



The Drone Will See You Now

Telemedicine Is Changing How Care Is Provided, but at What Cost?

by Maureen Blaney Flietner



TELEMEDICINE—THE PRACTICE OF PREVENTING, DIAGNOSING, AND TREATING diseases, disorders, and injuries remotely—has woven its way into the veterinary industry. How far can and should it go?

MJ Redman, DVM, DAVDC, of Mission Veterinary Specialists and Emergency in San Antonio, Texas, had a client who lived some distance away bring his puppy in for evaluation of a malocclusion.

“We needed to monitor the puppy for eruption of the adult teeth as well as the movement of those teeth once an orthodontic appliance was in place,” she explained. “The

owner would email photos of the teeth weekly so that I could tell him when we needed to see the puppy again. This saved the client time and also put my mind at rest that the puppy was going to come back in at the right time for further treatment.”

As the only board-certified dentist in San Antonio, Redman participates in a web-based service in which practitioners can upload history and images and she can create a report for anyone anywhere. Local referring doctors also use her expertise, sometimes sending her images via email or text while a patient is under anesthesia to get her opinion before they make a decision.

Emily Levine, DVM, DACVB, of the Animal Behavior Clinic of AERA in Fairfield, New Jersey, said she doesn't need "to see a dog bite someone to know what is going on."

As the only board-certified veterinary behaviorist in New Jersey, Levine knows that many pet owners don't have easy access to the few veterinary behaviorists in the United States. Faced with that situation, she said, pet owners may turn to questionable sources for help.

Instead, through telemedicine tools, Levine can work with pet owners. She asks owners to complete a detailed history, which she then can use when asking questions. If the situation is still unclear, she might ask for a video or live stream and direct an owner to include, for example, how the animal walks, so she can see subtleties that might have been missed in owner observations.

Evolutions and Revolutions

When his dog was suffering from seizures, "more frequent and timely veterinary care would have been helpful but was not available," said Dan Guralnick, MD, FACC, DASNC, a physician who is board certified in cardiovascular disease. It was during this time that he started developing the business model for Benevet (benevet.com), a platform that formalizes the veterinary telemedicine encounter. It is expected to be released this summer.

When he would finally get to speak to his veterinarian, and the conversation would last more than 20 minutes, "I felt guilty about not paying for her time," said Guralnick, who incorporated telemedicine into his own medical practice in 2007.

"Most veterinary practices already incorporate telemedicine by necessity via phone calls and/or email, but it is not well documented and usually done with no compensation," Guralnick, now Benevet's CEO, explained. His platform takes the pressure off a practice having to seek payment for these encounters. Although pet owners may receive less "free care," veterinarians may be more accessible for billable encounters that can increase revenue and allow veterinarians to generate revenue when working remotely, such as from home.

Even this telemedicine platform is evolving. While the forthcoming product is formatted for larger screens and use on a tablet or phone with a larger screen, a

smartphone app will be in upcoming versions. In addition, plans are to grow its two-way communication setup to three-way communication.

The Sentier Vetcorder (sentierconnect.com) is another innovative veterinary telemedicine product. Having been commercially available for more than one year, it took its lead from telehealth in the human market, where Sentier founder and CEO Robert Young has extensive experience.

The Sentier Vetcorder is a handheld biometric device with Bluetooth connectivity that provides the ability to send data, allowing in-hospital staff to monitor a patient in isolation from up to 60 feet away. Staff also can monitor a patient's ECG and blood oxygen saturation level (SpO₂) in real time on a tablet or phone and have the capability to save and send recordings via email to a specialist or other peers.

The next-generation Vetcorder product, the Vetcorder Home, will monitor respiratory rate, ECG, SpO₂, heart rate, temperature, activity, blood pressure, and glucose via Holter monitoring. In addition, the monitor will have video- and image-capture capabilities. Now in beta testing, the Vetcorder Home will extend veterinary care to the home. It is prescribed by veterinarians and will allow clinics to gather baseline vitals and monitor recovery and compliance postoperatively of patients at home, Young said.

Other telemedicine innovations wait on the sidelines. One is VirtuMedix, a telemedicine platform now in use in human healthcare. In that context, it allows doctors and other caregivers to interact with patients virtually on a mobile device, web portal, or telephone. It integrates with medical monitoring devices and offers mapping and navigation for locating nearby care facilities and pharmacies, if those services are needed, all in a simple user interface.

When asked what holds a company back from offering a version for veterinary medicine, VirtuMedix's Senior Director Darren Whitt said he would call it "market forces at play—some combination of legal confusion, cannibalization concerns, and, to some degree, cost."

Whitt said one of the factors driving telemedicine in the healthcare industry is the massive shift toward

high-deductible health plans and an emerging demand for care substitution at lower price points—telemedicine versus emergency department or urgent care.

“Ironically, there are typically no deductibles in veterinary [medicine]. Pretty much everything is out of pocket, so you would think telehealth would have already taken off,” he said.

Many Areas of Concern

The benefits of telemedicine are easy to see. But concerns exist as well, especially if you're going beyond the established veterinarian-client-patient relationship (VCPR).

“The main concern is that it is a product of distance in the doctor-patient relationship,” Redman said. “As a veterinary dentist looking at dental radiographs, I cannot see the occlusion, soft tissue, or overall health of the patient. The information that I can give is limited by the information that I get. In addition, I can make a recommendation for treatment, but I may not have any insight into the ability of the practitioner to communicate about or execute that treatment.”

“With clients, I may receive emails with images of dental problems. But if I have not seen the pet before, I recommend a physical exam before making decisions about diagnosis and treatment,” she explained. “Often, I can discuss, in general terms, about treatment options and the consequences of not treating certain problems. After the examination and treatment, some clients may send photos or videos to show how the patient has improved or to ask if they should be concerned about something that they have noticed.”

“There is no substitute for seeing a patient in person,” Levine said. “That is the gold standard . . . if that is possible. In addition, if there is no valid veterinarian-client-patient relationship, the prescription will need to be called in by the primary care veterinarian.”

But would a pet owner, for example, have the knowledge or “feel” to properly present (by phone, video, email, or text) concerns to a remote veterinarian who has never seen the pet?

“Whether their patient is onsite or remote, veterinarians need to ask the right questions. That is as important

as—and often more so than—knowing the answers. Without the right question, you get the wrong answer. It’s a form of triage,” said Charlotte Lacroix, DVM, JD, founder and CEO of Veterinary Business Advisors, Inc. (veterinarybusinessadvisors.com). “The veterinarian should be trusted to recommend to the pet owner whether an office visit is needed for the particular set of circumstances.”

Lacroix said that going beyond the VCPR involves good medical judgment—nothing different from what veterinarians already are doing. She said it is “no different than a veterinarian’s decision in the exam room [of] whether to order an X-ray or to draw blood. It comes down to whether veterinarians should be trusted as professionals or to be overregulated.”



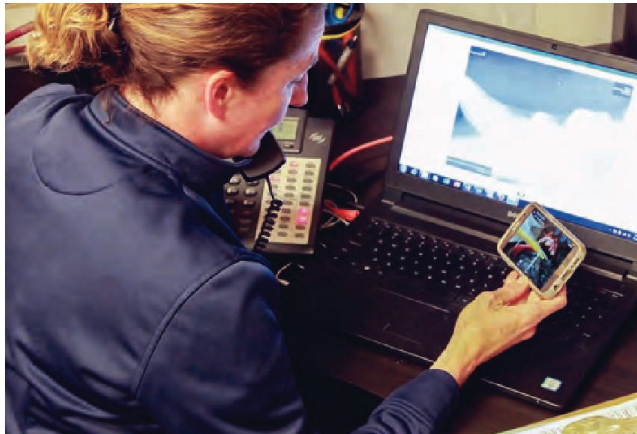
MJ Redman, DVM, DAVDC, speaks with a referring veterinarian on the phone while examining a pet’s dental radiographs.

“As a veterinary dentist looking at dental radiographs, I cannot see the occlusion, soft tissue, or overall health of the patient.”

—MJ REDMAN, DVM, DAVDC

Would pet owners even use telemedicine, especially since there will be a cost and they may be used to free (although questionable) online help?

“Yes, the public wants the convenience,” Lacroix said. She noted that the 2011 “Bayer Veterinary Care Usage Study” by Bayer HealthCare LLC’s Animal Health Division showed that the hassle, costs, and strain on cats and their owners were among the reasons why people didn’t bring them to the veterinarian. She said she sees telemedicine as an opportunity to get those pets the care they need.



MJ Redman, DVM, DAVDC, uses multiple platforms to conduct telemedicine sessions and provide consultations. Here, she speaks with a referring veterinarian on the phone while looking at photographs that were sent via text and dental radiographs sent via email.

“Pet owners will seek alternatives if we don’t make veterinary telemedicine available.”

—CHARLOTTE LACROIX, DVM, JD

“The problem is that some people are inherently resistant to change,” Lacroix said. “They are fearful if there is no predictability. They don’t like to look at opportunities and worry that charlatans will come into the industry. But they already are in the industry. Yes, telemedicine might make it easier. We will just have to be more vigilant.”

Lacroix expects clients may see cost savings while veterinarians see more revenue. Clients would not have to lose time at work and spend time driving if they could

consult through a telemedicine tool. Veterinarians could get more patients who need targeted care into the office quicker. A client could send in a video of a pet in question so the veterinarian can determine if he needs to be referred directly to a specialist, saving the client time and the costs of two visits and exams. Veterinarians would have the opportunity to provide valuable opinions for those who might otherwise rely on advice from a breeder, groomer, friend, or the internet.

Many worry that rules and regulations, as well as insurance and liability concerns, have not been addressed.

“As with every new technology, the law will need to evolve to address the increased risks,” Lacroix said. “Laws typically follow innovation. Just look at Uber or drones. Veterinary boards will need to evaluate and revise their rules and regulations accordingly. Establishing telemedicine standards of care is not a leap. It’s not like the veterinary industry is engaging in a foreign model. We already [give] veterinary advice to pet owners through poison control centers. We already have remote exchange through teleconsulting.”

Opportunities Knocking

“We can’t mandate that a client visit a brick-and-mortar establishment. Pet owners will seek alternatives if we don’t make veterinary telemedicine available,” said Lacroix, who sees expanded telemedicine as “an awesome opportunity.”

From help for cat owners who have a stressful time getting their pets to veterinary offices to the upcoming generations of tech-savvy veterinarians eager to pick up on these innovations, Lacroix sees possibilities.

Expanded telemedicine might be a boon to veterinarians trying to pay off burdensome student debt, she said. It could enable them to see clients during the day as practice associates while working a few nights a week for a telemedicine company.

Veterinary practices that are currently unavailable for night and weekend hours could reinvent themselves to take on this business opportunity. “If they don’t, others may,” she said.

Levine sees the expansion of telemedicine as valuable for less-critical care as well.



Emily Levine, DVM, DACVB, demonstrates how easy it is to communicate over Facetime with a pet owner—in this case, her receptionist.

Veterinary practices that are currently unavailable for night and weekend hours could reinvent themselves to take on this business opportunity.

“Some technician appointments could be done remotely,” Levine said. She envisioned technicians helping cat owners learn to prevent scratching and deter cats from biting in play.

“It would be valuable for someone who wants to learn how to get a new pet to feel more comfortable in their home, for someone who needs advice on how to trim their pet’s nails, or even for someone who wants a consultation on what kind of pet would be best for their family.”

Levine said that telemedicine can be an important tool for her as a veterinary behaviorist, and she looks forward to being able to help more people and pets.

No Easy Answers

The technological revolution is rapidly influencing society. How will it affect the VCPR?

For the Benevet telemedicine platform, Guralnick said he envisions its most common use, and perhaps initial use, “may be with a veterinary practice where an established VCPR exists. We cannot really police appropriate use, but as the encounter is documented, I feel the potential for abuse is less than with standard email, phone, or Skype visits. If a referral is made to a specialist and there is no transfer of care, with the specialist advising the referring veterinarian and client, this may be an acceptable use as well.”

But since Benevet will be used in different states and countries with varying regulations, Guralnick said there is no single answer to the complex question of the VCPR.

“In human medicine, state laws differ as well,” he noted, “with some states allowing a physician-patient relationship to be established via video consultation without a prior in-person exam. Regulatory barriers exist in human medicine as well, with legislation continually improving as studies show safety, efficacy, and cost-effectiveness of telemedicine in many different areas of medicine, such as chronic disease management, behavioral health, acute/urgent care, and preventive care.”

As an example of how human telemedicine concerns are being addressed, Guralnick pointed to the Interstate Medical Licensure Compact, created by the Federation of State Medical Boards (FSMB), regarding streamlining licensing for doctors who want to practice telemedicine across state lines.

The FSMB also has developed a model policy (available at fsmb.org/media/default/pdf/fsmb/advocacy/fsmb_telemedicine_policy.pdf) to provide guidance for state medical boards as they evaluate the appropriate balance between enabling access and ensuring patient safety.

“It will ultimately be up to veterinarian leaders to determine what is considered the best way to further integrate telemedicine,” he said. ✱



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