Veterinary Telehealth Guidelines



Foreword



From Director-General of the Animal & Veterinary Service,

Dr Chang Siow Foong

It gives me great pleasure to see the publication of the Veterinary Telehealth Guidelines. This is the result of strong collaboration between the Animal & Veterinary Service (AVS) and the Singapore Veterinary Association (SVA).

The Guidelines mark a significant progress in the way veterinary medicine is practiced in Singapore. Telehealth is now routinely used as another tool for veterinarians to make veterinary healthcare and services more accessible and convenient for pet owners.

Telehealth also presents unique challenges and risks that must be carefully managed to ensure that the health and welfare of animals are protected. In this regard, veterinarians play a pivotal role. The Guidelines provide a framework to facilitate safe and confident practice of telehealth by veterinarians, while upholding the professional and ethical standards expected of them.

They cover a range of topics, from definition of terminology, legal and ethical considerations, to lists of examples when telemedicine could be appropriate or inappropriate.

We hope that these Guidelines will serve as a helpful resource for veterinarians wishing to provide remote consultations to their patients. We would like to thank the veterinarians who have contributed their time to the drafting of these Guidelines, and look forward to continuing our collaboration with SVA in the future, with an aim to support the advancement of the veterinary profession in Singapore.



From Singapore Veterinary Association President (2023-2024),

Dr Haoting Chow

It is with great pleasure and a sense of responsibility that we introduce the Veterinary Telehealth Guidelines, presented in collaboration with the Animal & Veterinary Service (AVS), a cluster of the National Parks Board (NParks). The landscape of veterinary care continues to evolve with technological advancements. Telehealth has emerged as a tool beyond traditional in-person care to support the needs of our animal patients and their devoted caregivers.

Our focus is to establish a clear and ethical framework that supports the responsible integration of telemedicine practices into veterinary care, while ensuring the well-being of our patients. In these guidelines, you shall find guidance on a range of telehealth aspects, including teleconsultation, teletriage and telemonitoring. These guidelines are designed to empower veterinarians to harness the potential of telemedicine while acknowledging its limitations.

While telehealth offers undeniable benefits, we must remain steadfast in upholding the core principles that define our profession. Establishing and maintaining a Veterinarian-Client-Patient Relationship (VCPR) is of paramount importance, ensuring that the care we provide is founded on a solid understanding of the animal's health and individual needs.

Moreover, we must remain vigilant in addressing potential challenges, including data security, informed consent, and compliance with local regulations. As veterinarians, we are the leading advocates of animal health and welfare. It is prudent that we do not be seduced by the convenience of telehealth and endanger animal welfare. By adhering to these guidelines, we can navigate these challenges with confidence, knowing that the wellbeing and interest of our animal patients are at the forefront of every telehealth interaction.

We thank our colleagues at AVS for spearheading this vital initiative to formulate these guidelines. We also extend our heartfelt gratitude to fellow veterinarians who contributed their expertise and dedication to shape this invaluable resource. Their commitment is a testament to the passion and care that permeates our profession.

As you immerse yourself in these Veterinary Telehealth Guidelines, we encourage you to view telehealth as a tool to complement traditional veterinary care, rather than a replacement. By embracing telehealth responsibly and integrating it into our practices, we can expand access to care, enhance patient outcomes, and potentially forge even stronger bonds with pet owners and their beloved animal companions.

Together, let's continue to uphold the values that define our noble profession.

Preface

The Animal & Veterinary Service (AVS), a cluster of the National Parks Board (NParks), has partnered with the Singapore Veterinary Association (SVA) to produce the Veterinary Telehealth Guidelines. The Guidelines outline general principles and best practices for the use of **veterinary telehealth**. They are intended to serve as reference materials, while allowing veterinarians to exercise individual professional and clinical judgment. Notwithstanding, the use of telehealth should be done in accordance with the Code of Ethics for Veterinarians.

Pet owners and members of the public should always approach licensed veterinarians for advice on pet health care.

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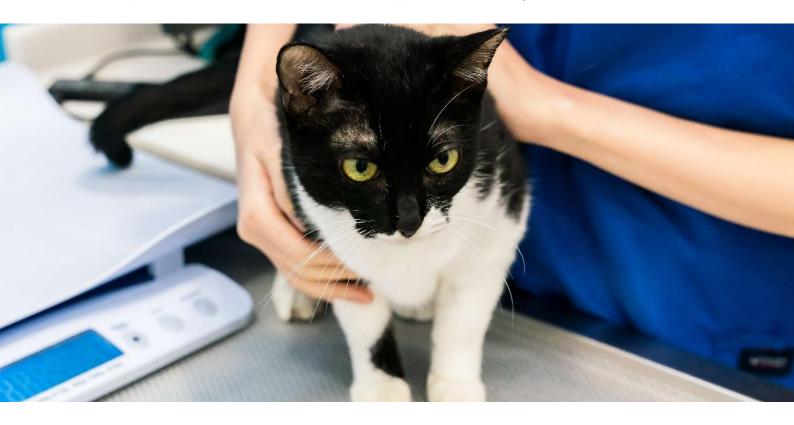
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Introduction

The use of technology has been beneficial to veterinary practice including making veterinary health care and advice more accessible to pet owners. The Animal & Veterinary Service (AVS) and the Singapore Veterinary Association (SVA) support the use of technology to provide remote/virtual veterinary care, while ensuring that animal health and welfare standards are upheld, with responsible practice.

Telehealth is an additional tool for veterinarians to provide veterinary care to their patients. The aim of these guidelines is to give confidence both to veterinarians and clients if and when they employ telehealth. These guidelines set the boundaries, identify areas of risk and offer guidance on how to practice telehealth safely in the interest of animal welfare, health and safety.

The veterinarian should use professional judgement in determining if it is appropriate to employ telehealth in any given case. Some cases are appropriate, while others are not. Examples of such instances are included as appendices in these guidelines.



Telehealth



Telehealth in the veterinary setting is the overarching term that encompasses all uses of telecommunication and digital technology to remotely gather and deliver health information, advice, education, and care. Telehealth can be divided into various categories based on who is involved in the communication, the contents of communication transmitted, etc. For communication between veterinarians and animal owners, two important categories need to be distinguished, namely by whether a Vet-Client-Patient-Relationship (VCPR) has been established:

- a) telemedicine, which is client-based, includes the delivery of information specific to a particular patient and is allowable only within the context of an established VCPR
- b) non-client-based models of telehealth that involve delivery of general advice (e.g. teleadvice, teletriage)

The primary difference between veterinary telemedicine and other forms of veterinary telehealth is that other forms of telehealth do not permit veterinarians to diagnose, treat, or prescribe virtually. Without a VCPR, telehealth includes teleadvice and teletriage.

Telemedicine

Telemedicine includes the delivery of information specific to a particular patient, and is allowable only within the context of an established VCPR. Telemedicine involves the use of a technological device to exchange information about a patient's clinical health status electronically from one site to another. Examples include using technology (facilitated by means of photography or videography) to communicate with a client and visually observe the patient during a post-operative follow-up examination and discussion.

Teleadvice

Teleadvice is the delivery of general advice, and/or educational information about an animal. It includes the provision of any health information, opinion, guidance or recommendation concerning prudent actions that are not specific to a particular patient's health, illness or injury. This general advice is not intended to diagnose, prognose, treat, correct, change, alleviate, or prevent animal disease, illness, pain, deformity, defect, injury, or other physical or mental conditions. Only veterinarians or veterinary staff may offer teleadvice. Examples include recommendations made by veterinarians or veterinary staff via phone, text

or online that all animals should receive physical exams or on-site visits as part of a comprehensive healthcare plan, the importance of having up-to-date vaccinations or parasite prevention as a key part of preventive care, or to guide an owner on usage of over-the-counter medications. A VCPR is not required.

Teletriage

Teletriage helps support the care of animals in emergency or uncertain situations. It is the safe, appropriate, and timely assessment and management (i.e., immediate referral to a veterinarian or not) of animal patients via electronic consultation with their owners. Teletriage should only be done by a veterinarian or a veterinary staff. In assessing a patient's condition electronically, the assessor determines the urgency and need for immediate referral to a veterinarian, based on the owner's (or responsible party's) report of history and clinical signs, sometimes supplemented by visual (e.g., photographs, videos) information. A diagnosis is not rendered. The essence of teletriage is to make good and safe decisions regarding a patient's disposition (immediate referral to a veterinarian or not), under conditions of uncertainty and urgency. When uncertain, veterinary staff should always consult with a veterinarian for further advice. A VCPR is not required.

Table 1: Differences between Telemedicine, Teleadvice and Teletriage

	Telemedicine	Teleadvice	Teletriage
Is VCPR required?	Yes	No	No
Can information and advice be given?	Yes	Yes, but general advice only, not specific to any one patient	Yes, where necessary for the care of animals in emergency or uncertain situations
Can the vet diagnose, treat or prescribe medicine?	Yes	No	No
Who can this be practised by?	Veterinarians	Veterinarians Veterinary staff (e.g. veterinary nurses, veterinary technicians, etc.) under the supervision of a veterinarian	
Can this be practised by a non-veterinary staff (e.g. member of the public)?	No	No	No
Are medical records required to be documented?	Yes	Recommended	Recommended

Veterinarian-Client-Patient Relationship (VCPR)¹

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- 1) Veterinary telemedicine should only be conducted within an existing veterinarianclient-patient relationship (VCPR).
- 2) A VCPR is established only when the patient (animal) has been examined in-person by the veterinarian. A VCPR cannot be established solely via telephone or electronic means. The VCPR involved in telemedicine should also be in accordance with the Code of Ethics for Veterinarians (Section 8).
- 3) Medical records for each telemedicine consultation must be kept in accordance with the Code of Ethics for Veterinarians (Section 12) and any other relevant legal requirements². Additionally, where appropriate, images, videos, audio recordings relating to the telemedicine consultation, etc. should be included for comprehensiveness.
- 4) A veterinarian's existing legal and professional obligations are not altered when veterinary medicine is provided via telemedicine.
- 5) A veterinarian should consider whether practicing via telemedicine will enable him to satisfy all relevant and applicable legal and professional obligations and meet the expected standard of care in any specific case.
- 6) A VCPR is valid for a maximum of 12 months from when the patient was last seen inperson by the vet. A vet may choose to shorten this period, based on his professional judgement, if having considered the patient's condition and co-morbidities in its entirety, he is of the opinion that it is safer and more appropriate to do so. A patient must be re-examined in-person by the veterinarian after 12 months, in order for the VCPR to remain valid.

¹ Code of Ethics for Veterinarians s8

² For example: AVS' Conditions for Licensing for Veterinary Centres

Responsibilities of Veterinarians providing Telemedicine Service

- - Veterinary telemedicine services should only be provided to the public by an AVSlicensed veterinarian.
 - 2) The veterinarian is responsible for making any medical judgments regarding the health of the patient, the need for medical therapy and instructing the client on a course of therapy appropriate to the patient's condition.
 - 3) The veterinarian is responsible for evaluating information used in assessment and treatment, irrespective of its source. This applies to information gathered by a third party who may have taken a history of the animal or examined the animal.
 - 4) At the time when the veterinary telemedicine service is provided, the veterinarian should have had seen the patient recently enough and have sufficient up-to-date knowledge of the patient, the relevant history, keeping and care of the animal, to initiate at least a general or preliminary diagnosis and to offer a care or treatment plan.
 - 5) The veterinarian should ensure that informed consent³ both for the use of telemedicine and for all related services provided and fees charged is obtained and maintained, and clearly documented in the medical record, just as it is with in-person services. A recorded phone or video consent is also acceptable. The owner should be informed of any relevant limitations of the use of telemedicine during the consultation (e.g., depending on the nature of the animal's condition, it may not be possible to proceed without an in-person visit, or that an in-person visit may be necessary for follow-up).
 - 6) The veterinarian should ensure that the technology used to practice via telemedicine is of sufficient and appropriate quality to support the accuracy of remote assessment.
 - 7) The veterinarian should have a sufficiently well-developed ability to combine clinical experience with telehealth, clinical knowledge and ethical awareness to practise

³ Code of Ethics for Veterinarians s8.1, 8.3.3, 11.1, 12.1, 14.1, 16.2, 16.3

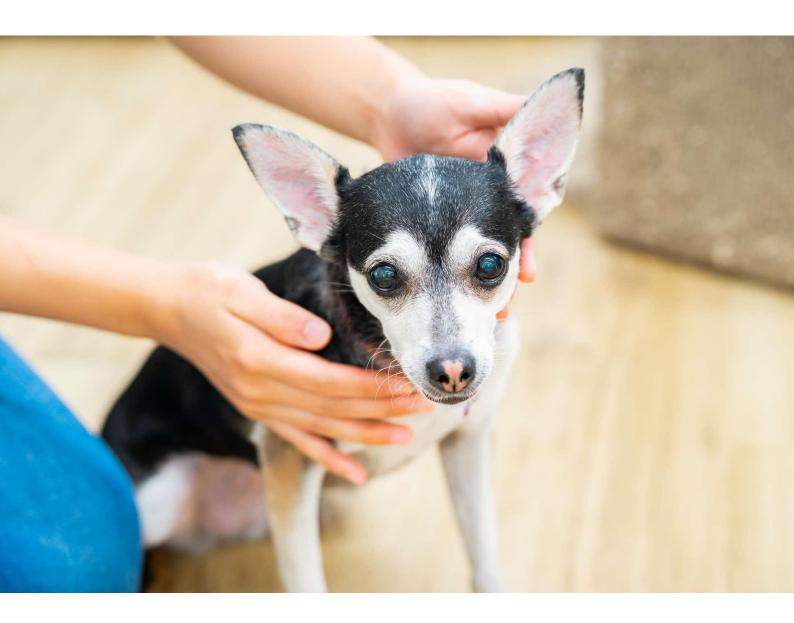
telemedicine safely. The veterinarian, especially recent graduates, should consider this when solely using telemedicine consultation, to form a clinical opinion.

- 8) The veterinarian should consider whether practising via telemedicine will enable the veterinarian to satisfy all relevant and applicable legal and professional obligations and meet the expected standard of care in any specific case. A veterinarian's existing legal and professional obligations are not altered when veterinary medicine is provided via telemedicine.
- 9) The veterinarian should employ sound professional judgment to determine whether using telemedicine is appropriate in every circumstance a veterinarian considers practising via telemedicine, and only provide advice via telemedicine to the extent that is possible without a physical examination.
- 10) The veterinarian should not substitute telemedicine technology for a physical examination when a physical examination is necessary to make an appropriate diagnosis or formulate a treatment plan. If a physical examination is deemed necessary, the veterinarian should not attempt to treat the animal by telemedicine and should make provisions to examine the animal or refer the animal to another veterinarian. A physical examination is particularly important in veterinary clinical practice as animal patients are unable to verbalise their condition, and subjective assessments made by the animal carers are prone to bias and may not be sufficient to ascertain the health status of the patient.
- 11) The veterinarian should recognise the need to safeguard a client's privacy when practising via telemedicine by communicating that all virtual communications have inherent risks. Measures are to be taken to ensure compliance with existing laws and regulations (e.g. the Personal Data Protection Act (PDPA) for the safeguard of personal data⁴).
- 12) The supply of medications should only occur where the veterinarian has sufficient knowledge of the animal(s) to initiate at the very least a general or preliminary diagnosis of their medical condition. In all cases, satisfactory instructions, including any risks to humans administering these medications, should be provided clearly to the client. (Refer to section on Prescribing Through Telemedicine)

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⁴ http://www.pdpc.gov.sg/Overview-of-PDPA/Data-Protection

- 13) The veterinarian provides oversight of the treatment and is readily available for follow-up evaluation or has arrangements in place for:
 - a) Emergency or urgent care coverage for follow-up evaluation in the event of an adverse reaction or failure of the treatment regimen, or
 - b) Continuing care and treatment to be designated (by the veterinarian providing telemedicine services) to a veterinarian who has access to the patient's up-to-date medical records and/or can provide reasonable and appropriate medical care.
- 14) When carrying out a consultation with clients and patients not based in Singapore via telemedicine, the veterinarian is to ensure that this service is permitted by the country/region which the client/patient is currently residing in, and that the necessary regulations and guidelines within that jurisdiction are adhered to.



Prescribing through Telemedicine

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Prescribing medications whether in-person or via telemedicine requires a VCPR and is at the professional discretion of the veterinarian. The indication, appropriateness, and safety considerations for each prescription issued in association with telemedicine services should be evaluated by the veterinarian in accordance with all regulations and standards of care.

Within a **pre-existing VCPR**, a veterinarian should use their professional discretion regarding the necessity of a physical assessment and/or diagnostic tests for the presenting condition/complaint, especially if it is a new condition that is unrelated to the previous visit.

For **repeat prescriptions for chronic conditions**, the veterinarian should personally authorise each transaction (e.g., issue the prescription, make a note in patient's medical records that repeat prescriptions can be supplied to client for stipulated length of time) before the medicine is supplied. The veterinarian needs to have seen the patient recently enough to be confidently apprised of the up-to-date state of health of the animal before prescribing.

The working group recognises that there may be situations where a prior VCPR has not been established and an in-person physical examination is not possible, but medication is recommended to meet an immediate short-term need in the interest of the patient. The justification for the exception must be well documented by the veterinarian in the medical record, and include situations where professional judgement confirms that:

- (1) The animal and/or owner cannot physically get to the vet clinic and an on-site visit is not possible; and
- (2) Use of telemedicine does not impede the diagnostic process required in the circumstances.

For instance, where there is acute diarrhoea or pruritus (within the past 24 hours) due to dietary indiscretion or a flare of chronic skin allergy but the animal and/or owner cannot physically get to the vet clinic that same day.

For **telemedicine without** a **prior VCPR**, the supply of medication should be intended only for the purpose of fulfilling an immediate short-term need without added risk to the patient, until the veterinarian is able to carry out a physical examination of the patient. The medication

supplied by the veterinarian should only be non-prescription veterinary products, and only if the veterinarian has discussed the case with the owner and is satisfied that the product or products supplied will be used correctly and are well suited for the intended purpose (i.e., of fulfilling the immediate short-term need without added risk to the patient). This should also be documented accordingly in the medical records.

Supply of Medications through Telemedicine

Medications may be delivered to the client directly after their telemedicine consultation.

Medication labels should contain the following information:

- Name of the pet to which the medication is to be administered
- Date of dispensing
- Name, strength and dosage form of the medication (e.g. Amoxicillin 500mg tablet)
- Directions for use of the medication, including route, dose and frequency
- Name, address and any identification number or logo of the telemedicine provider
- The words "For animal treatment only"
- · Any warning instructions, such as adverse reaction or precautions to take note of

Appropriate measures should be taken to ensure that the quality of the medications is not compromised during the delivery process. Such measures may include:

- Using padding (e.g. bubble wrap) to provide cushioning
- Using cooler boxes, ice packs etc to maintain cold chain for cold chain medications (e.g. insulin)

Appropriate measures should be taken to ensure that the medications are not tampered with during the delivery process (e.g. use of cable ties to secure packaging). Medications are to be handed directly to someone living in the same household as the pet and not left at the door. The client should also be counselled on the proper administration of the medication(s) on their

pet(s). This counselling should include:

- Instructions for use (route, dose, frequency)
- Potential side effects
- Any other relevant advice (e.g. storage)

Exceptional Situations

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In exceptional situations such as unavoidable events outside of human control (e.g., natural catastrophes or during a pandemic situation) where access to a veterinarian is restricted and hence a VCPR cannot be established, it may not be possible to practise according to these guidelines. If an alternative is not possible, a telemedicine consultation should be as thorough as possible, until such time when suitable arrangements can be made for the continuation of care of the animal.



When and When Not to use Telemedicine



Examples of When Telemedicine Could Be Appropriate

The following are basic examples of areas which could be addressed via telemedicine. **This list is not exhaustive**. It is intended to be demonstrative, rather than prescriptive:

- · Review or assessment of superficial lesions
- Assessment of on-going or recurring skin conditions such as flea or food allergy, atopic dermatitis, parasitic skin conditions, and general dermatological conditions
- Follow-up check on a patient: medical or surgical case
- Aggressive animals that need sedation to be brought into a vet clinic. A prior consultation via telemedicine could be advantageous in facilitating the subsequent inperson visit(s).
- Preventative care preliminary assessments can be carried out via telemedicine with physical examinations done subsequently in the veterinary clinic/hospital
- Monitoring of the provision of palliative care
- Continued management of chronic conditions
- Consultations on behaviour management
- Recent onset of mild lameness
- Recent onset of acute mild diarrhoea
- Prescription refills for chronic conditions that are examined in-person at medically appropriate intervals as determined by the veterinarian
- Prescription of over-the-counter medications such as flea and tick medications, topical medication, anthelmintics, etc

Examples of When Telemedicine Is NOT Appropriate

The following are basic examples of cases which are deemed unsuitable and should NOT be addressed via telemedicine. In such cases, you may wish to advise the client that telemedicine is not an appropriate tool, and to encourage bringing the animal in for a physical examination.

This list is not exhaustive. It is intended to be demonstrative, rather than prescriptive:

• Emergencies should never be addressed through telemedicine

Veterinary emergencies include: excessive bleeding, respiratory distress, urinary obstruction, faecal obstruction, ocular injuries, toxin ingestion, neurologic abnormalities, probable fractures, extreme pain, heat stress, severe vomiting or diarrhoea, and dehydration. If these conditions are a possibility, the animal needs inperson care.

Cases which require a hands-on exam to arrive at a diagnosis or rule out other conditions

While the list of conditions requiring an in-person exam is too long to list in its entirety, it is highly recommended that an exam be carried out for any case involving moderate to severe or chronic lameness, abdominal discomfort, persistent or severe vomiting/diarrhoea, respiratory signs, ocular disease, and/or lethargy. These conditions require palpation, auscultation, and other hands-on examination techniques.

Conditions which require diagnostic testing

Most moderate to severe cases of dermatitis require a skin cytology, skin scrape, and/or other diagnostics, so these cases cannot be addressed through telemedicine. Otitis externa requires an ear cytology and/or culture and sensitivity. Urinary signs require a urinalysis. Animals that are systemically unwell may require baseline bloodwork (e.g., CBC and biochemistry analysis). Ocular lesions require ocular examination and testing. In these cases, telemedicine alone is insufficient to arrive at a diagnosis or to prescribe appropriate treatment.

Inappropriate environmental/infrastructural conditions

Telemedicine, especially via video chat, requires a good quality, high-resolution camera and a high-speed internet connection for both the veterinarian and the client. The client should be in a quiet, well-lit area. They should have the ability to move their camera so that the veterinarian can see their pet well. If clients are unable to meet these criteria, an in-person visit is recommended.

References

- 1. <u>AVMA Veterinary Telehealth Guidelines</u>
- 2. <u>CVBC-Guidelines-Update-Telemedicine</u>
- 3. <u>Guidelines on Veterinary Telemedicine</u>
- 4. Guidance: Remote Veterinary Care (Telehealth and Telemedicine) Veterinary Council of New Zealand
- 5. Code of Ethics for Veterinarians
- 6. SVA's Recommendations for Enhanced Safe Distancing measures for Veterinarians