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The Cat Issue

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Trends magazine

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How each team member can advocate for itchy cats

by Andrew Simpson, DVM, MS, DACVD

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Dedicated staff, gentle handling, and careful communication are key to success

by Emily Singler, VMD





FROM ACHY TO ACTIVE



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METACAM® (meloxicam) gives you the outstanding flexibility to prescribe your patients the lowest effective dose while still putting powerful osteoarthritis pain relief in the hands of dog owners.^{1,2} Trust METACAM and its proven track record to get your canine osteoarthritis patients back on their paws again.



IMPORTANT SAFETY INFORMATION: METACAM® (meloxicam oral suspension) is for use in dogs only. METACAM (meloxicam) Solution for Injection is approved for use in dogs or cats (not indicated for osteoarthritis in cats). Repeated use of meloxicam in cats has been associated with acute renal failure and death. Do not administer additional injectable or oral meloxicam to cats. As a class, cyclooxygenase inhibitory NSAIDs like METACAM may be associated with gastrointestinal, kidney, or liver side effects. Dogs should be evaluated for pre-existing conditions and currently prescribed medications prior to treatment with METACAM, then monitored regularly while on therapy. Concurrent use with another NSAID, corticosteroid, or nephrotoxic medication should be avoided or monitored closely. For more information, please see full prescribing information.

1. METACAM® (meloxicam oral suspension) [prescribing information]. St. Joseph, MO: Boehringer Ingelheim Vetmedica, Inc.; 2019.
2. METACAM® (meloxicam) Solution for Injection [prescribing information]. St. Louis, MO: Boehringer Ingelheim Vetmedica, Inc.; 2019.

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Brief Summary

Metacam® (meloxicam oral suspension)

1.5 mg/mL (equivalent to 0.05 mg per drop) / 0.5 mg/mL (equivalent to 0.02 mg per drop)
Non-steroidal anti-inflammatory drug for oral use in dogs only

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

Warning: Repeated use of meloxicam in cats has been associated with acute renal failure and death. Do not administer additional injectable or oral meloxicam to cats. See Contraindications, Warnings, and Precautions for detailed information.

Description: Meloxicam is a non-steroidal anti-inflammatory drug (NSAID) of the oxicam class. Each milliliter of METACAM Oral Suspension contains meloxicam equivalent to 0.5 or 1.5 milligrams and sodium benzoate (1.5 milligrams) as a preservative. The chemical name for Meloxicam is 4-Hydroxy-2-methyl-N-(5-methyl-2-thiazolyl)-2H-1,2-benzothiazine-3-carboxamide-1, 1-dioxide. The formulation is a yellowish viscous suspension with the odor of honey.

Indications: METACAM Oral Suspension is indicated for the control of pain and inflammation associated with osteoarthritis in dogs.

Contraindications: Dogs with known hypersensitivity to meloxicam should not receive METACAM Oral Suspension. Do not use METACAM Oral Suspension in cats. Acute renal failure and death have been associated with the use of meloxicam in cats.

Warnings: Not for use in humans. Keep this and all medications out of reach of children. Consult a physician in case of accidental ingestion by humans. For oral use in dogs only.

As with any NSAID all dogs should undergo a thorough history and physical examination before the initiation of NSAID therapy. Appropriate laboratory testing to establish hematological and serum biochemical baseline data is recommended prior to and periodically during administration. Owner should be advised to observe their dog for signs of potential drug toxicity and be given a client information sheet about METACAM.

Precautions: The safe use of METACAM Oral Suspension in dogs younger than 6 months of age, dogs used for breeding, or in pregnant or lactating dogs has not been evaluated. Meloxicam is not recommended for use in dogs with bleeding disorders, as safety has not been established in dogs with these disorders.

As a class, cyclo-oxygenase inhibitory NSAIDs may be associated with gastrointestinal, renal and hepatic toxicity. Sensitivity to drug-associated adverse events varies with the individual patient. Dogs that have experienced adverse reactions from one NSAID may experience adverse reactions from another NSAID. Patients at greatest risk for renal toxicity are those that are dehydrated, on concomitant diuretic therapy, or those with existing renal, cardiovascular, and/or hepatic dysfunction. Concurrent administration of potentially nephrotoxic drugs should be carefully approached. NSAIDs may inhibit the prostaglandins that maintain normal homeostatic function. Such anti-prostaglandin effects may result in clinically significant disease in patients with underlying or pre-existing disease that has not been previously diagnosed. Since NSAIDs possess the potential to induce gastrointestinal ulcerations and/or perforations, concomitant use with other anti-inflammatory drugs, such as NSAIDs or corticosteroids, should be avoided. If additional pain medication is needed after administration of the total daily dose of METACAM Oral Suspension, a non-NSAID or non-corticosteroid class of analgesia should be considered. The use of another NSAID is not recommended. Consider appropriate washout times when switching from corticosteroid use or from one NSAID to another in dogs. The use of concomitantly protein-bound drugs with METACAM Oral Suspension has not been studied in dogs. Commonly used protein-bound drugs include cardiac, anticonvulsant and behavioral medications. The influence of concomitant drugs that may inhibit metabolism of METACAM Oral Suspension has not been evaluated. Drug compatibility should be monitored in patients requiring adjunctive therapy.

Adverse Reactions: Field safety was evaluated in 306 dogs.¹ Based on the results of two studies, GI abnormalities (vomiting, soft stools, diarrhea, and inappetence) were the most common adverse reactions associated with the administration of meloxicam.

The following adverse events are based on post-approval adverse drug experience reporting. Not all adverse reactions are reported to FDA/CVM. It is not always possible to reliably estimate the adverse event frequency or establish a causal relationship to product exposure using these data. The following adverse events are listed in decreasing order of frequency by body system:

Gastrointestinal: vomiting, anorexia, diarrhea, melena, gastrointestinal ulceration

Urinary: azotemia, elevated creatinine, renal failure

Neurological/Behavioral: lethargy, depression

Hepatic: elevated liver enzymes

Dermatologic: pruritus

Death has been reported as an outcome of the adverse events listed above. Acute renal failure and death have been associated with use of meloxicam in cats.

Information for Dog Owners: METACAM, like other drugs of its class, is not free from adverse reactions. Owners should be advised of the potential for adverse reactions and be informed of the clinical signs associated with drug intolerance. Adverse reactions may include vomiting, diarrhea, decreased appetite, dark or tarry stools, increased water consumption, increased urination, pale gums due to anemia, yellowing of gums, skin or white of the eye due to jaundice, lethargy, incoordination, seizure, or behavioral changes. Serious adverse reactions associated with this drug class can occur without warning and in rare situations result in death (see Adverse Reactions). Owners should be advised to discontinue METACAM and contact their veterinarian immediately if signs of intolerance are observed.

The vast majority of patients with drug related adverse reactions have recovered when the signs are recognized, the drug is withdrawn, and veterinary care, if appropriate, is initiated. Owners should be advised of the importance of periodic follow up for all dogs during administration of any NSAID.

Effectiveness: The effectiveness of meloxicam was demonstrated in two field studies involving a total of 277 dogs representing various breeds, between six months and sixteen years of age, all diagnosed with osteoarthritis. Both of the placebo-controlled, masked studies were conducted for 14 days. All dogs received 0.2 mg/kg meloxicam on day 1. All dogs were maintained on 0.1 mg/kg oral meloxicam from days 2 through 14 of both studies. Parameters evaluated by veterinarians included lameness, weight-bearing, pain on palpation, and overall improvement. Parameters assessed by owners included mobility, ability to rise, limping, and overall improvement.

In the first field study (n=109), dogs showed clinical improvement with statistical significance after 14 days of meloxicam treatment for all parameters. In the second field study (n=48), dogs receiving meloxicam showed a clinical improvement after 14 days of therapy for all parameters; however, statistical significance was demonstrated only for the overall investigator evaluation on day 7, and for the owner evaluation on day 14.¹

Reference: 1. FOI for NADA 141-213 METACAM (meloxicam oral suspension).

Approved by FDA under NADA # 141-213

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601413-05/601568-05
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Revised 08/2019

Brief Summary

Metacam® (meloxicam)

5 mg/mL Solution for Injection
Non-steroidal anti-inflammatory drug for use in dogs and cats only

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

Warning: Repeated use of meloxicam in cats has been associated with acute renal failure and death. Do not administer additional injectable or oral meloxicam to cats. See Contraindications, Warnings, and Precautions for detailed information.

Description: Meloxicam is a non-steroidal anti-inflammatory drug (NSAID) of the oxicam class. Each mL of this sterile product for injection contains meloxicam 5.0 mg, alcohol 15%, glycofurol 10%, poloxamer 188.5%, sodium chloride 0.6%, glycine 0.5% and meglumine 0.3%, in water for injection, pH adjusted with sodium hydroxide and hydrochloric acid.

Indications: Dogs: METACAM Injection is indicated in dogs for the control of pain and inflammation associated with osteoarthritis.

Contraindications: Dogs with known hypersensitivity to meloxicam should not receive METACAM Injection.

Warnings: Not for use in humans. Keep this and all medications out of reach of children. Consult a physician in case of accidental ingestion by humans. For IV or SQ injectable use in dogs. All dogs should undergo a thorough history and physical examination before administering any NSAID. Appropriate laboratory testing to establish hematological and serum biochemical baseline data is recommended prior to, and periodically during use of any NSAID in dogs.

Owner should be advised to observe their dogs for signs of potential drug toxicity.

Precautions: The safe use of METACAM Injection in dogs younger than 6 months of age, dogs used for breeding, or in pregnant or lactating bitches has not been evaluated. Meloxicam is not recommended for use in dogs with bleeding disorders, as safety has not been established in dogs with these disorders. Safety has not been established for intramuscular (IM) administration in dogs. When administering METACAM Injection, use a syringe of appropriate size to ensure precise dosing. As a class, cyclo-oxygenase inhibitory NSAIDs may be associated with gastrointestinal, renal and hepatic toxicity. Sensitivity to drug-associated adverse events varies with the individual patient. Dogs that have experienced adverse reactions from one NSAID may experience adverse reactions from another NSAID. Patients at greatest risk for renal toxicity are those that are dehydrated, on concomitant diuretic therapy, or those with existing renal, cardiovascular, and/or hepatic dysfunction. Concurrent administration of potentially nephrotoxic drugs should be carefully approached. NSAIDs may inhibit the prostaglandins that maintain normal homeostatic function. Such anti-prostaglandin effects may result in clinically significant disease in patients with underlying or preexisting disease that has not been previously diagnosed. Since NSAIDs possess the potential to induce gastrointestinal ulcerations and/or perforations, concomitant use with other anti-inflammatory drugs, such as NSAIDs or corticosteroids, should be avoided. If additional pain medication is needed after the administration of the total daily dose of METACAM Oral Suspension, a non-NSAID or noncorticosteroid class of analgesia should be considered. The use of another NSAID is not recommended. Consider appropriate washout times when switching from corticosteroid use or from one NSAID to another in dogs. The use of concomitantly protein-bound drugs with METACAM Injection has not been studied in dogs. Commonly used protein-bound drugs include cardiac, anticonvulsant and behavioral medications. The influence of concomitant drugs that may inhibit metabolism of METACAM Injection has not been evaluated. Drug compatibility should be monitored in patients requiring adjunctive therapy. The effect of cyclo-oxygenase inhibition and the potential for thromboembolic occurrence or a hypercoagulable state has not been studied.

Adverse Reactions:

Dogs: A field study involving 224 dogs was conducted.¹ Based on the results of this study, GI abnormalities (vomiting, soft stools, diarrhea, and inappetence) were the most common adverse reactions associated with the administration of meloxicam.

The following adverse reactions are based on post-approval adverse drug event reporting. The categories are listed in decreasing order of frequency by body system:

Gastrointestinal: vomiting, diarrhea, melena, gastrointestinal ulceration

Urinary: azotemia, elevated creatinine, renal failure

Neurological/Behavioral: lethargy, depression

Hepatic: elevated liver enzymes

Dermatologic: pruritus

Death has been reported as an outcome of the adverse events listed above. Acute renal failure and death have been associated with the use of meloxicam in cats.

Information For Dog Owners: Meloxicam, like other NSAIDs, is not free from adverse reactions. Owners should be advised of the potential for adverse reactions and be informed of the clinical signs associated with NSAID intolerance. Adverse reactions may include vomiting, diarrhea, lethargy, decreased appetite and behavioral changes. Dog owners should be advised when their pet has received a meloxicam injection. Dog owners should contact their veterinarian immediately if possible adverse reactions are observed, and dog owners should be advised to discontinue METACAM therapy.

Effectiveness: Dogs: The effectiveness of METACAM Injection was demonstrated in a field study involving a total of 224 dogs representing various breeds, all diagnosed with osteoarthritis.¹ This placebo-controlled, masked study was conducted for 14 days. Dogs received a subcutaneous injection of 0.2 mg/kg METACAM Injection on day 1. The dogs were maintained on 0.1 mg/kg oral meloxicam from days 2 through 14. Variables evaluated by veterinarians included lameness, weight-bearing, pain on palpation, and overall improvement. Variables assessed by owners included mobility, ability to rise, limping, and overall improvement. In this field study, dogs showed clinical improvement with statistical significance after 14 days of meloxicam treatment for all variables.

Reference: 1. FOI for NADA 141-219 METACAM (meloxicam) 5 mg/mL Solution for Injection.

Approved by FDA under NADA # 141-219

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from the editor's desk

DO YOU LIKE CATS? Good, because this issue is all about the cats. First, we're talking about cats and dermatology, with an article from boarded dermatologist Andrew Simpson, DVM, MS, DACVD. Simpson explains how each member of the practice team can be a champion for cats with skin conditions. Of course, his tips apply for helping your team be cat champions for all types of care, not just dermatology.

Our second feature is about the rewards and challenges of cat-only practices. Enter a world where there are no barking dogs, only the gentle sounds of purring, happy cats, perfectly attuned to their carriers and relaxing nonfractiously as they take in the invisible calming scent of Feliway. Well, it may not be quite that idyllic, but these practices can fill a gap in the often dog-centric world of veterinary medicine and are definitely special places.

Then, boarded dermatologist Alison Diesel, DVM, DACVD, takes us on a deep dive into the "itchy cat." Cats with skin disease present with a different set of reactions than dogs, even if they have the same skin condition. Because after all, cats are their own species, not just *Canis familiaris minimus*.

Thought that was it for cats? Wait, there's more! Technician behavior specialist Sherrie Yuschak, RVT, VTS (Behavior), KPA-CTP, talks about how to improve cat visits by educating clients and overcoming the major barrier to getting cats in the door—fear of the carrier. She even includes a sample carrier training plan that you can give to clients.

We hope you enjoy the *Trends* Cat Issue. What other themed issues would you like to see? Let us know at trends@aaha.org.

WE'VE GIVEN AWAY THOUSANDS OF DOLLARS

You may have heard of our Employee of the Month contest. But have you entered yet? Here is your chance to shine the spotlight on one of your best employees. Completely free to enter, each month's winner of our random drawing wins a gift card from Amazon, courtesy of our friends at CareCredit. If you don't win, don't worry, you can enter again the next month! Enter today at aaha.org/EOTM.

COMING NEXT MONTH

September is Animal Pain Awareness Month, so we will be covering pain management from a couple of different angles, including a community medicine angle and a team-based approach to pain management. We will also have a feature on veterinary social workers and a look at the possibility of using telehealth for dental consultations.

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

—Ben Williams, Editor



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KEYNOTE SPEAKER

Rebecca Heiss, PhD

OTHER SPEAKERS INCLUDE

Ravinder S. Dhaliwal, DVM, MS, DACVIM
(Oncology), DABVP (Canine and Feline)

Peter Weinstein, DVM, MBA



aaha.org/aahacon

View from the Board

Catering to Cats

In this issue we are talking all things feline. So many things have changed with feline medicine and handling since I graduated 20 years ago. I thought I would share some feline-friendly strategies my practice has employed to help improve the patient and client experience.

I expanded the footprint of my practice in 2017. Due to some easements, we created a separate lobby and exam rooms for feline patients. I was an early skeptic of some of the Fear Free recommendations. I wasn't convinced there would be any impact to feline patient stress. But, I was extraordinarily pleased to observe patients that previously required towels and muzzles were now strolling around the exam room rubbing their faces along the cabinets and jumping up into the widened windowsills.

To add upon the feline experience, we put Feliway diffusers in each room, a face scratch pad on the cabinet corner and fleece blankets on the exam tables. We offer "cat-cuterie" plates of Friskies, Churu, spray cheese and Temptations. How much fun to vaccinate a kitten voraciously eating some Churu rather than securing a limb while the kitten wiggles in the assistant's arms! All veterinary assistants and veterinary nurses are trained in low-stress feline handling as part of onboarding.

Moving on to our treatment area, we have a separate feline ward with a Feliway diffuser, fabric covers over the kennel fronts, and cardboard hidey boxes. Our four treatment tables are designated dog or cat to keep dogs out of line of site. We have established kitty stress behavior thresholds where we "call it" and come back another day on gabapentin. Ah, previsit gabapentin, how our veterinary lives have improved since this little trick surfaced.

And how feline medicine has advanced: Nonadjuvanted vaccines, 0.5 mL vaccines, kitty-specific nonsteroidal anti-inflammatory drugs, four-day transdermal

buprenorphine, the University of Montreal/Zoetis Feline Grimace Scale, and a 30-day monoclonal antibody therapy for osteoarthritis in our feline friends. We tailor our feline history questions to help understand what owners are experiencing at home and using it as an opportunity to discuss what is normal and not normal feline behavior. We have so many more tools at our disposal to help pet owners give their kitties their best life.

Lastly, having a knowledgeable and passionate staff member who is a go-to for cat handling, cat care, and cat enrichment really helps drive the feline-friendly experience.

There are several cat owners out there who don't seek veterinary care because their cat "hates the vet" or is "fine." We can start with improving the feline experience so those who do bring their cat to the vet can spread the word on what a positive and essential experience veterinary visits can be.



Lynn Happel, DVM, is a director on the AAHA board. Happel graduated from Michigan State University College of Veterinary Medicine in 2003. In 2010 she decided to open her own practice, and Eastown Veterinary Clinic was born June 1, 2011. Happel's special interest within the field of veterinary medicine is veterinary dentistry.

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:

DOGust First—Happy birthday to all shelter dogs

August 1

International Assistance Dog Week

August 6–12

International Cat Day

August 8

Black Cat Appreciation Day

August 17

Take Your Cat to the Vet Day

August 22



Any Tips for an Upcoming Veterinary Assistant?

Hi everyone! I am almost done with my veterinary assistant certification, and I just got a job as a veterinary assistant! I am also continuing my education to become a veterinary technician! I'm very excited to begin my dream job working with animals and bettering their health and well-being and would love to hear any advice you have for someone just getting started ❤️.

A: Congrats! I think the best advice I was given was to stay humble and it's okay to tell clients that you don't have an answer—but you can get one for them. Everyone has a different level of knowledge and experience so there is no shame in utilizing the resources you have.

A: Congratulations and best of luck to you! Don't forget that client education should play a big part of your goal of bettering the health and well-being of your patients.

A: Continue to be a part of your ongoing success. Ask questions. Never assume. Ask questions and always ask what you can do to help or how to help prepare for the next patient. Always be doing something: learning, cleaning, helping, etc. And don't forget to ask questions :) Best of luck!



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Parodies and Periodontal Disease—Why You Shouldn't Miss Brook Niemiec's Sessions at AAHA Con 2023

By Kristen Green Seymour, AAHA Copywriter

There are rock star specialists—and then there's Brook Niemiec, DVM, DAVDC. Not only is he board-certified in veterinary dentistry in both the American and European Veterinary Dental Colleges, along with being a fellow in the Academy of Veterinary Dentistry, but he's also the director of the San Diego Veterinary Dental Training Center and co-founder of the veterinary dental telemedicine website VetDentalRad.com. Plainly speaking, the man knows his way around a pet's mouth.

And this September at AAHA Con (aaha.org/aahacon), Niemiec will be sharing his knowledge (and his musical talents) with attendees in three sessions that are sure to shake up your approach to and understanding of veterinary dentistry.

"The number one thing that people are always shocked about is that we do almost no surgical extractions in our practice," Niemiec said. In human literature, closed extractions have been proven to be less painful and have fewer complications than the traditional first step used in veterinary dentistry, which is to make a big flap and drill all the bone away, he said. "We have published several articles," he said, "and are working on some more to prove the value of minimally invasive surgery techniques."

But whether dental surgery is common within your practice or not, Niemiec believes there's something for everyone in his session—especially since, as he says, "much of what people have been taught about dentistry in the past is incorrect, [so] everyone will benefit from the most recent research."

Because he did his residency in a private specialty/general practice, he considers himself a general practitioner at heart, and therefore, he said, "I tend to teach in a very general practitioner/technician accessible

manner, so that they can understand exactly what I mean without the big words."

And, he adds, you should probably be prepared to be inspired. "I'm often called the televangelist of vet dentistry," he said.

Something for Everyone in Any Practice

While the importance of learning about minimally invasive extraction techniques can't be overstated, that's far from Niemiec's sole focus. He'll also be addressing some common misconceptions in veterinary dentistry, like the idea the pets will stop eating because of oral disease. "Animals will eat through almost any oral pain," he said.

And it's crucial that all members of the veterinary team understand not only the significant consequences of periodontal disease, he said, but also the true cause. Recognizing this will not only allow technicians and veterinarians to perform better professional care, he said, but will also enable them to select appropriate dental homecare for their patients.

Working in a different specialty? Niemiec hope you'll still pull up a chair. "Even other specialists will benefit from the knowledge of what periodontal disease causes locally and systemically," he said. Plus, he added, "The buzzwords and client communication techniques will aid all members of the practice team in communicating with clients better." Every member of the practice will benefit from the knowledge they'll gain about pain and infection from dental disease, and that will improve compliance with dental recommendations. That compliance won't only improve the patient's health, but also practice income, he said.

When One Guitar Just Won't Cut It

Those who have seen Niemiec speak in recent years or

have followed him on social media know that his teachings aren't the only draw—attendees will also have a front row seat to a couple of fun, toothy takes on well-known songs. And for AAHA Con, he'll be bringing not just one but two guitars to better accompany his musical parodies that reinforce the key points of his sessions, such as:

- Oral pathology: “It’s Your Job to Relieve This Pain” (to the tune of The Police’s “King of Pain”)
- Periodontal disease: “You’ve Gotta Clean Those Low Places” (to the tune of Garth Brooks’ “Friends in Low Places”)

- Extractions: “Bye-bye Little Tooth That Has Died” (to Don McLean’s “American Pie”)
- Radiology: “99-70-45” (to Tommy Tutone’s “867-5309/Jenny”)

Be sure to catch Niemiec’s concert—erm, session—and many others at AAHA Con, taking place September 20–23 at the Manchester Grand Hyatt Hotel in San Diego, where you’ll have the opportunity to take your knowledge to the next level with over 80 hours of medical and nonmedical continuing education.

Notice of Slate of Nominations

AAHA Board of Directors

The following board positions need to be filled upon the completion of AAHA’s conference, AAHA Con 2023, in San Diego, California, on September 20–23, 2023: vice president, and two directors.

The Leadership Identification and Nominating Committee submitted the following nominations:

- Vice President—Parva Bezrutczyk, DVM
- Director—Robert Lawrie, MRCVS
- Director—Gregory Carastro, LVT, CVBL

Note: The nomination period has passed; this information is provided for informational purposes; no further nominations will be accepted.

Eligibility/Additional Nominations

The president, president-elect, and vice president must each be a licensed veterinarian who has been an accredited practice team member for no less than three consecutive years at least six months prior to taking office. The president-elect must have been a board member for at least one year before taking office.

Directors must have been an accredited practice team member for at least three years prior to the election.

AAHA Cat Resources Roundup

Free Guidelines, Calculators, Tools, CE, and More

Feline Guidelines

2021 AAHA/AAFP Feline Life Stage Guidelines

aaha.org/felinelifestage

Including quick reference tables:

- Feline Life Stages
- Life Stage Checklists
- Diseases and Conditions that Require Additional Focus During Examination
- Recommended Diagnostics Based on Life Stage

2020 AAHA/AAFP Feline Vaccination Guidelines

aaha.org/felinevaccination

Including quick reference tables:

- Feline Vaccination Table
- Types of Feline Vaccines and Their Attributes
- Core Vaccines for Pet Cats
- Core Vaccines for Shelter-Housed Cats
- Non-Core Vaccines for Pet Cats
- Not Generally Recommended Vaccines for Pet Cats
- Risk Assessment Variables
- Uses of In-Clinic Serology Testing

Cats Also Appear in...

2023 AAHA Selected Endocrinopathies of Dogs and Cats Guidelines

2023 AAHA Senior Care Guidelines for Dogs and Cats

2021 AAHA Nutrition and Weight Management Guidelines

2019 AAHA Dental Care Guidelines for Dogs and Cats

2018 AAHA Diabetes Management Guidelines for Dogs and Cats

Get full transcripts and resources at aaha.org/guidelines.

Continuing Education

These sessions are RACE-approved for one (1.0) credit hour for veterinarians and veterinary technicians via noninteractive-distance delivery.

A Lifelong Friendship Between Cats, Their People, and Your Practice: Leveraging the 2021 AAHA/AAFP Feline Life Stage Guidelines
aaha.org/felinelifestage

Creating Individualized Feline Vaccine Protocols: Key Points from the 2020 AAHA/AAFP Feline Vaccination Guidelines
aaha.org/felinevaccination

Tools

Feline Lifestyle Assessment Form
aaha.org/felinelifestage

Provide this printable form to cat owners prior to the start of a veterinary visit to improve the efficiency and accuracy of your history-taking.

Lifestyle-Based Feline Vaccine Calculator
aaha.org/felinevaccination

This tool is designed to stimulate conversation between veterinary teams and pet owners, as you work together to create individualized vaccine protocol for feline patients.

Also Available from the AAHA Store

- In-Home Pain Assessment for Cats (English)
- In-Home Pain Assessment for Cats (Spanish)
- AAHA Exam Report Cards
- 101 Essential Tips: Cat Health & Safety
- Feline-Specific Behavior Brochures
- Pet Health Brochures
- Understanding Your Pet's Health: A Visual Guide

Start shopping at aaha.org/store.

Also Available from AAHA Learning

AAHA Nutrition Guidelines Certificate Course

Learn the skills you need to handle both the clinical and the nonclinical aspects of nutrition.

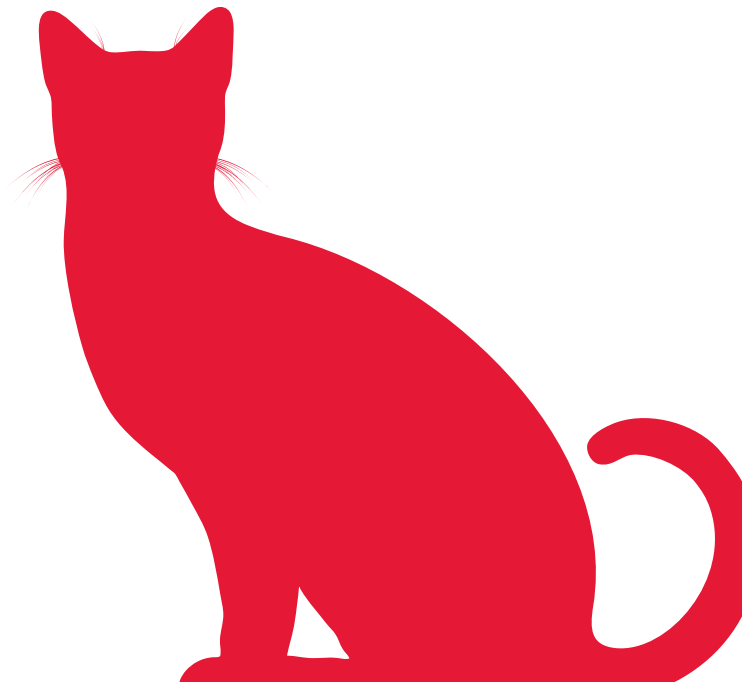
AAHA Anesthesia Safety and Monitoring Guidelines Certificate

Boost the quality of anesthetic care and gain the knowledge you need to build trust with pet owners.

AAHA Pain Management Guidelines Certificate Course

Coordinate your team's approach to personalized, multimodal pain management for every patient.

Get full transcripts and resources at aaha.org/guidelines-certificates.





notebook

Tick Surveillance Key to Tracking Emerging Disease Babesiosis

Babesiosis, an emerging tickborne disease transmitted through the bite of blacklegged ticks, *Ixodes scapularis*, is increasing rapidly in the northeastern United States and is found in the Southeast and Florida, according to the University of Florida's Emerging Pathogens Institute. Scientists have identified more than 100 species of babesia parasites, carried by blacklegged ticks.

"There are human cases [of babesiosis] here in Florida and scattered across the Southeast, but there's very little actual surveillance for babesia species in ticks," says veterinary parasitologist Jeff Gruntmeir, PhD. As an associate of the University of Florida's Emerging Pathogens Institute, Gruntmeir analyzes ticks for disease-causing agents, including babesia.

Babesia parasites infect the red blood cells of humans, which can lead to anemia, jaundice, and dark urine. It can be fatal, particularly among people with compromised immune systems or those with no spleen.

Gruntmeir advises protecting pets against fleas, ticks, and mosquitoes. "The more quickly a blood-feeding insect or arthropod is killed, the less likely it is to transmit infection. Those first 24 hours are really critical."

New Study Looks at Role of Sleep Disruption in Dogs with Dementia

Dogs with dementia suffer the same sleep disruptions that humans with dementia do. In a recent study, researchers from North Carolina State University performed electroencephalography, or EEGs, on elderly dogs to determine whether brain-wave readings during sleep correlated with signs of cognitive decline.

Twenty-eight elderly dogs, 17 females and 11 males, took part in the study. Prior to the sleep study, the dogs had received complete physicals and undergone cognitive testing; their owners had also completed the Canine Dementia Scale (CADES) questionnaire.

The EEG measured four stages of sleep: wakefulness, drowsiness, NREM, and REM. NREM is a deep sleep state prior to REM. The dogs weren't sedated, and the electrodes were affixed to the skull with gel.

The researchers correlated the percentage of time spent in each sleep state with the dogs' scores on cognitive testing and the CADES questionnaire. The higher the dog's dementia score, the less time they spent in NREM and REM sleep.

The work is an important part of establishing baselines for identifying cognitive decline in dogs. The researchers hope that the work can lead to early diagnosis and intervention for elderly dogs with signs of cognitive decline.



QUOTE OF THE MONTH

“The most important thing in life is not what you know but how well you can use what you know.”

—Charles R. Drew, MD, 1904–1950,
Black surgeon and researcher who organized America’s first large-scale blood bank

Healthcare Cost Savings Associated with Pet Ownership

Pet ownership saves \$22.7 billion in annual healthcare costs, according to a report commissioned by the Human Animal Bond Research Institute (HABRI) and funded by a grant from Banfield Pet Hospital.

The report identifies savings from pet owners’ better overall health in the form of fewer doctor visits per year. It also tracks specific savings for key public health issues affecting millions of Americans. These include reduced obesity and infections and better mental health for children, seniors, and veterans.

“This data suggests that there should be stronger societal support for keeping pets and people healthy together,” said Steven Feldman, president of HABRI.

The full report, “The Health Care Cost Savings of Pet Ownership,” is available for download at habri.org/health-care-cost-savings.



First Monoclonal Antibody for Dogs with Osteoarthritis Pain Approved by FDA

The US FDA has approved Librela (bedinvetmab injection), the first monoclonal antibody (mAb) for the control of pain associated with osteoarthritis (OA) in dogs. (In 2022, the FDA approved an mAb for the control of pain associated with OA in cats.)

OA, the most common form of arthritis in dogs, is a degenerative and painful condition of the joints in which the normal cartilage cushion in the joints breaks down. Eventually, the bones in the joint rub against each other, causing pain, decreased joint movement, and sometimes formation of bone spurs or other changes in and around the joint.

OA continues to get worse over time; however, Librela can help control the pain associated with the condition. It is given by subcutaneous injection once a month and is only available by prescription from a licensed veterinarian.

How One Service Dog Helped Her Veteran

The US Veterans Administration (VA) recently described the importance of service dogs in allowing veterans a chance to reunite with their families, head back to school, find renewed enjoyment in life, and significantly reduce their medications. Service dogs can also reduce the number of veterans who die by suicide. By focusing on the relationship



between one veteran and his service dog, provided by K9s For Warriors—the nation’s largest provider of trained service dogs for veterans with posttraumatic stress disorder (PTSD), traumatic brain injury, or military sexual trauma—the VA shows just how impactful service dogs can be.

Quinton, a US Marine Corps veteran, returned home from combat with PTSD that left him feeling anxious and unsafe when doing everyday activities. Desperate to get back to the life he knew, Quinton applied for a service dog from K9s For Warriors.

With a majority of the dogs rescued from high-kill shelters, K9s For Warriors gives a second chance at life not just to veterans, but dogs, too. Quinton’s service dog Moly was rescued after suffering animal cruelty. Despite her past trauma, with K9s For Warriors, Moly began the road to becoming a service dog, regaining her strength and trust in humans.

The day Moly met Quinton she ran into his arms and their bond has been unwavering ever since. Quinton can now go into crowded places without being anxious or nervous. He is excited for the future and says Moly has given him his life back.

Can Human AEDs Work on Dogs?

Researchers at Cummings School of Veterinary Medicine at Tufts University have concluded that human automated external defibrillators (AEDs) can successfully record electrical activity and detect and treat “shockable” rhythms in dogs.

Their study, “Evaluation of automated external defibrillators designed for people in dogs,” was published in the *Journal of Veterinary Emergency and Critical Care*.

The research studied 42 dogs arranged in three groups: (1) healthy dogs with no known arrhythmia, (2) client-owned dogs with known arrhythmia, and (3) client-owned dogs experiencing naturally occurring cardiopulmonary arrest. The study found a readable ECG in all cases. One dog, who was in fibrillation, was successfully defibrillated and discharged home.

“These results concluded that an AED designed for humans can successfully interpret the cardiac rhythm in dogs,

determine if a shockable rhythm is present, and provide appropriate shock advice for the vast majority of dogs,” said lead author of the study, Elizabeth Rozanski DVM, DACVIM, DACVECC, associate professor in Cummings School’s Department of Clinical Sciences.





The ElleVet Project's Latest Veterinary Mobile Relief Tour

The ElleVet Project has announced the return of its summer veterinary mobile relief tour, providing much-needed free veterinary care and supplies to the pets of the unhoused and low-income communities throughout the United States. Since the pandemic, pet ownership has grown and veterinary care has become increasingly difficult to find in vulnerable communities.

The ElleVet Project will treat thousands of pets with vaccines, flea and tick preventatives, deworming, general checkups, and emergency surgeries. It will also provide donated pet supplies to owners.

Collaborating with local city officials and municipalities, the project hosts a rotating team of compassionate and professional veterinarians to provide 100% free veterinary care. The ElleVet Project travels throughout the country treating thousands of pets in unhoused, low-income communities and areas stricken by natural disasters in a 32-foot RV dubbed the "ElleVan." The complete schedule of summer dates and locations is available on the nonprofit's website ellevetproject.org.

FDA Conditionally Approves First Drug for Anemia in Cats with Chronic Kidney Disease

The US FDA has conditionally approved Varenzin-CA1 (molidustat oral suspension), the first drug for the control of nonregenerative anemia associated with chronic kidney disease (CKD) in cats.

CKD is a disease that requires day-to-day management in cats, and nonregenerative anemia is a complication that often contributes to death or euthanasia of affected cats due to poor quality of life. Cats with CKD develop nonregenerative anemia when their kidneys produce less of a hormone called erythropoietin, which helps the bone marrow produce red blood cells.

Varenzin-CA1 works by helping to increase production of erythropoietin in the kidney, which in turn stimulates the bone marrow to produce more red blood cells. The FDA granted conditional approval of Varenzin-CA1 to Elanco US Inc.

NASC Announces Success in Tolerability Study of Cannabidiol Products in Healthy Dogs

The National Animal Supplement Council (NASC) has shared positive results from a recently completed study showing the tolerability of broad spectrum cannabidiol (CBD), broad spectrum CBD with cannabigerol (CBG), and broad-spectrum CBD with cannabidiolic acid (CBDA) products in healthy male and female dogs when given a daily dose for 90 consecutive days.

In the study, healthy dogs (16 males and 16 females) at least 6 months of age were randomly placed into 4 groups and given either the control or one of the broad-spectrum products previously listed. The amount given was 5 mg total cannabinoids/kg body weight/day for 90 consecutive days. Animals were observed daily with detailed clinical examinations conducted weekly. Body weights, food consumption, and clinical pathology evaluations were included in the study as well.

Results showed that cannabinoids were well tolerated when healthy male and female dogs were dosed for 90 consecutive days. No serious adverse events were reported during the study. Based on the data available, the authors concluded that these substances do not pose significant risk to dogs in long-term use.

PetHub’s Veterinary Telehealth Services for Pet Owners Includes AI

PetHub Inc. recently launched its Wellness Tools powered by VetInsight. Subscribers can access a comprehensive AI symptom checker, 24/7 veterinary telehealth services, and a virtual food and treat finder.

The Symptom Checker is an on-demand, AI virtual veterinarian, available 24/7 to search a pet’s symptoms and recommend next steps based on the information provided by the pet owner. The response suggests an in-person trip to the veterinarian or a telehealth conversation based on the urgency of the issue.

Veterinary Telehealth offers unlimited 24/7 access to advice from trustworthy veterinarians via online chat, phone, or email about any new or ongoing concerns about pets.

The Food and Treat Finder Tool provides personalized results tailored to a pet’s physical and nutritional needs.

UC Davis School of Veterinary Medicine Receives \$6 Million Gift from PetSmart Charities

The gift establishing the PetSmart Charities Endowed Chair in Accessible Veterinary Care will enable University of California Davis to continue building innovative, compassionate care for all pets, ensure hands-on clinical training for veterinary students, and develop research models that can scale nationwide.

UC Davis’ School of Veterinary Medicine was chosen to receive the gift for its sustained priority of improving access to veterinary care and integrated approach to student training. Programs at UC Davis reach historically excluded rural and urban communities. UC Davis has delivered innovative, low-cost veterinary care models for years.

According to research commissioned by PetSmart Charities, in the United States, 50 million pets a year lack access to standard veterinary care. Demand for pet healthcare has never been higher, but a shortage in practitioners along with rising costs of veterinary care have created a crisis.

Texas A&M Veterinarians Heal Dog after Life-Threatening Tongue Injury

United States Army soldier Francesca Salinas’s rescued German shepherd, Ranger, was rushed to a veterinary clinic for an injury to his tongue. Doctors suspected that Ranger’s tongue had been stuck inside a toy, leading to a serious amount of necrosis of the tongue’s tissue. The clinic doctors suggested Salinas bring Ranger to Texas A&M University.

“This case was unusual because he [Ranger] was otherwise healthy and just had a freak accident,” said Kelley Thieman, DVM, DACVS (Small Animal), an associate professor at the Texas A&M School of Veterinary Medicine & Biomedical Sciences (VMBS). “This may have been the first tongue resection I’ve ever done for an injury caused by a toy.”

Thieman and another soft tissue surgeon performed the tongue resection in which Ranger lost about half his tongue. He returned home after spending a week recovering and learning how to eat and drink with a smaller tongue. “They were there with me every step of the way and they didn’t



give up on him,” Salinas said. “From the way they treated him, I knew they cared as much as I cared.”



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¹Hall JA, Jewell DE, Vanchina MA, et al. When fed foods with similar palatability, healthy adult dogs and cats choose different macronutrient compositions. *J Exp Bio*. 2018;221.
²Badri DV, Cochrane C-Y, Jackson MI, et al. Feeding Fiber-Bound Polyphenol Ingredients at Different Levels Modulates Colonic Postbiotics to Improve Gut Health in Cats. *Animals*. 2022;12(3):1654.
Badri DV, Cochrane C-Y, Jackson MI, et al. Feeding Fiber-Bound Polyphenol Ingredients at Different Levels Modulates Colonic Postbiotics to Improve Gut Health in Dogs. *Animals*. 2022;12(5):627.
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Cat Champions

How Each Team Member Can
Advocate for Itchy Cats

by Andrew Simpson,
DVM, MS, DACVD



MANAGING SKIN DISEASE IN CATS IS A CHALLENGING ENDEAVOR

to say the least, and it oftentimes takes the help of a dedicated team to bring relief to our feline friends and peace of mind to their loving owners. Skin disease in cats can include allergies, bacterial skin infections, ringworm, parasites, and even immune-mediated causes. Although the general knowledge base along with the creation of an effective diagnostic and treatment plan fundamentally rest in the hands of the veterinarian, the team approach is essential in providing the highest quality of care. Everyone from the client service representatives to the veterinary assistants and technicians can play a vital role.

Client Service Representatives

No matter the presenting question or concern, the front desk staff—or client service representatives (CSRs)—serve as the frontline for the veterinary practice, whether in person or by phone. Many potential or even existing clients may call for a “phone fix” for their cat, looking for guidance on what to do for extreme itchiness or a smelly, dirty ear. It can be tempting to freely give out a Benadryl dose, guide them to a website to order an over-the-counter flea control product, or simply advise the owner to try putting a modified onesie on the cat to help stop self-trauma from creating a half-bald cat. But it is important to realize that this literal call for help serves as a first step on the road to providing a more definitive treatment plan for the patient.



No matter the presenting question or concern, the front desk staff—or CSRs—serve as the frontline for the veterinary practice, whether in person or by phone.

When scheduling an appointment, the miserably itchy cat should not be treated much differently than the vomiting or coughing cat in terms of urgency, as quality of life needs to be taken into consideration. The role of the CSR is to compassionately tell the client, “I’m sorry to hear that Binx is scratching so much, I’m sure he is so miserable. Let me try to find the soonest appointment with the doctor so that we can get him relief.” Moreover, enforcing confidence in the cat owner could include

statements such as, “Our doctor will evaluate Binx, likely run some tests to rule out common causes of skin issues, and have a discussion about options to get him feeling better.” As with any dermatologic case, there may not be a quick and easy “fix,” which supports the need for an appointment with a veterinarian to discuss it in detail. Having clients first exhaust options on their own can undoubtedly lead to increased frustration and an emotional rollercoaster.

Once the patient has been seen at an initial appointment, most cases will need a follow-up appointment to ensure the therapies are working well, particularly during an allergy work-up. During the check-out process, especially if the veterinarian recommends a follow-up visit, the CSR should help guide the pet owner in making that appointment prior to leaving. Simply say: “I’m glad we were able to have Felix come in today to get him feeling better. We want to make sure that we’ve been able to keep him comfortable long-term by rechecking him in two to three weeks. Which day during the week of the 15th would work best for you?”

Finally, CSRs may oftentimes find themselves scheduling an annual check-up for a feline patient for general wellness and vaccinations; however, the owner may need to discuss other concerning issues going on with the pet during the veterinary visit. This can range anywhere from chronic diarrhea, inappropriate urination, and behavioral issues to hair loss, over-grooming, and other skin or ear issues. To help ensure that the scheduled appointment time allows for more discussion and work-up for a dermatologic case (rather than showing up as a “surprise” topic of discussion), it can be helpful to ask the client if there are any specific concerns that they would like to discuss with the doctor during the annual visit and adjust the allotted time accordingly. The amount of time scheduled for wellness visits versus visits requiring a diagnostic work-up varies between veterinary clinics, but having a longer appointment time scheduled can provide the necessary time needed for the entire veterinary staff.

Veterinary Technicians and Veterinary Assistants

In terms of maximizing the veterinary visit for the dermatologic patient, the veterinary technician plays the most important role. All too often, this part of the veterinary team is underutilized during the dermatologic

work-up. The ability of the veterinary technician or assistant to perform certain tasks may vary depending on local and state regulations.

The following roles should be considered during the appointment:

- **Initial intake questions:** A template or typed dermatology-centered questionnaire can either be provided to the owner to fill out in the waiting area or serve as a standardized “script” when interviewing the owner at initial intake. Sample questions include: “When did the itchiness start?” “Does the itchiness occur seasonally or nonseasonally?” “Are other cats or dogs in the house affected?” “Where does your cat seem to focus most in terms of scratching, biting/chewing, licking?” and “When is the last time any flea prevention was applied to your cat?” In most areas of the United States, a brief but informative discussion on the importance of parasite control in cats, particularly fleas and their life cycle, can reinforce this recommendation during the appointment.
- **Recheck questions:** The follow-up visit should involve confirming what medications have been given, how effective the owner feels they are working, and also complimenting the owner not only with following up as directed, but also taking on the challenging task of at-home treatments in a cat.
- **Taking ear and skin cytology:** The act of sampling an ear or affected area of skin for cytology does not require a veterinary degree, although it does involve time and effort on the veterinarian’s behalf to train technicians and assistants on how to perform this skill. Not only does this allow for a more time-efficient appointment, it strengthens the technician’s or assistant’s confidence in explaining the importance of performing ear and skin cytologies to the owner. Having the results of these cytologies even before walking into the exam room can immensely expedite the veterinarian’s conversation with the owner about recommendations for treatment or further testing.
- **Interpreting ear and skin cytology:** As with the act of sampling, the process of interpreting ear and skin cytology slides is another skill that can be taught to veterinary technicians and assistants. Ear cytology tends to be subjectively easier to interpret compared to skin cytology, although with proper time and training, many technicians and

assistants can become confident with interpreting skin cytology slides as well. In either case, having a veterinary team member sample for cytology and possibly interpret the slides will allow the attending veterinarian to have more time to discuss expectations and options with the owner during the appointment.



In terms of maximizing the veterinary visit for the dermatologic patient, the veterinary technician plays the most important role.

- **Reviewing medications and offering tricks on how to administer them:** Oftentimes, owners may be overwhelmed with the overload of information at a veterinary visit, especially if skin issues are not the only point of discussion during the appointment. Having technicians or assistants review the labeled medication instructions as well as tricks to giving medications to a cat prior to check-out is an effective way to reinforce the recommendations from the visit and ensure that the owner feels comfortable with at-home care. In many cases (unless treatments are administered in-clinic), the owner is given the major responsibility of carrying out treatment recommendations, but if they cannot follow through, then improving the cat's quality of life will not be achieved.

Nothing can be more frustrating than rechecking a cat with skin issues and finding it has not improved

since the initial visit, especially if this is due to lack of compliance on the owner's part. Bringing relief of itchiness and improving the overall quality of life of the cat can be better accomplished if a veterinary technician or assistant can follow-up with the owner after the initial examination, typically within a week of the appointment. Depending on the owner's comfort level and preference, or the practice's capabilities, this can be achieved through a phone call, an email, or possibly even text messaging with proper documentation of the conversation in the patient's medical record. The modified treatment plan can be communicated through the veterinary technician or assistant based on the veterinarian's recommendations if the cat, for example, is not cooperative with receiving medications, is experiencing side effects from medications, or is not accepting of a diet trial food. The follow-up appointment can be more productive if these problem areas have been addressed beforehand.



There is no doubt that the dermatologic feline patient can be more of a challenge compared to their canine counterparts.

Veterinarians

Formulating and guiding the diagnostic work-up in addition to creating treatment recommendations ultimately depends on the veterinarian, aided by the support staff. There is no doubt that the dermatologic feline patient can be more of a challenge compared to their canine counterparts. For example, the overall clinical presentation of the allergic cat can look very different from the dog, specifically with miliary dermatitis, overgrooming, and the eosinophilic granuloma complex (indolent ulcers, oral granulomas, eosinophilic plaques). All of these clinical presentations should be evaluated for external parasites with flea combing, skin scrapings, and oftentimes trial treatment with broad-spectrum treatment for external parasites (e.g., isoxazolines). For the nonseasonal presentation, a restrictive diet trial with a veterinary prescription diet (hydrolyzed or novel protein/novel carbohydrate) should be fed for eight weeks. Other diagnostics, such as a fungal culture and dermatophyte polymerase chain reaction test, may be needed in cases of alopecia or miliary dermatitis in order to rule out ringworm. For atypical presentations (e.g., nodules, plaques, severe crusting), a skin biopsy may be warranted in order to diagnose the disease more definitively, which then provides a better approach to discussing treatment options and prognosis.

The most important part of the veterinary visit is having the discussion of expectations with skin disease in general. Clients should be made aware that the road to discovering a definitive diagnosis (food allergy, environmental allergy, pemphigus foliaceus, or other) may involve multiple visits and various diagnostic tests or trials, as not every type of skin disease has a “quick and easy” diagnostic that can offer answers by the next day. Furthermore, even in well-managed skin disease such as environmental allergies, flare-ups can occur from time to time, and clients should be made aware ahead of time that adjustments might need to be made. Having these discussions with cat owners at the beginning does not necessarily make the diagnostic road shorter; however, understanding how the process works and what to expect from it can certainly provide a better peace of mind for the owner.

Unless there are other medical concerns going on (e.g., diabetes, heart disease), a tapering course of oral steroids should be considered in many cases of itchiness during



the work-up period to provide faster relief from itchiness in addition to instilling trust in the pet owner that the veterinarian is working to find a solution. Longer-acting steroid injections should be avoided if possible due to safety concerns with congestive heart failure, diabetes, and fragile skin syndrome.

If the initial veterinary visits are not providing enough resolution for the patient or the clinical presentation is beyond the comfort level of the veterinarian, then referral to a veterinary dermatologist should be discussed as an option with the owner. This should be viewed as a partnership, or even a collaborative effort, rather than making it seem to the owner that the veterinarian has “given up” on the case. Open communication with a veterinary dermatologist through email or fax by providing a patient history, pertinent bloodwork, cytology findings, skin culture results, biopsy findings, and treatment results can immensely help streamline the referral process and help the team expedite treatment success. ❄



Andrew Simpson, DVM, MS, DACVD, is a 2009 graduate of the University of Florida College of Veterinary Medicine. He spent four years working as a general practitioner at various VCA animal hospitals in the greater Chicagoland area, then finished his residency in veterinary dermatology along with a master's degree at the Colorado State University College of Veterinary Medicine and Biomedical Sciences in June of 2017. His interests include allergic skin disease, otology (ear disease), immune-mediated skin disease, and cutaneous manifestations of systemic disease.



The Cat-Only Practice

Dedicated Staff, Gentle Handling, and Careful Communication Are Key to Success

by Emily Singler, VMD

THE CAT-ONLY PRACTICE: a place of quiet and tranquility, where high-quality medicine is the norm, cats are always well-behaved, and clients are always compliant. This is an exaggeration, of course, as no practice is completely immune to the many challenges of practicing veterinary medicine. However, there is often something magical about cat-only clinics. Many of them have very highly trained doctors and staff who are true cat lovers and who know what it takes to keep cats at their healthiest and cat owners who are willing to keep coming back for regular care. None of these are unique to cat-only practices, but they are a big part of helping cat-only practices thrive and grow.

Cat-only practices are still relatively uncommon in the United States. While the total number of cat-only practices is not known, there are currently only 46 AAHA-accredited cat-only practices in the United States. Feline specialists are even less common. As of this writing, there are only 84 active American Board of Veterinary Practitioners (ABVP)-certified feline practitioners nationwide, with only four at AAHA-accredited practices. Many additional professionals are members of the American College of Feline Practitioners, some of which have the Cat Friendly Practice certification (and/or a Cat Friendly Veterinarian/Veterinary Professional/Advocate certification), but these are not limited to cat-only practices.

While the total number of cat-only practices is not known, there are currently only 46 AAHA-accredited cat-only practices in the country.

Trends spoke with three cat-only veterinarians to learn more about their practices, the benefits of cat-only clinics, and how they maintain and grow their practices. Among their stories, several themes repeated themselves: having a dedicated and highly trained staff, using gentle handling techniques, and careful communication with clients.

Cassie Quest

Cassie Quest, DVM, has been the chief of staff at the Cat Hospital of Orlando in Orlando, Florida, for seven years. She reports that while she originally started out in small animal general practice, she was fortunate to learn from an ABVP-certified feline practitioner on the finer points of feline-specific medicine techniques and handling. She remembers having a strong interest in feline medicine even in veterinary school.



“There are far more homeless cats than dogs,” she explains, “and therefore they may be more prone to stress-related diseases from being in a human household.” Quest enjoys seeing how “just changing a small way that the veterinary team approaches the cat patient can change everything.” She saw that cats see the world differently from other species, and she knew that was where she wanted to focus her work.

While some veterinary professionals might assume that fractious patients might be the biggest challenge in cat-only practice, Quest argues that it isn't the biggest obstacle for her. While she does see stressed cats regularly, Quest describes the biggest hurdle to be managing

the stress that the owner feels from the moment they attempt to get their cat in the carrier, drive to the clinic, move through the appointment, and then watch the cat's behavior changes at home afterward. Utilizing Fear Free techniques can minimize stress for both the cat and their owner, which greatly increases the likelihood of them returning regularly for further care. A big part of gentle handling involves having an “amazing feline friendly staff,” she explains, that maintains a quiet, calm environment and encourages cats to willingly participate in their care as opposed to being forced.

Another challenge Quest reports is instructing cat owners as to the proper ways to medicate, feed, and enrich their cats' lives. Many cat owners come in with their own preconceived notions of how to best accomplish these tasks and finding firm but diplomatic ways to redirect them can be difficult. Quest's strategies to work successfully with cat owners include putting herself in their shoes. As a self-described “cat mom,” she spends a lot of time trying to understand the relationship between each owner and their cat to help inform her treatment plan. She uses examples of her cats' behaviors to help clients see how to address their own cats' behavioral concerns. She asks owners about how easy certain husbandry tasks are and shares examples of how she struggles with certain tasks with her own cats.





For those looking to grow their cat-only practice, Quest recommends finding a niche “that you as a practicing veterinarian feel the strongest in and feel you can create good outcomes.” She has chosen to focus on dentistry and behavior, and she sees a lot of referrals in these areas from both clients and other veterinarians.

She has been pleasantly surprised with the dedication of some of her cat-owning clients. This is borne out with the number of cats she sees living into their twenties with a good quality of life, and the opportunities she has had to “crack the code on difficult or unusual cases” in her patients.

Elizabeth J. Colleran

Elizabeth J. Colleran, DVM, MS, DABVP (Feline), the owner of Chico Hospital for Cats in Chico, California, is a spokesperson for the American Academy of Feline Practitioners (AAFP) Cat Friendly Practice initiative. She points out the benefits to both cat owners and cats who visit a cat-only practice.



“Caregivers love that their beloved cats are not as frightened and can cope better in a feline-only practice,” Colleran explains. Cats tend to be less stressed in an environment that is dog-free, and therefore quieter (no barking), less smelly, and just less chaotic in general. She adds that the gentle handling techniques and lower-stress environment also translate to fewer workplace injuries and therefore fewer workers’ compensation claims, a plus for both employees and employer.

Managing a cat-only practice is not without its challenges, according to Colleran. “The community has to be big enough to support a cat-only practice,” she cautions, since not every cat owner will seek out this type of practice. Not all potential investors and financiers will see the benefits of a cat-only hospital either, so writing a good business plan and finding understanding creditors can be very

important. It can also be challenging to hire support staff who are willing to learn and embrace the gentle handling techniques that help a cat-only practice to thrive. Not all potential employees will be on board with this, even if they have years of previous experience working in a veterinary practice.

Once the practice is established and staffed, it can still be challenging to maintain a steady client base and to convince cat owners to return for regular veterinary care. Who among us hasn't heard from a client about a cat who hasn't needed to go to the vet for 10 years (or ever) because they have been "healthy?" This is still a concern for many cat-only practices. Colleran describes a multifaceted approach to this problem: working regularly to improve reminder systems, aiming to prebook appointments in the clinic whenever possible, and prioritizing a positive experience for both cat and owner. "The more successful our interactions are with cats and caregivers," she said, "the more willing they are to come back."

Colleran sees a lot of growth through word of mouth from happy clients who are surprised by their experience when they first visit the practice. She also provides

"Caregivers love that their beloved cats are not as frightened and can cope better in a feline-only practice."

—ELIZABETH J. COLLERAN, DVM, MS, DABVP (FELINE)

community outreach by teaching "cat classes." The practice maintains a website and seeks reviews from happy clients, but she places a heavy emphasis on in-person relationship building, which is necessary to create trust and practice high-quality medicine.

Colleran has some great advice for those wishing to start or grow their cat-only practice. "Instill your values" around gentle handling, showing compassion, communicating well and forming strong relationships, and work to maintain these high standards. She also suggests creating an education plan for each member of the hospital team based on the AAFCO Cat Friendly Practice program. This can increase knowledge of feline medicine, improve handling skills, and hone your communication skills.





Nicole Martell-Moran

Nicole Martell-Moran, DVM, MPH, DABVP (Feline), works as a cat specialist associate veterinarian for the Feline Medical Center in Houston, Texas. She started out treating companion animals and exotic species for her first few years and then transitioned to a cat-only practice, where she served as chief of staff for four years. A self-described cat person, Martell-Moran had always felt like small animal veterinarians and veterinary medical education focused more on dogs than on cats. Once she made cats the focus of her medical and surgical skills, she found feline behavior and personalities to be more “intuitive and predictable” than those of dogs.

Just as others have said, Martell-Moran finds misinformation among clients to be a major challenge in



cat-only practice. She describes how a few “loud online voices...with their conspiracy theories and exaggerated anecdotes” that can sometimes be held up as truth and drown out the vast medical knowledge and experience of veterinary professionals. She particularly sees this type of misinformation related to nutrition, vaccines, and humane euthanasia. Other challenges that she faces include trying to educate clients on the potential secondary effects of declawing cats, which was once considered to be a commonplace procedure. Just as many other veterinary teams do, she also encounters clients who do not wish to pursue diagnostics and/or treatment for their pet for any number of reasons.

To tackle these challenges, Martell-Moran combats misinformation with information from reputable sources to help clients understand why she makes the recommendations that she does. She even designed her own study to document associations between declawing and sequelae such as long-term pain and adverse behavior in cats. She also tries to always offer clients options in terms of diagnostic and treatment plans, recognizing that at some point it becomes the client’s responsibility to decide which course of action they will take.

In addition to gentle handling techniques championed by the AAFP Cat Friendly Practice program, Martell-Moran utilizes soothing music, feline facial pheromones, a towel warmer, treats and catnip, and previsit pharmaceuticals such as gabapentin.

Martell-Moran finds it helpful to remember who the practice's ideal client is and cater to them. For her clinic, their ideal client is "any client that has a concern for their cat and is willing to listen to advice with a kind and open mind." This type of client is usually very astute and interested in preventive care. Since her practice is located near NASA's Johnson Space Center in Houston, many of their clients value "data, details, and documentation."

When asked about strategies to help grow her practice, Martell-Moran emphasizes the importance of offering a spectrum of care options. While one path may be "ideal," it may not be the one that makes the most sense for a particular client. Allowing clients the chance to choose what works best for them can increase trust and bonding to the practice, making them more likely to be a long-term client who recommends the practice to others. She also recommends having a niche to focus on (such as ultrasound and endoscopy, her practice's specialty areas). Many new clients have been referred to the practice because of their specialty expertise in these areas.



Once the practice is established and staffed, it can still be challenging to maintain a steady client base and to convince cat owners to return for regular veterinary care.

ABVP certification is another step that Martell-Moran strongly recommends. This training provides "next-level understanding of cats and the diseases they experience," Martell-Moran explains. "It wasn't easy, but I would do it again in a heartbeat."

For those veterinary professionals who want to focus on cats and their unique needs, who embrace gentle handling techniques, and who value proactive client communication, working in a cat-only hospital may be the right fit. ✧

Further Reading:

- **AAHA/AAFP Feline Life Stage Guidelines:** aaha.org/aaha-guidelines/life-stage-feline-2021/feline-life-stage-home
- **ABVP Feline Practice Category:** abvp.com/vet_specialty/feline-practice
- **AAFP Cat Friendly Practice Program:** catvets.com/cfp/cat-friendly-recognition-programs
- **Pain and adverse behavior in declawed cats:** journals.sagepub.com/doi/full/10.1177/1098612X17705044

Emily Singler, VMD, is a 2001 graduate of Penn State University and a 2005 graduate of University of Pennsylvania School of Veterinary Medicine. She is married with 4 kids and lives in Orlando, Florida. Her career in veterinary medicine has included experience in shelter medicine, private practice, and as a relief veterinarian.



She currently works as a veterinary writer, consultant, and mentor and enjoys writing for both pet owners and veterinary professionals. Her writing interests include public health, preventive medicine, the human-animal bond, and life as a working mom. She is the author of *Pregnancy and Postpartum Considerations for the Veterinary Team*, to be published by CRC Press in late 2023. She also has her own blog, www.vetmedbaby.com. In her free time, she enjoys spending time with family, horseback riding, and all things llama and alpaca.

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Skin Diseases in Cats

Why They Are (Once Again) *Not* Small Dogs

by Alison Diesel, DVM, DACVD

Although it has been said in many different contexts that “cats are not small dogs,” this is particularly true regarding the manifestation of skin disease in cats. The feline patient presents a unique clinical entity in terms of dermatologic abnormalities. In general, their clinical lesions are often more striking, more severe, and more marked regarding level of improvement compared to their canine counterparts. That said, the diagnostic work-up for a pruritic cat can be a bit more confusing than a pruritic dog due to the fact that they will often present with one or more cutaneous reaction patterns associated with dermatologic disease. Additionally, treatment options for whichever condition is identified needs to be weighed and considered differently compared to if the same disease was seen in a dog.

Trying to figure out what is making a cat itchy starts with identifying which reaction patterns are present. Cutaneous reaction patterns are commonly recognized lesions in the feline patient that reflect the skin’s response to various inflammatory stimuli. The reaction patterns themselves are just that: patterns. They do not represent a definitive diagnosis. Although feline cutaneous reaction patterns are often indicative of underlying allergic skin disease, other differentials need to be considered. This should include parasitic and infectious etiologies based on history, other clinical signs present, and core dermatologic diagnostics; other differentials including genetic



Trying to figure out what is making a cat itchy starts with identifying which reaction patterns are present.

Many cats with cutaneous adverse food reactions of food allergies will manifest with head, neck, and pinnal pruritus; however, other causes should be considered prior to initiating a strict hypoallergenic diet trial.

and neoplastic conditions may also necessitate consideration in various circumstances.

This is very different than what is seen in dogs. With certain pruritic dermatoses, very distinct patterns of lesion distribution emerge to guide practitioners on what should be considered first. A good example is flea allergy dermatitis—caudal hind end pruritus is the classic presentation. In cats, however, with any of the reaction patterns, all potential differential diagnoses may be fair game depending on history and other clinical signs.

Identifying Common Cutaneous Reaction Patterns

The common cutaneous reaction patterns in the feline patient include head, neck, and pinnal pruritus (cervicofacial pruritic dermatitis);

self-induced alopecia; miliary dermatitis; and eosinophilic lesions (granuloma, plaque, indolent/rodent ulcer).

With head, neck, and pinnal pruritus, lesions are by and large restricted to the front portion of the cat. From the neck back, the cat will generally appear normal. However, the face, ears, and neck may be marked with excoriation, crusts, alopecia, and erythema. In some cases, pruritus can be so severe that obvious self-trauma is apparent. Many cats with cutaneous adverse food reactions of food allergies will manifest with head, neck, and pinnal pruritus; however, as mentioned, other allergic and nonallergic causes should be considered prior to initiating a strict hypoallergenic diet trial.

Also termed “symmetrical alopecia,” “barbering,” or “fur mowing,” cats

with self-induced alopecia will overgroom to the point of partial to near-complete alopecia of the affected body region. On close inspection, hairs will often appear broken (barbered) where the cat has chewed them off. The skin in the alopecic areas may or may not be erythematous and may or may not have concurrent excoriations. Excessive hairball production may also be reported as cats will often ingest a large amount of hair that they remove; in fact, the owners may initially present them for a vomiting work-up. This is the reaction pattern historically overdiagnosed as feline psychogenic alopecia. When these historically reported cats were evaluated more closely though, the majority of them responded favorably to antipruritic agents as opposed to behavior modifying medications. Based on the location of the self-induced alopecia, other nondermatologic conditions should be considered. For example, when self-induced alopecia is centered on the ventral abdomen, this may be indicative of bladder discomfort, abdominal pain, and even radiating spinal or back pain. A complete, thorough physical examination is recommended particularly for these patients.

Termed after “millet seeds” (small grains), miliary dermatitis lesions in the cat will often best be felt as opposed to visualized. When they are present, the lesions are small, pinpoint erythematous, crusted papules. The sparsely haired region



Allergic cat with large eosinophilic granuloma on the caudal aspect of the tongue. The feline also has a large bilateral indolent ulcer on the upper lips.



Allergic cat with severe head and neck pruritus. The patient has a large amount of self-induced excoriations. These lesions were found to be secondarily infected with bacteria.

of preauricular skin can be the best location to visualize miliary dermatitis in the feline patient without having to clip the hair coat. On palpation, the lesions will feel like small grits or grains under the skin, as if petting coarse sandpaper. This reaction pattern is present commonly in flea allergic cats (especially when distributed along the dorsal topline), but again, other etiologies should be considered. Mastocytosis and Bowenoid in situ carcinoma should be considered differentials particularly if lesions do not respond to appropriate antibiotherapy, antiparasitics, or antipruritic interventions.

Eosinophilic granulomas, plaques, and indolent ulcers fall under the subheading of eosinophilic skin lesions in cats, previously termed “eosinophilic granuloma complex (EGC).” Granulomas will often present on the caudal thigh with or without concurrent alopecia and will feel “like a pencil shoved under the skin.” These lesions may or may not be associated with pruritus. Granulomas may also be noted on the ventral chin; these may be referred to as

“fat chin” or “pouty cat” lesions. Oral granuloma lesions may also arise; cats may initially present with clinical signs of dysphagia, drooling, decreased appetite, or even dyspnea depending on the size of the lesion present. Eosinophilic plaques, on the other hand, are typically severely pruritic and will commonly be seen concurrently with self-induced alopecia.

These erythematous plaque-like lesions have a glistening and often moist surface. They will often be noted on the ventral abdomen; occasionally, multiple lesions will coalesce to form a large eosinophilic plaque. Indolent or rodent ulcers are often present in the absence of any clinical signs; rather, this may be an incidental finding on physical examination. Lesions may be unilaterally or bilaterally present on the lips; extension up the philtrum to the nasal planum is not uncommon. It is generally accepted by most dermatologists that these eosinophilic lesions (granulomas, plaques, indolent ulcers) in cats are often a manifestation of feline

bacterial pyoderma (as opposed to the papules, pustules, epidermal collarettes, and crusting seen in canine bacterial pyoderma). These lesions will often respond to antibiotic therapy alone; “Convenia-responsive skin disease” in the feline patient is more common than what has historically been reported.

Diagnosics and Therapeutics

Once the cutaneous reaction pattern has been documented, diagnostic work-up should proceed as for most pruritic patients, be it canine or feline (or other species). In general, infectious and parasitic causes should be ruled in or out prior to investigating underlying allergy or other causes. Core dermatologic diagnostics for the feline patient include flea combing, skin scrapings (superficial, deep), impression cytology/acetate tape preparations, Woods lamp evaluation, dermatophyte test medium (DTM) fungal culture/dermatophyte polymerase chain reaction (PCR) test, and antimitic/antiparasitic treatment trial. It is important to remember that with certain mite species (e.g., *Demodex gatoï*), a negative skin scraping does not rule out the external parasite contributing to skin disease; treatment trials are often indicated when these parasites are suspected. Additionally, most dermatologic abnormalities in cats should be considered as possible dermatophytosis until proven otherwise, given the sheer commonness of this disease (especially in Persians and other long-haired breeds); this is particularly true for alopecic lesions in cats.

Additional diagnostic work-up or therapeutic trials should be initiated

If parasites and infections have been ruled out, flea and food allergy has been evaluated, and the cat remains pruritic or lesional, then feline atopic skin syndrome (environmental allergies) should be considered.

once parasitic and infectious etiologies have been definitively ruled out. Flea allergy dermatitis is the most common allergic skin disease in cats worldwide. Any of the cutaneous reaction patterns can be manifestations of flea allergy dermatitis. This possibility should be critically evaluated and appropriate therapy instituted. This is true even for indoor-only cats who do not go outside—this can be a difficult conversation to have with some clients. Discussion often of “insect bite allergy” and comparison to how various individuals may respond to a mosquito bite (e.g., minimal reaction versus development of a welt) can help with acceptance of preventative recommendations.

In patients where head, neck, and pinnal pruritus is the only cutaneous

reaction pattern present and when other parasitic and infectious etiologies have been investigated and flea allergy dermatitis ruled out, then a hypoallergenic diet trial should be pursued. This involves feeding a novel protein/hydrolyzed diet for at least six to eight weeks to evaluate efficacy for controlling pruritic skin disease. It is important that during this time the following should be avoided: other types of cat food, treats, table scraps, and flavored medications. The diet should be chosen based on the animal’s previous dietary exposure; ideally, the cat should be fed something that it has never eaten before. The most common food allergens in cats are fish, chicken, and milk. Home-cooked diets are generally not recommended for feline patients due to their dietary need for taurine. Diet trial can, however, be

a rather difficult venture to pursue given the limitations of current veterinary diets; we are lacking in many good options in cats, especially those with a wet food option. The novel protein sources tend to be polarizing as to whether a cat will eat the diet. The discerning nature of the species when it comes to food can make an elimination diet trial incredibly challenging.

If parasites and infections have been ruled out, flea and food allergy has been evaluated, and the cat remains pruritic or lesional, then feline atopic skin syndrome (environmental allergies) should be considered. Remember that allergy tests (e.g., serum immunoglobulin E [IgE] testing, intradermal testing) do not diagnose allergy; rather, this is a clinical diagnosis of exclusion and the tests are used strictly to confirm diagnosis and formulate allergen-specific immunotherapy. Again, any (or all) of the cutaneous reaction patterns can be seen in feline patients with environmental allergies. As with dogs



(and humans and other species), this is a condition that can be managed but not cured. Management options in cats are far more limited than what is available in dogs. Bathing and topical therapy tends to be challenging in cats. However, some of the leave-on formulations (e.g., mousse, spot-on) can at least have adjunct benefit for managing allergies.

There is not yet a targeted monoclonal antibody (e.g., Cytopoint) for managing allergic skin disease in the feline patient. Indeed, due to the highly species-specific nature of the molecule, this therapeutic should not be used in cats due to the potential for severe or even fatal reactions. Apoquel is also not a good option in cats with allergies for a number of reasons: there is a higher potential for side effects (especially with long-term administration), cats metabolize the drug more rapidly than dogs (often necessitating twice daily administration), and dosing frequently needs to be higher than what is labeled for dogs. Atopica is a great option for managing allergic skin disease in cats given the ability to decrease frequency of administration over time and the efficacy of therapy in most allergic patients; however, palatability can impact the ability of an owner to consistently administer the drug.

While effective, steroids come with the higher chance of side effects especially in obese patients (e.g., development of diabetes) or underlying cardiac disease (congestive heart failure). This is especially true with injectable formulations. Allergen-specific immunotherapy (either allergy injections or oral allergy drops) can be highly effective and safe in



Allergic cat with miliary dermatitis lesions along the ventrum. Lesions were initially much more readily palpated, however when patient was shaved for abdominal ultrasound, the crusted papules were able to be observed.

cats with environmental allergies. Recommendation for referral to a veterinary dermatologist when this option is pursued tends to be ideal given the intricacies of formulation and manipulation.

When antiparasite, antibiotherapy, and antipruritic or antiallergy therapy are not beneficial or when the cutaneous reaction pattern does not appear as “classic” as clinicians are used to seeing, then biopsy of lesions may be beneficial. Indeed, if there is question as to what is seen, biopsy can be helpful to at least rule out more “scary” differential diagnoses. It is important to choose lesions that are representative of the disease state and submit them to a dermatopathologist for evaluation; a thorough physical examination and history will help a pathologist determine what differentials can be more likely ruled in or out. When neoplasia and autoimmune diseases are considered differentials, specifically note this on a submission form; this will alert the pathologist to

pay special attention and remark on the presence or absence of these supporting characteristics.

The itchy cat presents not only a diagnostic but also a therapeutic challenge for many practitioners, but a solid approach can make the process less daunting. That said, we need to do better by this species in veterinary dermatology. Research and development for managing the itchy, allergic cats is lacking. It’s time for cats to come into the light with consideration and interventions of their own. ✨

Alison Diesel, DVM, DACVD, is a dermatologist in Austin, Texas. She graduated from Kansas State University College of Veterinary Medicine in 2005, then worked as an emergency clinician for one year prior to beginning a three-year residency in dermatology at the University of Wisconsin-Madison School of Veterinary Medicine. She taught at Texas A&M University College of Veterinary Medicine and Biomedical Sciences for 12 years prior to transitioning into private dermatology practice. Her



main clinical interests lie in feline dermatoses, particularly feline allergic skin diseases, and expanding knowledge of the cutaneous microbiome in companion animals. She is heavily invested in improving and promoting wellness in the veterinary profession.



Diagnosing the Itchy Cat: A Step-by-Step Journey

STEP 1: Look for these common cutaneous reaction patterns in cats.

Head, Neck, and Pinnal Pruritus (Cervicofacial Pruritic Dermatitis)

Lesions are mainly restricted to the front portion of the cat.

Self-Induced Alopecia

- On close inspection, hairs will often appear broken (barbered) where the cat has chewed them off. The skin in the alopecic areas may or may not be erythematous and may or may not have concurrent excoriations.
- Excessive hairball production may be a symptom.
- May be a sign of other health issues, e.g., if centered on the ventral abdomen, this may indicate bladder discomfort, abdominal pain, or radiating spinal pain.

Miliary Dermatitis

- Termed after “millet seeds” (small grains), small, erythematous crusted papules may be easier to feel than to see. Check the preauricular skin (in front of the ears)—lesions are easier to see there with no clipping required. This pattern is present commonly in the flea-allergic cat (especially when distributed along the dorsal topline).
- If lesions do not respond to appropriate antibiotic therapy, antiparasitics, and/or anti-pruritic interventions, consider mastocytosis or Bowenoid in situ carcinoma.

Eosinophilic Lesions (Granuloma, Plaque, Indolent/Rodent Ulcer)

- **Granulomas** will often present on the caudal thigh with or without concurrent alopecia. They may or may not be associated with pruritus.
 - Granulomas may also be noted on the ventral chin; these may be referred to as “fat chin” or “pouty cat” lesions.
 - Oral granulomas may cause dysphagia, drooling, decreased appetite, or even dyspnea depending on the size of the lesion present.
- **Eosinophilic plaques** are typically SEVERELY pruritic, with a glistening and often moist surface, and will commonly be seen concurrently with self-induced alopecia.
 - Plaques are often noted on the ventral abdomen; occasionally, multiple lesions will coalesce to form a large eosinophilic plaque.
- **Indolent/rodent ulcers** are often present in the absence of any other clinical signs. Lesions may be unilaterally or bilaterally present on the lips; extension up the philtrum to the nasal planum is not uncommon.

STEP 2: Rule out infectious and parasitic causes.

Core dermatologic diagnostics for cats:

- flea combing
- skin scrapings (superficial, deep)
- impression cytology/acetate tape preparations
- Woods lamp evaluation
- DTM fungal culture/dermatophyte PCR
- anti-mite/anti-parasitic treatment trial

With certain mite species (e.g., *Demodex gatoi*), a negative skin scraping does not rule out the external parasite; treatment trials may be indicated.

Consider most dermatologic abnormalities in cats as possible dermatophytosis until proven otherwise given the sheer commonness of this disease (especially in Persians and other long-haired breeds); this is particularly true for alopecic lesions.

STEP 3: Consider flea allergy dermatitis.

Flea allergy dermatitis is the most common allergic skin disease in cats worldwide.

Any of the cutaneous reaction patterns (head, neck and pinnal pruritus; self-induced alopecia; miliary dermatitis; eosinophilic skin lesions) can be manifestations of flea allergy dermatitis.

This possibility should be critically evaluated and appropriate therapy instituted—even for indoor-only cats who do not go outside.

STEP 4: If all else has been ruled out, do a hypoallergenic diet trial.

Try a novel protein/hydrolyzed diet for at least six to eight weeks to evaluate efficacy for controlling pruritic skin disease.

The most common food allergens in cats are fish, chicken, and milk. Ideally, the cat should be fed something which it has never eaten before.

Home-cooked diets are generally not recommended for feline patients due to their dietary need for taurine.

Cats' discerning nature when it comes to food can make an elimination diet trial challenging. **Avoid all other types of cat food, treats, table scraps, and flavored medications.**

STEP 5: Consider feline atopic skin syndrome (environmental allergies).

Remember that **allergy tests (e.g., serum IgE testing, intradermal testing) do not diagnose allergy; rather this is a clinical diagnosis of exclusion.**

Many conditions can be managed but not cured. Referral to a veterinary dermatologist is ideal.

Some of the **leave-on formulations** (e.g., mousse, spot-on) can at least have adjunct benefit for managing allergies.

There is not yet a targeted monoclonal antibody (e.g., Cytoint[®] (lokivetmab)) for managing allergic skin disease in the feline patient. Due to the highly species-specific nature of the molecule, **this therapeutic should NOT be used in cats** due to the potential for severe or even fatal reactions.

Apoquel[®] (oclacitinib) is not a good option in cats with allergies for a number of reasons.

- There is a higher potential for side effects (especially with long-term administration)
- Cats metabolize the drug more rapidly than dogs (often necessitating twice daily administration)
- Dosing frequently needs to be higher than what is labeled for dogs.

Atopica[®] (cyclosporine modified) is a great option for managing allergic skin disease in cats given the ability to decrease frequency of administration over time and the efficacy of therapy in most allergic patients. Palatability can make it hard to deliver.

Steroids, while effective, come with the higher chance of side effects, especially in obese patients (e.g., development of diabetes) or cats with underlying cardiac disease (congestive heart failure). This is especially true with injectable formulations.

Allergen-specific immunotherapy (either allergy injections or oral allergy drops) can be highly effective and safe in cats with environmental allergies.

STEP 6: If the pattern isn't one of the classics, you may want to order a biopsy.

Choose lesions for the biopsy which are representative of the disease state and submit them to a **dermatopathologist** for evaluation.

A thorough physical examination and history will help a pathologist determine what differentials can be more likely ruled in/out.

When neoplasia and autoimmune diseases are considered differentials, specifically note this on a submission form; this will alert the pathologist to pay special attention and remark on the presence/absence of these supporting characteristics.

CLARO[®] (florfenicol, terbinafine, mometasone furoate) Otic Solution for use in dogs only

Do Not Use in Cats.

Antibacterial, antifungal, and anti-inflammatory

For Otic Use in Dogs Only

See full product insert for complete prescribing information, a summary of which follows.

CAUTION: Federal (U.S.A.) law restricts this drug to use by or on the order of a licensed veterinarian.

DESCRIPTION: CLARO[®] contains 16.6 mg/mL florfenicol, 14.8 mg/mL terbinafine (equivalent to 16.6 mg/mL terbinafine hydrochloride) and 2.2 mg/mL mometasone furoate. Inactive ingredients include purified water, propylene carbonate, propylene glycol, ethyl alcohol, and polyethylene glycol.

INDICATIONS:

CLARO[®] is indicated for the treatment of otitis externa in dogs associated with susceptible strains of yeast (*Malassezia pachydermatis*) and bacteria (*Staphylococcus pseudintermedius*).

DOSAGE AND ADMINISTRATION:

CLARO[®] should be administered by veterinary personnel.

Wear eye protection when administering CLARO[®].

(see Human Warnings, PRECAUTIONS, POST APPROVAL EXPERIENCE).

Splatter may occur if the dog shakes its head following administration. Persons near the dog during administration should also take steps to avoid ocular exposure.

Shake before use.

Verify the tympanic membrane is intact prior to administration. (see CONTRAINDICATIONS, PRECAUTIONS, POST APPROVAL EXPERIENCE).

Administer one dose (1 dropperette) per affected ear.

1. Clean and dry the external ear canal before administering the product.
2. Verify the tympanic membrane is intact prior to administration.
3. Remove single dose dropperette from the package.
4. While holding the dropperette in an upright position, remove the cap from the dropperette.
5. Turn the cap over and push the other end of the cap onto the tip of the dropperette.
6. Twist the cap to break the seal and then remove cap from the dropperette.
7. Screw the applicator nozzle onto the dropperette.
8. Insert the tapered tip of the dropperette into the affected external ear canal and squeeze to instill the entire contents (1 mL) into the affected ear.
9. Gently massage the base of the ear to allow distribution of the solution. **Restrain the dog to minimize post application head shaking** to reduce potential for splatter of product and accidental eye exposure in people and dogs (see POST APPROVAL EXPERIENCE).
10. Repeat with other ear as prescribed.
11. The duration of the effect should last 30 days. Cleaning the ear after dosing may affect product effectiveness.

CONTRAINDICATIONS:

Do not use in dogs with known tympanic membrane perforation (see PRECAUTIONS). CLARO[®] is contraindicated in dogs with known or suspected hypersensitivity to florfenicol, terbinafine hydrochloride, or mometasone furoate.

WARNINGS:

Human Warnings: CLARO[®] may cause eye injury and irritation (see PRECAUTIONS, POST APPROVAL EXPERIENCE). If contact with eyes occurs, flush copiously with water for at least 15 minutes. If irritation persists, contact a physician. Humans with known hypersensitivity to any of the active ingredients in CLARO[®] should not handle this product.

PRECAUTIONS:

For use in dogs only. Do not use in cats (see POST APPROVAL EXPERIENCE).

Wear eye protection when administering CLARO[®] and restrain the dog to minimize post application head shaking. Reducing the potential for splatter of product will help prevent accidental eye exposure in people and dogs and help to prevent ocular injury (see DOSAGE AND ADMINISTRATION, Human Warnings, POST APPROVAL EXPERIENCE).

Proper patient selection is important when considering the benefits and risks of using CLARO[®]. The integrity of the tympanic membrane should be confirmed before administering the product. CLARO[®] has been associated with rupture of the tympanic membrane. Reevaluate the dog if hearing loss or signs of vestibular dysfunction are observed during treatment. Signs of internal ear disease such as head tilt, vestibular signs, ataxia, nystagmus, facial paralysis, and keratoconjunctivitis sicca have been reported (see POST APPROVAL EXPERIENCE) with the use of CLARO[®].

Do not administer orally.

Use of topical otic corticosteroids has been associated with adrenocortical suppression and iatrogenic hyperadrenocorticism in dogs (see ANIMAL SAFETY).

Use with caution in dogs with impaired hepatic function (see ANIMAL SAFETY).

The safe use of CLARO[®] in dogs used for breeding purposes, during pregnancy, or in lactating bitches, has not been evaluated.

ADVERSE REACTIONS:

In a field study conducted in the United States (see EFFECTIVENESS), there were no directly attributable adverse reactions in 146 dogs administered CLARO[®]. **POST APPROVAL EXPERIENCE (2019).** The following adverse events are based on post-approval adverse drug experience reporting for CLARO[®]. Not all adverse events are reported to FDA/CVM. It is not always possible to reliably estimate the adverse event frequency or establish a causal relationship to product exposure using these data.

In humans, accidental exposure leading to corneal ulcers and other ocular injuries such as eye irritation and redness have been reported. Exposure occurred when the dog shook its head after application of CLARO[®]. Skin irritation has also been reported. In dogs, the adverse events reported are presented below in decreasing order of reporting frequency: Ear discharge, head shaking, ataxia, internal ear disorder (head tilt and vestibular), deafness, emesis, nystagmus, pinna irritation and ear pain, keratoconjunctivitis sicca, vocalization, corneal ulcer, cranial nerve disorder (facial paralysis), tympanic membrane rupture.

CLARO[®] is not approved for use in cats. The adverse events reported following extra-label use in cats are presented below in decreasing order of reporting frequency: Ataxia, anorexia, internal ear disorder (head tilt and vestibular), Horner's syndrome (third eyelid prolapse and miosis), nystagmus, lethargy, anisocoria, head shake, emesis, tympanic rupture, and deafness.

To report suspected adverse drug events and/or obtain a copy of the Safety Data Sheet (SDS) or for technical assistance, contact Elanco at 1-800-422-9874.

For additional information about adverse drug experience reporting for animal drugs, contact FDA at 1-888-FDA-VEIS or online at <http://www.fda.gov/reportanimalae>.

Information for Dog Owners:

Owners should be aware that adverse reactions may occur following administration of CLARO[®] and should be instructed to observe the dog for signs such as ear pain and irritation, vomiting, head shaking, head tilt, incoordination, eye pain and ocular discharge (see POST APPROVAL EXPERIENCE). Owners should be advised to contact their veterinarian if any of the above signs are observed. Owners should also be informed that splatter may occur if the dog shakes its head following administration of CLARO[®] which may lead to ocular exposure. Eye injuries, including corneal ulcers, have been reported in humans and dogs associated with head shaking and splatter following administration. Owners should be careful to avoid ocular exposure (see PRECAUTIONS, POST APPROVAL EXPERIENCE).

Manufactured for

Elanco US Inc

Shawnee, KS 66216

Made in Germany

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Claro[®] is indicated for the treatment of otitis externa in dogs associated with susceptible strains of yeast (*Malassezia pachydermatis*) and bacteria (*Staphylococcus pseudintermedius*).

CAUTION: Federal (U.S.A.) law restricts this drug to use by or on the order of a licensed veterinarian. **PRECAUTIONS:** For use in dogs only. Do not use in cats. (See POST-APPROVAL EXPERIENCE.) CLARO[®] has been associated with rupture of the tympanic membrane. Reevaluate the dog if hearing loss or signs of vestibular dysfunction are observed during treatment. Signs of internal ear disease such as head tilt, vestibular signs, ataxia, nystagmus, facial paralysis, and keratoconjunctivitis sicca have been reported (see POST-APPROVAL EXPERIENCE) with the use of CLARO[®]. **Wear eye protection when administering CLARO[®].** (See Human Warnings, PRECAUTIONS, POST-APPROVAL EXPERIENCE.)

¹Angus JC. Otic cytology in health and disease. VCSA. 2004;34:411-24.

²Elanco Animal Health. Sales data on file.

A Better Cat Visit

Caregivers and Carriers are the Keys to Improved Cat Care

by Sherrie Yuschak, RVT, VTS (Behavior), KPA-CTP

Within two human generations, cats have purred themselves into the family circle. They've moved indoors and developed passionate caregivers. Social media, a snapshot of modern priorities, is dominated by frolicking kittens, silly cat antics, and precious moments of feline affection and snuggles. As evidence of caregiver commitment and kitty comfort, it's increasingly common to hear of people skipping events to stay home with their cat or bending over backward to avoid disrupting the cat sleeping on their arm.

Statistics from pet products industries confirm cat caregivers' willingness to spend billions of hard-earned dollars on their cat, purchasing fancy litterboxes, tasty treats, and premium food. But there is a disconnect when it comes to the veterinary side of things. Spending on vet care for pet cats is half as much as it is for dogs. Many veterinary clients who care for dogs also have cats. These caregivers are experienced with veterinary care and already have a relationship with a veterinarian. So, where are the cats?

During research studies, clients revealed several reasons their cat leaps over vet care. They feel their cat is self-reliant, doesn't go outside (and therefore has low health risk), and doesn't seem ill. Sadly, they also report skipping vet visits because the cat resists and becomes very stressed. Almost 40% of cat



Tip: If a cat is fearful of their current carrier, switching to a new type when starting the training process can be helpful.

caregivers say just thinking about taking the cat to the vet causes them stress.

Overcoming Carrier-Phobia

Targeted education can help clients recognize how indoor, seemingly healthy cats can benefit from veterinary exams. But if the client dreads the very thought of bringing their cat to a vet, achieving optimal wellness care is a nonstarter.

Getting the cat into the carrier is the first phase of veterinary visit. It seems separate and unrelated as the cat is at home with no veterinary team members or diagnostics in sight. The cat, basking in an afternoon sunbeam, sees the carrier come from the garage. The client approaches the cat, picks them up, and stuffs them into the carrier. Without a chance to acclimate to the carrier's presence or a choice to approach and investigate, the cat becomes stressed. When the door closes behind the cat and escape is no longer an option, panic can ensue. And that is the simplest scenario. Often, the cat is chased, pulled out of hiding, restrained, and wrestled into the carrier. Sometimes this sequence repeats more than once.

Stories like these are commonly shared by friends, family, and even some veterinary professionals. Reasons are stated that cats don't like change, cats can't be trained, and it's normal for pets to dislike the vet. Commissary and admission are added about how they too struggle to get their cat into the carrier. Ultimately, the pressure falls onto the cat caregiver because if they can't get the cat into the carrier, vet care won't occur. Frustration, fear, physical

pain, and injury risk that may occur before even leaving home are strong motivators to avoid scheduling an appointment at all.

Consider an alternative scenario. The cat sees the client approach the carrier with a treat. The cat chirps, runs ahead, quickly enters the carrier, and eats their treat as the door shuts. Would that client dread and avoid wellness care for this cat? Would the cat arrive to the visit more relaxed and cooperative for handling? Would the exam be more thorough, diagnostics more accurate, and client compliance enhanced?

Cats can be taught that carriers are a safe, comfortable space. As a species, they naturally seek small spaces to rest. Cats are also curious critters who love to eat. Many enjoy chasing toys into and under small spaces. These fabulous traits simplify carrier training.

Starting as kittens, this should be planned as part of socialization. With fewer stressful experiences, carrier training can progress quickly. Adult cats can absolutely learn to enjoy the carrier. Overcoming any previous aversive experiences may take a bit more patience.

Clients do not need advanced training skills to carrier-train their cat. Feeding their cat meals and treats is already part of the daily routine and only minor strategy changes are needed (see included basic plan at the end of this article). Cats who have a severe reaction to the carrier or are slow to progress through the plan can be further assisted by a behavior consultant or credentialed trainer. Anti-anxiety nutraceuticals or medications can be added to the training plan to decrease fear, enhance new learning, and smooth future visits.



Adult cats can absolutely learn to enjoy the carrier. Overcoming any previous aversive experiences may take a bit more patience.

Because the carrier is a pivotal component of the cat and client's vet care experience, coaching clients to choose the best type is important. Advise clients that the most important feature is an easily opened top. Adding cat access doors helps during training, examining the cat within the carrier, and placing and removing them with less stress. Large carriers with removable tops provide extra space for an exam to occur within the bottom half. Some carriers have a bottom that slides out like a drawer, and mesh carriers allow for a sedation (or medication) injection to occur without removing the cat. Like choosing cat food, carrier choice should be customized to the cat's specific preferences and needs and not simply price point.

Tip: *If a cat is fearful of their current carrier, switching to a new type when starting the training process can be helpful.*

Small, simple additions and adaptations enhance the carrier experience. Consider scent, sound, and traction during transport. A carrier that was last used for a stressful

event may contain pheromones of fear and should be cleaned with a mild, unscented detergent. Synthetic calming feline pheromones can be sprayed once cleaned. Add a towel, blanket, or mat the cat has already slept on to provide familiar scents, and place a nonslip shelf liner underneath. When animals slip, slide, and struggle to balance, stress will increase. Erratic, rushed driving and loud, fast music stimulates the nervous system. Encourage clients to prioritize adequate travel time to decrease their own stress and play spa music, calming music designed for pets, or talk radio. Putting the carrier on the floor of the back seat is a secure spot to minimize shifting. When carrying the cat, be mindful to keep the carrier level. Holding it from the bottom keeps the cat centered and stable while using the handle swings the carrier and leans the cat to the side.

Improved Visits: The Practice Team

The emotions and behavior elicited during carrier transport impact the exam and procedures. Stress is cumulative as behavior escalates accordingly. Thoughtful feline-specific

considerations within the facility and a gentle handling plan can minimize stress. Adding aspects to exam rooms that the cat finds enjoyable—such as cheek scratches, treats, toys, catnip or silvervine, cardboard boxes, perches, nonslip surfaces, and warm blankets—are all helpful to create positive associations. Approaching and greeting slowly and quietly, examining the cat wherever they are comfortable, taking breaks, and being efficient during procedures also enable stress reduction.

Team training to recognize the subtlest signs a cat is becoming stressed and learning various ways to adapt the environment and handling plan is a sound investment. Clients do not want to see their pets scared and hiding or struggling to get away. Vocalizations of distress and aggressive displays are greatly upsetting. The cat may have never expressed this behavior, and to see this side of them can frighten the client. Some clients are embarrassed, frustrated, or worried their cat may hurt someone. The client can rationalize that the vet team is experienced with handling cats and is providing necessary care. Nevertheless, the negative emotions associated with the visit impact the client's future consideration for vet care.

Due to aging, illness, and repetition, a cat's response to carrier transport may change over time. Awareness of subtle changes enables modification for effective improvements. Asking open-ended questions about the transport experience should occur during every visit. Each team member's role provides different insight and communication points toward a cohesive goal. Clients benefit from the emphasis on carriers





Small, simple additions and adaptations enhance the carrier experience.

as they learn how to help their cat (and themselves) have a low-stress veterinary appointment. They feel supported and empowered.

Communication examples for each team member can include:

CSR during appointment scheduling:

- Tell me about your process for getting the cat into the carrier.
- What does your cat do during car rides (meow, dig, freeze)?

CSR during client arrival greeting:

- How well did (cat's name) get into the carrier and ride in the car?
- I'll be sure to pass this information on to the technician and doctor for further consideration.

Tech during exam room check in:

If the cat is demonstrating stress-related body language:

- When did (cat's name) start to become stressed today?
- How is (cat's name) behavior different this trip?
- What changes might have occurred?
- Let's talk further about ways to help (cat's name) feel better about travel.

If the cat is demonstrating relaxed body language:

- It looks like (cat's name) enjoys coming here. How were they for travel today?

DVM during history and exam:

- Identify if nausea (motion sickness) may be occurring.
- Emphasize the impact of the carrier on future vet visits.
- Ensure stress reduction is achievable.
- Prescribe a treatment plan that may include calming supplements/nutraceuticals, anti-anxiety medications, and/or anti-nausea medications to be administered prior to future vet visits and carrier training.
- Refer to a behavior consultant or positive reinforcement-based trainer as appropriate.

CSR/Tech during check out:

- Educate the client regarding low-stress medication administration.
- We really want to support both of you toward a more positive experience.
- I will contact you tomorrow to see how (cat's name) acclimated to arriving home.

CSR/Tech during postvisit

follow-up:

- How did (cat's name) adapt once arriving home?
- Remember (Dr's name) would like you to start the training plan for (cat's name)
- Is there any part of the plan that seems confusing or challenging?
- I'll check in with you regarding (cat's name) progress next month (or sooner if a visit is scheduled)

For self-preservation, all species try to predict the earliest sign an adverse experience might occur. Learning through classical conditioning creates associations between stimuli or events and involuntary responses, such as emotions. For the client, thinking about scheduling a vet visit can trigger the same negative emotions as when they are actually trying to get the cat into the carrier. For the cat, the sight of the carrier often triggers all of the emotions from the previous vet experience. Fear can override the facts about the benefits of wellness care and available treatment. Focusing on client education and support regarding cat carriers and transportation is key to increasing feline wellness. ✨

Sherrie Yuschak, RVT, VTS (Behavior), KPA-CTP, Elite FFCP, is a faculty member of the Karen Pryor Academy for Animal Behavior and Training, where she contributes to curriculum and teaches several courses. She is a practice certification consultant for Fear Free and has collaborated on several Fear Free educational modules and certification standards and is a member of their speaker bureau. Yuschak's experience encompasses general practice, academia, research, specialty practice, and consulting.



Basic Carrier Training Plan

Carrier Type: _____

Location: _____

Treats: _____

Fully open carrier:

Carrier top open or removed, door open or removed.

- Week 1:** Treats in front of the carrier
- Week 2:** Treats just inside door
- Week 3:** Treats in middle of carrier
- Week 4:** Treats in back of carrier

Add top:

Carrier top closed, door open or removed.

- Week 5:** Treats in front of the carrier
- Week 6:** Treats just inside door
- Week 7:** Treats in middle of carrier
- Week 8:** Treats in back of carrier

Add door shutting:

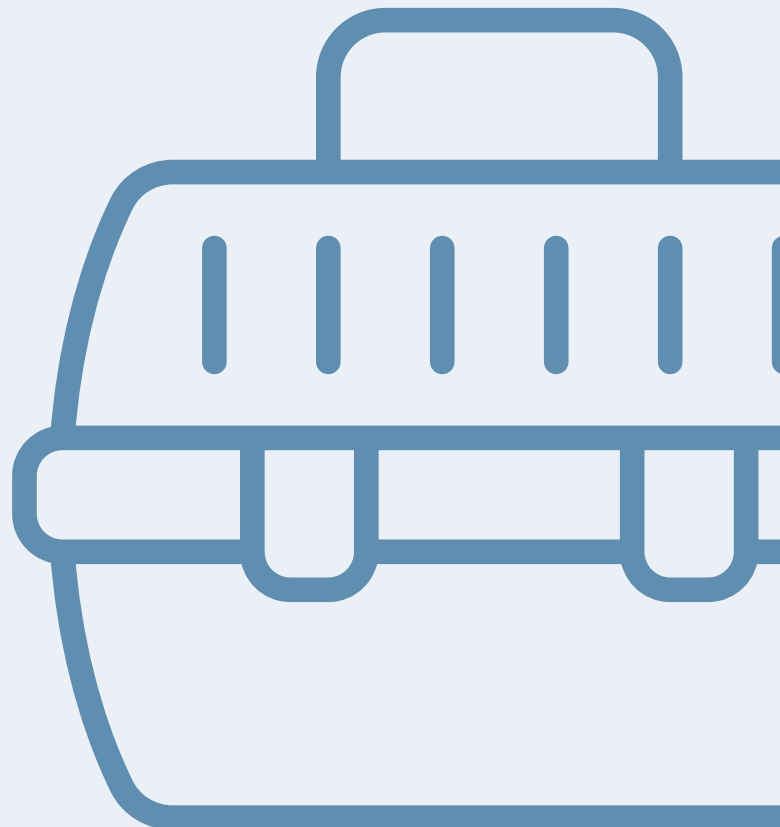
Treats in the back of the carrier, cat enters.

- Week 9:** Shut door and immediately reopen
- Week 10:** Shut door, pause 3 seconds, and reopen
- Week 11:** Shut door, pause 6 seconds, and reopen
- Week 12:** Shut door, pause 12 seconds, and reopen

Add carrier movement:

Treats in the back of the carrier, cat enters, shut door.

- Week 13:** Pick up carrier, set back down, open door
- Week 14:** Pick up carrier, move it two feet, feed a treat, open door
- Week 15:** Pick up carrier, move six feet, feed treat, open door
- Week 16:** Pick up carrier, move to another room, feed treat, open door





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Maximizing Microchipping

How to Talk to Clients—and Good Samaritans—About Microchipping

by Jen Reeder

Like most veterinarians, Leslie Dunham, DVM, has scanned many pets for microchips. But one experience early in her career made an indelible impression: she reunited a man with a cat who had been missing for nearly three years.

“I called the owner and he was so happy that we found his cat that he actually cried on the phone,” she recalled. “When we gave the cat back to him, it was the same thing—just crying, so happy to see his cat again.”

Microchipping pets is a valuable tool for helping reunite lost or stolen pets with their families. That’s one reason why AAHA and the AVMA created Check the Chip Day: to spread awareness each year on August 15. But year-round, veterinary teams can play a key role in educating pet owners about microchips—from clients to Good Samaritans who find lost pets—in conversations that continue to evolve.

Dunham, medical director of AAHA-accredited Gentle Touch Animal Hospital in Denver, Colorado, said the majority of people who bring in puppies for initial visits have heard of microchips and are receptive to them being implanted during spay/neuter surgeries.

“I think we spend more time not so much educating them about microchipping, but about the importance of making sure that their



“We scan every patient every time.”

—LESLIE DUNHAM, DVM

contact info is tied to the microchip,” she said.

In the week of an interview for this article alone, she’d already scanned two pets found without ID tags for microchips. Both were chipped, but frustratingly, neither had contact information for the owners registered.

“It’s interesting that people tend to know what a microchip is. They just forget to tie their information to it, so it makes it useless,” she said.

Owners of unchipped adult dogs can be less familiar with the concept of microchips. She explains that it’s not a GPS—it’s just a number—and again stresses the importance of keeping contact information current with a microchip registry. Occasionally people will protest that their dog never runs away, so she’ll advise them that “It’s the one legal proof of ownership of your pet.”

For most clients, discussing microchips can build trust. To that end, Gentle Touch has microchip scanners in every exam room.

“We scan every patient every time,” she said. “Just because they have a microchip implanted doesn’t mean the chip is findable because they can migrate, so we want to be sure it didn’t migrate to somewhere a shelter might not scan. I’ve found them in limbs before. And we always want to make sure the chip is still working.”

A Passion for Chips

Teaching veterinary students not just to implant microchips but to thoroughly scan for them is a priority for Emily McCobb, DVM, MS, DACVAA, clinical professor of

“If the microchip is not enrolled, it’s like having a Social Security card with no name on it.”

—TOM SHARP, PRESIDENT AND CEO OF AKC

anesthesia and community medicine at the Cummings School of Veterinary Medicine at Tufts University.

“You don’t just scan the scruff of the neck,” she said. “You’re making sure you take the animal out of its carrier and that you check down both sides of the body in a systematic pattern just to check for any migration.”

Students do their primary care rotation in a low-cost clinic that serves low-income pet owners and learn what they’d see in general practice as well as in an animal shelter. When people bring in community cats for spay/neuter, the team always scans for microchips and discusses what to do if you find the chip number.

“We use the AAHA Microchip Registry Lookup tool because it tells you what company the number is tagged back to, and then it tells you what registry to use if it’s not popping up,” she said. “That’s what we like to show our students.”

Frequently the microchip numbers tag back to the original organization that placed the chip but not to the person that lost the animals.

“That’s always really distressing for the students,” she said. “That reinforces to them how important it is to talk to the clients about actually keeping up with the registration.”

To further reinforce that point, McCobb also asks students if they



remembered to update their own pets' microchip registration when they moved to North Grafton, Massachusetts, to attend Tufts.

With clients, she often cites the 2009 Ohio State University study that found return-to-owner rate for dogs was 2.5 times higher for microchipped dogs and a whopping 20 times higher for microchipped cats among stray pets brought to animal shelters.

When it comes up, she also reassures them that microchipped pets can still safely have MRIs, and that migrating chips don't hurt the animals—but that it's important to maintain both registrations if they need to have a second chip implanted.

McCobb and her colleagues feel so strongly about microchips that they partnered with coalition groups to make sure all animal control officers in the state of Massachusetts have microchip scanners. They also encourage animal shelters and rescue organizations to urge adopters to maintain their registries.

“We use the AAHA Microchip Registry Lookup tool because it tells you what company the number is tagged back to, and then it tells you what registry to use if it's not popping up.”

—EMILY MCCOBB, DVM, MS, DACVAA

“Trying to normalize it as part of a standard way that animals are identified would be helpful,” she said.

Veterinarians can work toward that goal by scanning every pet at intake, according to Tom Sharp, president and CEO of AKC Reunite, a nonprofit microchip company and pet recovery service affiliated with the American Kennel Club.

If the pet isn't chipped, it's an opportunity to discuss implanting a microchip.

“And if it is microchipped, they could say, ‘Is the microchip enrolled somewhere? Because if it's not enrolled, it's like having a Social Security card with no name on it. It's just a number;” he advised.

Despite being an affiliate of the American Kennel Club, AKC Reunite

registers not just purebred dogs but any type of pet—currently around 35 different species are part of the registry, which reunites a pet with a family about every 15 minutes. The company calls owners and also sends text messages, emails, and letters when their registered pets are found away from home.

In one instance just last year, a veterinarian scanned a cat named Ritz who was brought in for euthanasia as an injured stray. His microchip traced back to the original owners, who expressed joy—and disbelief. Ritz had been missing for 16 years! They were more than happy to welcome the faraway feline home for his golden years.

“That was pretty amazing,” Sharp recalled.

Legal Implications

With dog theft on the rise—particularly with French bulldogs—microchipping is key for proving ownership.

“You can't just keep a GPS collar on your dog thinking that that's going to save your dog from theft, because they're just going to throw it away,” he noted.

Registered microchips also provide proof of ownership in owner dispute cases, according to Tracy Koss, client services manager at AAHA-accredited Denver Animal Shelter, the city's municipal facility.



“We get that all the time with domestic disputes,” she said. “We’re dealing with one right now where the ex-girlfriend is trying to get back at the boyfriend by dropping his dogs at the shelter and not letting him have them.”

Because possession is considered ownership from a legal standpoint—she physically brought the dogs to the shelter—and none of the animals were microchipped, the man can’t simply have his dogs returned to him. In this case, the woman has been incarcerated so she won’t be coming back for the dogs, but the man has to wait until the dogs are considered abandoned and the shelter takes ownership before he can officially adopt them.

Microchips also come up in disputes between neighbors, like when someone gets annoyed by a barking dog, steals them from a neighbor’s yard, and dumps the animal at the shelter, she added.

Registered microchips provide proof of ownership in owner dispute cases.

But microchips are primarily used to try to reunite strays brought in by animal control officers or Good Samaritans. It’s a big job: In 2022, the shelter took in 4,244 stray animals. A team of seven people works to trace ID for strays every day, seven days a week—and uses the AAHA Microchip Registry Lookup tool “all the time,” she said.

When owners can’t be immediately found, the team advises Good Samaritans to leave the pet at the shelter, where their owners will



Celebrating Check the Chip Day on August 15

AAHA and AVMA created Check the Chip Day to remind pet owners to microchip their pets, add their pet’s information to the microchip company’s registry—and keep it up to date.

It’s also an excuse for AAHA-accredited practices to host fun celebrations with their clients! Possibilities include

- Host a Check the Chip party where pets get treats while getting scanned for free for microchips.
- Share photos on social media of pets being scanned for microchips. Note that it’s a pain-free experience!
- Offer a free bag of potato chips to people who opt to microchip their pets that day or who update their pet’s contact information with the registry.
- Make posters with printouts of happy reunion stories, either from your practice or from national news articles, like this one about a dog found 1,625 miles from home thanks to a microchip: bit.ly/41S1WOR
- Have staff bring in photos of their own pets who are microchipped to display on Check the Chip Day or wear photo buttons.
- Distribute this flyer about Check the Chip day: bit.ly/44hRKke

For more information, visit: avma.org/events/national-check-chip-day



probably look first and where the pet will be safe and fed. While she realizes this might not be an option in shelters with overpopulation issues—and can be hotly debated in sheltering—it’s the best option in Denver to protect the dogs, and also shield “Good Sams” from liability issues that would arise if the dog jumps their fence and is hit by a car or is attacked by their own pets.

“You’re putting that Good Sam at risk, and you’re also putting that animal at risk,” she said. “The municipal shelter should be the safe haven.”

Koss said it would help shelters and animal hospitals if local governments installed self-serve microchip scanners in public parks, and if major retailers like PetSmart and Petco added them in stores next to ID tag machines. That way, Good Samaritans could easily scan pets they find and if chipped, directly return them to owners.

Petco has been working in that direction by placing microchip scanners in Petco veterinary hospitals, Vetco clinics, and many grooming salons, according to Whitney Miller, DVM, MBA, DACVPM, and chief veterinarian at Petco. (PetSmart declined to comment for this article.)

“It’s important that pet parents use collars, ID tags, and microchips to help keep their pets safe and more

easily identifiable should they ever go missing,” she said. “Pet parents can also add their pet’s photo to the Petco Love Lost database to increase the chance of being reunited if their pet ever goes missing.”

Only about half of the pets brought in by Good Samaritans to AAHA-accredited Lakeside Animal Hospital in Plantation, Florida, have microchips with up-to-date contact information, according to Beth Towning, DVM. In fact, she said sometimes Good Samaritans don’t realize that veterinary hospitals don’t automatically register pets with microchip companies, so it can be a “major teaching moment.”


“People are often surprised about that,” she said.

When owners can’t be reached, Good Samaritans sometimes become agitated if they live in an apartment that doesn’t allow pets or have another reason why they aren’t able to take the animal home with them. In those cases, Lakeside Animal Hospital will offer to take in the pet for a short time if there’s room. The team follows protocols to never share an owner’s contact information with Good Samaritans—all contact is made by staff.

While some phone calls while tracing chips end in disappointment—such as a person saying, “I haven’t had that pet in years”—others lead to gratitude and happiness for both people and pets. In fact, Towning’s mother recently found a dog on the side of the road and brought her to the practice to be scanned for a microchip. It took several days to reach the owners, but they eventually called back to set up a time to pick up their pooch.

“As soon as that dog saw those people, she lost her mind—she was just so excited,” Towning said. “So yes, I’ve seen quite a few reunion stories with microchips.”

While researching this article, Jen Reeder and a couple of neighbors found two dogs running around without collars, so they took them to a nearby animal hospital to scan for microchips. The dogs were reunited with their family thanks to one of them being microchipped. Neither of the other Good Samaritans had registered their dogs’ microchips and vowed to do so that night. ✨



Check the Chip with AAHA
AAHA’s Microchip Registry Lookup tool is free and helps you locate the registry where a pet’s chip is registered. For more information, visit: aaha.org/petmicrochiplookup

Award-winning journalist Jen Reeder is former president of the Dog Writers Association of America. While researching the article on microchips, Jen and two neighbors found two lost dogs running around without collars, so they took the pets to a nearby animal hospital to scan for microchips, which reunited the dogs with their family. The other “Good Samaritans” vowed to update their contact information with their own dogs’ microchip registry that evening. The experience drove home the importance of Check the Chip Day and all efforts to educate the public about microchips. Visit Jen online at www.JenReeder.com.





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Bexacat and the New Era of Feline Diabetes

A Conversation with Renee Rucinsky, DVM, DABVP (Feline)

Interview by Katie Berlin, DVM

Endocrinopathy isn't everyone's cup of tea. "I think you either love it and think it's super cool or wish that it would just go away," said Renee Rucinsky, DVM, DABVP (Feline), in her latest conversation for *Central Line: The AAHA Podcast*. Fortunately for the veterinary community, Rucinsky falls firmly in the first camp, as evidenced by her work on the AAHA diabetes guidelines and the selected endocrinopathies of dogs and cats guidelines task forces.

A board-certified ABVP feline specialist since 2001, Renee has spent the majority of her career in feline exclusive practice, and she seriously knows cats. "Cats really are very humbling," she said. "I really, truly believe that one of the main purposes of cats that come into my life is to make me look bad. But it's fine! It's an exercise in humility on an every-20-minute basis."

Renee is also frequently the first name to come to mind when the topic of

feline diabetes is raised. So naturally, she was the perfect person to discuss a new class of drugs for treating feline diabetes (SGLT2 inhibitors, or, by its brand name, Bexacat™ by Elanco). In this conversation, she addresses some FAQs regarding what this drug is, how to use it, and why it's a gamechanger—as well as why it's not the right choice for every diabetic cat.

Renee Rucinsky: [Bexacat] is an SGLT2 inhibitor, which stands for sodium glucose co-transporter 2.

That's too many words for me—I hate doctor words. I would just rather not work that hard, so we're just going to call it a SGLT2 inhibitor.

One of the things that people have mentioned to me as the news of this comes out is, "Oh, the new insulin pill." It is absolutely not an insulin pill; it is a completely different type of drug. What this drug does is reduce blood glucose levels. And so, for it to work, the body still has to be making insulin.

Typically, when there is high blood glucose, it gets filtered through the kidneys, and then the kidneys resorb it back up. An easy way to think about the way this drug works is if you think about the blood flow through the kidney as being like a highway, and the glucose is traveling down the highway. In a normal kidney, it gets off at all the exits and goes back into wherever it needs to go. With Bexacat—or with whatever other drugs that come out within this drug

“What [Bexacat] does is reduce blood glucose levels. And so for it to work, the body still has to be making insulin.”

—RENEE RUCINSKY, DVM, DABVP (FELINE)

class—the off-ramps are blocked, so the glucose isn't going to get back into the bloodstream; it's going to go right into the urine instead.

So, instead of going back in and continually causing that blood glucose level to be high, the animal is able to clear that excessive glucose into the urine, which is going to be a whole different way of looking at these things. With the previous diabetic guidelines [aaha.org/diabetes, from 2018], we talked about using urine glucose measurements to help monitor these cats, and that's just not going to be an option.

Katie Berlin: You're going to freak out if you do that.

RR: Right, these cats are always going to be glucosuric, so that's a

whole different way of thinking about these things. There's going to be a learning curve.

KB: Yeah, that's really interesting. I was just thinking about that, how the task force had specifically said, we don't really recommend using oral drugs—because this class of drugs wasn't out at that time. It also said you can monitor the glucose in urine. And there are all these things available now to do that, like strips and special litter, and none of that would work in this case because [the urine] will always be full of sugar.

I was thinking about the reasons why we think about sugar in the urine, other than just that it signals high blood sugar to us. Does that make these cats more prone to UTI?

RR: You know, when I first started working with Elanco on this, that was my big concern too. I was like, okay, great, so now we're going to have fat cats that are messy anyway, and now we're going to create this perfect medium for bacteria to grow. The initial studies have not shown that to be an issue, which I was relieved about. I think that we'll see what happens as time goes on, but at this point in time, it doesn't seem to be the biggest concern.

KB: How do we know what cases are appropriate? Because clearly this isn't a drug that everybody's recommending instead of insulin for diabetic cats in general.



RR: The patient selection for this class of drugs is going to be imperative. Back to what I initially said, the cat still needs to have a source of insulin. So if you think of the big, fat cats being more like a type-2 diabetic, they're really insulin resistant, not insulin deficient. That insulin is still being produced by the pancreas, it's still trying to get to where it needs to get and do its job.

We want these cats to be healthy cats. These are the cats that come in for their regular annual or semiannual visits that we notice have lost weight, but they're eating really well, and they're still drinking great, and they pee like everything. They don't come in with vomiting, they don't come in with a plantigrade stance normally, because those cats will have been sick for a while. They don't come in with concurrent pancreatitis. They are just these cats [in whom] we are diagnosing diabetes almost incidentally. Cats are still going to need insulin if they're sick at all.

KB: And those moderately sick cats who clearly aren't well, but they're managing and they're still eating and stuff—if those cats go on insulin, is there a chance that they'll eventually be able to transition over?

RR: Once the cat is on insulin, then that's it. At this point in time, and probably for the foreseeable future, this class of drugs is purely for the brand new, newly diagnosed diabetic cat.

KB: Say we've picked the right patient and the case is right; are there complications or side effects that we should watch for or warn people about?



“At this point in time, and probably for the foreseeable future, this class of drugs is purely for the brand new, newly diagnosed diabetic cat”

—RENEE RUCINSKY, DVM, DABVP (FELINE)

RR: The cool thing about this class of drugs is that we don't have the normal “diabetic cat on insulin” complication; the odds of a cat becoming hypoglycemic on this class of drugs is practically zero. Which is absolutely amazing! But the flip side of that is that when they do get sick, we can't necessarily look at hyperglycemia as being one of the red flags.

The complications will mainly occur if, for some reason, the cat is no longer producing enough endogenous insulin. That would be diabetic ketoacidosis [DKA], which is going to be a little bit more challenging to diagnose because they're not going to be hyperglycemic. The phrase “euglycemic diabetic ketoacidosis” is going to be much more prominent in the vernacular because these cats are going to potentially be very, very sick, with ketones, but normoglycemic.

KB: So ketones in the urine can still be a diagnostic aid there?

RR: You shouldn't see ketones in the urine of one that's doing well. But because the main monitoring with these guys is a [blood] ketone level, the recommendation is to have a hand-held ketone monitor. BHB is the ketone that we're looking at.

The cool thing about these little hand-held ketone meters is that they look just like your bedside glucometer. It's one drop of blood. It's an instant read, and that's what we're going to use to monitor these guys both before we start and then as you start the initial treatment. They're very inexpensive, and [...] I truly believe that you should not be using this drug without one of those in your hospital, because if you have to send it out to a reference lab and it takes 24 to 36 hours or more to get that back, that cat could be in really,

really bad shape. You have to have this in your hospital if you're going to start treating these cats with this kind of drug.

KB: Do you see cats go into remission on this drug?

RR: Will they go into remission on this? I don't know. We can start this drug, we can aggressively work on weight loss and diet change and other things without that inherent risk of administering insulin twice a day. So maybe when we're able to work on everything else that's contributing to that cat's diabetes, we can take them off of this drug. I don't see why we wouldn't be able to if we take care of all the reasons why they were diabetic in the first place.

KB: What conversations do we need to make sure we have with clients before we start this?

RR: Well, before we talk about what we tell clients, think about just what we've had to go through educating cat owners about the potential of their cat being diabetic.

Most every cat needs twice-a-day insulin, so that's a lifestyle change for the cat, it's a lifestyle change for the human—now they've got to be home when they can administer this drug and make sure that cat ate. It's very stressful. And as much as we explain to owners that this needle is tiny and the cats typically don't care, there are still people that are afraid of needles, and there are still cats that are like, yeah, I don't want to get poked twice a day. So then that affects the relationship between the owner and their pet. Even before it starts affecting their relationship,

once people hear the diagnosis of diabetes, there's a fair number of cats that will get euthanized at that point or some time within the first several months of being on insulin.

So, the opportunity to have a once-a-day chewable medication that they can either break up and take like a treat or get mixed in food with no risk of hypoglycemia and no chasing the cat around the house and ruining that relationship—if the cat's a good candidate for it, I think that's going to be a complete game changer.

It's going to be a different sort of education. Now, instead of spending all of our time educating on how to give insulin and the timing and the storage and all of that, we're going to be talking about monitoring that cat for how they're feeling. If they

start feeling icky, is it because of something else, or is it because they're developing DKA? The development of DKA is not that common with the cats that are on this drug, but when it happens, like any DKA, it needs to be addressed super quickly. Having the owners be aware that that's a complication if they have to go to the emergency vet, who may not know yet that these cats aren't going to be hyperglycemic—it's going to be really important to get that message out too.

KB: How do we train teams to be aware and know what's important for them to know and what messages to relay?

RR: Many times, as veterinarians, we're not always the first people in the building. Our front desk staff



“Our front desk staff needs to know that all this training they’ve had to prevent hypoglycemia doesn’t apply to the SGLT2 inhibitor class of drugs.”

—RENEE RUCINSKY, DVM, DABVP (FELINE)

needs to know that all this training they've had to prevent hypoglycemia doesn't apply to the SGLT2 inhibitor class of drugs.

If a cat continues to take his SGLT2 inhibitor and isn't feeling well, those are the cats that we need to say, "You know what, we need to do a spot check at least of this ketone."

As far as going to the ER [...], I think that there will [eventually] be something that the owners can always have with them to help inform the emergency staff going forward to make sure that everybody is set up for success.

KB: In terms of a cat who comes in with vomiting and is sick and turns out to have DKA, and then that cat needs insulin at the hospital even though they're euglycemic, is that cat ever going to go home on Bexacat again, or is that cat now on insulin?

RR: No. That cat will now be on insulin.

KB: When you start a cat on Bexacat, can you just send it home and tell the owners what to watch for versus having to do extensive monitoring like you would if you started it on insulin?

RR: It's just different. As we're starting to learn this new class of drugs and monitoring, we're going to ask that those cats come back relatively frequently for the first little bit. They're still sick cats, they still have a major disease, so we have to monitor that. And just like diabetic cats that are on insulin, they still need to be monitored even once they've got their right dose. Where the difference is going to be is that there's just one dose.

KB: Do you think we'll see a time, once we're a little more comfortable with the drug, where we send ketone meters home with owners the way that we do glucometers now and have them check ketones at home?

RR: Absolutely. I don't see why we wouldn't. Just like with handheld glucometers, it's not going to be a replacement for our regular work-ups, but it will definitely be one of those things where owners can check that at home and decide whether this is a panic moment or okay, I can have a little breathing room to figure out if it's something else.

My biggest concern is that that patient selection won't be as careful as it needs to be. I think that because it's not a needle, because it's once a day, because there's no risk of hypoglycemia—I think there's going to be a lot of pressure from the owners when they hear about this. [...] I think it's going to require a lot of saying no and sticking up for the patient. Is this the best thing? If answer is no, then I'm really sorry, but I don't want to kill your cat. I think we can be that blunt about it. If we choose incorrectly, the cat will not survive. That's not meant to sound ominous; it's just that we have to be so careful.

A baseball pitcher has four or five different pitches he can throw based on the kind of batter that's up. You don't throw a fast ball to a fast ball hitter. Maybe there are cats that you can correct their hyperglycemia by putting them on a high-protein, all-can diet, and that's good enough. Maybe another cat gets an SGLT2 inhibitor. It's just another tool in our

ever-growing arsenal of how to take the best care of our patients.

KB: It's a new era of feline diabetes, and it's a big deal.

RR: Absolutely. We recently had a newly diabetic cat who's been a patient, and her owner has been a client for forever. [When] her cat came in and was a perfect candidate for this, you could just see her face relax, you could see her blood pressure go down. We are optimistic that this cat will continue to do well; she's doing great so far. It's just kind of fun. Sometimes it's fun to be a vet. ✨



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Renee Rucinsky, DVM, DABVP (Feline), is a graduate of the University of Missouri College of Veterinary Medicine, and has been a board certified feline specialist for over 20 years. She is owner and veterinarian at Mid Atlantic Cat Hospital and Mid Atlantic Feline Thyroid Center in Maryland. In addition to routine feline wellness care, her hospital has become a busy referral center for complicated feline internal medicine cases, especially for diabetic cats.



Katie Berlin, DVM, CVA, is AAHA's Director of Content Strategy.

10 Things to Know about the New Diabetes Drug for Cats

- 1** Bexacat™ (bexagliflozin), a sodium glucose co-transporter 2 (SGLT2) inhibitor, is an FDA-approved once-a-day chewable tablet labeled as a treatment for feline diabetes.
- 2** SGLT2 inhibitors are not an “insulin pill.” They reduce blood glucose levels by preventing renal glucose absorption, but the body must still be able to make insulin. Therefore, they are not a suitable treatment for all diabetic cats.
- 3** Because the drug prevents glucose absorption in the kidneys, excess glucose will be shed in the urine—meaning urine glucose monitoring in patients on SGLT2 inhibitors won’t be useful measurements anymore: These cats are always going to be glucosuric. So far, there’s no evidence this makes them more prone to UTIs.
- 4** The odds of a cat becoming hypoglycemic on these drugs are almost zero. The whole practice team needs to know that their training in how to prevent hypoglycemia doesn’t apply to SGLT2 inhibitors.
- 5** Patient selection is highly important: It’s for mostly healthy, newly diagnosed diabetic cats.
- 6** This drug is NOT for cats who have other chronic conditions.
- 7** Diabetic ketoacidosis (DKA) will be harder to diagnose in cats on SGLT2 inhibitors because these cats are not going to present with hyperglycemia.
- 8** The vet team will need to educate clients on in how to spot signs of DKA in a cat on an SGLT2 inhibitor, because, although it’s rare, it still needs to be addressed quickly.
- 9** Main monitoring for cats on SGLT2 inhibitors will be blood ketone levels. A handheld ketone meter is essential for any practice planning to prescribe these drugs, and for any ER.
- 10** Cats on this drug will still need to be seen regularly by the veterinary team for regular exams, labwork, and client support.



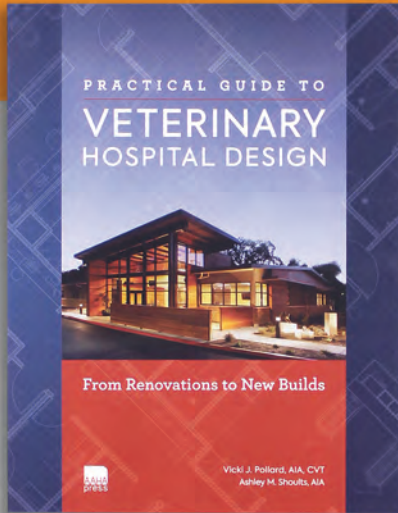
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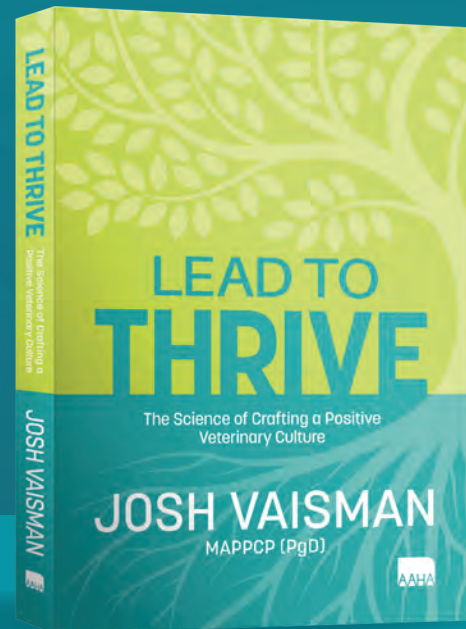
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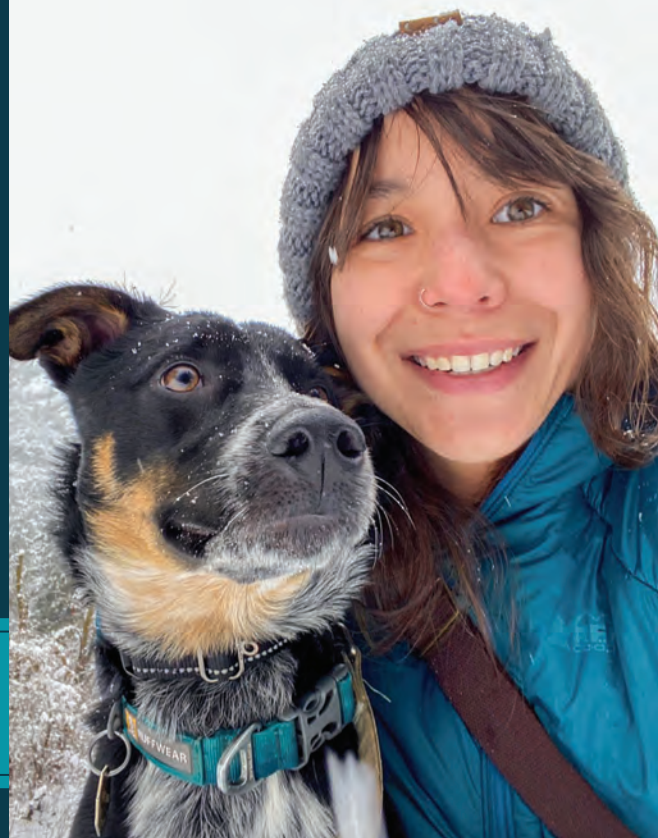
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Years with practice: **2**

Nominated by: **Natalie Borgardt**

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Why Is Gianna So Awesome?

Gianna came into vet med eager to learn. She quickly grew her knowledge and her prior customer service experience make her a standout with clients. “Yes” is always the answer whenever she’s asked, and you’ll usually find her offering to lend a hand in all areas of the hospital.

How Does She Go Above and Beyond?

In addition to her CSR duties, Gianna coordinates our puppy socialization classes, has become skilled at providing therapeutic laser treatments, and also goes above and beyond managing our Pawspice program, following up after every end-of-life appointment. She truly is a treasured asset to our team!

In Her Own Words

Why do you love your job: It’s the most rewarding and fulfilling job I’ve ever had. I feel that what I do on a day-to-day basis really matters. I enjoy working with all the different patients and clients and love that I can be challenged to almost endlessly learn new things daily.

Pets at home: A cattle dog mix named Flynn.

What brought you to the profession: My cousin is an RVT, and I had always intended to pursue a career in animal medicine. I was looking for a new start and the opportunity to join Animal Care Clinic came at the perfect time. I feel very lucky!

Hobbies outside of work: Hiking the beautiful California Central Coast.

Favorite book: *Jane Two* by Sean Patrick Flanery.

Each month *Trends* spotlights an AAHA member, with generous support from **CareCredit**.* If you want to nominate someone, visit aaha.org/EOTM and enter them for a chance to win \$500!

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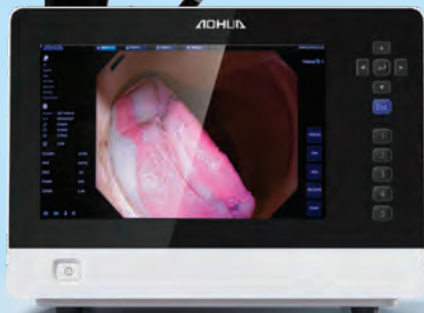


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