CALL AND RESPONSE
Telehealth options allow veterinary nurses to resolve client concerns remotely or triage appropriately.

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PESTS AND PARASITES
Telehealth Consultations for Parasite Prevention

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The pandemic and technological advances altered the practice of veterinary medicine in numerous ways, and many of these alterations will remain indefinitely. These changes are not “good” or “bad”; they are merely approaches the profession used to meet new challenges. One of the ways we met these pandemic challenges is through the use of telehealth.
Moving forward, telehealth will continue to be an excellent solution for navigating the influx of “pandemic puppies” and all those backlogged appointments. Veterinary nurses, utilized to their fullest potential, will be key in meeting the flood of patients that need veterinary care and the demands of clients who are still hesitant to visit the clinic.

OVERVIEW OF TELEHEALTH AND THE ROLE OF THE VETERINARY NURSE

The terminology of how we are utilizing telehealth in our practices needs to be defined. In 2017, the American Veterinary Medical Association (AVMA) Practice Advisory Panel published its Final Report on Telemedicine, which provides the following definitions:

- **Telehealth**: “the overarching term that encompasses all uses of technology geared to remotely deliver health information or education.” This includes the use of video link, text, instant messaging, telephone, or any other remote means.
- **Telemedicine**: “the use of medical information exchanged from one site to another via electronic communications to improve a patient’s clinical health status.” This includes diagnosing a medical condition and prescribing medications.

In addition, the AVMA provides detailed definitions regarding subcategories of telehealth:

- **Teleadvice**: “the provision of any health information, opinion, guidance, or recommendation concerning prudent future actions that are not specific to a particular patient’s health, illness, or injury. This is general advice that is not intended to diagnose, prognose, treat, correct, change, alleviate, or prevent animal disease, illness, pain, deformity, defect, injury, or other physical, dental, or mental conditions.”
- **Teletriage**: “the safe, appropriate, and timely assessment and management (immediate referral to a veterinarian or not) of animal patients via electronic consultation with their owners. In assessing patient condition electronically, the assessor determines urgency and the 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, video) information.”
- **Telemonitoring**: “remote monitoring of patients who are not at the same location as the health care provider.”

Only a veterinarian licensed in the state in which the client with whom they are speaking resides, with a valid veterinary-client-patient relationship, may perform telemedicine. Teleadvice, teletriage, and telemonitoring may be performed by the veterinary nurse when allowed by the state’s practice act. Review your state’s practice act for verification of what is allowed and what level of veterinarian oversight is required.

CLIENT PERSPECTIVE OF TELEHEALTH

A recent survey of clients was conducted to find out how they perceive telehealth in veterinary medicine. The responses were wide ranging, but the answers to a number of survey questions stood out.

First, a majority of clients surveyed believe that telehealth consultations reduce their pet’s stress. Eliminating the drive to the hospital and the exposure to what can often be stressful sights, sounds, and smells completely removes the external stressors that are inadvertently placed on every pet that visits a clinic.

The second response that stood out was the varying level of comfort that clients have for their ability to perform treatments or monitor their pet’s status. This is an important consideration, and every telehealth conversation should include asking the client how comfortable they are performing the task you are requiring of them. For example, “On a scale of 1 to 5, how comfortable would you be removing that tick from Buster?”

EFFECTIVE TELEHEALTH

The effectiveness of telehealth depends on 2 factors: (1) the reliability of the technology being utilized and (2) the communication skills of the veterinary nurse.

**Technology**

Faulty or unreliable technology, such as poor phone reception, slow Internet, and glitchy apps, as well as the client’s potential inexperience with technology, can cause both the client and veterinary nurse enormous amounts of frustration. To circumvent this roadblock, the veterinary nurse should be comfortable using multiple channels of communication.
Having access to a quiet space within the practice that is equipped with a phone and a computer with video chat capabilities is also important. This dedicated space will enable the veterinary nurse to change communication channels without hassle. For example, if the client has poor phone reception but has access to the Internet, the veterinary nurse could direct the client to a video chat or an instant messaging application.

**Communication**

Communication skills become critical when the conversation becomes virtual because we lose many of the nonverbal cues that body language provides. Language barriers, the client’s understanding of the topics, and the emotional states of both the client and veterinary nurse are common reasons for communication breakdowns. The key to successful telehealth communication is organization.

**Organize your space.** Paying attention to the conversation is most easily done in a space without clutter or distractions. You will need to have adequate technology to utilize every communication channel available to you, such as a computer, phone, and webcam. Reference materials and an ample supply of paper and pens for taking notes are also necessary. Other things you may want to include are water, cough drops, and tissues.

**Organize your information, resources, and documentation.** Visuals, checklists, question lists, and scripts are all extremely helpful tools to have at hand during a telehealth consultation. Create your own checklists and questionnaires with space to add patient information and notes so that you can easily add the documentation of your conversation to the medical record after the consultation.

**Organize your face into a smile.** It may sound a bit silly, but if you are having conversations by phone, hang a mirror in front of you and speak to your own face when talking to a client. You can even write “SMILE!” across the bottom as a reminder. Smiling changes your tone of voice and can put you in a more positive mood.

**Organize your conversation.** Always begin with a greeting and introduction. “Hello, this is ____. I’m a veterinary nurse here at _____ Animal Hospital. How can I help you today?” Reflective listening is imperative when it comes to telehealth consultations. Make a habit of repeating what the client is saying to ensure that you are getting the message right. When ending the call, repeat a summary of the issue and an outline of the plan to resolve that issue. Ask the client if they have any further questions or concerns, and thank them for calling. Immediately following the call, email a copy of the next steps to the client, and place the discussion and the next steps into the patient’s medical record.

For other skills and personal qualities that are important during telehealth appointments, see **BOX 1**.

**PARASITE PREVENTION AND TELEHEALTH: ANSWERING COMMON QUESTIONS**

When considering telehealth as it relates to parasite prevention, the channel of communication may have changed but the clients’ questions are much the same. The veterinary nurse can utilize technology to triage, advise, and monitor common issues of parasite prevention.

To demonstrate these concepts, this article will focus on answering frequent questions about fleas, ticks, and heartworms.

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**Valuable Traits for Telehealth Appointments**

- Attention to detail
- Active listening
- Clarity and strong diction
- Empathy and sincerity
- Engagement and interactive skills
- Gratitude and appreciation
- Interpersonal skills
- Leadership
- Organizational skills
- Politeness
- Positive attitude
- Professionalism
- Research and preparation skills
- Task and time management skills
- Technical skills
“How do I know if my dog has fleas?”
In person, it is a simple task to demonstrate to a client where and how to part the pet’s fur to look for live fleas or to do a simple flea dirt test with a wet paper towel. When this conversation moves into the arena of telehealth, it is most easily accomplished if you are prepared ahead of time with some visuals that can be texted, emailed, or displayed on a web-based platform, depending on which method the client prefers or has access to. Ideally, this consultation should happen via video chat (e.g., Zoom or FaceTime) so that the veterinary nurse can observe and direct the client as needed.

“How do I treat a flea infestation and prevent this from happening again?”
Product recommendations will vary depending on the practice, but all practices should be recommending a product sold directly from their clinic or pharmacy and not over-the-counter or online products. This is to ensure that the client is using quality, verified preventives. There have been reports of counterfeit products that have zero efficacy being sold through online shopping platforms. Direct selling also ensures that canine-specific products are not applied to cats; because the veterinary nurse will review this danger with the client, the potential for toxicity is reduced for feline patients.

No matter the product your practice recommends, the answer to client questions about treating flea infestations should be to start all the pets in the home on a preventive right away and continue it year-round for life. The client should be instructed on methods to treat the environment, such as vacuuming daily and washing, then storing, all pet bedding and clothes until the infestation has been cleared. It may sound like common sense to veterinary nurses, but the client should also be instructed to empty the vacuum immediately after use. If it is not a bagless vacuum, they can place a flea collar inside the bag to kill fleas before the parasites can make their way out of the vacuum and back into the environment.

Share a visual of the flea population pyramid (FIGURE 1) with the client via text, email, or web call to help explain that only 5% of the flea infestation is adult fleas, whereas the rest of the population is made up of eggs, larvae, and pupae that will eventually mature, which is why clearing an infestation from the home takes time and vigilance. This is a key point to help drive home why the client should continue year-round flea prevention for the life of the pet.

The likelihood of a flea-infested pet also having tapeworms is an important part of this conversation that should not be overlooked, as the flea is the intermediate host for Dipylidium caninum, a tapeworm that can infect both pets and humans. Explaining this lifecycle to a client is most easily accomplished with a visual aid that can be emailed, texted, or shown online during a video chat. An easy-to-understand lifecycle chart can be found on the Centers for Disease Control and Prevention website.

“I found a tick on my pet. What should I do?”
The veterinary nurse should first ask the client if they would be comfortable removing the tick at home with verbal instructions accompanied by a demonstration video. If the client is uncomfortable with this task, they should be instructed to bring the pet to the clinic, where the veterinary nurse can remove the tick.

If the client is confident, the veterinary nurse should then instruct the client on proper tick removal. Tick removal instruction is most effective when accompanied by a video. Create your own demo video that is well lit, uses tools that a client will have readily available (most likely tweezers or the needle nose pliers on a multitool; not hemostats), repeats the process 3 times, and is short. TikTok-era clients are not going

![Flea population pyramid](FIGURE 1. Flea population pyramid. Veterinary nurses should share this visual with clients and explain that only 5% of the flea infestation is adult fleas, whereas the rest of the population is made up of eggs, larvae, and pupae.)
Your instructions should also be brief: Clean the tool with dish soap or alcohol, grasp the tick near the pet’s skin, and pull the tick straight out.

to sit through a 3-minute video. You do not need to include sound in the video because you will be talking them through the process while they are watching the demonstration. Your instructions should also be brief: Clean the tool with dish soap or alcohol, grasp the tick near the pet’s skin, and pull the tick straight out.

In addition to this instruction, the veterinary nurse should caution the client to not remove ticks by hand and to not irritate the tick with items such as lit matches, petroleum jelly, or any other products. Removing ticks by hand increases the client’s risk of exposure to tickborne disease. Using a lit match could burn the pet, and irritating the tick will not suffocate it or make it detach, but it will cause the tick to expel its body fluid (saliva) into the pet, which increases the pet’s risk of exposure to tickborne disease.

“I forgot to give my dog his heartworm preventive. What should I do?”

To address this question, the veterinary nurse first must ask the client why the dose was missed and review the patient’s medical record to see if this was the first time a preventive has been skipped or if this is a repeat problem. The veterinary nurse should initiate a conversation about product alternatives that may better suit the client and patient if administering the product is proving difficult (e.g., the pet won’t eat it) or if the dose is often forgotten. The Companion Animal Parasite Council (CAPC) provides a regularly updated product guide that can be a useful tool during a telehealth consultation. Visit capcvet.org/parasite-product-applications to become familiar with how to use this tool during preventive product conversations.

The second step to answering the question is to determine the length of the lapse by asking which preventive is being used and when the preventive should have been given.

If the lapse is less than 1 month up to 6 months, the preventive should be given immediately and continued at the prescribed intervals year-round. Additionally, the pet should be scheduled for a heartworm test 6 months following the missed dose. To explain the delayed testing, the veterinary nurse should be knowledgeable about the heartworm lifecycle, how preventives work, and what heartworm tests are detecting. Keep the explanation simple, but be prepared to answer questions. Use screen sharing, or for video calls, flip your camera to show a calendar, blank notepaper, or whiteboard, and draw a timeline that illustrates these points (FIGURE 2):

- A dose of preventive kills any larvae that have been injected into your pet by a mosquito over the past 30 days.
- Missing a dose allows larvae to mature to a stage where preventives are ineffective.

FIGURE 2. A heartworm growth timeline illustrates the importance of a test 6 months following the missed dose. Mosquitos continually bite, depositing L3 larvae which are killed by heartworm medication (dosing months indicated by purple). When heartworm treatment is missed (asterisk), larvae can molt following the missed dose into a life stage that is not susceptible to heartworm medication.
Those larvae will continue to mature to adulthood at 6 months of age; that is when heartworm tests can detect their presence.

If the lapse has been longer than 6 months, the pet should be scheduled for a visit to the clinic for an antigen test. Following the test, a preventive should be given immediately and continued year-round at the prescribed interval. If the test is positive for heartworm disease, 1 month of doxycycline should be considered followed by adulticide treatment.9 Doxycycline eliminates *Wolbachia*, which is a rickettsial bacterium that has a symbiotic relationship with *Dirofilaria immitis*. Eliminating *Wolbachia* can prevent reproduction of, reduce infectivity of, and even kill *D immitis* in an infected dog.9

“My dog ate the entire box of heartworm preventive. Will they be OK?”

Overdose questions for any medication require triage. Make sure you gather the following information:

- Which product was ingested?
- What strength is the product, and how much was ingested?
- What time was the product ingested?
- Has your pet vomited following the ingestion?
- Is your pet showing any other signs of toxicity: lethargy, abdominal pain or distention, excessive salivation, incoordination, bloody urine or stool, diarrhea, or loss of appetite?

Asking the client to text or email a photo of the box/product label to you can make this process faster and easier.

Depending on the information obtained, it is appropriate to direct the client to either head to the clinic immediately or to hold while you contact poison control to investigate the proper treatment for the ingested product.

**KEY TAKEAWAYS**

Telehealth can be an invaluable tool for veterinary practices, especially for those willing to utilize veterinary nurses to perform these virtual appointments. With good preparation and organization, veterinary nurses are capable of meeting the growing demand for virtual appointments.

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**TIP**

If you’re not quite ready to jump into the deep end of telehealth consultations, just dip your toe in by texting fecal results or monthly preventive reminders. Start small, and expand from there!

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**References**


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**Holly Cummings**

Holly has been a licensed veterinary technician since 2005. She has worked in a variety of practices and as an educator and administrator of veterinary technology programs across the country. Holly currently works in the Diagnostic Imaging Department at Washington State University and fills the occasional shift at the Lewiston Veterinary Clinic in Lewiston, Idaho. She enjoys speaking professionally to veterinary nurses across the country and being a board member of the Companion Animal Parasite Council. In her spare time, Holly enjoys all of the outdoor activities the Pacific Northwest has to offer, accompanied by her wirehaired pointing griffon, Oddly Bee.