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Clinical

# The Future of Telehealth, Telemedicine, and Telemetry

With only so many hours in already packed clinical days, adding telehealth, telemedicine, and/or at-home patient telemetry feels daunting. It isn't that practitioners don't see the value of virtual appointments or increased patient data for certain cases. It's more about feeling sketchy about somehow restructuring practitioners' time to include meaningful and effective virtual care to clients and their pets. So where is it all going?

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## What's Already Here, What's Hot, and What AI Uses Are Ahead

With only so many hours in already packed clinical days, adding telehealth, telemedicine, and/or at-home patient telemetry feels daunting. It isn't that practitioners don't see the value of virtual appointments or increased patient data for certain cases. It isn't overly due to doubts about the technology—though many tools need validation and some platforms that gained users during the pandemic have already disappeared. It's more about feeling sketchy about somehow restructuring practitioners' time to include meaningful and effective virtual care to clients and their pets. Plus, remember the complexities of state-bystate veterinarian-client-patient relationship (VCPR) rules and likely cybersecurity concerns.

Jessica Bell, DVM, is an associate professor in the veterinary teaching hospital and the community practice department at Washington State University (WSU). Recently, Bell has served as a member of a committee looking into telemed use on campus. She said the committee identified two questions that need answering first.

"I did ask my other committee members about what their thoughts were, and we all agree on this [question]," she said. "How are we going to incorporate it into our daily, crazy routines? And, then, our second biggest struggle is how are we going to collect the payment, and how do we charge for it? Because it's so new, there are not a lot of good standards for it."

With so much still to sort through, let's set a baseline for what's happening now and what's possible in the future.

## Where Do Things Stand?

Maybe it helps to start with the things veterinary professionals already do. For example, both general and ER/specialty practices provide teletriage services with either client services reps or veterinary technicians talking to clients by phone. They help determine how serious a case is, how soon to schedule the pet, and with which practitioner. Those same skills transfer to tools that allow for real-time texting, live chat, or video. Veterinary practice apps also often feature ways for clients to share updates or questions about at-home care.

Some pet insurance providers offer triage services 24/7 to policy holders via phone, live chat, or video. Pet owners can also pay one-time fees or subscription fees to online 24/7 veterinary telehealth providers. These are not ideal, though, because clients may not understand the costs and limitations of these services up front and feel disappointed or even duped. It's too easy to autofill a credit card number online in a panic to connect with a third party immediately.

Beyond triage, though, the veterinary profession already uses at-home telemetry tools such as FreeStyle Libre for pets with diabetes mellitus and Holter monitors for those with heart conditions. Plus, many radiologists review diagnostic imaging remotely already. That's another existing service that may provide frameworks for other types of remote care.

Here's where many get stuck. All those conversations via either real-time or asynchronous contact take time that right now probably isn't charged. WSU plans to start telehealth integration within the specialty services. Bell explains, "They actually keep track of those hours spent discussing cases with clients and other veterinarians. First, is how can we start charging for the work we're already doing on the side?" Essentially, once the various referral teams implement telehealth services and fees, then Bell's community practice team will look at creating telemed options for specific types of cases such as pet behavior cases and rechecks that don't require hands-on exams, labs, or imaging.

"A lot of the discussion surrounds whether or not one can establish a VCPR without an in-person exam, and the answer to that varies widely from state to state," says AAHA's Chief Medical Officer Jessica Vogelsang, DVM. "But even when a VCPR has already been established, many veterinary teams are hesitant to jump into telemedicine for a variety of reasons. That probably will be the case for some time. As we continue to move forward and we have more agreement on good use cases and inappropriate use cases, I think the comfort level will develop organically over time in identifying when it is and is not a good choice for a specific patient."

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**Jessica Vogelsang, DVM, AAHA chief medical officer**

## What's Hot Now?

Ken Lambrecht, DVM, presents at webinars and major conferences about the venture he cofounded called Healthy Pet Connect (HPC). The new company pairs specialized at-home scales and other smart feeder tech with the HPC app that loads key home health data into a dashboard that veterinary teams can view.

Right now, the proof of concept and ongoing validation of the tech focuses on use in feline obesity cases. Rather than telemetry, the HPC team refers to it as remote patient monitoring (RPM). Lambrecht explains that their dashboard uses weight-loss guidelines from AAHA and the American

Association of Feline Practitioners, giving each pet's veterinarian full control of cases and easily visualized data that he says allows early intervention and guidance.

"We've found that pet parents are much more engaged and compliant if they can become an integral part of measuring and monitoring progress," he said. "Why wouldn't we want to improve outcomes, increase access to care, and save veterinary team time, which we know is so valuable?"

Rather than relying on self-reported food consumption, HPC's suite of tech tools provides validated health data that targets obesity as the first condition– among the other common comorbidities–to treat.

Find full details on a cat named Spudgie's case in the fall 2024 issue of *The Feline Practitioner*, but here are the highlights: Spudgie initially weighed 37 pounds. Over 18 months, Lambrecht used the HPC tools to provide more frequent, smaller meals and monitor his weight fluctuations. They got Spudgie down to 12 pounds. After another 18 months of monitoring, the cat maintained within 5% of his ideal weight. Going through the case's visual data during a webinar in September 2024, Lambrecht talks through some of the unexpected fluctuations and how the flow of real-time data allowed the team to adjust accordingly and keep the cat safe. "The statistics," he says, "pretty much speak for themselves."

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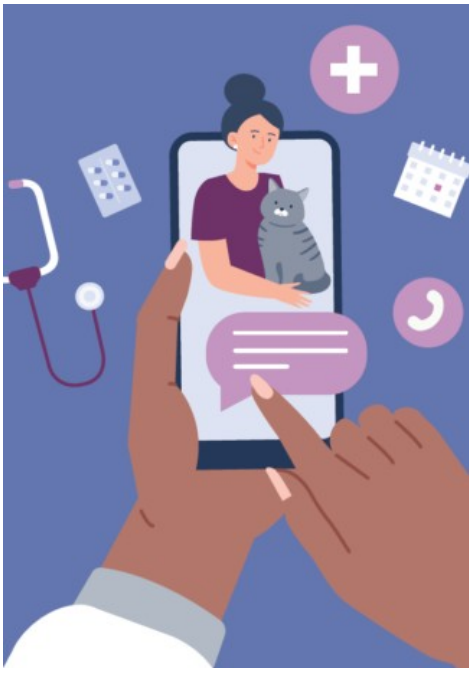
He admits to being scared when he watched some of Spudgie's data dip into what's widely considered the red zone for safe weight loss. But, the positive results encouraged his team to enroll a couple more big cats weighing 42 and 44 pounds.



The HPC tools also helped in a case of unintentional weight loss, which many veterinary clients chalk up to aging even though there's often an underlying cause. Joey Goldthorpe, DVM, the

HPC team's feline chronic care lead, shared a case during the September webinar of a 14-year-old feline patient whose weight never fluctuated during frequent, at-home weigh-ins. Goldthorpe laughs, "It didn't matter if she'd just used her litter box or just eaten, she was always 7 pounds, 13 ounces." Until she wasn't and dropped a couple of ounces.

"No big deal, what's 2 ounces?" Goldthorpe asks, "But, after being stable for all that time, it's a dip. So, just as important as individual data points is trends data." Even though everything looked great three months prior at a senior wellness exam, the family brought the kitty in for an exam, and she'd dropped another ounce. Goldthorpe found stage two chronic kidney disease and instituted early management.

So much of the new pet tech begins outside traditional pet-care verticals—smart feeders, activity trackers, wearables aimed at TPR and even blood pressure, and other items that might provide useful at-home monitoring. Lambrecht talks about the need for new tech to be pet friendly, veterinary centric, and validated before wider implementation happens. That's what builds confidence and wider adoption.

## What Shows Future Potential?

Artificial intelligence looms the largest with future potential for streamlining veterinary care. From finding and flagging important elements in client communications, lengthy specialists' reports, and exhaustive electronic medical records to noting key elements of diagnostic imaging and drafting routine correspondence for you, AI will play a role in the future of veterinary medicine.

"I think artificial intelligence is going to encompass a lot of things that we don't even know or understand at this point," Bell says. "I worry about the falseness of it, of not a real-life person filtering through those consoles."

Vogelsang recognizes the "tremendous interest and apprehension" about AI and its reliability—much like telemedicine "all over again." She says right now the profession is gathering information and coming to grips with the concepts and terminology, calling it a "larval stage," but she warns, "it's going to move fast. Veterinary teams understandably want to feel confident they can trust in the applications before they are ready to lean into it, and it's going to take time to understand what it means to validate the technology."

As one example, Pumpkin Pet Insurance is working on an AI tool for reporting a pet's body condition score from photos families upload—front view, side view, top view. Initial tests report accurate scores for 75–80% of breeds, with the areas of challenge being those with thick coats that mask their actual body profile.

Alex Douzet, Pumpkin cofounder and CEO, says, "It's something we're thinking of offering as a tool inside the experience on the Pumpkin website for pet owners who don't get a body composition score from their veterinarian or it's not findable inside the medical record. We know from studies that if you keep your pet at their ideal weight for most of their life, then the pet has a chance to live a year or two years longer, so there's a meaningful benefit for the pet and pet owner."

The Pumpkin team is also in phase three of investigating AI that assesses pets' motion based on client videos.

“We hear from veterinarians these can be situations that are hard to replicate inside of the exam room,” Douzet says. The AI movement analysis tool is meant to “spark a meaningful discussion by looking at the motion diagnostics, like a gait analysis. That’s the framework that’s sort of well established; then we can basically apply a generative AI tool on top of it,” he explains.

Video quality and environment present challenges, though. It requires a relatively distraction-free space, without other dogs, cats, or people moving in the camera’s frame. Otherwise, it’s a garbage in/ garbage out situation.

“We feel that this is something that could actually work really well if, let’s say, we were to bring pets into a controlled environment, like a room where we have a pet treadmill,” Douzet says. “What the AI tool does really successfully is identifying the joints and then detecting motion of those joints and how they perform through the movement and to be able to make an assessment.”

## What Saves Time Now?

Vogelsang recommends focusing on the time-saving benefits of new technologies, since that is what impacts daily practice activities and veterinary teams’ mental bandwidth.

“People like to jump to the furthest possibility and talk about robots delivering pets to the clinic where someone in another state will be performing the surgery using a VR headset,” she says, “but in reality, the biggest impact right now is people understanding things like how AI scribes can save hours of record writing or summarize complicated medical histories to help veterinarians about to head into an exam room. We’re just beginning to scratch at the other opportunities.”

*Image Credit: Jenny On The Moon/iStock via Getty Images Plus*

# Tele What Now?

While telehealth, telemedicine, and telemetry are all related to the use of technology to remotely access healthcare services, they have different meanings. Let’s break it down, using the AVMA’s definitions:

**Telehealth** is the overarching term that includes all uses of technology to deliver health information, education, or care remotely.

**Telemedicine** is a subcategory of telehealth and involves using a tool, usually tel[illegible]nications technology, to exchange medical information electronic[illegible]one site to another to improve a patient’s clinical health status.

**Telemetry**, or telemonitoring, is the remote monitoring of patients who are not at the same location as the healthcare provider. Examples include

portable glucose monitors and smart collars that transmit data such as heart and respiratory rates and body temperature.