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Trends

magazine

An Eco-Friendly Ending

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AAHA 2022 Pain
Management Guidelines
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Executive Summary of the Latest
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Executive summary of the latest pain management guidelines from AAHA

by Constance Hardesty, MSc



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Praise for December Trends

Dear Editor,

I have to commend you on the teletriage analysis (“The Growing Role of Teletriage,” *Trends*, December 2021). Early in my military career in Vietnam, when I was a medical administrator, I was thrown into triage duty during mass casualty times (all medically trained staff were elbow deep in patient care). It has always been an insight I have shared after becoming a veterinary consultant.

I also appreciated the article on working dogs (“Shining a Light on Canine Heroes,” *Trends*, December 2021). When I was later stationed in Germany on a post-master’s degree utilization tour, we had the procurement assignment for Belgian Malinois going to Lackland Air Force Base. Concurrently, we were the action agent for re-bonding military working dogs (they used to be euthanized—a loss of a \$25,000 asset—since a new handler was foreign to the dog).

I am a charter member of Delta Society and a charter member of the American Association of Human Animal Bond Veterinarians, which morphed into the Human Animal Bond Association (HABA). As such, I sat on the early committees that developed Human-Animal Bond definitions for Delta, which *Trends* has improved upon in terms of the distribution of terminology.

Then there was the Nutrition Pamphlet, which I initially cringed at since it has been such an overworked subject, but your publication added the team and client delivery views so badly needed in today’s practices.

Also, a personal thank you for the equine pain management review (“Pain Management Case of the

Month: Q,” *Trends*, December 2021). We have seen more equine workload appear, but most practices don’t know how to handle it. I consulted for a practice in Saskatchewan where the practitioner enjoyed the equine workload but shorted his primary companion animal practice of valuable liquidity. I showed him how the two practices should be separately tracked. He soon realized his practice success was in companion animal and that equine was a nice hobby. After the first year of the consult, we helped him upgrade his companion animal facility (he now had liquidity), and in the second year he blossomed.

I am proud of my contributions to AAHA, and when I enjoy *Trends*, like this December issue, I need to tell someone. Thank you for your insights and leadership—it affects many more than you know.

Sincerely,

Thomas E. Catanzaro, DVM, MHA, LFACHE
Diplomate, American College of Healthcare Executives
CEO, Veterinary Consulting International

Editor’s Note: Thomas E. Catanzaro, DVM, MHA, LFACHE, is a veterinary practice consultant based in Colorado. He is also former Hospital Services Director for AAHA, who was tasked with making the AAHA standards inspection into a welcomed consultation. He is a distinguished alumnus of Baylor University, and winner of the AVMA Bustad Companion Animal Veterinarian of the Year in 2012. AAHA thanks Dr. “Tom Cat” for his contributions to AAHA and the profession.

We want to hear from you!

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from the editor's desk

END-OF-LIFE DECISIONS FOR COMPANION ANIMALS ARE NEVER EASY, and it seems like there are more options than ever now for handling a pet's final stage of life on Earth. Now, there is another option, an alternative to cremation known as aquamation. You may have heard of it already, and your clients might have heard of it because it is the process that Bishop Desmond Tutu decided to use for himself. It is being hailed as a greener alternative to the energy-intensive cremation process, since it uses a chemical solution to slowly dissolve tissue. It is hard to know if it will catch on as a mainstream alternative for clients, but it sure is fascinating to learn about.

Also featured in this issue is an executive summary of the brand new *2022 AAHA Pain Management Guidelines for Dogs and Cats*. These guidelines are an update to the 2015 version and feature lots of new information, essential to providing the top care your clients expect. The guidelines are officially endorsed by the American Association of Feline Practitioners.

THE AAHA COMMUNITY

Everyone knows the AAHA community is an awesome family of top-notch veterinary professionals who strive to make lives better for animals and their people. And now we have the online version! Welcome to the AAHA Community, now available as a place to chat, share, kvetch, and otherwise interact with your fellow AAHA members. Try it out today at community.aaha.org.

MEMBER STORIES

We are looking for stories from you! Do you have a good story to tell about something that happened in your practice, or a team member who has become a rock star? We want to hear it and print it in *Trends*. Send your ideas to trends@aaha.org, or contact your practice accreditation specialist for more information. Tell them *Trends* editor Ben Williams sent you!

COMING NEXT MONTH

Coming up in May: A look at some of the tools available for tracking data and using benchmarking to improve your practice. Also, we'll dig into some new artificial intelligence-powered diagnostic tools, and finally a feature on "future-proofing" your practice in the post-pandemic, climate-changed age.

As always, let me know what you think at trends@aaha.org.

—Ben Williams, Editorial Director



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View from the Board

Change is in the Air

Happy Spring everyone! It is my favorite time of the year—everything is new, the flowers are poking their heads out, the trees are budding, and foals are hitting the ground. April is a perfect month to hit the reset button. I tend to reflect on the first quarter of the year and refocus the goals I set at the first of the year (Notice I didn't say refocus ON those goals—there is a difference).

It is never too late to recommit ourselves, or to consciously redirect our efforts! I never want to be the person that looks back and can't remember "what happened to the past week/month/year?" Time flies. Let's face it. Without a reset, we can find ourselves just cruising along and suddenly a year is gone. That said, there are exciting things happening in veterinary medicine. I am happy that two of the things I committed to in January still matter to me and to the profession. Changing the narrative around culture, burnout, veterinary satisfaction, and pay is critical to me, to my team and to our profession. I also committed to continuing conversations about telemedicine and telehealth; both critical and complicated.

Changing the narrative is my simple way of saying that you are what you think. You are what you speak. Your brain cannot discern the difference between what you say or think and what is real. (Full disclosure: I am not a therapist nor am I giving mental health advice—I am not dismissing burnout, exhaustion or depression as a figment of your imagination—this is just my way of being happy). If you find yourself participating in or propagating a negative narrative, you can change that narrative. You can reframe your thoughts to the positive and to the proactive rather than accepting the negative as fact.

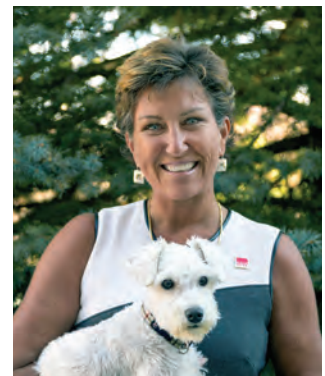
My team is honing this skill every day and I couldn't be prouder! Because we believe that culture is behavior, one of the behaviors that my team will no longer tolerate is negativity. Every single team member has the right and the responsibility to eliminate negative behaviors or

negative narratives. It is really that simple and really that powerful. Each person on our team is either part of the problem or part of the solution. Please message me if you want more information on practical ways for you and your team to change the narrative!

Telemedicine is here to stay, regardless of your feelings about it. If you haven't embraced some version of electronic delivery of veterinary care, I implore you to consider it. Learn how to get paid for the telemedicine that you already practice. Use good judgement about which cases need to be seen in a hospital or clinic immediately, tomorrow, or next week. Use good communication to avoid problems. Utilize RVTs, CVTs or nurses to triage cases and reduce the number of patients that end up in the ER for a non-emergency problem. If you have strong feelings about the use of telemedicine, join the conversation by volunteering with AAHA or your local VMA. You can help frame the path forward rather than complain about it after the fact.

It is spring, hope is in the air. I am so lucky to be a part of a profession that I love and to be associated with so many brilliant people. Thank you all for your contribution to a wonderful profession.

Pamela Nichols, DVM, CCRP, is AAHA's immediate past-president. She received her DVM from the College of Veterinary Medicine and Biomedical Sciences at Colorado State University in 1996 and her bachelor's degree in Spanish from the University of Utah in 1987. Her background is varied and includes work as a financial consultant, veterinary technician, veterinary receptionist, and associate veterinarian. Nichols opened Animal Care Center in West Bountiful, Utah, in 1999 and the Animal Care Center Airport in 2014. They are both AAHA-accredited facilities. The K-9 Rehabilitation Center, which opened in 2002, was one of the first in the country of its kind.



AAHA MEETINGS AND EVENTS

APRIL						
S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

MAY						
S	M	T	W	T	F	S
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8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

JUNE						
S	M	T	W	T	F	S
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5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		



Veterinary Management Institute



Final day to renew your AAHA membership

To register for a learning program and learn more about AAHA's upcoming events, visit aaha.org.

DEAR AAHA

Dear AAHA,
 The AAHA Standards say that we should have a housekeeping supervisor. What exactly does that entail?
 — Housekeeping in Houston

*Dear Housekeeping,
 The housekeeping supervisor is someone who oversees regular building and grounds maintenance on a timely basis, assessing what improvements or repairs are needed. Rather than waiting for something to go wrong, keeping up with regular maintenance can prevent safety hazards from developing. Thanks for your question!*
 —AAHA's Member Experience Team

Have a question you'd like AAHA to answer?
 Email us at dearaaha@aaha.org.

This month in AAHA's Publicity Toolbox . . .

Here are the downloadable social media images available for AAHA-accredited members at aaha.org/publicity this month:

- Heartworm Awareness Month
- National Pet First Aid Awareness Month
- Prevention of Lyme Disease in Dogs Month
- Earth Day April 22
- International Guide Dog Day April 27





Research Recap

Through surveys, focus groups, interviews, and other channels, we'll be asking for your input as members of the veterinary community. Learn how you can contribute at aaha.org/research.

SPOTLIGHT ON COVID-19 PANDEMIC EFFECTS





From the VETERINARY OUTLOOK SURVEY



When asked an open-ended question about what pandemic effects will continue after COVID, nearly half of all respondents from the veterinary community (47%) said **curbside services are here to stay**.

Which elements of your operations that were adopted or added due to the pandemic do you feel will persist when the pandemic is over?



- 47%** Curbside services (appointments, medication and food pickup) 
- 20%** Telehealth/telemedicine* 
- 9%** Electronic communication with clients
- 8%** None
- 7%** Fewer clients in exam rooms, less waiting in lobby 
- 7%** Online registration/check-in 
- 5%** Disinfecting/hand sanitizer/masks for clients and employees
- 3%** Short-staffed/trouble finding good staff 
- 3%** Payments in exam room or via text
- 3%** Online pharmacy
- 3%** Automated scheduling 
- 3%** Employees wearing masks
- 2%** Using veterinary technicians for certain appointments
- 2%** Social distancing
- 2%** More efficient scheduling/block times for same-day appointments
- 1%** Return to regular practice
- 1%** Time off and emotional support for employees
- 1%** Fear of employees getting sick
- 1%** Ability to pivot to new business models
- 1%** Administrative tasks from home

Percentages have been rounded to the nearest whole number.

*For tips and tricks implementing telehealth, see the 2021 AAHA/AVMA Telehealth Guidelines for Small-Animal Practice at aaha.org/telehealth.

Look for more AAHA Research highlights next month. Questions or feedback about the Omnibus or Outlook Survey? Email us at research@aaha.org.

From the  **OMNIBUS SURVEY**

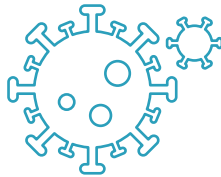
What are your biggest professional challenges in the coming year?

Pandemic stressors remain a pressing concern for many practices.

9%

Staying safe during COVID, post-COVID recession, pandemic pets

Q1: 12%; Q2: 9%; Q3: 9%; Q4: TK



7%

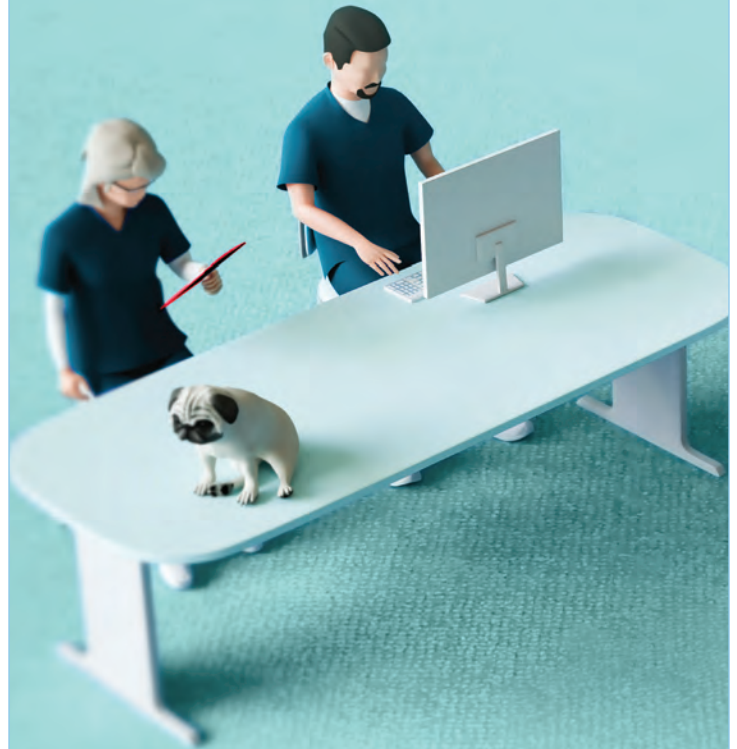
Reopening post-COVID, adjusting to the “new normal”

Q1: 10%; Q2: 9%; Q3: 3%; Q4: TK

What else did Omnibus survey respondents report as their “biggest professional challenge”? Check out the February and March Research Recaps at aaha.org/research to find out.

AAHA'S CAREER CENTER

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notebook

Havanese Survives Leptospirosis

When Frank, a 10-year-old Havanese, tested positive for leptospirosis, a potentially fatal bacterial disease, his owner Beth Visser leapt into action. Concerned about Frank's elevated kidney values, Vissers did some research, and she and her husband brought Frank to Foster Hospital for Small Animals at Tufts University in Massachusetts.

Colleen Bourque, MVB, resident at Foster Hospital, treated Frank with antibiotics, IV fluids, and antinausea medications, eventually adding in antacids, blood pressure medications, and appetite stimulants.

"With early and aggressive treatment, prognosis can be excellent," said Bourque. "Many dogs can return to either normal kidney function or have some residual lingering kidney disease that we need to manage going forward."

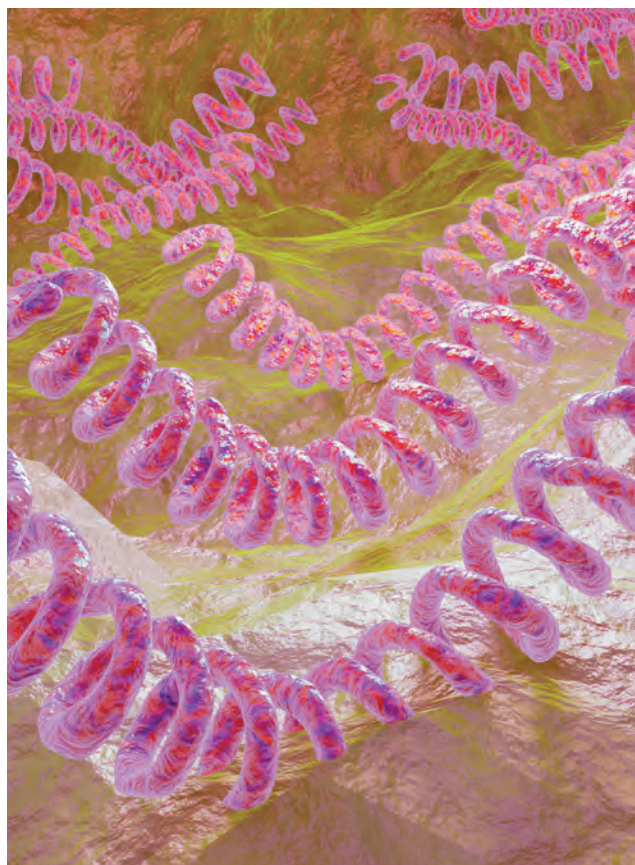
Frank spent six days at Foster Hospital before being released. Bourque contacted his owners daily with updates.

"Dr. Bourque was wonderful," said Vissers. "She always had her eye on his whole system, not just the kidneys."

After two days at home, Vissers brought Frank back to Foster Hospital, worried he was not thriving. "We knew we had him in a place where they would do whatever they needed within reason," said Vissers. "[W]e didn't want him to go through a lot of discomfort, but he quickly began to recover."

After three more days in the hospital, he was well enough to return home.

Frank's symptoms continued to subside; his kidneys are currently at near normal levels. Dr. Bourque continues to monitor Frank as his kidneys recover, but his prognosis is "very good."



Facts about Leptospirosis

Leptospirosis is a disease caused by a bacterium (genus *Leptospira*) that can adversely affect dogs and be transmitted to humans.

Dogs can become infected by coming in contact with the urine from wildlife or contaminated water or soil.

The disease can rapidly become life-threatening to dogs, targeting kidneys, liver, blood vessels, and lungs and heart.

The leptospirosis vaccination can prevent disease and will protect dogs from severe illness.



Synchrony's First-Ever Lifetime of Care Study Reveals Costs of Caring for a Pet

A new Synchrony study, Lifetime of Care, based on input from 1,200 pet owners and 100 veterinarians, provides consumer insights into the lifetime of care cost of dog or cat ownership.

Seven out of ten pet owners consider their pets members of the family, yet nearly half underestimated the lifetime cost of care, which ranges from \$20K–\$55K for dogs and \$15K–\$45K for cats.

Approximately half of all pet owners were unprepared for unexpected pet expenses and would consider a financial solution dedicated to financing care for their pet.

“Millions of Americans choose to share life with a pet, yet the true cost of ownership has historically been incredibly vague,” said Jonathan Wainberg, a senior vice president and general manager at Synchrony. “Our Lifetime of Care study serves as a helpful tool to prepare prospective pet parents.”

To maximize efforts, Synchrony is working directly with veterinarians and experts on the frontlines of veterinary care to arm pet parents with the information and financial solutions they need to care for their pets.

Peter Weinstein, owner of PAW Consulting and veterinary industry leader said, “This new study provides us a comprehensive look at the true costs of pet care so we can arm our clients with the information and financial solutions they need to care for their pets for a month, year, and entire lifetime.”

The Dog Aging Project Receives \$2.5 Million Pledge from Tech Entrepreneurs

The Dog Aging Project, a scientific initiative to help companion dogs and people live longer, healthier lives together, has received a \$2.5 million pledge from a consortium of tech entrepreneurs. The Dog Aging Project brings dogs, owners, veterinarians, researchers, and volunteers together to carry out the largest canine health study in the world. The donation will expand this research into longevity science.

The Dog Aging Project, based at the University of Washington and Texas A&M University, with research team members at many top institutions, focuses on two fundamental goals:

- to understand how genes, lifestyle, and environment influence aging
- to increase healthspan, the period of life free from disease

Discoveries made by the Dog Aging Project could be translatable to people. “Targeting biological aging is twenty-first-century medicine, with the potential to greatly enhance healthy longevity for both people and our pets,” said Matt Kaeberlein, PhD, codirector of the Dog Aging Project.

More than 32,000 companion dogs and their owners are already part of the Dog Aging Project. The dogs continue to live and play at home with their families. Each dog owner completes extensive surveys about the health and life experience of their dog. This information is paired with environmental, genetic, and biochemical data to yield insights about aging.

Dog owners in the United States can enroll their dogs in the Dog Aging Project observational study at www.dogagingproject.org. Participating dogs can be young or old, mixed breed or purebred, those in good health and those with chronic health conditions.





Saving Miso: Kitten's Emergency Exploratory Surgery

When a rescuer brought three abandoned kittens, one only a month old, to the UC Davis veterinary hospital's emergency room, critical care specialists diagnosed them with upper respiratory tract infections. The following day, custody of the kittens was transferred to the Yolo County SPCA. Megan Mangini, DVM, a resident in anesthesia service, took over their care and fostered them a few days later.

A few weeks later, Miso, the youngest of the kittens, had increased trouble breathing and was brought back to the emergency room. X-rays showed a potential hernia of his diaphragm. He was transferred to the soft tissue surgery service for exploratory surgery. Mangini handled the anesthesia during Miso's surgery. Surgeons found no hernia, but his spleen, swollen with abnormal growths, was removed and tissue samples sent to the anatomic pathology service.

The surgeons extended Miso's surgery into his chest cavity and discovered a buildup of thick fluid around the left lung

(pyothorax) along with a severe buildup of fibrin over his lung lobes. Fibrin causes blood to clot, impeding its flow. Miso's lungs were not inflating properly because of the abnormal material in his chest. Samples from Miso's thoracic cavity were sent to pathology. Surgeons then placed a chest tube and a gastric feeding tube in Miso for postoperative care.

Miso recovered without complication and was maintained on IV pain medications and supportive care. He was eating on his own the night after his surgery.

Pathology results showed the *Streptococcus canis* bacteria, which can be fatal if not treated.

After four days of hospitalization to treat the bacterial infection, Miso was discharged. Six weeks later, Miso was ready to be neutered, and Mangini adopted him and his two siblings.

When It Comes to Health Benefits: What Do Your Employees Want?

"It's no surprise that physical health benefits are rated as the top benefits among nearly all employees across a wide swath of demographics," Kathryn Taylor states in a recent article for SHRM.org. Her advice to employers in 2022 is to offer more than basic health needs.

Debra Thompson, chief people officer at Chegg Inc., agrees. "Medical, dental and vision [benefits] are no longer nice-to-haves that keep employees happy," she says, "they're table stakes."

The importance of mental health benefits seems to be an area employers and employees agree on. As SHRM researcher Derrick Scheetz told Taylor, "So many of us felt and continue to feel the toll the pandemic has taken on our mental health."

"One in four workers say they're highly or extremely stressed, and workers under 35 ranked mental health as their top concern," Taylor reports, citing Mercer's 2021 Inside

Employees' Minds study of 2,000 U.S.-based employees.

The SHRM 2020 Employee Benefits survey report indicates that some employers have gotten the message. During the pandemic, 25% responded with increased mental health benefits.

But, Taylor points out, "There still appears to be a gap between benefits and employee needs... Seventy-one percent of employers with frontline employees report supporting mental health well, but only 27% of frontline employees agree."

At the beginning of her article, Taylor states bluntly, "Many employers are out of touch with which benefits employees value most."

Thompson suggests a solution. "Ask your employees what is important to them. You may be surprised."

VCA Animal Hospitals and Vet Set Go Team Up to Prepare the Next Generation of Veterinary Professionals

By 13 years of age, according to Vet Set Go data, many veterinary professionals have already decided to pursue a career in animal health. That fact plus a once-in-a-generation staffing shortage in the veterinary industry has led VCA and Vet Set Go to work together on reaching out to aspiring veterinary professionals in elementary, middle, and high schools.

For over 10 years, Vet Set Go has worked to encourage future veterinarians to explore their dream. Vet Set Go's partnership with VCA will offer young people expanded opportunities for acquiring hands-on experience, shadowing, and accessing educational resources.

"Together with Vet Set Go we're breaking down barriers—finding new ways to bring more caring, talented people into this field," said Todd Lavender, DVM, president of VCA Animal Hospitals. Some of the hands-on learning experiences and education-based resources to be launched in 2022 include:

- **National Shadowing Program:** Select VCA Animal Hospitals will invite aspiring veterinarians into their clinics for a day.
- **Vet Set Go Academy Content:** The Academy will provide its online shadowing courses to VCA to help prepare shadowing students for the big day and ensure they have a safe and educational experience.
- **Scholarships for Aspiring Veterinarians:** Separately, VCA and Vet Set Go will provide three aspiring veterinarians scholarships to Auburn College of Veterinary Medicine's Junior Vet Camp.
- **Volunteer Opportunities App:** VCA will help support Vet Set Go in developing the first-ever app to help aspiring veterinarians find shadowing mentors and volunteer opportunities near their homes.

"Together [VCA and Vet Set Go] are providing aspiring veterinarians with resources and opportunities that otherwise are not easily available to young people interested in veterinary medicine," said Chris Carpenter, DVM, founder and president of Vet Set Go.





Thirteen-Year-Old Siberian Husky Thrives After Treatment for Soft-Tissue Sarcoma

When thirteen-year-old Bailey, a Siberian husky, had a lump on the inside of his back knee diagnosed as a soft-tissue sarcoma, his owners, Dennis and Carol Noonan, brought him to the Cornell University Hospital for Animals for further evaluation.

At thirteen, Bailey's overall health was excellent, so when tests in the oncology department showed no evidence of cancer spread beyond his knee, he was deemed a good candidate for surgery in the hospital's soft-tissue surgery service.

"These types of tumors don't usually metastasize to other locations, but they're very locally aggressive, which makes surgical removal of them sometimes very difficult," said Nicole Buote, DVM, DACVS, associate professor of small animal surgery.

Bailey's tumor was localized and only the tumor and a small portion of healthy tissue was removed in the operation. He then received 17 radiation treatments over the course of a few weeks to kill any remaining microscopic cancer cells.

Brittany Zumbo, DVM, a medical oncology resident who attended to Bailey, appreciates how well the various services—medical oncology, small animal surgery, and radiation oncology—worked together to streamline his treatment. "We were a real team in taking care of him," said Zumbo.

Bailey has thrived since finishing radiation. "He gets his two walks a day, which usually consist of more than a mile each time," Dennis Noonan said. "We've noticed that he's been running more and seems a bit more agile as time goes by. Need I say anything about his appetite?"

FDA Approves Monoclonal Antibody Drug to Treat Cats with Osteoarthritis

The US Food and Drug Administration has approved Solensia, the first treatment for the control of pain associated with osteoarthritis in cats and the first monoclonal antibody drug for use in any animal species. The FDA granted approval of Solensia to Zoetis. Solensia is available only by prescription from a licensed veterinarian.

Frunevetmab, the active ingredient in Solensia, is a cat-specific monoclonal antibody designed to recognize and attach to a protein called nerve growth factor (NGF) that is involved in the regulation of pain. When bound to NGF, frunevetmab prevents the pain signal from reaching the brain.

“Advancements in modern veterinary medicine have been instrumental in extending the lives of many animals, including cats. But with longer lives come chronic diseases, such as osteoarthritis,” Steven M. Solomon, MPH, DVM, director of the FDA’s Center for Veterinary Medicine, commented. “Today’s approval marks the first treatment option to help provide relief to cats that are suffering from this condition and may significantly improve their quality of life.”

The effectiveness of Solensia was evaluated in two masked, randomized, controlled field studies involving client-owned cats with clinical signs of osteoarthritis. The cats’ veterinarians assessed the cats based on orthopedic examinations before and after treatment. The owners provided baseline scores of their cats’ levels of impairment before and after developing osteoarthritis. They then assessed their cats’ response after receiving treatment. Overall, the cats in the treatment group had better assessment scores than those in the control group.



QUOTE OF THE MONTH

“Animals don’t lie. Animals don’t criticize. If animals have moody days, they handle them better than humans do.”

—Betty White

VHMA's 2021 Compensation and Benefits Survey Report

The Veterinary Hospital Managers Association's (VHMA) 2021 Compensation and Benefits Survey Report includes information on levels of compensation and benefits provided to veterinary managers, as well as trends in areas that influence compensation. Members of the VHMA and the Veterinary Emergency and Critical Care Society are surveyed for the report, which is published every two years.

An important takeaway from the report is that most managers agreed or strongly agreed that they were satisfied with their job and where they work.

Trends in Compensation

Since 2019, office managers experienced the largest increase in salaries—14% for the last two years. Practice managers enjoyed a 9% increase in annual salary over the same period, but factoring in hours worked reduces that to 7%. Hospital administrators experienced the lowest salary increase at 4%, which, when combined with a slight increase in hours worked, is reduced to 3%.

Hospital administrators in emergency and specialty hospitals earned \$120,000 median annual salary, the highest across all practice types. Practice managers working in mixed animal practices earned the lowest salaries overall, \$55,000 median annual salary.

Other trends affecting compensation include the types and numbers of hospitals managed, years of experience, credentials, and geographical location.

Tasks and Benefits

The survey contains valuable data about the tasks and job duties performed by job description. Participants responded to a comprehensive list of tasks to reveal the tasks performed by position and the amount of time devoted to the task. Regarding benefits, respondents provided information for a detailed picture of employer-provided benefits.



New and Improved Human-Animal Bond Veterinary Certification from HABRI and NAVC

The Human Animal Bond Research Institute (HABRI) and the North American Veterinary Community (NAVC) have launched the new and improved Human-Animal Bond Certified 2.0 course for veterinarians, veterinary nurses, and veterinary practice managers. Since 2018, human-animal bond certification has become essential for animal health professionals looking to engage with their clients through the communication and the science of the human-animal bond.

“The pandemic has not only accelerated the importance of pets in people’s lives, but it has also created more attentive pet owners who want the best care for their pets and who expect to hear from their veterinarians about the human-animal bond,” says Steven Feldman, president of HABRI. “Human-Animal Bond Certified 2.0 equips veterinarians and their teams with the resources they need to support and acknowledge the human-animal bond.”

Significant changes have been made to the course, including new modules on hot topics such as aftercare and access to care. Human-animal bond certification will now be offered as a tiered system, with three 8-hour modules to make the course more manageable to complete. Practice certification is also now available.

Gene O’Neill, CEO of NAVC, commented, “In helping educate veterinarians and staff about the science of the human-animal bond, Human-Animal Bond Certified 2.0 is the new gold standard for veterinarians looking to reconnect with their purpose and engage with their clients in a meaningful and effective way.”



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An Eco-Friendly Ending

Aquamation: The Green Alternative
to Fire Cremation

by Jen Reeder

THE GENTLE WHIRRING SOUND COULD EASILY BE MISTAKEN FOR WASHING MACHINES. With a low rumble punctuated by an occasional whistle, they provide rhythmic background noise in an unassuming room inside Monarch Pet Memorial Services in Boynton Beach, Florida.

But these aquamation machines are doing special work: using alkaline water to decompose the bodies of deceased pets.

Aquamation, also known as alkaline hydrolysis, is an environmentally friendly alternative to flame cremation that is legal for pets in all 50 U.S. states and Canada. Aquamation mimics natural decomposition but speeds up the process with an alkali like potassium, heat (about 200 degrees Fahrenheit), and moving water. The machines run on electricity instead of fossil fuels.

The process, which does not emit greenhouse gases, takes about 20 hours and leaves behind fragile bones, which are typically dried for 24 to 48 hours. They can be pulverized into “ashes” that are lighter in color than those from fire cremation. (The process also produces about 20 to 30% more of the powder.) The price of aquamation is comparable to flame-based cremation.

Though aquamation has steadily been gaining traction in the United States for both pets and humans in the past decade, it was thrust into the spotlight at the end of 2021 when anti-apartheid hero and Pulitzer Peace Prize winner Desmond Tutu died. The world learned he'd elected aquamation for himself, which prompted news headlines like “What Is Aquamation?”

Fielding Questions

It's a question frequently posed to those working in the aquamation industry by pet owners as well as veterinary professionals, according to Mary Gardner, DVM, cofounder of Lap of Love, a nationwide network of veterinarians who provide veterinary hospice and in-home euthanasia, and co-owner of Monarch Pet Memorial Services, an aquamation facility (and separate business) that opened its doors in 2019.

“Clinics can ask questions like, ‘I've never heard of this—are you melting bodies?’ They don't understand it, so then they'll think, ‘Well, if we don't understand it, families aren't going to understand it,’” she said. “But it's all about communication and how you discuss it.”

Gardner likes to describe aquamation as “water-based cremation,” and an alternative to fire cremation that doesn't use fossil fuels.



Monarch Pet Memorial Services in Boynton Beach, Florida, offers aquamation services.



Monarch's seating and table area for clients.



An aquamation machine at Monarch Pet Memorial Services.

Aquamation, also known as alkaline hydrolysis, is an environmentally friendly alternative to flame cremation that is legal for pets in all 50 U.S. states and Canada.

“Whether it is intense heat or alkaline water, you are reducing a body’s tissue down to bones—either way, that’s what we are doing,” she said. “Families don’t want to know the nitty gritty of fire cremation either. Nobody asks a clinic, ‘What’s the temperature of the oven?’”

However, everyone on the team should know how to answer questions like: Where are communal ashes spread? (At sea? Into a landfill? In a memorial garden?)

“It should be a part of everybody’s onboarding training: What crematory do you use, and what are their options? Who are they? When do they come? You should be confidently compassionate when you talk about it,” Gardner said.

One of biggest questions that private aquamation clients ask about “ashes” is, “How do I know it’s my pet?” Gardner, who spent a decade in software development before becoming a veterinarian, worked with her brother/

co-owner to build software called Wings to enable animal hospitals, transporters, and aquamation teams to track pets throughout the entire process.

Whether handling the body or the cremains, Gardner hopes everyone will treat that pet with respect, care, and integrity during the entire process—as if it was their own or the family is watching.

Positive word of mouth about such an approach helps drive the demand that led to Monarch recently purchasing a fourth aquamation machine and beginning construction on a state-of-the-art facility—four times the size of its current building—that can accommodate up to eight machines and will feature walk-in coolers rather than freezers.

Carmen Colitz, DVM, PhD, MBA, DACVO, and a veterinary ophthalmologist at Jupiter Pet Emergency and Specialty Center in Jupiter, Florida, opted for aquamation for her



Clients can opt to place a favorite toy on the aquamation machine.



The machines are fairly compact so two or more can be placed in one room.



The machines don't require special permits and can be moved around the clinic.

Gardner likes to describe aquamation as “water-based cremation,” and an alternative to fire cremation that doesn’t use fossil fuels.

beloved black cat, Mulch, with Monarch Pet Memorial Services when the rescue kitty died at age 15 in 2020.

Aquamation intrigued Colitz not just because she cares about reducing her carbon footprint, but because the idea of fire incinerating her cat’s body seemed unappealing and downright “aggressive.”

“Aquamation was such a novel, wonderful, peaceful way for me to take care of her in the end,” she said. “I felt really good with the whole process. It was so kind. I knew it was the right thing.”

Colitz was one of the first veterinarians at her practice to choose aquamation for a pet. Now Jupiter Pet Emergency and Specialty Center shares Monarch’s brochures and many veterinarians suggest it to clients.

When her own time comes, Colitz plans to be aquamated. “I know Desmond Tutu chose that,” she said.

“It’s a very peaceful, calm, kind way.”

These sorts of sentiments are one reason why aquamation services continue to rise exponentially each year, according to Samantha Sieber, co-owner and vice president of research at Bio-Response Solutions in Danville, Indiana. The company manufactures aquamation equipment and helps small businesses like animal hospitals integrate the machines into their business and community.

Sieber’s father, Joseph Wilson, a forester with a passion for non-burn technology, developed aquamation equipment with two scientists from Albany Medical College in the 1990s. When Bio-Response Solutions launched in 2006, Sieber thought they’d focus on selling aquamation machines to the agriculture industry.

But after Ohio began categorizing the bodies of euthanized pets as “hazardous waste,” a veterinarian and a kennel



Aquamation machine for a human. Bishop Desmond Tutu opted for aquamation.



After the process bones are dried on racks in a dehumidifier.



The bones are typically dried for 24-48 hours.

owner looking for alternatives to the landfill reached out to Bio-Response Solutions. So the prototype for private pet aquamation launched in 2008 to meet that need.

“The first year, we sold one machine. The next year, we sold two. I think the next year, we sold five,” Sieber said. “This past year, we put out 70, so it is growing fast. It looks like a logarithmic graph if you look from when we started in 2008 to now.”

The majority of Bio-Response Solutions clients are at-home euthanasia veterinarians; the rest are split evenly between veterinary hospitals and pet crematories. Sometimes architects for animal shelters building new state-of-the-art facilities include aquamation machines in their design as well.

Machines vary in weight capacity—up to 4,000 pounds—and cost between \$85,000 and \$100,000. The return on investment for veterinary customers is usually 1 to 1.5 years, according to Sieber.

“The success rate of our customers is just wildly high,” she said.

The main reason that clients invest in the machines is that aquamation is environmentally friendly, which not

only feels good but means that regulations are minimal compared with flame cremation.

“You can put this in an existing clinic even if it’s in a residential area or a light commercial area—these machines don’t have to be banished to the edge of town in the one industrial area where they might let you put in a flame crematory if you go through a \$25,000 one-year special-use permit process,” she said. “Aquamation is something that you could do without having to do building renovations for fire code, things like that. And you don’t have to take off the side of your building and have a crane lift a crematory. We scoot these around our shop with a pallet jack one-handed all day long. They fit through a normal doorway.”

Bio-Response Solutions helps arrange any required variances or permission, such as wastewater permits with local municipalities—“I’ve personally done over 400 of them,” Sieber said. They’ve also worked with clients in Hong Kong, the Philippines, Singapore, Costa Rica, and Chile.

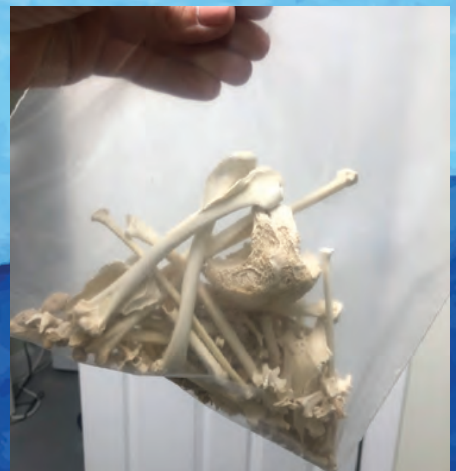
Sieber believes while aquamation will continue to surge in popularity for companion animals like dogs and cats, the next big trend will be aquamation for horses, since the machines can accommodate up to 4,000 pounds and current aftercare methods can be less than ideal.



After the aquamation process, just bones are left.



Example of a skull, post-aquamation



Remains of an owl after aquamation.

Gentle Process

The byproducts of aquamation are bones (as noted above) and a nutrient-rich effluent that is safe to pour down the drain. Pathogens and chemotherapy drugs are destroyed during the aquamation process.

“What [the effluent is] made up of is 96% water and 4% small peptides, amino acids, sugar, salt, and a little bit of soap,” Sieber explained. “We have a lot of pet providers that collect it in a tank, and they team up with a tree farm—they have the tree farm or greenhouse come and pick it up and transport it to the nursery and spread it on their flowers or trees because it’s a beautiful fertilizer.”

Having a trusted veterinary team provide aquamation services can bring peace of mind to the families of the pets—and sometimes even closure. For instance, veterinarians can look at the bones and see how advanced a case of bone cancer had become.

Also, aquamation machines can’t break down materials that aren’t protein based, such as toys or blankets, so these are left behind in the machines when a dog has ingested them.

“There was one picture shared with me that completely changed the way I managed my dog, Aggie, who literally

one day ate a chunk of plaster wall,” Sieber said. “It was shocking to me the day I saw the picture from the poor pet that had apparently done the same type of thing.”

If a family wants a special collar, toy, or blanket to accompany the pet’s body, aquamation providers can keep the item with the pet until the process begins, sometimes even leaving the memento on top of the machine while it works.

When families don’t want blankets or beds returned, the team at Peaceful Pets Aquamation in Los Angeles, California, washes the items and donates them to Operation Blankets of Love, a nonprofit that gives comfortable bedding and blankets to animal shelters.

Steve Sompels, facility manager at Peaceful Pets Aquamation, which began offering pet aquamation in 2013, said giving back is part of the company’s culture. For instance, the organization also donates 5% of aquamation services to an animal shelter or rescue organization chosen by the pet owner and offers a grief hotline for clients.

Many eco-conscious Californians have embraced the concept of aquamation—indeed, the state has been the biggest client for Bio-Response Solutions—and Peaceful



A pulverizer makes “ashes” from the dried bones.



Remains are processed into a fine powder.



Urn packing station for prepared remains.

Sieber believes while aquamation will continue to surge in popularity for companion animals like dogs and cats, the next big trend will be aquamation for horses.

Pets has proved so successful that it was acquired by Gateway Services in 2021.

Peaceful Pets Aquamation serves around 300 animals a day. About 90% of intake comes from animal hospitals, but the company also helps shelters with wild animals like bears and even handles roadkill. “All of the wildlife is communal aquamation—they go in together, and we spread their ashes at sea,” he said.

Rebecca Baker, LCSW, MSW, lead veterinary social worker at Metropolitan Animal Specialty Hospital in Los Angeles, California, said offering aquamation services from Peaceful Pets Aquamation is the practice’s default option. Grief counseling is part of her role, so she’s spoken with many people about aftercare for their pets, particularly clients of the emergency room.

While most people choose aquamation for their pets, often after Baker has explained what it is, some have

opted for burial, cloning, freeze drying, or taxidermy. Others prefer cremation to aquamation because they can use carbon ashes from flame cremation to make a diamond.

But she believes the mental image of aquamation’s slower, gentler process appeals to many people. She’s had clients share that it offered peace of mind to know their pet’s “vessel” was treated gently and respectfully.

“I’m very pro aquamation, and I’m really grateful that it exists,” Baker said. “I’m excited that more people would like to learn about it.” ❄️



Award-winning journalist Jen Reeder is former president of the Dog Writers Association of America. Since researching this article, she now plans to choose aquamation for both her pets and herself.



Urns liked up and ready for engraving.



Example of a special urn, made for a goldfish.



Example of a full package option.

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2022 AAHA Pain Management Guidelines for Dogs and Cats

Executive Summary

Disclosure: These guidelines were prepared by a Task Force of experts convened by the American Animal Hospital Association. This document is intended as a guideline only, not an AAHA standard of care. These guidelines and recommendations should not be construed as dictating an exclusive protocol, course of treatment, or procedure. Variations in practice may be warranted based on the needs of the individual patient, resources, and limitations unique to each individual practice setting. Evidence-based support for specific recommendations has been cited whenever possible and appropriate. Other recommendations are based on practical clinical experience and a consensus of expert opinion. Further research is needed to document some of these recommendations. Because each case is different, veterinarians must base their decisions on the best available scientific evidence in conjunction with their own knowledge and experience.

This executive summary provides selected highlights of the extensive information and recommendations in the guidelines. It is not a replacement for reading the guidelines in their entirety. For the full guidelines, see the AAHA website aaha.org/pain-management or the March/April 2022 issue of *JAAHA*.

These guidelines are supported by generous educational grants from Arthrex Vet Systems, Boehringer Ingelheim Animal Health USA Inc., Elanco, and Zoetis.

by Constance Hardesty, MSc

THESE UPDATED GUIDELINES PRESENT A PRACTICAL AND LOGICAL APPROACH to the assessment and management of acute and chronic pain in canine and feline patients. Diagnostic guides and algorithms are included for assessment of both acute and chronic pain, and pain-assessment instruments for pet owners are described. Expert consensus emphasizes proactive, preemptive pain management rather than a reactive, “damage control” approach. The guidelines discuss treatment options centered on preemptive, multimodal analgesic therapies, with a tiered decision tree that prioritizes use of the most efficacious therapeutic modalities. The benefits of defined pain management roles for each practice team member and the value of client education are also discussed.

Pain management is presented as a therapeutic continuum consisting of assessment, treatment, reassessment, and plan revision. Two concepts underlying this approach are preemptive analgesia to minimize pain onset and nociceptive pathology, and a multimodal treatment strategy to offset over-reliance on any single drug with the attendant risk of side effects. The guidelines reflect that, with respect to chronic pain, most is known about the assessment and treatment of musculoskeletal pain (namely, osteoarthritis). The guidelines are not intended to provide all-inclusive pharmacologic information or a comprehensive review of feline-friendly handling techniques, nor do they attempt to present a comprehensive description of specific painful conditions.

Proactive pain management means understanding when pain may be present, proactively assessing for pain, and educating the veterinary team and pet owners about pain assessment. Ideally, a veterinary technician would serve as case coordinator to educate and engage clients. Patients would be reevaluated regularly or as necessary. To optimize adherence with veterinary

Pain management is a continuum: assessment, treatment, reassessment, and plan revision.



We must switch our focus from damage control pain management to proactive pain management.

recommendations, owners must understand the reasons for early intervention, and therapy should minimize the financial, physical, emotional, and logistical burden placed on caretakers.

Pain Assessment Toolbox

The pain assessment toolbox is based on the following principles:

- The practice team must consciously create a shared approach to pain management and client communication, particularly for the assessment, interpretation, and explanation of acute and chronic pain.
- The physical exam must extend beyond handling to include observation of posture, gait, and behavior.
- Emphasis on behavioral observations, including those reported by the owner, will not increase the time needed for exams.
- Across all principles, the assessment of pain is different between cats and dogs, requiring different tools, observations, and communication techniques.

These principles function with the knowledge that the presentation differs between acute and chronic pain, requiring a distinctly different approach for assessment and communication with pet owners.

For each species, an extensive table summarizes the various pain assessment methods and tools. This is followed by a flow diagram that represents a logical approach to assessing and monitoring acute or perioperative pain and chronic pain.

For cats (Table 1) and dogs (Table 2), the assessment methods and tools used include physical examination, clinic observation, physiological variables, wound palpation, home videos and photos, monitoring activity, and clinical metrology instruments (CMIs). For dogs (Table 2), force plate and pressure-sensitive walkways are also used. For each method or tool, the table indicates whether it is used for acute or chronic pain, who uses it (veterinarian, technician, owner, etc.), ease of use, purpose, and validity.

Flow charts following the tables (Figure 1 for cats, Figure 2 for dogs) provide separate flows for acute and chronic pain. The charts emphasize owner involvement as well as follow-up and reassessment.

Following each set of tables and figures is a discussion of factors that affect pain assessment in cats or dogs and recommendations for implementing pain assessment in practices.

Factors Affecting Cats and Dogs

Pain assessment for cats is based on evidence from physical examination (including observation of behavior), owner input (including that obtained from standardized questionnaires and video), and imaging as indicated. For assessing acute pain and postoperative comfort in the clinic, palpation and CMIs should be used. Although radiographic imaging may be used in diagnosis, when assessing pain, it is important to prioritize the cat's behavior over radiographic findings. Note that, in the clinical setting, pain assessment is affected by the cat's stress level. In contrast to acute pain, owner assessment of behavior has a central role in the detecting and monitoring chronic pain. The guidelines remind veterinarians to recognize the value of their observations throughout a clinic visit when assessing cats, particularly for chronic musculoskeletal pain.

Pain assessment for dogs ranges from functional signs evaluated by owners and physical signs detected by clinicians to physiological signs measured by researchers. In the clinic, acute and perioperative pain assessment includes appetite, observation of demeanor, behavior, and palpation. Musculoskeletal pain (e.g., osteoarthritis) is the most common form of chronic pain in dogs. Observation is a critical part of the veterinarian assessment of chronic pain.

What's New?

These guidelines build on and update the *2015 AAHA/AAFP Pain Management Guidelines for Dogs and Cats*. Changes include:

- A systematic approach to making reproducible pain assessments, including assessment methods and tools.
- A tiered decision tree to help prioritize use of the most efficacious therapeutic modalities for acute and chronic pain.
- Discussion of the evolution of pain management from a reactive intervention to a proactive, preemptive, and multimodal strategy involving the entire practice team.
- Guidance on how pain management should differentiate between canine and feline patients, with emphasis on the feline behavior.

Also included are updates on pharmacologic and nonpharmacologic treatment modalities summarized in easy-to-reference tables and figures.

AAHA welcomes endorsement of these Guidelines by the American Association of Feline Practitioners (AAFP).



Palpation is the most widely used clinical method to detect pain in dogs. Medical imaging can confirm a suspected problem, but joint pain on palpation and radiographic signs of osteoarthritis often correlate poorly. Screening tools and owner responses to open-ended questions can raise issues that warrant specific questions.

Implementing Assessment

Pain scores should be recorded and communicated with veterinarians. Rounds are used to ensure continuity of care and to update pain management. Over the long term, owners can be given screening checklists, with results recorded in the medical record and reviewed at each visit. Palpation of limbs and the spine should be routinely done. Changes over time provide the impetus for changes in pain management.

Pain Management Toolbox

The centerpiece of the pain management toolbox is an extensive, three-tier decision tree for prioritizing use of the most efficacious therapeutic modalities (see Figure 3 with this article). Setting the stage for the decision tree is a brief discussion of guiding principles for developing a therapy plan and for treating (1) acute pain resulting from a known cause and (2) chronic pain.

Key Takeaways

Train and prepare the whole veterinary team to understand and appreciate the procedures and diseases that can be associated with pain, and to proactively manage diseases early.

- Engage the owner as a team member in recognizing and managing pain.
- Use available tools and recommendations to assist with pain assessment.
- Practice preemptive, multimodal management based on a tiered approach to pharmacological and nonpharmacological treatments.
- Re-evaluate patients regularly and adjust treatment plans accordingly.

The tiered decision tree provides a wealth of information in an easy-to-use format. The “tree” resembles a table with three horizontal rows labeled Tiers 1, 2, and 3. Column headings organize the recommendations for cats and dogs, for acute pain of known or unknown origin, and for chronic pain. Within the table, visual cues like different colors are used distinguish pharmacological from other treatments, and icons indicate whether a treatment option provides high impact or places a high burden on the pet owner.

Thus, for example, opioids appear as a Tier 1 pharmacological option for acute pain in dogs and cats, nonsteroidal anti-inflammatory drugs (NSAIDs) appear as a Tier 1 pharmacological option for chronic pain in dogs and cats, and both opioids and NSAIDs are marked as high-impact treatment options.

The tiered approach is based on review of evidence-based veterinary medicine, literature from human medicine, practical considerations, and the clinical experience of the guidelines’ advisory panel.

Tier 1 represents the highest recommendation (with most evidence for effectiveness), although all therapies in the decision tree have some evidence to support their use. Tier 1 treatments are considered the mainstay of pain management. Clinicians may start with Tier 2 treatments, especially in combination with Tier 1 approaches. For example, both NSAIDs (Tier 1) and therapeutic exercise (Tier 2) may be implemented.

Providing greater detail about the recommendations in the decision tree, Figure 3 is supplemented by a discussion of treatments for acute and chronic pain, a pharmacologic update, nonpharmacologic modalities, and special considerations for feline patients.

Recommendations for perioperative pain are clear and direct: An appropriate starting point for every surgery is to plan on using opioids, an NSAID, and local anesthetics, in addition to cold therapy and appropriate nursing care. Local anesthetics are the most effective analgesic available in small animal practice, and they should be used in every surgery.

The pharmacologic update discusses notable changes and addresses persistent myths by drug class. For

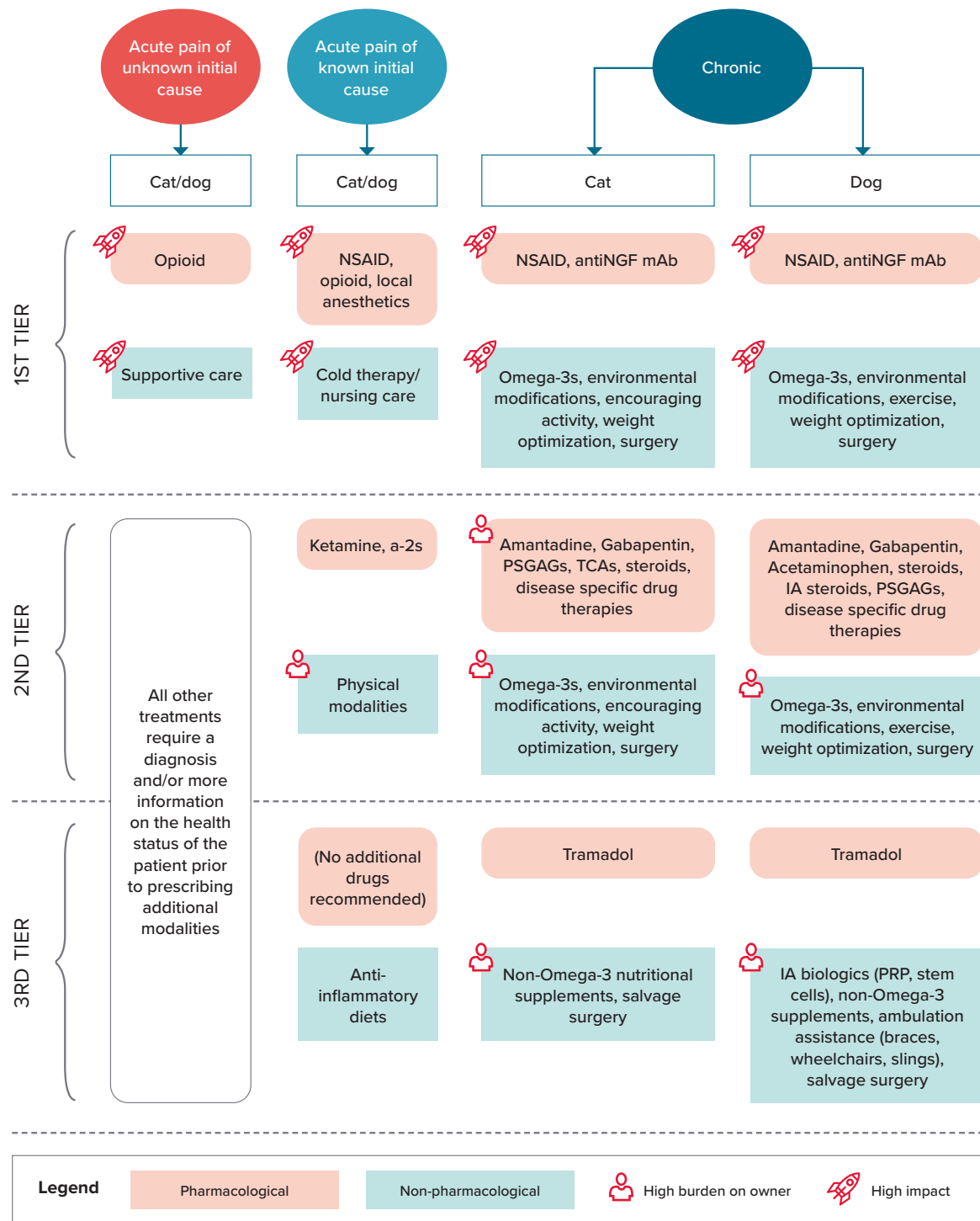


FIGURE 3

Decision Tree for Prioritizing Pain Management Therapies. This figure outlines a tiered approach to pain management in cats and dogs for acute and chronic pain. Tiers are presented from highest recommendation (most evidence for effectiveness) to lowest, although all therapies presented have some evidence to support their use. Physical modalities include laser therapy, pulsed electromagnetic field therapy, acupuncture, and transcutaneous electrical nerve stimulation. Surgical procedures for chronic pain include top-tier treatments such as dental procedures, removal of painful lesions, joint stabilization and replacement, and amputation; lower-tier (salvage) procedures including arthrodesis, denervation, and excision arthroplasty. Anti-NGF mAb, anti-nerve growth factor monoclonal antibody.



Effective, judicious pain management requires a preemptive and multimodal approach.

A comprehensive pain management plan involves all practice team members as well as the family members of the patient.

Here are some strategies from the *2022 AAHA Pain Management Guidelines for Dogs and Cats* that can be used to create successful pain management programs.

Top 5 messages for effective pain management

- 1 Be proactive:** Train the whole veterinary team to recognize the procedures and diseases that can be associated with pain. Emphasize early, preemptive management of diseases.
- 2 Use the available tools and recommendations,** discussed in these Guidelines, to help with pain assessments.
- 3 Engage the owner** as a team member in both the recognition and management of pain.
- 4 Practice preemptive, multimodal management based on a tiered approach** using both pharmacological and nonpharmacological treatments.
- 5 Reevaluate patients** on a regular basis, and adjust treatment plans accordingly.

Roles and Responsibilities for the Practice Team

Veterinary team members care deeply about preventing and treating pain. All team members can be included in pain management plans through concise, efficient messaging and clearly delineated roles. These roles will vary based on a particular practice's needs, but here are some key ways for team members to get involved:



Providing pain-related continuing education for the team.



Developing hospital-specific materials from the AAHA toolbox.



Holding consistent meetings/communication across the team to discuss pain management assessment and protocols.



Scheduling pain-related appointments.



Implementing specific, consistent discharges in relation to pain management plans.



Implementing an acute pain scale and providing in-house education on its use.



Evaluating patients for any pain postures or signs noted upon arrival, at check-in, or during history taking.

In the *2022 AAHA Pain Management Guidelines for Dogs and Cats*, you'll find the most up-to-date recommendations for managing both acute and chronic pain, clinical measurement tools for pain assessment, flow charts to help team members gauge and discuss pain with pet owners, and even more ideas for involving the entire team in a comprehensive pain management program.

example, myths about opioid use in cats and gabapentin for chronic pain in dogs are discussed, and positive developments in local anesthetic techniques are noted.

Because nonpharmacological modalities are critically important, the guidelines advise veterinarians to be prepared with substantiated options. Here the discussion encompasses weight control, diet, exercise, rehabilitation, cold therapy, environmental modification, and acupuncture.

Cats benefit from safe and predictable environments that permit their perception of control to exceed their perception of threat. Thus, the value of treatments that cause anxiety, fear, or frustration must always be weighed against their negative consequences on the human-cat bond.

Practice Team Roles and Responsibilities

To help staff members understand the parts they play in the practice's approach to pain management, they should be given role-specific instructions and training related to implementing an individualized pain management plan for each patient. The guidelines list important roles for team members.

Client Interaction

The client plays an important role by providing relevant patient history, participating in assessment and reassessment, and adhering to treatment recommendations. The guidelines offer several suggestions for client education, instructions, and follow-up. These range from written and verbal instructions on the pain management plan, to education about potential adverse drug effects, to hands-on demonstrations of how to administer medications, especially to cats.

Summary

Practices that implement an integrated approach to pain management ensure that all healthcare team members and their clients understand their respective roles in preventing and controlling pain in their patients and pets. This shared responsibility ensures that effective pain management will be a central feature of compassionate care for every patient. ✨



Constance Hardesty, MSc, is an award-winning writer living in Colorado.

AAHA Pain Management Standards

AAHA has many standards related to pain management. Here are a few:

- Pain assessment must be considered part of every patient evaluation regardless of the presenting complaint.
- Pain management must be provided for the anticipated level and duration of pain.
- Pain management must accompany all surgical procedures.
- Pain assessment using a standardized scale or scoring system should be recorded in the medical record for every patient evaluation.
- Pain management should be individualized for each patient.
- The patient should be reassessed for evidence of pain throughout any procedure that has the potential to cause patient discomfort.
- The practice should provide multimodal options for pain management.





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THE BEST Practices

Whole-Team Communication

How Consistent Team Communication Can Improve the Client Experience

by Kate Boatright, VMD

During a visit to your clinic, whether it be a preventive care, sick, or emergency visit, each team member has an opportunity to positively impact the client experience. If empowered with knowledge and communication skills, they can impact patient outcomes as well.

Strong Communication Benefits Pets and People

Studies in both human and veterinary medicine have shown many benefits of strong communication between clinicians and clients. Strong communication, especially when focused on relationship-building, has been associated with higher client satisfaction after a medical visit. Patient outcomes are also improved owing to higher levels of client adherence. When recommendations are followed, the health and quality of life of the patient is maximized and the bond between pet and owner is strengthened.

Improved client compliance can also benefit the practice. In a 2022 study in the *Journal of the American Veterinary Medical Association (JAVMA)*, projected spending was increased for dog owners who viewed video interactions with veterinarians who had completed a new communication training program. This suggests that clear, relationship-based communication from the veterinarian may increase client spending on pet care owing to increased adherence to recommendations.



Through understanding and elevating the role of each team member in client communication, practices can begin to create a whole-team approach to client communication.

Furthermore, in a profession in which the mental health of veterinarians and their team members can be poor, improved client compliance and patient outcomes may lessen the degree of moral distress and compassion fatigue encountered by veterinary team members. Finally, malpractice claims and board complaints are reduced for clinicians with excellent bedside manner and communication skills, which can also positively impact mental health.

Strong communication between team members also benefits patients and clinic staff. When it comes to patients, clear communication between team members has been shown to help reduce medical errors. It also improves team effectiveness and job satisfaction and reduces burnout. By prioritizing communication training for all team members, veterinary clinics have an excellent opportunity to

enhance the client experience, quality of patient care, and practice culture.

All Veterinary Team Members Play a Role in the Client Experience

Significant emphasis has been placed on the importance of communication skills training for veterinarians. However, many team members interact with clients during their visit. The veterinarian is often not the team member interacting with the client the most. Through understanding and elevating the role of each team member in client communication, practices can begin to create a whole-team approach to client communication.

Client Service Representatives

In many clinics, a client service representative (CSR) is the first team member with whom a client interacts. Initial communication often takes

place over the phone, followed by an in-person interaction at check-in. The CSR influences the tone of the visit, sets expectations as to wait times, and prepares the owner for how the appointment will proceed.

CSRs can expand their role in client interactions by providing initial client education about preventive care recommendations during scheduling and check-in. For instance, when the client is scheduling their appointment, the CSR can review what vaccines the pet is due for, remind the client to bring a fecal sample, introduce the idea of wellness blood work, especially for senior pets, and screen for additional client concerns. This plants the seed in the client's mind that these are important items that should be considered for their pet.

Veterinary Nurses, Technicians, and Assistants

During the appointment, the nursing team often has the most direct contact with clients and patients. Their role in client communication can vary from clinic to clinic and may include taking a history, educating clients on recommendations, discussing estimates and treatment plans, and reviewing discharge instructions. Fully utilizing the skills and training of these team members during appointments can help to improve their sense of wellbeing and job satisfaction.

The veterinary nursing and assistant team should be provided with communication skills training to help build rapport with clients and elicit a full list of concerns for the veterinarian. An assistant or technician who connects with their clients is a huge asset and can help to



During the appointment, the nursing team often has the most direct contact with clients and patients.



Team communication should focus on ensuring all staff members are aware of what is happening with clients and patients throughout the appointment.

bond clients to the practice. They can set the veterinarian up for success by providing detailed information specific to the pet and client.

Members of the nursing team can also improve efficiency by getting preventive care diagnostics started while waiting for the veterinarian to come for the exam. This is, of course, only possible if the clinic has specific guidelines for preventive care, clear communication between team members, and clients who are compliant with recommendations.

Veterinarian

While essential to the visit, the veterinarian is often the last person the client meets. The tone of the visit has already been set by the other team members. The veterinarian's role in communicating with the client includes asking additional history questions, explaining examination findings, and making diagnostic and

treatment recommendations. They play a key role in relationship-building with clients and providing specific client education.

Implementing a Whole-Team Communication Strategy

To successfully implement a whole-team approach to client communication, clinic leadership must create an environment that encourages all staff members to learn and utilize communication skills and engage in client education. Here are three essential components to create a successful whole-team communication strategy.

Communication Skills Training for Team Members

While client communication is a core competency in veterinary education, not all staff members receive communication training prior to joining the team. Even veterinarians who do receive communication training as students may have limited client interactions. Thus, all new hires should be provided with resources about expectations for client communication and opportunities to practice and improve their skills. Clinic leadership can create learning opportunities during regular team meetings, encourage their staff to attend continuing education sessions focused on communication, and provide feedback related specifically to communication skills.

Three key communication skills that should be taught to all team members include:

- **Nonverbal communication:** This accounts for a majority of communication between individuals and includes posture,

facial expressions, and tone of voice. Encouraging staff to be aware of their own nonverbal cues as well as to pay attention to the nonverbal communication of clients to improve their ability to build relationships.

- **Open-ended questions:** These types of questions give clients the opportunity to provide as much detail as they feel is necessary beyond a simple yes or no answer. In a 2011 JAVMA study of veterinarian communication, clinicians who took time to solicit client concerns at the beginning of the appointment were less likely to encounter a new question at the end of the appointment.
- **Listening without interruption:** To maximize the benefit of open-ended questions, veterinarians and team members need to stop and listen to the client without interrupting their answers. In the same 2011 JAVMA study, client responses to open-ended questions about concerns were interrupted 55% of the time. The median length of time until the client was interrupted was a mere 11 seconds. There are many styles of listening that can be utilized to ensure that the client is allowed to share all their concerns, questions, and feelings about the appointment.

Provide Consistent Client Education

In the 2018 AAHA/AVMA Opportunity White Paper, a large gap existed between client and staff perceptions of what was important during a preventive care visit and what occurred during the examination. Clients who hear



Clear communication between team members will help to manage client expectations.

recommendations from multiple team members are likely to realize the importance of the recommendation and be more likely to comply. It is essential that these recommendations be consistent no matter how client communication is occurring—face to face, by phone, virtually, or in writing—or who is delivering the information.

Team members should not just memorize the clinic's preventive care recommendations. They should be provided with the education to understand why these recommendations are important. Developing this understanding allows every team member, no matter their role, to provide basic client education and answer basic questions. Team members who aren't comfortable answering specific questions about a recommendation can direct the owner to ask the veterinarian during the appointment.

Establish Communication Between Team Members

An exceptional client experience relies not only on consistent messaging but also on clear communication between team members, especially between the CSR and nursing teams.

At times, there seems to be an invisible line between “the front” and “the back” of the clinic. CSRs feel underappreciated by the nursing team and veterinarians despite taking the brunt of client anger over wait times, limited availability of appointments, or the expense of the visit. Meanwhile, members of the nursing team are frustrated by the scheduling of appointments, feeling the CSRs don't understand the amount of work they do in each appointment. These frustrations can easily create a barrier to communication that can impact patient visits and overall morale of clinic staff.

Team communication should focus on ensuring all staff members are aware of what is happening with clients and patients throughout the appointment. Clear communication between team members will help to manage client expectations. If the nursing staff and veterinarians are running behind schedule, this should be communicated to the front desk so the CSRs can prepare clients for a longer wait time.

Additionally, a CSR is often the last person your clients see during their visit as they prepare to depart. Having a CSR who is well informed of what happened during the pet's visit, when they are expected back, and if there are test results pending can make a good impression on clients and demonstrate a high level of efficiency in the clinic.

Take-Home Message

Creating a clinic culture that provides communication training, encourages inter-team communication, and empowers all team members to participate in client education is the key to creating a successful whole-team communication strategy. Clients, patients, and veterinary team members will benefit from this holistic approach to client communication. ✨

Kate Boatright, VMD, has been in small animal practice since graduating from the University of Pennsylvania in 2013. After nearly 8 years of full time practice in both general practice and emergency clinics, she moved to part-time clinical work to pursue her passion for educating veterinary

professionals as a freelance speaker and author. She believes deeply in the role of organized veterinary medicine and holds leadership positions in the AVMA and PVMA. In her remaining time, she stays busy chasing her toddler, running, reading, and watching movies with her husband and cats.



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IMPORTANT SAFETY INFORMATION: The most commonly reported adverse reactions include vomiting, decreased appetite, diarrhea, lethargy, polydipsia, and flatulence. **BRAVECTO Chews for Dogs** have not been shown to be effective for 12-weeks' duration in puppies less than 6 months of age. **BRAVECTO Chews** are not effective against lone star ticks beyond 8 weeks of dosing. Fluralaner is a member of the isoxazoline class. This class has been associated with neurologic adverse reactions including tremors, ataxia, and seizures. Seizures have been reported in dogs receiving isoxazoline class drugs, even in dogs without a history of seizures. Use with caution in dogs with a history of seizures or neurologic disorders. Please see full product information on page 48.

Reference: 1. BRAVECTO[®] Chews [prescribing information]. Madison, NJ: Merck Animal Health; 2019.

* **BRAVECTO Chews for Dogs** kills fleas, prevents flea infestations, and kills ticks (black-legged tick, American dog tick, and brown dog tick) for 12 weeks. **BRAVECTO Chews** also kills lone star ticks for 8 weeks.

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 **MERCK**
Animal Health

BRAVECTO[®] PLUS

(fluralaner and moxidectin topical solution) for Cats

Caution:
Federal (USA) law restricts this drug to use by or on the order of a licensed veterinarian.

Description:
Each tube is formulated to provide a minimum dose of 18.2 mg/lb (40 mg/kg) fluralaner and 0.9 mg/lb (2 mg/kg) moxidectin. Each milliliter contains 280 mg of fluralaner and 14 mg of moxidectin.

The chemical name of fluralaner is (±)-4-[5-(3,5-dichlorophenyl)-5-(trifluoromethyl)-4,5-dihydroisoxazol-3-yl]-2-methyl-N-[2-oxo-2-(2,2,2-trifluoroethylamino)ethyl]benzamide. The chemical name of moxidectin is (2aE,4E,5'R,6R,6'S,8E,11R,13S,15S,17R,20R,20aR,20bS)-6-[(E)-1,3-dimethyl-1-but-1-enyl]-5,6,6',7,10,11,14,15,17a,20,20a,20b-dodecahydro-20,20b-dihydroxy-5,6,8,19-tetramethylspiro[11,15-methano-2H,13H,17H-furo[4,3,2-pg][2,6]benzodioxacyclooctadecine-13,2-[2H]pyran]-4',17(3'H)-dione 4'-(E)-(O-methylxime). Inactive ingredients: dimethylacetamide, glycolfuro, diethyltoluamide, acetone, butylhydroxytoluene

Indications:
Bravecto Plus is indicated for the prevention of heartworm disease caused by *Dirofilaria immitis* and for the treatment of infections with intestinal roundworm (*Toxocara cati*; 4th stage larvae, immature adults and adults) and hookworm (*Ancylostoma tubaeforme*; 4th stage larvae, immature adults and adults). Bravecto Plus kills adult fleas and is indicated for the treatment and prevention of flea infestations (*Ctenocephalides felis*) and the treatment and control of tick infestations [*Ixodes scapularis* (black-legged tick) and *Dermacentor variabilis* (American dog tick)] for 2 months in cats and kittens 6 months of age and older and weighing 2.6 lb or greater.

Dosage and Administration:
Bravecto Plus should be administered topically as a single dose every 2 months according to the **Dosage Schedule** below to provide a minimum dose of 18.2 mg/lb (40 mg/kg) fluralaner and 0.9 mg/lb (2 mg/kg) moxidectin.

For prevention of heartworm disease, Bravecto Plus should be administered at 2-month intervals. Bravecto Plus may be administered year-round without interruption or at a minimum should be administered at 2-month intervals beginning at the cat's first seasonal exposure to mosquitoes and continuing until the cat's last seasonal exposure to mosquitoes. If a dose is missed and a 2-month interval between doses is exceeded, administer Bravecto Plus immediately and resume the dosing every 2 months.

When replacing a monthly heartworm preventative product, the first dose of Bravecto Plus should be given within one month of the last dose of the former medication.

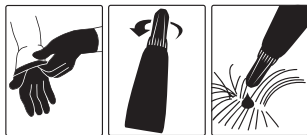
Dosing Schedule:

Body Weight Ranges (lb)	Fluralaner content (mg/tube)	Moxidectin content (mg/tube)	Tubes Administered
2.6 – 6.2	112.5	5.6	One
>6.2 – 13.8	250	12.5	One
>13.8 – 27.5*	500	25	One

* Cats over 27.5 lb should be administered the appropriate combination of tubes.

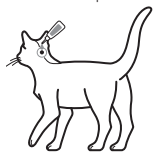
A veterinarian or veterinary technician should demonstrate or instruct the pet owner regarding the appropriate technique for applying Bravecto Plus topically to cats prior to first use.

Step 1: Immediately before use, open the pouch and remove the tube. Put on gloves. Hold the tube at the crimped end with the cap in an upright position (tip up). The cap should be rotated clockwise or counter clockwise one full turn. The cap is designed to stay on the tube for dosing and should not be removed. The tube is open and ready for application when a breaking of the seal is felt.



Step 2: The cat should be standing or lying with its back horizontal during application. Part the fur at the administration site. Place the tube tip vertically against the skin at the base of the skull of the cat.

Step 3: Squeeze the tube and gently apply the entire contents of Bravecto Plus directly to the skin at the base of the skull of the cat. Avoid applying an excessive amount of solution that could cause some of the solution to run and drip off of the cat. If a second spot is needed to avoid run off, then apply the second spot slightly behind the first spot.



Greasy, oily, or wet appearance may occur at the application site in some cats.

Contraindications:
There are no known contraindications for the use of the product.

WARNINGS:

Human Warnings:
Not for human use. Keep this and all drugs out of the reach of children.

Do not contact or allow children to contact the application site until 2 hours post application.

Keep the product in the original packaging until use in order to prevent children from getting direct access to the product. Do not eat, drink or smoke while handling the product. Avoid contact with skin and eyes. If contact with eyes occurs, then flush eyes slowly and gently with water. If wearing contact lenses, eyes should be rinsed first, then remove contact lenses and continue rinsing, then seek medical advice immediately. Wash hands and contacted skin thoroughly with soap and water immediately after use of the product. If the product accidentally contacts skin and a sticky residue persists after washing, rubbing alcohol (70% isopropyl alcohol) can be applied to the area to remove the residue.

The product is highly flammable. Keep away from heat, sparks, open flame or other sources of ignition.

Precautions:
For topical use only. Avoid oral ingestion (see **Animal Safety**).

Fluralaner, one of the ingredients in Bravecto Plus, is a member of the isoxazoline class. This class has been associated with neurologic adverse reactions including tremors, ataxia, and seizures. Neurologic adverse reactions have been reported in cats receiving isoxazoline class drugs, even in cats without a history of neurologic disorders. Use with caution in cats with a history of neurologic disorders.

Use with caution in cats that are heartworm positive (see **Animal Safety**).

Bravecto Plus has not been shown to be effective in kittens less than 6 months of age.

The safety of Bravecto Plus has not been established in breeding, pregnant, and lactating cats.

The effectiveness of Bravecto Plus to prevent heartworm disease after bathing or water immersion has not been evaluated.

Adverse Reactions:
In a well-controlled U.S. field study, which included a total of 176 treated cats (135 with Bravecto Plus and 41 with a monthly topical active control), there were no serious adverse reactions.

Percentage of Cats with Adverse Reactions (AR) in the Field Study

Adverse Reaction	Bravecto Plus Group: Percent of Cats with the AR During the 120-Day Study (n=135 cats)	Active Control Group: Percent of Cats with the AR During the 120-Day Study (n=41 cats)
Vomiting	5.9%	12.2%
Alopecia (not at application site)	5.2%	2.4%
Pruritus	4.4%	12.2%
Application site pruritus	4.4%	4.9%
Diarrhea	3.7%	7.3%
Lethargy	3.7%	9.8%
Dry Skin	3.0%	0.0%
Elevated alanine aminotransferase (ALT)*	3.0%	0.0%
Hypersalivation	1.5%	1.5%
Application site alopecia	0.7%	0.0%

*ALT was greater than twice the upper reference range of 100 IU/L. These cats also had mild elevations of aspartate aminotransferase (AST) [less than twice the upper reference range of 100 IU/L]. No clinical signs associated with liver disease were noted in these cats.

In well-controlled laboratory effectiveness studies, the following adverse reactions were seen after application of Bravecto Plus: pyrexia, tachypnea, mydriasis, pruritus, scabbing, and bloody stool.

Foreign Market Experience: The following adverse events were reported voluntarily during post-approval use of the product in cats in foreign markets: polydipsia, swelling of chin and lips, periorbital swelling, blepharospasm, pruritus, erythema, aggression, agitation, pyrexia, mydriasis, hypersalivation, hyperactivity, alopecia, and excessive grooming. These adverse events occurred within 48 hours of administration.

In a European field study for fluralaner topical solution for cats, there were three reports of facial dermatitis in humans after close contact with the application site which occurred within 4 days of application. In foreign market experience reports for Bravecto Plus, one veterinarian experienced tingling and numbness of the fingers, hand, and arm, and swelling of the hand and arm after getting Bravecto Plus on her fingers. Additional signs, including blurred vision and disorientation, occurred after taking an antihistamine.

To report suspected adverse events, for technical assistance or to obtain a copy of the Safety Data Sheet (SDS), contact Merck Animal Health at 1-800-224-5318. Additional information can be found at www.bravecto.com. For additional information about adverse drug experience reporting for animal drugs, contact FDA at 1-888-FDA-VEITS or online at <http://www.fda.gov/reportanimalae>.

Clinical Pharmacology:
Peak fluralaner concentrations are achieved between 3 and 21 days following topical administration and the elimination half-life ranges between 11 and 18 days. Peak moxidectin concentrations are achieved between 1 and 5 days following topical administration and the elimination half-life ranges between 20 and 30 days.

Mode of Action:
Fluralaner is for systemic use and belongs to the class of isoxazoline-substituted benzamide derivatives. Fluralaner is an inhibitor of the arthropod nervous system. The mode of action of fluralaner is the antagonism of the ligand-gated chloride channels (gamma-aminobutyric acid (GABA)-receptor and glutamate-receptor).

Moxidectin is for systemic use and is a semisynthetic derivative of nemadectin, belonging to the milbemycin group of macrocyclic lactones. It binds to gamma-aminobutyric acid (GABA) and glutamate-gated chloride channels of the nerves and muscles of the parasite resulting in hyperpolarization, paralysis and death.

Effectiveness:
In two well-controlled laboratory studies, Bravecto Plus was 100% effective against induced heartworm infections when administered 2 months prior to infection. Bravecto Plus was not effective when administered more than 2 months prior to infection.

In well-controlled laboratory studies, Bravecto Plus was effective against naturally and experimentally induced adult and experimentally induced 4th stage larval and immature adult *Toxocara cati* and *Ancylostoma tubaeforme* infections in cats.

In a well-controlled laboratory study, Bravecto Plus killed 100% of fleas within 12 hours after treatment and reduced the numbers of live fleas on cats by >99% within 12 hours after treatment or infestation for 2 months. In well-controlled laboratory studies, Bravecto Plus demonstrated >90% effectiveness against *Dermacentor variabilis* 48 hours after treatment or infestation for 2 months but failed to demonstrate ≥ 90% effectiveness beyond 2 months. In well-controlled laboratory studies, Bravecto Plus demonstrated ≥ 98.1% effectiveness against *Ixodes scapularis* 48 hours after treatment or infestation for 2 months.

Animal Safety:
Margin of Safety Study: In a margin of safety study, Bravecto Plus was administered topically to 9- to 13-week-old (mean age 12 weeks) kittens at 1X, 3X, and 5X the maximum labeled dose of 93.0 mg fluralaner/kg and 4.7 mg moxidectin/kg at three, 8-week intervals (10 kittens per group). The kittens in the control group (0X) were treated with mineral oil. There were no clinically-relevant, treatment-related effects on physical examination, body weights, food consumption, clinical pathology (hematology, clinical chemistries, coagulation tests, serum amyloid A, and urinalysis), gross pathology histopathology, or organ weights. Single incidences of self-limiting hypersalivation in three kittens (one kitten in the 1X group and two kittens in the 3X group) and pruritus at the administration site in one kitten in the 1X group were observed on the day of dose administration. Cosmetic changes at the application site included matting/clumping/spiking of hair, wetness, or a greasy appearance.

Oral Safety Studies: In an oral safety study, one dose of Bravecto Plus was administered orally to 4- to 9-month-old kittens at the maximum labeled dose of 93.0 mg fluralaner/kg and 4.7 mg moxidectin/kg. The kittens in the control group were administered saline orally. There were no clinically-relevant, treatment-related effects on physical examination, body weights, food consumption, or clinical pathology (hematology, clinical chemistries, coagulation tests, serum amyloid A, and urinalysis). Five of six treated kittens experienced hypersalivation. One treated kitten experienced vomiting 2 hours after administration and another 8 hours after treatment. Treated kittens had reduced food consumption on the day of treatment.

In an oral safety study for fluralaner topical solution for cats, four out of six cats experienced coughing immediately after oral administration of the maximum labeled dose of 93.0 mg fluralaner/kg.

In a pilot oral safety study, adult cats orally administered 0.5X or 1X the maximum labeled dose of Bravecto Plus had foaming hypersalivation for up to five minutes and reduced food consumption on the day of dosing. One cat exhibited transient lacrimation from one eye during the first 15 minutes after dosing.

Safety in cats infected with adult heartworm (*Dirofilaria immitis*): Bravecto Plus was administered topically to cats infected with adult heartworm at 1X or 3X the maximum labeled dose of 93.0 mg fluralaner/kg and 4.7 mg moxidectin/kg (9 cats per group). The cats in the control group (0X) received mineral oil topically. Two untreated cats were found dead prior to dosing. There were no clinically-relevant, treatment-related effects on body weights, clinical pathology (hematology, clinical chemistry, and coagulation profile), gross pathology or histopathology. Self-limiting hypersalivation due to grooming was observed on the day of treatment in both treatment groups (6/8 cats in the 1X group and 7/8 cats in the 3X group). In addition, three treated cats (2/8 cats in the 1X group and 1/8 cats in the 3X group) developed adverse neurologic signs during the study and were euthanized due to quality-of-life concerns. Clinical signs in one cat in the 1X group included vomiting, depression, vocalization, and ataxia 38 days that included ataxia, paresis, and muscle tremors 25 days after dosing. A cat in the 3X group exhibited depression, dehydration, a hunched position, and inability to stand 22 days after dosing. Heartworms were found in the epidural space in the second cat of the 1X group and the cat in the 3X group.

Field Safety Study: In a well-controlled field study, Bravecto Plus was used concurrently with other medications, such as vaccines, anthelmintics, antibiotics and steroids. No adverse reactions were observed from the concurrent use of Bravecto Plus with other medications.

Storage Conditions:
Do not store above 77°F (25°C). Store in the original package in order to protect from moisture. The pouch should only be opened immediately prior to use.

How Supplied:
Bravecto Plus is available in three tube sizes to treat cats ranging in weight from 2.6 lb – 27.5 lb (1.2 kg to 12.5 kg). Each tube is packaged individually in a pouch. Product may be supplied in 1 or 2 tubes per carton.

Approved by FDA under NADA # 141-518

Rev: 08/2019



How Telehealth Crept Up on the Profession

Reluctance Gives Way to Normalization

by Tony McReynolds

“I was never a big fan of it,” said Lee Allen, director of operations at AAHA-accredited Happy Tails Emergency Veterinary Clinic in Greensboro, North Carolina.

He’s talking about telehealth.

Or maybe a better way to put it is that Allen was interested in the possibilities of telehealth pre-pandemic but had several reservations. He was initially reluctant to adopt telehealth because he thought most of the available platforms were geared toward an “ask Dr. Google” model, plus he had issues with a lack of audits and controls with those models and felt they were totally separate from the clinic model.

He changed his mind and became an enthusiastic adopter during the pandemic—largely because those models had improved dramatically, he said. And in addition, Happy Tails had special needs.

Strictly an emergency hospital, Happy Tails is open Monday through Friday from 6 p.m. to 8 a.m. and 24 hours Saturday and Sunday. They had no one covering the phones weekdays when they were closed. And the phones were ringing off the hook when they were open.

“Our CSRs were getting overloaded due to sheer call volume,” Allen said. “Historically the traditional model in the vet clinic is, if the CSRs can’t get



Six months into lockdown, the Happy Tails medical team was spending anywhere from one to three hours a day being pulled away from medical care to answer phones.

to the phones when they're ringing, somebody else tries to pick up, whether it's management, the medical support team, the owners—whoever's there."

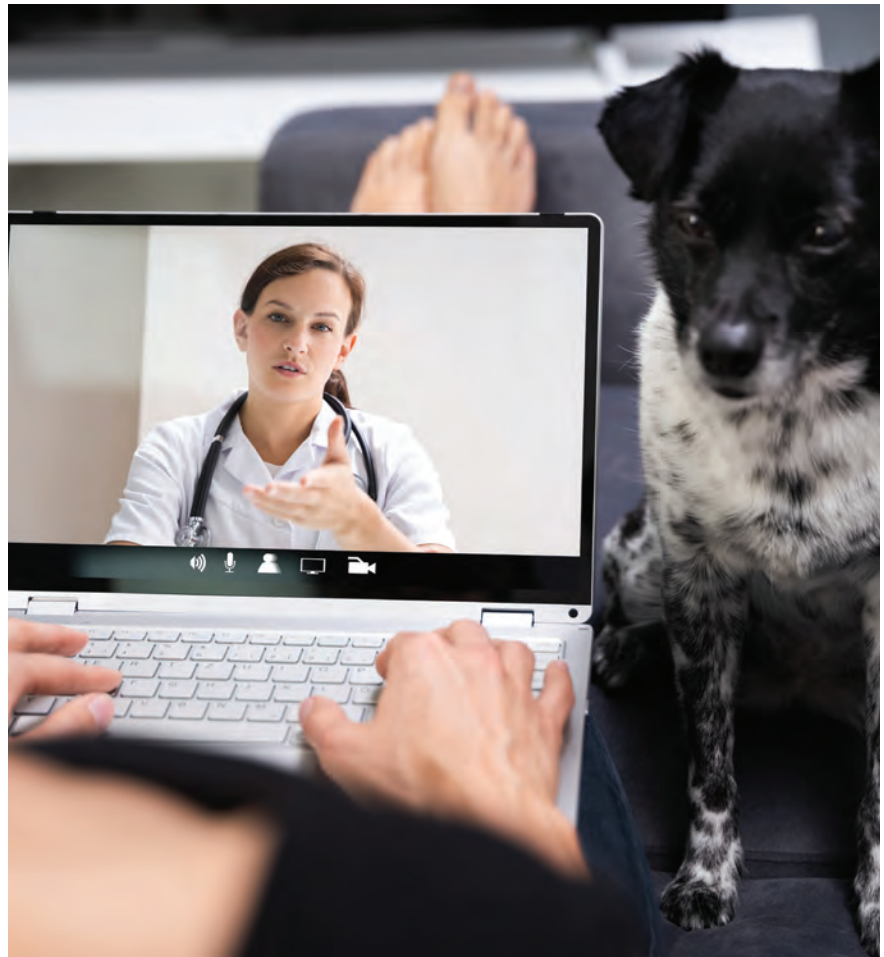
That was hard on everybody, particularly the medical team. "Our medical team was getting stressed out because they were having to stop their work on patients in order to answer the calls."

And those calls weren't 30-second calls, Allen noted: "It's always anywhere from one minute to five minutes." When he added up the amount of time that the medical team was spending answering incoming calls, he was horrified: Six months into lockdown, the Happy Tails medical team was spending anywhere from one to three hours a day being pulled away from medical care to answer phones. "That alone made the decision."

Happy Tails hired GuardianVets, a Chicago, Illinois-based veterinary telehealth platform staffed by credentialed veterinary technicians, to handle their overflow calls.

"If nobody picks up after three rings, our system forwards the call to GuardianVets and they triage for us," Allen said. The phone are set to forward calls 24 hours a day, whether Happy Tails is open or closed. Allen noted they're averaging 600 to 700 overflow calls a month.

"Now my medical team is not answering incoming calls, so they're able to spend that time taking care of the patients instead of getting caught on the phone," Allen said. "That has been wonderful."



"In some appointments, people just have a lot of questions. They take a lot of time. Telehealth is a good mechanism for that."

—KRISTINE MORTIMER, DVM

And once Happy Tails adopted telehealth, they didn't hold back.

The practice also uses Slack, an interoffice communication platform that integrates with third-party telehealth platforms, including GuardianVets. "That has been awesome because Slack is loaded on everyone's mobile devices, so we can communicate with [all our] telehealth services through them." Those other platforms include a texting platform to communicate directly with pet owners, and a teleradiology service.

And Happy Tails is preparing to implement yet another telehealth service that will add virtual rechecks and consults to their toolbox, but Allen said that's on hold for the moment because he doesn't want to overwhelm staff as it will involve a steep learning curve at a time when time itself is at a premium.

He said the new service won't replace the other telehealth services but rather complement them. "It's another piece of the telehealth puzzle."

John Dillon, founder and CEO of GuardianVets, is well aware of Allen's pre-pandemic reservations about the efficacy of telehealth platforms. "We thought pet owners would love flashy new apps," he said. But they thought wrong. "Pet owners had app fatigue."

But Dillon said telehealth providers learned to adapt during the pandemic, figuring out how to evolve to meet the needs of veterinary practices. Triage has proved one of the greatest needs: "Daytime overflow support and our afterhours triage services are growing quickly and helping many practices across North America that are overwhelmed and burned out."

Different Platforms

Not all practices that adopted telehealth during the pandemic use dedicated veterinary telehealth platforms.

Heike Mayes, practice manager at AAHA-accredited Green Lake Animal Hospital in Seattle, Washington, said they didn't have any misgivings about telehealth: "It had always been on our radar," she said. "We just didn't know how our clients would accept it."

Green Lake adopted telehealth a year and a half ago when COVID was in full swing, they were doing curbside, and—like most practices—they were overwhelmed. And, as it turned out, "Our clients love it."

But unlike Happy Tails, Green Lake didn't go with a telehealth provider—they use a free teleconferencing app called Whereby and figured out how to adapt it to telehealth themselves. And clients love it so much that Green Lake has one associate veterinarian,

Kristine Mortimer, DVM, doing telehealth appointments from home full time, five days a week.

Mortimer said she thinks one of the fears that some practices may have about adopting telehealth is that if people get used to telehealth appointments, "they'll stop coming into the practice." In her experience, that hasn't happened.

Mortimer went into the practice on a recent Friday and was surprised at how many clients and patients she'd seen in telehealth appointments had scheduled in-clinic appointments that day. "I was pleased to see that a lot of clients were using all options that were available, not just choosing one over the other."

Mortimer appreciates that not all cases are appropriate for telehealth, and she reviews each day's cases before she starts work. But now and again, one slips by.

"I've had a couple where I've called the hospital and told them, 'This is not going to work.'" Sometimes she knows before she gets on the call, but sometimes she won't know until she's in the middle of the call. "Sometimes when I'm on the call itself, I'll recognize that this is something that really needs to be seen in the clinic."

She said that happens in maybe 5% of cases. One recent example: Green Lake was seeing a lot of kennel cough last winter, which Mortimer calls a pretty good candidate for a telehealth appointment: "It keeps the patient out of the hospital where they might infect other dogs." But a brachycephalic dog with suspected kennel cough was scheduled for a

video appointment. "After I listened to the dog on video, I could tell [the symptoms suggested] pneumonia, and we needed X-rays." She had the client take the dog to Green Lake for an in-person visit.

Mortimer said Green Lake is "still working out" how they best use more telehealth in the practice, and noted that Seattle has a very tech-savvy pet-owner population that appreciates the possibilities of veterinary telehealth. "Our clients like feeling that they're in control." That's been especially true during the pandemic when so much has seemed out of their control.

Mortimer says the biggest advantage of telehealth has been the degree to which it's reduced stress in the hospital. "An emotional burden has been lifted from our staff," she said. She cited the sheer number of cases that don't have to go through the hospital. "No check-ins, no pre-exams, no infectious patients. No having to close off a room for the rest of the day. Telehealth streamlines the process."

And, it gives her more time to spend with clients. "In some appointments, people just have a lot of questions," she said. "They take a lot of time. Telehealth is a good mechanism for that." When the doctor answering those questions is on a video call, a tech doesn't feel rushed. "They're keeping to a schedule, too. It's out of sight, out of mind on some of these telehealth appointments." The techs can focus on the more technical problems. "I don't have to move from room to room. In a half-hour appointment, I can go the full half hour, answering questions with no interruptions."

“I would never be able to have some of those conversations in the clinic,” Mortimer said. “You’re just too rushed.”

Allen feels her pain.

He said that just being able to manage call volume has had a huge effect on moral at Happy Tails. “It’s made things a lot easier. Staff aren’t constantly running around like chickens with their heads cut off.” Allen said that support alone has enabled them to be better in their jobs because it’s helped them

manage workflow efficiencies: “It makes everything much more efficient. Staff isn’t feeling rushed. They feel like they can finish their tasks without interruption.”

And all of that contributes to job satisfaction.

He said it has a very real trickledown effect, and it starts with the medical team taking care of patients. “Now they know that they’re not going to constantly be interrupted. So they can focus on their patients, thereby again increasing our workflow efficiency.”

“And the clients love [telehealth] because there’s all kinds of different platforms for them to feel like they can stay in contact with us,” he added.

Keeping Boundaries

“We still want to have boundaries,” Allen noted.

And he said that’s another powerful advantage of the telehealth platforms available to practices today. “We’re able to keep those boundaries by filtering the communications coming in to us by saying, ‘OK, *this* we don’t have to answer right now; *this* we can answer tomorrow; and *this* we need to answer immediately.’”

“We’re still able to keep those boundaries, but [at the same time we] give the perception to the pet owners that we are available 24 hours a day,” Allen says. “That’s huge.”

Allen plans to keep using telehealth at Happy Tails post-pandemic and he boils it down to three main reasons:

- It increases client satisfaction
- It increases job satisfaction within the team
- It improves their brand

Allen can’t emphasize this last point about improving the brand enough. “We can’t forget this. The client feels more positive energy because we’re meeting their expectations,” he said. “And in the end, from a business owner standpoint, this increases our market share. And ultimately, our revenue, because it drives and directs our business.”

He doesn’t anticipate that changing that anytime soon. “Call volume is not going to go down,” he said.



Telehealth allows practices to provide general advice, education, and—perhaps most important—triage.

“The number one advantage is convenience,” said telehealth expert Lori Teller, DVM, DABVP. An associate professor of telehealth in the College of Veterinary Medicine and Biomedical Sciences, Texas A&M University, and president-elect of the American Veterinary Medical Association, Teller said that clients like telehealth. “Especially for triage situations where they’re not sure if their pet needs to be seen right now, in the next day or two, or is there something that can be done at home and avoid a visit to the veterinary hospital.”

And, Teller added, “We know that clients are willing to pay for this convenience.”

“Veterinarians who have adopted telehealth also like that they can do some rechecks virtually, provide client education through this modality, and help triage cases to avoid unnecessary trips to the ER,” she said. “This alleviates the burden on our ERs, saves our clients money, and keeps the revenue in the practice.”

But What About the VCPR?

Make no mistake, the veterinary-client-patient relationship (VCPR) is still an issue in telehealth, but maybe less than initially thought, said Teller.

“There continues to be lots of discussion about the VCPR,” she said. “[But] for most practitioners providing telehealth services, it is not as dramatic as some would have you believe.”

She believes it’s still important to know both the federal laws regarding

telemedicine and the laws in your state, which can differ.

But that said, “There’s a lot you can do without a VCPR.” Teller mentioned that’s something many practices discovered during the pandemic, “when adopting aspects of telehealth helped many keep their doors open and keep valued employees on staff.” Telehealth allows practices to provide general advice, education, and—perhaps most important—triage.

That’s definitely true of Happy Tails. And while Allen’s enthusiasm for telehealth might be fervent, he’s not alone in his appreciation.

“I don’t want telemedicine to go away,” said Green Lake’s Mortimer. “People have wanted this for a long time.”

She needn’t worry, said Teller. “We’re seeing a decrease of utilization since the peak of the pandemic,” she conceded, but added that its overall uptake and growth will continue, albeit at a slower rate. “I think most practices that have embraced telehealth during the pandemic will continue to utilize it at some level.”

One way or another, said Teller, “Telehealth is most definitely here to stay.” ✖



Tony McReynolds is AAHA's NEWStat editor.



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Date: _____
Client ID: _____ Pet's name: _____
Sex: M F Spayed Neutered Intact
Weight: _____ Thin Normal Overweight
Ideal weight: _____

Behavior/Attitude
 Alert Apathetic Lethargic Shy Other: _____

Coat and Skin
 Appear normal Masses Other: _____
 Dull, itchy/dry Itchy Only Inflamed/irritated Thinning Patchy

Eyes Left Right Both
 Appear normal Aging change: _____
 Discharge Clouds Low tear production Ulcer Other: _____
 Inflammation/conjunctivitis

Ears Left Right Both
 Appear normal Infection Excessive hair Inflamed Wax Other: _____
 Itchy Bacteria Mites

Mouth and Teeth
 Appear normal Ulcers Other: _____
 Gingivitis/inflamed gums Drooling Tumor/bulks Underbite Bleeding gums Badly teeth still present Loose teeth Other: _____
 Missing

Respiratory System
 Appear normal Nasal discharge Other: _____
 Coughing Sneezing Congestion Breathing difficulty

Circulatory System
 Appear normal Abnormal Other: _____
 Murmur Rhythmic Abnormal pulses Pale

Lymph Nodes
 Appear normal Enlarged (circle location) Submandibular Axillary Prepectal Inguinal Other: _____

Schedule next exam: _____

Gastrointestinal System
 Appear normal Tense/painful abdomen Enlarged organs Intestinal parasites Vomiting Other: _____
 Diarrhea

Urinary/Genital Systems
 Appear normal Other: _____
 Abnormal urination Loss of muscle mass Abnormal genitalia

Central Nervous System
 Appear normal Ataxic/coff balance Seizures Other: _____
 Loss of sensation Disorientation

Musculoskeletal
 Appear normal Abnormal gait/posture Loss of muscle mass Other: _____
 Painful Weakness Limping

Today We Did:
 Exam Bloodwork Anal gland expression Urinalysis Vaccinations Tickborne disease test Heartworm test Other: _____
 Fecal parasite test

Recommendations

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Keeping Up with the Bugs

Innovating to Meet the Challenges of Pet Parasites

by Maureen Blaney Flietner

Parasites aren't the most pleasant part of veterinary practice work. Not only must veterinary teams identify and treat for parasites and educate clients, they must also stay vigilant to protect themselves from zoonotic diseases. To make matters more concerning, parasites are spreading, migrating, and showing resistance to certain treatments.

Intestinal parasites continue to be on the rise in the United States, according to Craig Prior, BVSc, CVJ, a board member and past president of the Companion Animal Parasite Council (CAPC). "Every year on CAPC maps, we see more parasites showing up in areas they shouldn't," Prior said. "A lot of this is because parasites are dynamic, ever changing, and on the move. We're also seeing parasite rates go up."

Prior noted a 2019 study by Jason Drake, DVM, DACVM, that revealed increasing prevalence for roundworms and hookworms, and, for the first time, apparent seasonality to canine whipworms.

"We're also seeing resistant hookworms. It started in the greyhound population in Florida and now has moved to the general dog population," said Prior. "The conversation changes when you have resistant hookworms because we don't need to be helping to further that resistance. We as veterinarians should be practicing preventative medicine, preventing



"Every year on CAPC maps, we see more parasites showing up in areas they shouldn't."

—CRAIG PRIOR, BVSC, CVJ, VETERINARY CONSULTANT

disease in not just animals but in humans.”

Ticks also are on the move.

The Asian longhorned tick was reported for the first time in the United States in 2017 in New Jersey. Able to reproduce without mating, it spread rapidly. According to the Centers for Disease Control and Prevention (CDC), the tick is now found in 17 states from Arkansas to New York, and discovered on pets, livestock, and wildlife.

The lone star tick also continues to expand its range and numbers, according to the CDC. It is now found as far north as Maine and as far west as central Texas and Oklahoma. It can transmit several bacteria and other disease-causing agents that can cause, for examples, cytauxzoonosis in cats and ehrlichiosis in dogs.

What can be done? *Trends* reached out to several sources who shared how they are innovating to meet the challenges.

Molecular Diagnostics

In January, Antech Diagnostics launched a molecular testing platform for parasites called KeyScreen GI Parasite PCR.



M. Leutenegger, DMV, BSc, PhD, FVH

PCR (polymerase chain reaction) offers the most sophisticated diagnostic modality for the COVID virus. Antech’s molecular testing modality for

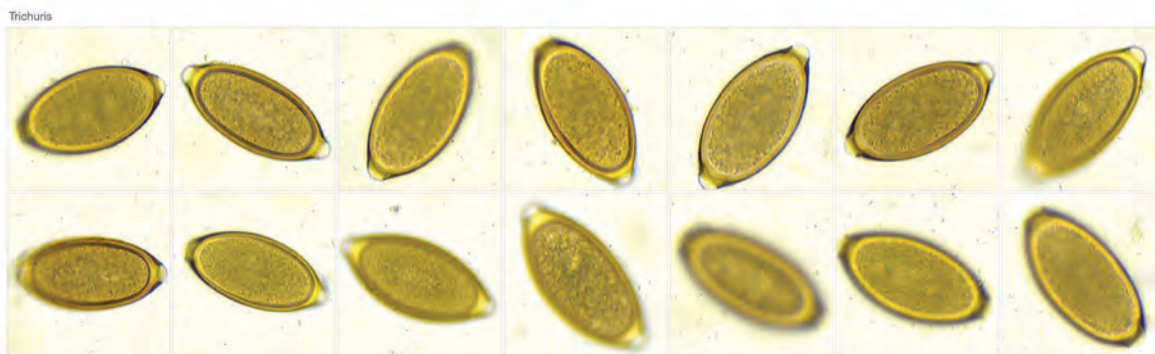
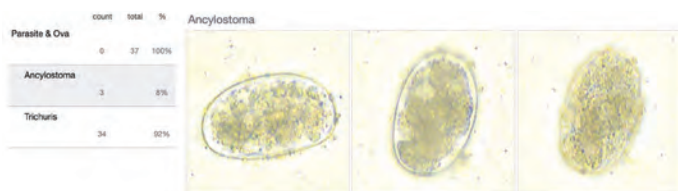
parasites is essentially the same, offering the most sensitive test for parasites, explained Christian M. Leutenegger, DMV, BSc, PhD, FVH, director of molecular diagnostics at Antech Diagnostics.

“Molecular testing is fundamentally different and more sensitive than any other kind of diagnostic testing. It can detect a much broader range of parasites from one small sample. Our test currently detects 20 parasites. It accomplishes this by reading the genetic material, or the DNA/RNA, of a parasite,” said Leutenegger.

The testing platform identifies zoonotic and anthelmintic drug-resistant parasites that have evolved to become a more serious concern, a hallmark being multidrug-resistant hookworms, he explained. It also is the most sensitive test for parasites in veterinary medicine, differentiating round- and tapeworms and identifying important parasites such as *Toxoplasma*, whipworms, protozoa, and coccidia.

Leutenegger said Antech is investing heavily in molecular technologies, which are key for fast and affordable parasite screening in wellness exams. He expected that the most important cost and efficiency benefits for veterinary practices would be:

- Rapid access to highly actionable information that will allow practices to provide effective treatment from the first visit instead of having the pet return months later because they “still aren’t 100%.”
- The ability of veterinarians to practice pharmaceutical stewardship because there is no risk of overtreatment if they



Ancylostoma Trichuris

“Molecular testing is fundamentally different and more sensitive than any other kind of diagnostic testing.”

—CHRISTIAN M. LEUTENEGER, DMV, B.Sc., PH.D., FVH, ANTECH DIAGNOSTICS

know exactly what's there and how to treat it.

- Saving time and resources as the molecular test requires a very small sample—0.15 grams—which can be stored for 10 days after collection. Practice staff can submit the sample without any special preparation and send it refrigerated to the Antech laboratory.

“Veterinary practices are having to serve more patients with fewer resources so the time and resource benefits of the more sensitive test can't be understated,” he explained.

Leutenegger said this innovation will provide a broader database of the prevalence and spectrum of gastrointestinal parasites in pets, a level of differentiation that current diagnostic modalities do not have.

Other than for COVID PCR testing, molecular testing for parasites isn't widely used in human medicine, explained Leutenegger. And while there are more and more PCR tests, turnaround time is often weeks.

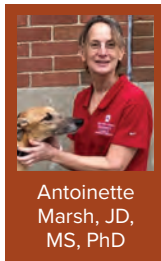
“You could argue that veterinary medicine is once again ahead of human medicine.”

A Hierarchy of Protocols

At Ohio State University, a study of drug-resistant hookworms is innovating by bringing information learned from other areas to companion animals.

“Resistant nematodes are not new. It's not something that sporadically just happened in dogs. We have seen it coming through our understanding of the treatment of livestock and horse parasites. Livestock practitioners

used one anthelmintic, determined lack of efficacy, and then used a combination of different anthelmintic classes with appropriate follow-up testing,” explained Antoinette Marsh, JD, MS, PhD, associate professor of parasitology at Ohio State University. She also chairs the American Association of Veterinary Parasitologists Hookworm Task Force.



Antoinette Marsh, JD, MS, PhD

“Just because a dog is infected with hookworms doesn't mean it is drug resistant. It really means the owner and veterinarian need to work

together to identify if it could potentially be drug resistance or something else because there are effective treatments for GI parasites, including hookworms,” she noted.

“We are seeing treatment successes at Ohio State by following dogs that are initially hookworm fecal positive. We document treatment success through subsequent fecal examinations. Dogs are treated and then, 12 to 14 days later, we get a follow-up fecal. If it cleared, we have success. If it did not, then we check what dewormer was used and if we need to provide additional treatment.”

“There's a hierarchy of protocols we are currently using,” said Marsh, “such as if we need to use a combination therapy of three different classes of dewormers or an alternative treatment. Pablo Jimenez Castro, DVM, associate chair of the task force, provided laboratory-based studies to support this approach.”

If a dog is positive for hookworm

egg shedding, it needs to be monitored and rechecked, she said. Veterinarians also need to learn whether their clients are buying dewormers off the internet and whether they are being sourced from reputable outlets.

Marsh said she sees more challenges ahead. Appropriate health and diagnostic screening need to be done for dogs involved in cross-country or international trips or rehomed after natural catastrophes since some places have parasites other areas do not. In addition, climate change is allowing endo- and ectoparasites to become established in new areas, she noted, pointing out that Ohio now has nine fewer frost days.

Artificial Intelligence

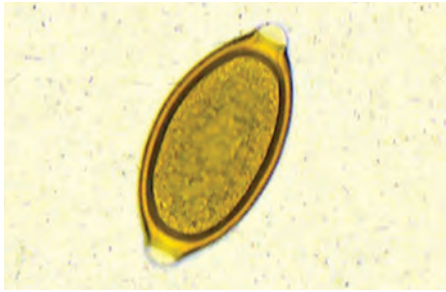
Zoetis' Vetscan Imagyst uses the deep learning of artificial intelligence as its innovation to meet parasite challenges. The first-of-its-kind technology allows for quick identification of specific parasite eggs in fecal samples, thus saving time and effort for technicians.



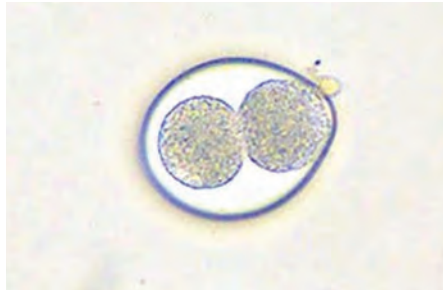
Richard E. Goldstein, DVM, DACVIM (SAIM), DECVIM-CA

“One of the things we have learned from COVID is that time is everything for technicians and veterinarians. And now there is such a shortage of technicians,” said

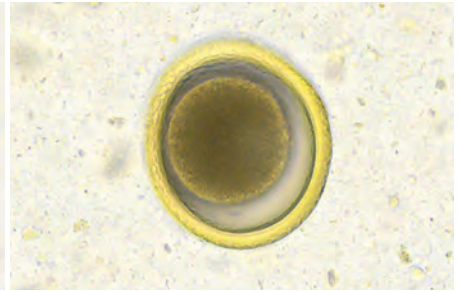
Richard E. Goldstein, DVM, DACVIM (SAIM), DECVIM-CA, vice president and chief medical officer at Zoetis Global Diagnostics, Medical Affairs. “This deep learning algorithm gives us real-time results and saves an estimated 15 minutes for a technician on every sample.”



Trichuris Parasite



Double Cystisospora Parasite



Toxocara Parasite

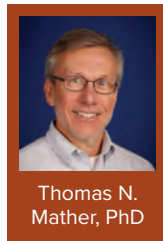
With AAHA recommending frequent testing for parasites, it's a lot for veterinarians to accomplish, said Goldstein. The Vetscan Imagyst can do the fecal at the level of a parasitologist within 10 minutes at the veterinary hospital. It uses a contained sample, with one gram put in a tube for two minutes and one drop put on a slide into the device.

"Five to seven minutes later, the results are in, and you can talk to the owner in real time. If the pet is negative, that's great. If it has giardia, hookworms, roundworms, and such, you can take care of that at the time, helping with compliance issues and giving you back tech time."

The algorithm lives in the cloud, not on the device itself. Upgraded periodically and taught by board-certified parasitologists, the algorithm reviews thousands of identified images to learn to differentiate. It can identify 99% of the parasites seen in the US, said Goldstein.

Just-in-Time Learning

Flipping tick-bite prevention education from a just-in-case approach to a just-in-time approach is the inspiration behind innovative tick efforts this spring.



Thomas N. Mather, PhD

"What we've learned from TickSpotters, our nationwide crowd-sourced tick survey, is that while most people learn about ticks and

tick-bite prevention using just-in-case approaches such as lectures, brochures, and media reports when they actually have a tick encounter, it can be difficult to accurately recall that information," explained Thomas N. Mather, PhD, professor and director of the Center for Vector-Borne Diseases, University of Rhode Island.

He said TickSpotters is a good example because there is never going to be someone more interested in potentially taking action than the person who has just taken a tick off their pet or child. With TickSpotters, a person who encounters a tick, snaps a photo, and submits it then receives the identification and best next actions to take.

The first venture launched this spring is a tick warning sign with a twist—a QR code, a bar code that can be scanned by a smartphone for information.

"Before the pandemic, I would have said that this is stupid because no

one is going to scan a QR code," explained Mather. "Well, we have all learned how to scan a QR code because we were buying takeout food or looking at drink menus. It seems like the timing is right."

A typical tick warning sign may include such unactionable items as wear light-colored clothing.

"Then the person looks down at his blue jeans and says 'Aw, crap. I'm sunk.' Or the sign advises to apply repellants, but no one has brought any along. These are not in-the-moment actions one can take," said Mather.

On the other hand, a QR code on a sign can link a person to the BeReadyForTicks landing page containing prioritized, regionalized information.

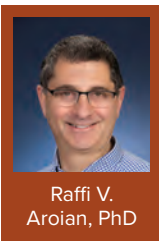
Another just-in-time innovation the team is working on is customizable dog ID tag blanks already etched on the back with a high-resolution BeReadyForTicks QR code. It links owners with best next actions for their most likely scenario—just finding a tick on their pet.

The QR on the tag will guide the owner to confirming the tick's identification but also link the pet's

tick protection with a message for the owner. “You protect me once a month. Now, protect yourself by spraying your shoes with permethrin once a month.”

Paraprobiotics

Safety concerns prompted studies into a new avenue of attack against gastrointestinal nematodes that affect humans and animals—paraprobiotics.



Raffi V. Aroian, PhD

Cry5B IBaCC offers a potentially new product to address the growing threat of gastrointestinal worms in animal and human health.

The engineered

bacterium that safely treats hookworms in animal models now just needs veterinary and human health pharmaceutical development partners to push it forward, according to Raffi V. Aroian, PhD, professor of molecular medicine at University of Massachusetts Chan Medical School.

Aroian, who developed this technology with his colleague and partner Professor Gary Ostroff, PhD, explained that this paraprobiotic is not a small-molecule or chemical anthelmintic but a crystal protein from *Bacillus thuringiensis*, a natural soil bacteria family. Proteins like it from this bacterium have been used for more than 60 years in environmental applications against insects.

Studies of the bacterium show it is nontoxic, effective, stable at room temperature, and easily delivered, and it can be mass produced by a scalable process that can be made inexpensively anywhere in the world, he noted.



Shridula Hegde, first year veterinary student (left); Antoinette Marsh, associate professor (center); and Cristina Iazbik, blood bank staff; who are part of an OSU CVM team investigating drug-resistant canine hookworms, along with Caroline, a recently retired racing greyhound, who is being evaluated for parasite shedding.

Unlike drugs, Cry5B IBaCC works by a different mechanism and has been shown to attack a wide variety of gastrointestinal worms, said Ostroff. He explained that the benefits are provided as a result of worm-selective interactions between the paraprobiotics, the crystal protein payload, and nematode parasite gastrointestinal system.

“While a probiotic is a live microorganism that confers a health benefit when you take it, a paraprobiotic is a dead microorganism that confers a health benefit when taken,” said Aroian. “Even though probiotics are considered safe, within any given population there’s always a population of humans or animals that will adversely react to a live bacterium. Even for the safest probiotics, that’s true. So a paraprobiotic, a dead probiotic, removes that concern.

“When you kill bacteria, you also greatly reduce any concerns about a shelf life. You put a probiotic on a

shelf and it rapidly loses its vitality. If you give a paraprobiotic, it’s already dead. It can’t lose its vitality. It’s a much more stable product on the shelf.”

Another reason for choosing this avenue is because of environmental contamination issues, he noted. “Because the bacterium is dead, it can’t replicate in the environment so you’re not contaminating the environment with live bacteria. You minimize concerns about an avenue of resistance developing, which is always an issue with deworming drugs because they’re excreted into the feces. There’s always a chance with a drug in the environment at suboptimal concentrations that it helps to develop resistant parasites.” ❄



Maureen Blaney Flietner is an award-winning freelance writer living in Wisconsin.

Employee of the Month



From left: Chandler Clouser, Kelli Zortman, CVT, and Sarah Shutt, CVT.

NAME:

Sarah Shutt, CVT, and Chandler Clouser

PRACTICE NAME:

Shiloh Veterinary Hospital, Dover and York, Pennsylvania

OCCUPATION:

Technicians

YEAR STARTED IN VET MEDICINE:

Sarah: 2009, Chandler: 2017

YEARS WITH PRACTICE:

Sarah: 12, Chandler: 4

Each month in Trends, we will spotlight a team member from an accredited practice.

Does your team boast an outstanding veterinarian, veterinary technician, customer service representative, or kennel worker?

Let us know at trends@aaha.org.

Why Are They So Awesome?

Kelli Zortman, CVT (center in the photo), technical director at Shiloh Veterinary Hospital, wrote to *Trends* to nominate two outstanding employees. She writes:

Sarah is a graduate of the Vet Tech Institute of Pittsburgh and started as my surgery assistant many years ago. She has taken the ball and run with it ever since. She is now a surgery technician, treatment technician, our staff schedule manager, AAHA inspection coordinator, and overall a super dedicated employee and a great friend. Sarah is cool as a cucumber and is literally unflappable as a treatment technician!

Chandler came to us from an equine rehabilitation facility with no previous experience with small animals. He has been an absolute sponge, absorbing and learning as much as he can, and has moved right along the ranks as a technician. He is also now an exam room technician and our inventory manager, and he helps set up and execute employee and client social events. He is one of the best writers I have ever met and is definitely my staff-lunch-ordering and audio-visual go-to person for staff meetings. I couldn't do it without him! Chandler also handles drug shortages like a boss and has stepped into a leadership role with more grace than many people do who are twice his age.

How Do They Go Above and Beyond?

These are two of the most dedicated employees I have ever met. They don't hesitate to cover shifts or change their schedules to accommodate the needs of our practice, and they have exceeded my expectations in assisting me with leading our technical team.

We recently switched software programs and I was absolutely amazed at how well they picked up the new program and were able to integrate and assist in teaching our employees all the ropes.

They have both come out of their comfort zones and have become fantastic teachers, coworkers, and most importantly leaders! I wouldn't be able to do my job without them.

In Their Own Words

Why do you love your job?

Sarah: I just really love that I get to be surrounded by animals all day long. I love that we get to advocate for them, care for them, play with them, and even ease their suffering when it is time. I enjoy the variety of our job and that every day is something new and different. We also have the best team, which makes it even better :).

Chandler: That's a loaded question! I love that on a daily basis I'm making a positive impact on other people's lives and developing relationships with fellow team members, clients, and patients. I love that each passing day brings something different, including learning new things and skills and being challenged to improve myself personally and professionally. Quite simply, I love working with the awesome team at SVH doing what we do best—providing high-quality care for our clients and patients!

Favorite celebrity:

Sarah: Paul Walker, and Reese Witherspoon—she's pretty awesome.

Chandler: Adam Sandler! I just think the dude is flat out hilarious! I don't know a single person who has seen a movie starring Adam Sandler and didn't enjoy it.

Pets at home:

Sarah: Three kitties—Oreo, Noelle, and Nora

Chandler: One furry friend named Mittens! She's a six-year-old DSH whose life revolves around food and treats and lots of pets and scratches!

What brought you to the profession?

Sarah: I've always known since I was little that I wanted to work with animals in some capacity. Veterinarian was always the first answer I gave to "What do you want to be when you grow up?" After doing some research in high school, I decided becoming a CVT was the best option for me. Twelve years later, I'm still very happy with my decision.

Chandler: Like the vast majority of fellow Vet Med team members, growing up I always enjoyed caring for animals of all varieties (fish, hamsters, geckos, cats, dogs, and horses). For nearly seven years I worked with horses on almost a daily basis. I eventually was ready for a career change and ended up switching to small animal vet med. I've been working in the field for nearly 5 years now and very much enjoy the day-to-day operations.

Hobbies outside of work:

Sarah: Reading, spending time with family and friends, heading to the mountains

Chandler: I've always been a horror fanatic and very much enjoy horror films, haunted attractions, and escape rooms! I enjoy the great outdoors; more specifically, I've always liked fishing and camping! I'm a huge Orioles and 76ers fan and always try to attend a few games each season. I also very much enjoy spending time with friends and family sharing laughs and creating memories!

Favorite book/TV show:

Sarah: Favorite movie: Sweet Home Alabama!! Books and TV shows change with the times—but let's go with Friends.

Chandler: I've never been a huge fan of reading books. When it comes to my favorite TV show, it's hard to choose just one... The Rookie, 9-1-1, Lonestar, The Resident, and Grey's Anatomy are among my favorites.

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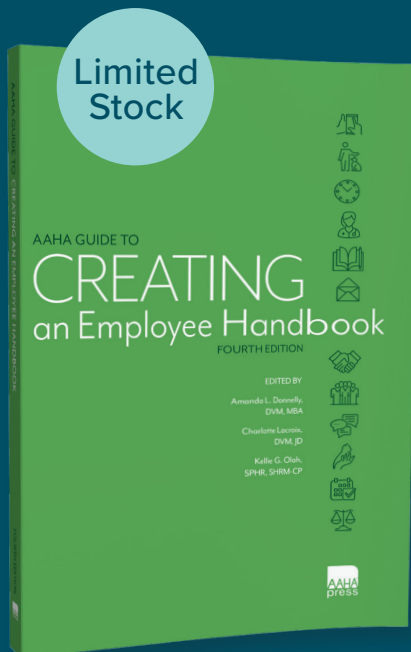
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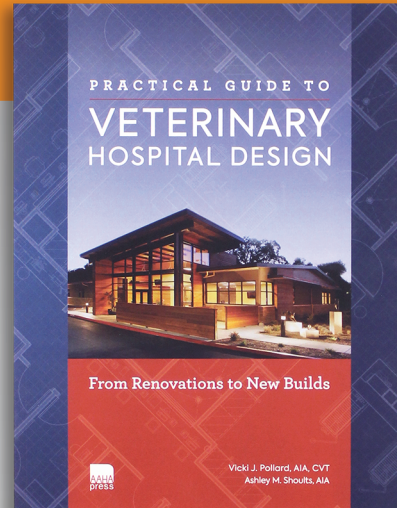
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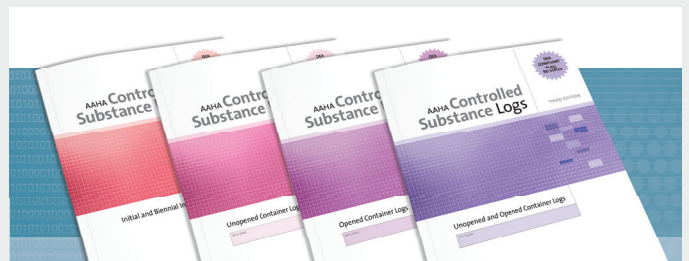
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