etc.
- Consulting with a nutritionist, toxicologist, pathologist, clinician, or other subject matter expert associated with a veterinary academic institution or an accredited laboratory.

The AP is aware that some states may have licensure restrictions such that only consultants licensed to practice veterinary medicine within the state may consult within the state. The AP disagrees with such intrastate licensure restrictions. The AP recognizes that the veterinarian of VCPR is liable for patient care, and the AP recommends that AVMA advocate for:



- Professional discretion of veterinarians of VCPRs to be able to consult with whoever they feel has the expertise to appropriately advise on the management of given cases and
- The ability of veterinarians of VCPRs to use consultants without requiring the consultants to be licensed to practice veterinary medicine or be licensed to practice in the same state.

The AP recommends that the AVMA add the following verbiage to the Model Veterinary Practice Act, and the AP is communicating with the Council on Veterinary Service (CoVS) so that the CoVS will consider the issue as it prepares for the upcoming review of the MVPA:

*"The veterinarian who establishes the VCPR is responsible for and has the liability to manage the case and must have a license in the state that the VCPR was established. Any consultant who is giving advice to the veterinarian of VCPR does not have to be licensed in that state. Communication to the client must go through or be controlled by the veterinarian who has established the VCPR."*

#### **4.3.4. Pharmacy-facing telemedicine**

Electronic prescribing (aka, e-Rx or e-prescribing) is the electronic transmission of doctors' orders for medical prescriptions—new or refills. Software platforms designed for e-prescribing may also help reduce transcription and interpretation errors. While e-prescribing is less common in veterinary medicine compared with other health professions, there is an obvious potential for increased use within the veterinary profession, especially as platforms include components more specific to veterinary medicine, such as owner name and patient species.

#### **4.3.5. Medicated feed distributor-facing telemedicine**

Different, but related to e-prescriptions, electronic Veterinary Feed Directive (e-VFD) orders are electronic orders issued by a licensed veterinarian for the use of a VFD drug or combination VFD drugs in or on an animal feed. A VFD (hard copy or electronic) authorizes the animal owner or other caretaker to feed the medicated product to treat the animal(s) strictly as stated on the label. For additional information on VFDs, please see the AVMA-developed [member resources on VFDs](#), such as a [fillable Veterinary Feed Directive order](#) form and an additional guidance.

#### **4.3.6. Regulator-facing telemedicine**

Electronic certificates of veterinary inspection (e-CVIs) have slowly entered practice. Challenges in using them include e-signature authentication in advance of issuance; the fact that not all states, territories,





or countries accept them; costs; unfamiliarity by practitioners; and potential preferences for the traditional hard-copy CVIs. Practitioners should contact their state veterinarian as well as the animal health authority of the receiving destination to learn whether e-CVIs are acceptable for the intended animal transport and what the requirements are for the given e-CVI.

Neither this report nor other guidance provided by the AP is intended to interfere with or otherwise restrict electronic communications conducted by regulatory authorities in carrying out their assigned duties relative to animal health and welfare issues.

#### **4.4. Telemedicine and veterinary medicine regulations**

The AP contends that with the exception of emergency care, such as animal poison control services, telemedicine should not be used outside of existing VCPRs.

Variations in state veterinary medicine practice acts exist across the nation, and most state practice acts do not mention telemedicine. See [Appendix B](#) for the first two pages of a chart compiled by the WG on the State of Telemedicine and Comparative Uses by adding state telemedicine regulations to the preexisting AVMA chart of state VCPR regulations. The AP recommends that the AVMA continue to develop and maintain this information as well as the information conveyed in the AVMA charts on [“Scope of Practice: Complementary and alternative veterinary medicine \(CAVM\) and other practice act exemptions”](#) and on [“Sanctions for unauthorized practice of veterinary medicine”](#) in a user-friendly, interactive tool feasible to the Association and useful to its members. In addition, the American Telemedicine Association has compiled the report [“State Telemedicine Gaps Analysis: Physician Practice Standards & Licensure,”](#) which compares state human health-care regulations pertaining to practice, licensure, and telemedicine.

Furthermore, the AP recommends that the AVMA advocate for harmonized telemedicine requirements across the nation.

##### **4.4.1. Location(s) of the act of practicing veterinary medicine when utilizing telemedicine**

In traditional, hands-on veterinary medicine, a veterinarian’s actions in practicing veterinary medicine have been on-site with the animal, and jurisdiction is clear. But when telemedicine can reach around the world, where exactly is the act of practicing veterinary medicine when utilizing telemedicine? Does the practice of veterinary medicine take place where the veterinarian is, or where the patient is, or both? What if the veterinarian is not licensed in the U.S.? This is an ongoing issue in a world shrinking with advancements in technologies, and the WGs see this issue as a potential moving target.

Another concern of a WG is that if it is determined that the practice of veterinary medicine takes place where the veterinarian is, what would prevent any telemedicine platform from staffing itself with veterinarians from in state to conduct telemedicine in and out of that state? What would prevent companies from staffing veterinarians located in other countries to provide telemedicine services within the U.S.?

The AP recommends that legal accountability and recourse be at both places—the state in which the patient is located as well as the state in which the veterinarian is located. In addition, the AP recommends the following definition for legal accountability of practicing veterinary medicine: the legal accountability, liability, and responsibility of practicing veterinary medicine are in the state(s) where the veterinarian has a license to practice and has an established VCPR with the client.

The AVMA [Model Veterinary Practice Act](#) states, “No person may practice veterinary medicine in the State except within the context of a veterinarian-client-patient relationship.”

This is critical for liability in the event that an animal owner seeks damages or a license claim against a veterinarian providing telemedicine services because of the potential for parties to practice telemedicine outside of a VCPR as well as across state and international borders. The AP recognizes that within an existing VCPR, telemedicine appropriately occurs across state lines. The AP further recognizes that as telemedicine evolves and becomes more widely utilized, telemedicine may necessitate the creation of a new cross-border regulatory entity similar to the Federation of State Medical Boards to specifically address licensing issues between states for the purpose of telemedicine. The extreme complexity of this issue in light of current licensing and regulatory laws underscores the need for telemedicine to be conducted only within existing VCPRs.

#### **4.4.2. Advice vs. practice, and accountability for both**

When does advice cross into the practice of veterinary medicine? When it involves any of the acts described in the [definition of the practice of veterinary medicine](#). State definitions vary. While nonveterinarians must not engage in the practice of veterinary medicine through telemedicine or other means, the AP is aware that some advice provided by nonveterinarians to individuals with animal health, welfare, or behavior concerns may cross over into the scope of practice. Regardless of the communication path, it is imperative that accountability for advice given exist and be enforced. The AP recommends that the AVMA advocate for enhanced regulatory enforcement to prevent unlicensed individuals from practicing veterinary medicine, including by telemedicine.

The AP recommends the following be added to the MVPA and is communicating with the CoVS on the issue:

*"Any advice given via any medium outside an established VCPR must be given in general terms, not specific to an individual animal, group of animals, diagnosis, or treatment."*

#### 4.4.3. Telerriage, including poison control services

The AP recommends that the AVMA advocate for allowance of emergency telerriage, including poison control services, to provide emergency, potentially lifesaving telemedicine consultations with the public.

##### 4.4.3.1. Rationale for exemption

The AP recognizes animal health benefits and societal needs for emergency telerriage, including animal poison control services, for immediate, potential life-threatening animal health situations (e.g., poison exposure mitigation, animal CPR instructions, and other critical lifesaving advice).

While such advice pertaining to specific animals falls under the practice of veterinary medicine and is outside of a VCPR, the AP recognizes the lifesaving impacts these services have and that continued or follow-up animal care with veterinarians of VCPR is typical in most cases.

To fully advocate for these services, the AP recommends that the policy on [Remote Consulting](#) be revised to provide a caveat for telerriage, including poison control services. The proposed revision in the text box on the right also eliminates loopholes afforded in the last sentence of the current policy because:

- "Collaboration" is broad and may be done outside of a VCPR and
- An "agreement" can be circumvented by clients, online pharmacies, and others.

Suggested revisions are depicted in the text box on the right.

#### AVMA policy on Remote Consulting

With the exception of emergency telerriage, including poison control services,  
~~t~~The AVMA opposes remote consulting, including ~~but not limited to, telephone or web-based media~~telemedicine, offered directly to the public when the intent is to diagnose and/or treat a patient in the absence of a veterinarian-client-patient relationship (VCPR) as defined by the AVMA Model Veterinary Practice Act. ~~Remote consulting directly with the patient owner can be beneficial and is acceptable when performed with an agreement and in collaboration with the attending veterinarian who has established and retains the VCPR.~~

In addition, the AP recommends the following be added to the MVPA and is in communication with the CoVS on the issue:

*"Telemedicine shall be conducted within an existing VCPR, with the exception for advice given in an emergency care situation until that patient(s) can be seen by or transported to a veterinarian."*

*"Any advice given via any medium outside an established VCPR must be given in general terms, not specific to an individual animal, group of animals, diagnosis, or treatment."*

#### **4.4.3.2. Accountability for advice given.**

With in-person veterinary care, triage is done by trained technical staff or veterinarians, both of whom convey as part of client education that if the given condition worsens, the owner should not wait, but return immediately for a recheck with the veterinarian or seek immediate help at a veterinary emergency facility. Will such language be utilized in veterinary teletriage? In human medicine, teletriage training is being formally addressed by entities (e.g., [TeleTriage Systems](#)), and teletriage decision support software is being developed (e.g., [LifeBot®](#))

The general public may call veterinarians or others as well as utilize online or mobile platforms to determine whether their animal needs to be seen by a veterinarian immediately, whether veterinary care can wait, and what they should do in the meantime or instead of veterinary care. If a telemedicine platform conveys to someone that "it's probably fine to wait," and the animal gets worse or dies, not only did the animal and owner suffer and the situation reflect poorly on the profession and those involved, but who has accountability, liability?

- Veterinarians have professional accountability and liability and are encouraged to obtain and maintain professional liability insurance.
- What accountability and liability falls to nonveterinarian employees in telemedicine in general and teletriage in particular?
- What accountability and liability falls to the telemedicine platform company?

The AP recommends that telemedicine advice givers be limited to those who are also legally authorized to give veterinary medical advice according to the given state's practice act.

## 5. TELEMEDICINE DRIVERS

### 5.1. Societal demand

The AP perceives a growing societal demand for telemedicine in veterinary medicine, similar to telemedicine's use in human health care. Access is a key advantage of telemedicine. With user-friendly technologies increasingly available, animal owners may access veterinarian services from almost anywhere, thus avoiding stress to their animal(s) that may result from handling and transport as well as saving time for the people and animals involved. In some cases, ease of access might make the difference between life and death for the animal(s) involved. It may also result in more animals receiving veterinary care as well as some receiving it sooner or longer. Ease of access is even more important in underserved areas. Continued advances in technologies as well as increased public access will certainly facilitate expansion of telemedicine.

The AP also recognizes that if the veterinary profession does not fill this societal demand, others with less veterinary expertise and accountability will, and regulatory enforcement will require more resources to oversee and thereby protect the public. In addition, without veterinarians in the conversations, some animals will end up receiving insufficient, detrimental, or no care.

### 5.2. Veterinary profession's benefits

Client-facing models exist that allow veterinarians to gather all essential veterinary medical information from animal owners (or other caretakers), access the patient medical records, and conduct virtual exams through synchronous (real-time) or asynchronous (store-and-forward) means. With advancing technologies, veterinarians are more easily and routinely able to gather adequate patient information for the provision of continued care that previously could only be accomplished through an in-person recheck. Such augmentation and advancements to veterinary medicine help mitigate certain challenges (distance, scheduling, availability, etc.) to the provision of animal health care; thus, more animals will receive care when they need it, enhancing animal health and welfare; contributing to client education, compliance, and satisfaction; and possibly mitigating certain stressors within the profession. In addition, the more accessible veterinarians and their trained support staff are to clients, the less likely those clients are to turn to nonveterinarians for information, guidance, or other help.

### 5.3. Competitive market

In addition to competitive markets of medical technologies and the veterinary profession in general, telemedicine platforms are filling a niche. The AP recognize that those telemedicine platforms that work on a cost-per-minute or cost-per-consult basis or that compensate consultants on the basis of client ratings may pressure veterinarians or other consultants to push the envelope and give as specific

information as possible. A platform may profess that it does not want its subcontractors or other employees to violate the VCPR; however, platform clients who are paying may have other ideas, especially when the same platform employs nonveterinarians offering similar consultations for less cost. Since the platform gets paid either way, there seems to be no real incentive for it to uphold VCPR rules. This is a critical flaw in the system that requires AVMA and regulatory attention, especially considering the VCPR regulations vary across states, some states do not have VCPR regulations, and resource challenges may hinder enforcement.

Furthermore, concerns exist on how to best monetize telemedicine services without allowing such to surpass the importance of accurate, effective, and appropriate animal care.

## **6. TELEMEDICINE TECHNOLOGY USE AND THE PRACTICE OF VETERINARY MEDICINE**

The AP recognizes that telemedicine is a rapidly evolving field and that telemedicine technologies can be used to improve animal health and welfare as well as public health and safety. The AP recommends that the AVMA be committed to advocating for ensured access by veterinarians and the public to the convenience and benefits afforded by telemedicine technologies, while maintaining the veterinarian's status as the preeminent expert in animal health and welfare.

When or if changes to the definitions of the practice of veterinary medicine or the VCPR are needed, the AP advises against changes to include or exclude specific technologies that can be sold directly to animal owners and that would create quasi-"safe harbors." It is imperative that the AVMA not put itself into a position where it may be interpreted as saying, "Company A's technology is OK because it is NOT the practice of medicine but Company B's technology is not OK because it IS the practice of medicine."

In addition, determining what groups (e.g., internal to the AVMA or the profession, external to the AVMA or the profession, or both) are likely to give the AVMA pushback and what concerns they have with respect to telemedicine recommendations will help the AVMA in developing effective changes if or when changes are needed regarding the use of telemedicine in practice.

Turning more to the technology and data, current telemedicine solutions integrate with most electronic medical records, and information can be exchanged securely using common coding language, HL7. One of the biggest limitations is to access both systems at the same time or to be able to review medical records and simultaneously perform a virtual visit while decreasing the chances of medical errors. Some companies already recognize this limitation and collect medical information in advance. The AP, on the

basis of advice from the WG on Telemedicine Technologies and Applications, anticipates continued emergence of creative technologies and applications in the telemedicine arena.

Examples of such platforms include:

- Free services.
  - Primary care veterinarian (veterinarian of VCPR) or ER services—unless given practice has monetized the services.
    - Typically only available to existing clients.
    - Limited advice given to nonclients because of liability issues.
    - Client portals; emails, texts, or telephone calls regarding appointments, progress, or results; emergency calls; veterinarian-to-client videoteleconferencing, etc.
  - Web browser searches—forums, blogs, social media, scientific and nonscientific information.
- Hybrid services—e.g., that start off as a free service, but require payment for in-depth consultation.
- Paid services—e.g., primary care veterinarian (veterinarian of VCPR) or ER services – unless given practice has not monetized the telemedicine services.

It is also key to focus on how veterinarians, others within the profession, and the public use technology and data, rather than on the technology or data itself.

## 6.1. Telemedicine technology and data use by veterinarians

Generally speaking, there are no restrictions, other than the U.S. Food and Drug Administration (FDA) restrictions, on the technology a veterinarian can use in medical decision making. [CardioPet™](#), [Veterinary AliveECG](#), [Sonon](#) ultrasound, and [SPRINT BOLT® Ultralight DR™](#) are just a few of the existing technologies.

Professional judgement of veterinarians seems to give technology companies insulation when it comes to selling animal health products through veterinarian-only channels. Thus, technology companies currently seem to be able to sell technology and data to veterinarians, as long as such does not violate FDA regulations and does not in itself practice veterinary medicine (e.g., conduct an internal algorithm on data to provide animal owner with diagnoses, treatments, etc.).

## 6.2. Technology and data use by consumers

Animal health technologies targeting veterinarians are for the most part dramatically different from those targeting public consumers. Technologies targeting consumers (e.g., [FitBark](#), [SigaRuminant](#), and [Horse Health Tracker](#)) have minimal to no clinical input on interpreting data generated and typically provide only telemonitoring of basic activity and vitals or general animal health education.

But what if a company sells a canine intergastric pill that collects data, then transmits that data via Bluetooth to a pet owner's mobile app? Would this be practicing veterinary medicine? What if the application performed functions that yielded a list of differential diagnoses for the animal owner or provided the owner with treatment instructions? The AP again stresses that any advice given outside of a VCPR should remain in general terms, not specific to an individual animal, group of animals, diagnoses, or treatments.

## 6.3. Research suggested

The AP recognizes that while aspects of telemedicine have been successfully utilized by the veterinary profession for decades, technology advances continue to expand possibilities, and the veterinary profession has unique needs and limitations relative to telemedicine. Vendors, manufacturers, and providers of veterinary telemedicine and associated services should ensure their products and services safeguard animal safety. To facilitate better understanding of the needs and expectations of the profession and its clients, the AP proposes that the AVMA consider exploring the following research projects:

- Animal owners: study to better understand economic and noneconomic impacts of telemedicine for animal owners, especially to identify best practice standards around encouraging engagement and connectivity between veterinarians and clients by telemedicine solutions.
- Veterinarians: study to determine economic and noneconomic impacts of telemedicine on veterinary practice. Utilizing and not utilizing trained teletriage personnel, client satisfaction, continuity of care, client retention, practice growth, and positive and negative case results are examples of factors to be considered. Collaboration with stakeholders on such studies may be beneficial.



## 7. ADVOCACY, EDUCATION, AND OUTREACH

### 7.1. Proposed telemedicine strategy for the AVMA

The AVMA's strategy on telemedicine should be geared toward protecting, promoting, and advancing a strong, unified veterinary profession that meets the needs of society. It should also lead the profession on the issue by advocating for its members and advancing the science and practice of veterinary medicine to improve animal and human health.

#### AVMA Strategy on Telemedicine

The AVMA's strategy on telemedicine is geared toward protecting, promoting, and advancing a strong, unified veterinary profession that meets the needs of society. It also helps position the AVMA as a leader in telemedicine policy and advocacy for the profession by advocating for its members and advancing the science and practice of veterinary medicine to improve animal and human health.

#### Short-term strategy

2016 Q4:

- Create a press package for public release of the AP's final report on telemedicine or the BOD's actions stemming from it. The packet should include:
  - Press release.
  - Quotes from AVMA leadership.
  - Link or QR code for AVMA resources on telemedicine.
  - Means for member feedback.
  - Means for nonmember feedback.
- Actively seek AVMA entity and stakeholder forum feedback on the AP's final report on telemedicine in general and the strategy specifically, adding to the feedback already sought from them at the interim report phase.
- Utilize the vanity URL, [www.avma.org/telemedicine](http://www.avma.org/telemedicine), for the AVMA's telemedicine resources landing page.
- Start development of member resources on telemedicine and include among them the checklists presented in Practice AP's Final Report on Telemedicine.

#### 2017 Q1:

- With the AP due to sunset at the conclusion of the Advisory Panel Pilot in January 2017, the topic of telemedicine should be added to the charge of a standing entity. The WG understands that the CoVS has been identified as the likely entity.
- Establish, maintain, and share throughout the AVMA a streamlined, written communications plan on telemedicine that provides definitive volunteer and staff roles, clearance processes, lines of communication, means for adaptation, and other implementation and accountability factors.
- Start an education and outreach campaign to get veterinary telemedicine information out to members, policymakers, and other stakeholders.
  - Based on BOD or HOD actions taken or directions given.
  - As AVMA policy is developed or revised to address telemedicine, it is to be included in AVMA education and outreach on telemedicine as well as be promoted by AVMA's communication channels (AVMA hosted as well as sharing with stakeholders).
  - Submit one or more telemedicine programs as "hot topics" at Convention 2017 if the daylong telemedicine program submitted earlier this year was not selected.
  - Develop AVMA webinars and podcasts on telemedicine, targeting veterinarians and veterinary staff.
  - Share updates during telemedicine-related sessions at NAVC Conference 2017.
- Begin utilization where feasible of the feedback provided by the AVMA entities and the Advisory Panel Pilot Stakeholder Forums.

#### 2017 Q2:

- Anticipate the CoVS recommendation pertaining to the policy on Remote Consulting as well as the BOD's action on the recommendation.
- Submit 2018 telemedicine projects into the Project Portfolio Management System (PPMS).
- Continue education and outreach campaign.
- Continue resource development.
- Implement the established written communications plan.
- Submit telemedicine programming for Convention 2018.



- Virtually reconvene select volunteers from the telemedicine working groups and the Practice AP to provide more specific education and outreach recommendations in light of decisions by AVMA leadership anticipated early 2017.

#### 2017 Q3:

- Telemedicine programming Convention 2017.
- PPMS and budget pertaining to telemedicine projects for 2018.
- Continue education and outreach campaign.
- Continue resource development.
- Start 3–6 month review of content and metrics of resources developed.

#### Long-term strategy

- The AVMA advocates for its members and the betterment of animal and public health in regards to telemedicine.
  - Telemedicine is clearly assigned to one AVMA entity.
  - Development, integration, implementation, and evaluation of clear, data-driven, and scientifically defensible policies in light of telemedicine.
  - Review the [Model Veterinary Practice Act- January 2013](#), the policy on [Remote Consulting](#) , and the [Principles of Veterinary Medical Ethics](#) and ensure harmonization with any policy or other position established regarding telemedicine.
  - Condense AVMA’s current five-year review cycle for policies specifically addressing telemedicine so that such policies are reviewed annually.
  - Actively and frequently dialogue with authorities and policymakers at state and federal levels to best ensure proactive forward progress of appropriate telehealth and telemedicine in the veterinary profession.
  - Collaborate with allied organizations, including at the international level, on the use of telehealth and telemedicine in the veterinary profession to best protect, promote, and advance a strong, unified veterinary profession that meets the needs of society and improves animal and human health.
- The AVMA provides its members with information and tools regarding appropriate use of telemedicine by developing and maintain information, including:
  - Continued development and maintenance of summary information on state regulations pertaining to VCPRs, telemedicine, complementary and alternative



veterinary medicine (CAVM) and other practice act exemptions, and sanctions for unauthorized practice of veterinary medicine in a user-friendly, interactive tool feasible to the Association and useful to its members.

- Resources on telemedicine, such as the [Online Pharmacy web page](#).
  - Utilization of the AVMA entities and other member volunteers in developing and updating content.
  - Scheduled reviews of web content every 3–6 months for continued accuracy, metrics, and adjustments as needed.
  - Advocate for incorporation of telemedicine into veterinary medical curricula.
  - Assemble, train, and maintain an AVMA speakers bureau on telemedicine.
  - Utilize surveys, focus groups, or other means to assess relevance and effectiveness of AVMA's efforts on telemedicine.
  - Develop resources to assist practitioners in monetizing telemedicine appropriately.
  - Utilize the checklists of section 7 of Practice AP's Final Report on Telemedicine when developing member resources on telemedicine.
- The AVMA utilizes search engine optimization for AVMA-generated content and makes adjustments when data suggest need.
  - The AVMA works with regulators, policymakers, allied organizations, and other stakeholders to facilitate appropriate regulations and utilization of telehealth and telemedicine for the veterinary profession.
  - The AVMA actively works with vendors, manufacturers, and providers of telemedicine and associated services to advocate that their products and services safeguard animal health, promote quality care, and accommodate the unique requirements of the veterinary profession relative to telemedicine.
  - The AVMA is a trusted, leading source of veterinary telemedicine policy information for animal owners and caretakers.

## 7.2. Education and outreach messages and audiences

Education and outreach on telemedicine should primarily be electronic (web content, webinars, podcasts, etc.), especially considering telemedicine itself is electronic. Following is a brief discussion of key audiences for which AVMA should develop education and outreach messaging and advocacy.



The WG recognizes the framework in which the WG was established and tasked, but stresses that only general recommendations regarding education and outreach on telemedicine can be made at this point because final decisions on telemedicine are still pending. Once AVMA's decisions, including any involving policy, have been made, recommendations on education and outreach to convey and better implement those decisions may be made. Furthermore, the WG recommends that while it is scheduled to sunset after submission of this report, the WG should be reconvened in spring 2017 to build upon its 2016 work in light of decisions by AVMA anticipated early 2017 to provide more specific education and outreach recommendations.

### **7.2.1. The profession**

The WG on Telemedicine Education and Outreach recommends more detailed information for our members than the general public. The information needs to detail AVMA's decisions on telemedicine to the extent practical and useful to the membership. Maybe a primer (e.g., "FAQ about New AVMA Telemedicine Guidelines" or "How to Answer Client Questions about Telemedicine") for veterinary practices in general as well as messaging targeting veterinarians and practice managers (e.g., "So You're Thinking about Adding Telemedicine: What You Need to Know" or "Here Is What You Must Know about the AVMA's Guidelines on Telemedicine"). The AVMA should simplify the finalized guidelines into straightforward language and bullet points to provide a general overview of the boundaries of veterinary telemedicine. Infographics are anticipated to be extremely helpful for this target audience group.

In addition to the sectors listed below within this audience group, the WG identified state VMAs (including VMAE), VMCs (including the AAVMC), state boards of veterinary medicine (including the AABSV), SAVMA, NAVTA, NAVC, and other allied organizations to be stakeholders within this group.

Key messaging points for the profession include the following.

#### **7.2.1.1. Veterinarians and veterinary students**

- As seen in human health, telehealth technology can be used to reach underserved clients and patients as well increase the satisfaction of current clients.
- Telemedicine is a tool of practice, not a separate discipline within the profession.
- On the basis of current regulations, telemedicine is a tool for use within existing VCPRs to augment animal care and client communications.
- Without a VCPR and until current regulators are modified, telemedicine should not be practiced, and any advice given should remain in general terms, not specific to an



individual animal, diagnosis, treatment, etc. Thus, nonclient electronic communications should be in the nonclinical realms of mHealth, web content, and other messaging.

- The AVMA [Model Veterinary Practice Act](#) states, “A veterinarian-client-patient relationship cannot be established solely by telephonic or other electronic means.”
- A practitioner using telemedicine services in the provision of veterinary services must take appropriate steps to establish the veterinarian-client-patient relationship (VCPR) as defined by the laws and regulations of the relevant state authority and conduct all appropriate evaluations and other services consistent with standards of care for the particular patient presentation.
- The credentials of all advice givers as well as disclaimers on all resources need to be prominent so as not to mislead readers.
- Check the practice laws and regulations in your state and consult your professional liability insurance provider if questions arise regarding telemedicine compliance and liability.
- If you engage in telemedicine, including telerriage, you should have an automated message push to users so that they know whom to call or where to go for immediate assistance in an emergency. For example, something along the lines of:
  - “... if this is an emergency, please call [insert number here]...”
  - “... if this is an emergency, please seek immediate assistance from your local veterinarian or emergency veterinary hospital...”
  - “Our facility is currently closed, and all emergencies are being routed to [name, phone, and location of emergency facility].”

#### ***7.2.1.2. Technicians and other support staff***

- The more accessible veterinarians and their trained support staff are to clients, the less likely those clients are to turn to nonveterinarians for information, guidance, or other help with their animal health and welfare needs.
- The credentials of all advice givers as well as disclaimers on all resources need to be prominent so as not to mislead readers.
- Until existing regulations are modified, communication outside of a VCPR needs to remain in the nonclinical realms of mHealth, web content, and other messaging.

#### **7.2.2. Public**

Public-facing materials and toolkits should be very simple and straightforward. Such should emphasize telemedicine’s benefits and limitations, along with best uses and when telemedicine is not ideal. The



messaging should be 500–1,000 words maximum for best uptake online or through social media. Infographics are anticipated to be extremely helpful as well.

Key points for public messaging are listed below.

#### **7.2.2.1. Animal owners**

- The health, safety, and welfare of your animals are first and foremost.
- Only licensed veterinarians can legally practice veterinary medicine, including by remote means (e.g., telemedicine). Such licensure is overseen by authorities and protects consumers and their animals.
- Examining and treating animals, even with you as a potential interpreter, poses challenges requiring physical examinations; thus, telemedicine has its limitations.
- An in-person examination of your animal(s) is needed to establish a veterinary-client-patient relationship, and once established, you and your veterinarian can determine the extent to which telemedicine may be helpful for your given situation.
- A wealth of information and misinformation is available online; thus, before you act on animal health or welfare advice that you find online or through apps:
  - Be sure that the information is coming from individuals credentialed within the veterinary profession and
  - Consult with your veterinarian on the benefits and risks that such action may pose to your animal(s), you, your family, or others.

#### **7.2.2.2. Nonveterinarians offering animal health and welfare advice**

- Only licensed veterinarians can legally practice veterinary medicine. Such licensure is overseen by authorities and protects consumers and their animals.
- With the exception of licensed veterinarians acting within existing VCPRs, telemedicine for animal care is not to be practiced, and any advice given should remain in general terms, not specific to an individual case (animal, flock, herd, etc.), diagnosis, treatment, etc. Such needs to remain in the nonclinical realms of mHealth, web content, and other general messaging.
- The credentials of all advice givers as well as disclaimers on all resources need to be prominent so as not to mislead readers.
- Educational websites and applications have value, but are not substitutes for proper veterinary care. Furthermore, the information on such websites and applications should not convey specifics of treatments. Providing general information about diseases, conditions, and injuries is helpful, as is conveying why animals with them need to be

seen, monitored, rechecked, etc. by a veterinarian. General promotion of appropriate vaccinations and other preventive health is also beneficial.

### **7.2.3. Regulators and policymakers**

- The credentials of all advice givers as well as disclaimers on all resources need to be prominent so as not to mislead readers.
- There should be accountability for animal health and welfare advice given through telehealth (including telemedicine), regardless of whether the advice giver is a licensed veterinarian.
- There should be consistent, harmonized telemedicine regulations across the nation.

### **7.2.4. Telehealth industry**

- Educational websites and applications have value, but are not substitutes for proper veterinary care. Furthermore, the information on such websites and applications should not convey specifics of treatments. Providing general information about diseases, conditions, and injuries is helpful, as is conveying why animals with them need to be seen, monitored, rechecked, etc. by a veterinarian. General promotion of appropriate vaccinations and other preventive health is also beneficial.
- Applications and websites that connect animal owners (or other caretakers) with licensed veterinarians in their area would be helpful in better ensuring that the animals get the medical care needed and that such care is also accountable to authorities overseeing licensure.
- Animal telehealth technologies targeting consumers should only offer general advice, not specific to an individual animal, group of animals, diagnoses, or treatments, and such technologies should not engage in the practice of veterinary medicine.

## **7.3. Identify and frame opportunities for appropriate use of telemedicine**

Telemedicine is another tool in the toolbox for practicing veterinary medicine within existing VCPRs, and as discussed earlier, it has been used within veterinary medicine for decades. But with society's increasing demand for immediate electronic information at its fingertips, telemedicine is in ever-increasing demand. The AVMA should encourage practitioners to check the practice laws and regulations in their states as well as consult their given professional liability insurance provider if questions arise regarding telemedicine compliance and liability.

Keeping animal health and welfare as well as professional integrity at the forefront, below are a few opportunities within practice for which telemedicine might be an option.





- Telemedicine is usually short in duration per session and can be easily utilized to address straightforward questions as well as many types of follow-ups. Transitioning to telemedicine for such cases is expected to:
  - Further free up personnel, time, and other resources for patients needing to be seen.
  - Save time for the clients involved in the qualifying cases.
  - Reduce stress of transport or restraint for the given animals.
  - Optimize accessibility to clients.
  - Contribute to client satisfaction.
- Teleconsulting (telecardiology, teleneurology, telepathology, teleradiology, etc.) allows practices to offer more services, thereby making their practice more appealing to existing and potential clients needing or wanting those services.
- Preventive care and early detection are facets of veterinary medicine in which telemedicine could help by enhancing client access as well as increasing client education, compliance, and satisfaction.
- Hospice and end-of-life care may be managed and evaluated via telemedicine to prevent excessive trips and stress on dying animals, allowing for optimization of hospice plans already in place.
- Practices could implement teletriage services. Doing so will help to better schedule visits that can wait, provide lifesaving advice when needed, and direct animal owners to come in for immediate emergency care when needed.
- Telemedicine helps to overcome challenges faced by animal owners and other caretakers in underserved regions.
- A member of the WG on Telemedicine Technologies and Applications trialed Google glass to see whether the technology would help with remote exams. The device did not help because of focal distance issues; however, such technology shows promise for eventually having a trained technician wear the glasses and examine the animal while the veterinarian watches and asks questions in real time.
- A member of the WG on Telemedicine Technologies and Applications is currently exploring the use of [FaceTime](#) for the same purpose, but is finding the same restrictions. A well-focused picture, so far, is one of the best remote triage tools; thus, veterinarians may be able to use such

to provide telemedicine based on images from PET, CT, and MRI, just as humans do—sending them through a dedicated server to consultants for additional interpretation.

- Utilize streaming videos or recorded videos to assist in monitoring patients in containment, isolation, or maternity wards.
- Many of the free phone calls and email inquiries could be converted into formats conducive for paid consultations.

#### **7.4. Veterinary records**

Veterinary records, including those generated through utilization of telemedicine, need to be maintained and available in accordance with state laws and regulations. The information within veterinary medical records is confidential. It must not be released except as required or allowed by law or by consent of the owner of the patient [[PVME V\(b\)\(ii\)](#)]. Client and patient privacy should be maintained by means of established best practices with regard to encryption of data during transmission and at rest.

Veterinary medical records should include, if applicable, copies of all patient-related electronic communications, including client-veterinarian communication, prescriptions, test results, evaluations and consultations, records of past care, and instructions obtained or produced in connection with the utilization of telemedicine services. Informed consents obtained in connection by telemedicine should also be filed in the veterinary record. The patient record needs to comply with all established laws and regulations governing veterinary medical records for the given state.

Practices should develop, maintain, and implement written policies and procedures for documentation, maintenance, and transmission of the records of encounters using telemedicine services. Such policies and procedures should address:

- Privacy.
- Personnel who will process messages.
- Hours of operation.
- Types of transactions that will be permitted electronically.
- Required patient information to be included in the communication, such as name, species, breed, sex, weight, and presenting complaint.
- Archival and retrieval.
- Quality oversight mechanisms.

Policies and procedures for veterinary medical record privacy and security should be:

- Written.
- Periodically reviewed and, as needed, updated.
- Maintained in an accessible and readily available manner.

## 7.5. Informed consent

Evidence documenting appropriate informed consent for the use of telemedicine services should be obtained and maintained. Informed consent is part of the medical record and should be included in any form of telemedicine. Appropriate informed consent should be documented in the veterinary medical record and as a baseline include the following, some of which should already be in the record, and some of which is particular to telemedicine:

- Identification of the client, the patient, the practitioner, and the practitioner's credentials;
- Procedures that will be done, including any telemedicine procedures;
- Agreement by the client that it is the role of the veterinarian to determine whether the presenting complaint is appropriate for a telemedicine encounter;
- Details on security measures taken with the use of telemedicine services (e.g., encrypting date of service, password-protected screen savers, encrypting data files, or utilizing other reliable authentication techniques, as well as potential risks to privacy notwithstanding such measures);
- Hold harmless clause for information lost because of technical failures; and
- Requirement for express client consent to forward medical records to a third party if needed.

## 7.6. Financials

Veterinarians who offer telemedicine services may save in overhead cost and increase client satisfaction and loyalty. The AP, on the basis of advice from the WG on Telemedicine Technologies and Applications, believes that the most expensive resources veterinarians need to offer expanded telemedicine services are the veterinarians' expertise and time. An office computer with an integrated video camera is generally sophisticated enough to run telemedicine software. In addition, practices may choose to utilize advanced software, higher-resolution cameras, and other specialty instruments (including wearables and ingestibles). Monetizing the telemedicine services appropriately is a hurdle recognized by the AP;

thus, the AP recommends that the AVMA develop resources to assist practitioners in monetizing telemedicine appropriately.

### **7.7. Ethical use of telemedicine to grow and maintain client base**

Technology seems to depersonalize human interactions, and in veterinary practice, face-to-face encounters with the clients are important, as are physical examinations of the animal patients. Depersonalization would occur if telemedicine is adopted as the sole method for practicing veterinary medicine; however, it is not and cannot be the sole method. As mentioned earlier, telemedicine is a tool within the practice of veterinary medicine, and telemedicine should only be used to augment existing VCPRs, not establish them.

The AP recognizes that as technologies advance and as long as face-to-face virtual encounters are guided by the same regulatory and ethical principles of in-person encounters, utilization of telemedicine services does not represent an ethical threat to veterinary best practices. Practitioners should understand the limitations of telemedicine technologies and adhere to the rules and regulations of their area as well as the AVMA's [Principles of Veterinary Medical Ethics](#).

The AP understands that when society implements new technologies, overuse and experimentation may occur along with expansion and barrier demolition. Telemedicine is not anticipated to be any different; however, extrapolating telemedicine experiences from human health care may help mitigate issues with telemedicine in the veterinary field.

### **7.8. Tools for practices**

The following two checklists are intended to assist practices in incorporating and utilizing telemedicine appropriately, and practices are urged to also check with their state authorities and professional liability providers regarding telemedicine compliance and liability.

#### **7.8.1. Basic regulatory checklist**

- ☐ The practice of veterinary medicine, including by telemedicine, should only occur within existing VCPRs.
- ☐ Check with your state, territory, or country to learn the rules and regulations that apply in your area, especially pertaining to your:
  - Veterinary practice act.
  - Pharmacy act.
  - Licensure.
  - Record retention.
  - Client confidentiality.



- ☐ All telemedicine must adhere to the respective rules and regulations of the given state, territory, or country.
- ☐ Be sure to include all telemedicine services and communications in appropriate patient records and maintain the records as required in your state, territory, or country.
- ☐ Staff utilizing telemedicine should be trained to do so properly.

### 7.8.2. Implementation checklist

- ☐ Ensure you have completed the “basic regulatory checklist.”
- ☐ Check with your professional liability carrier for any additional recommendations it may have pertaining to providing telemedicine services.
- ☐ Establish contingency plans for records security and continued service in the event of a disaster, emergency, or unforeseen event impacting your practice, including your telemedicine services.
- ☐ Consider assigning all teletriage to credentialed (DVM, VMD, RVT, CVT, etc.) individuals each shift and ensure the shift has capacity for those assigned to be fully dedicated to telemedicine if needed.
- ☐ Recommend the animal(s) be seen by a veterinarian if telemedicine is insufficient or inappropriate for the situation.
- ☐ Ensure you have a VCPR with a given individual and animal(s) before providing telemedicine services to that person.
- ☐ If posting to a community case photo repository (e.g., [figure1.com](https://www.figure1.com)) or other photo repository ([Instagram](https://www.instagram.com)), be sure images are respectful, helpful, and devoid of all client identifiers to the extent possible and that you have obtained client consent. Such consent may already be included in your practice’s treatment consent form.
- ☐ Software technologies must be secure and encrypted if involving patient records or client information.
- ☐ Sometimes, simple video streaming using a smartphone or webcam may prove more reliable and easy to use than remote mirroring of the outputs from monitors.
- ☐ Monetize telemedicine services appropriately, expressing professional expertise, client convenience, and animal health and welfare.
- ☐ Be sure to reply to owners in a timely, professional manner.
- ☐ If you have staff dedicated to telemedicine, and especially teletriage, informing the community you serve may enhance clients’ perception and utilization of your practice and may draw more clients to your practice.
- ☐ If your practice does not have the capacity to dedicate someone to telemedicine, establish specific time(s) during the workday (not relegating to the late evening hours after a full day’s work) to incorporate telemedicine consultations. Many practices may already do this without

realizing they are conducting telemedicine (e.g., calls to update clients, discuss lab results, and answer client questions).

## 8. AP RECOMMENDATIONS

### 8.1. Recommendations pertaining to existing AVMA policy

- a. Report sections [4.3.3](#) and [4.4](#): That the AVMA revise the **Model Veterinary Practice Act** to include the following. The AP is also communicating this to the CoVS, which has primary oversight of the MVPA.

*Any advice given via any medium outside an established VCPR must be given in general terms, not specific to an individual animal, diagnosis, or treatment.*

*Telemedicine shall only be conducted within an existing VCPR, with the exception for advice given in an emergency care situation until that patient can be seen by or transported to a veterinarian.*

*The veterinarian who establishes the VCPR is responsible for and has the liability to manage the case and must have a license in the state that the VCPR was established. Any consultant who is giving advice to the veterinarian of VCPR does not have to be licensed in that state. Communication to the client must go through or be controlled by the veterinarian who has established the VCPR.*

- b. Section [4.4.3](#): That the AVMA revise the policy on **Remote Consulting** as indicated in the following. The AP is also communicating this to the CoVS, which has primary oversight of the policy.

#### **AVMA policy on Remote Consulting**

*With the exception of emergency teletriage, including poison control services, the AVMA opposes remote consulting, including but not limited to, telephone or web-based mediated telemedicine, offered directly to the public when the intent is to diagnose and/or treat a patient in the absence of a veterinarian-client-patient relationship (VCPR) as defined by the AVMA Model Veterinary Practice Act. Remote consulting directly with the patient owner can be beneficial and is acceptable when performed with an agreement and in collaboration with the attending veterinarian who has established and retains the VCPR.*



## 8.2. Recommendations and guidelines not pertaining to existing AVMA policy

- a. That telemedicine shall only be conducted within an existing VCPR, with the exception for advice given in an emergency care situation until that patient(s) can be seen by or transported to a veterinarian. ([Executive summary](#))
- b. That without a VCPR, telemedicine should not be practiced, and any advice given should remain in general terms, not specific to an individual animal, diagnosis, treatment, etc. Thus, nonclient electronic communications should be in the nonclinical realms of mHealth, web content, and other messaging. ([Executive summary](#))
- c. That the AVMA expect practitioners who provide veterinary care, electronically or otherwise, to maintain the highest degree of professionalism. ([Executive summary](#))
- d. That the AVMA encourage practitioners to utilize emerging technologies to enhance their accessibility and client communications. (Section [4.3.1](#))
- e. That the AVMA encourage applications and other platforms that appropriately help connect or reconnect existing clients to their established animal health-care team and veterinarian of VCPR. (Section [4.3.1](#))
- f. That the AVMA encourage applications and other platforms that appropriately help connect animal owners or other caretakers with veterinarians licensed to practice in their area. (Section [4.3.2](#))
- g. That credentials of all advice givers as well as disclaimers on all telehealth and telemedicine resources need to be prominent so as not to mislead readers or users. (Section [4.3.2.1](#))
- h. That AVMA advocate for continued allowance of teleconsultation between veterinarians of VCPRs and consultants, that it is the professional discretion of veterinarians of VCPR to consult with specialists or other consultants, and that consultants should not be required to hold an active veterinary medical license in the state from which the veterinarian of VCPR practices. (Section [4.3.3](#))
- i. That the AVMA continue to develop and maintain summary information on state regulations pertaining to VCPRs, telemedicine, complementary and alternative veterinary medicine and other practice act exemptions, and sanctions for unauthorized practice of veterinary medicine in a user-friendly, interactive tool feasible to the Association and useful to its members. (Section [4.4](#))

- j. That the AVMA advocate for harmonized telemedicine requirements across the nation. (Section [4.4](#))
- k. That legal accountability and recourse for telemedicine should be at both places—the state in which the patient is located and the state in which the veterinarian is located. In addition, the AP recommends the following definition for legal accountability of practicing veterinary medicine: the legal accountability, liability, and responsibility of practicing veterinary medicine are in the state(s) where the veterinarian has a license to practice and has an established VCPR with the client. (Section [4.4.1](#))
- l. That the AVMA advocate for enhanced regulatory enforcement to prevent unlicensed individuals from practicing veterinary medicine, including by telemedicine. (Section [4.4.2](#))
- m. That the AVMA advocate for accountability for advice given. (Section [4.4.2](#))
- n. That the AVMA be committed to advocating for ensured access by veterinarians and the public to the convenience and benefits afforded by telemedicine technologies, while supporting and maintaining the profession’s status as the leader in animal health and welfare. (Section [6](#))
- o. That the AVMA develop member resources on telemedicine, such as the [Online Pharmacy web page](#), and conduct an education and outreach campaign to get veterinary telemedicine information out to members, policymakers, and other stakeholders. (Section [7.1](#))
- p. That the AVMA develop resources to assist practitioners in monetizing telemedicine appropriately. (Sections [7.1](#) and [7.6](#))
- q. That the AVMA utilize the checklists of section 7 of this report when developing member resources on telemedicine. (Sections [7.1](#) and [7.8](#))



## APPENDIX A: LIST OF SAMPLE TELEMEDICINE APPLICATIONS AND TECHNOLOGIES

Teleconsulting	<a href="http://dsuvet.com/index.php/training/ultrasound/">http://dsuvet.com/index.php/training/ultrasound/</a>
	<a href="http://ecgvet.com/">http://ecgvet.com/</a>
	<a href="http://epl-inc.com">http://epl-inc.com</a>
	<a href="http://info.antechimagingervices.com/">http://info.antechimagingervices.com/</a>
	<a href="http://petrays.com/services/">http://petrays.com/services/</a>
	<a href="http://vet-rad.com/index.html">http://vet-rad.com/index.html</a>
	<a href="http://www.evetdiagnostics.com/(S(4ub0nkptyy5v1qkdupzca501))/index.aspx">http://www.evetdiagnostics.com/(S(4ub0nkptyy5v1qkdupzca501))/index.aspx</a>
	<a href="http://www.veterinaryanswers.com/index.html">http://www.veterinaryanswers.com/index.html</a>
	<a href="https://www.idexx.com/small-animal-health/products-and-services/telemedicine-consultants.html">https://www.idexx.com/small-animal-health/products-and-services/telemedicine-consultants.html</a>
	<a href="https://www.illumipet.com/">https://www.illumipet.com/</a>
	<a href="http://www.dvminisight.com">www.dvminisight.com</a>
	<a href="http://www.oncurapartners.com">www.oncurapartners.com</a>
	<a href="http://www.sonopath.com">www.sonopath.com</a>
	<a href="http://www.vet-ct.com">www.vet-ct.com</a>
Telemetry	<a href="http://cardiovet.com/">http://cardiovet.com/</a>
	<a href="http://fireflyglobal.com/de551-wireless-veterinary-otoscope/">http://fireflyglobal.com/de551-wireless-veterinary-otoscope/</a>
	<a href="http://petmap.com/">http://petmap.com/</a>
	<a href="http://www.healcerion.com/product/ultrasound/sonon-300c/">http://www.healcerion.com/product/ultrasound/sonon-300c/</a>
	<a href="https://www.vmedtechnology.com/">https://www.vmedtechnology.com/</a>
Veterinarians to clients	<a href="https://itunes.apple.com/us/app/veterinary-aliveecg/id546535890?mt=8">https://itunes.apple.com/us/app/veterinary-aliveecg/id546535890?mt=8</a>
	<a href="http://petvetapp.com/">http://petvetapp.com/</a>
	<a href="http://www.vetscene.com/Pages/Default.aspx">http://www.vetscene.com/Pages/Default.aspx</a>
Connects animal owners with their veterinarians	<a href="https://epethealth.com/Home/Index">https://epethealth.com/Home/Index</a>
	<a href="http://vitusvet.com/">http://vitusvet.com/</a>
	<a href="http://www.gettelevet.com/">http://www.gettelevet.com/</a>
	<a href="https://www.petzam.com/">https://www.petzam.com/</a>
	<a href="https://www.vettahealth.com/">https://www.vettahealth.com/</a>
Veterinarians to nonclients	<a href="http://www.activ4pets.com">www.activ4pets.com</a>
	<a href="http://www.fitbark.com/">http://www.fitbark.com/</a>
	<a href="https://itunes.apple.com/us/app/horse-health-tracker/id955896239?mt=8">https://itunes.apple.com/us/app/horse-health-tracker/id955896239?mt=8</a>
	<a href="http://petpace.com/">http://petpace.com/</a>
	<a href="https://www.siga.net/en-CA/software/sigaruminant/mobile-app">https://www.siga.net/en-CA/software/sigaruminant/mobile-app</a>
	<a href="http://www.vetlive.com/">http://www.vetlive.com/</a>
	<a href="http://www.petcoach.co/">http://www.petcoach.co/</a>
mHealth	<a href="http://www.kuddly.co/">http://www.kuddly.co/</a>
	<a href="http://www.petmd.com/">http://www.petmd.com/</a>

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			relationship by having personally examined the individual animal, herd or representative segment or consignment lot thereof and determined that such controlled substance is therapeutically indicated following said examination.	Certain acts prohibited.		No person shall practice veterinary medicine or veterinary technology unless the person holds an active license to practice veterinary medicine or veterinary technology in the State of Alabama and in addition: (9) No person shall provide veterinary medical services to a client or patient in this state through telephonic, electronic, or other means, regardless of the location of the veterinarian, without a license to practice in this state and without establishing a veterinarian-client-patient relationship.
<b>AK</b>	None found by	None found	None found	None found	None found	None found specific to

	6/2015			specific to telemedicine	specific to telemedicine	telemedicine
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