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fetch
dvm³⁶⁰ CONFERENCE **p 1**

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Big news

CVC is now ...

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We're so excited to announce the launch of Fetch, a dvm360 conference—an innovative 360-degree educational experience from the media powerhouse dvm360 that focuses on every aspect of the veterinary professional's life.

No more just checking the box for CE. No more information-overload. No more nameless, faceless company hosting the event.

Fetch is about industry-leading CE, sure. But it's also about inspiration, well-

ness, community and real solutions to industry-wide problems like debt, compassion fatigue and impostor syndrome. The goal is to care for veterinary professionals as whole people.

Fetch is part of the dvm360 family of brands that also includes *Vetted*, *First-line* and *dvm360* magazines along with the dvm360.com website. The parent company is UBM, a global events-first company, of which UBM Animal Care is a division. Learn more about the change at fetchdvm360.com.

THE GUIDE

September 2017

CVC is now ...

fetch
dvm³⁶⁰
CONFERENCE

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CVC Educator Sarah Wooten, DVM
Sheep Draw Animal Hospital

Speakers who think outside the PowerPoint box

"CVC fosters a creative environment that encourages speakers to think outside the powerpoint box. As a speaker, I could not have asked for a more supportive, innovative, fun group with whom to work.

As an attendee, CVC makes me feel valued. The sessions are intimate and fun, speakers are approachable, and there are multiple opportunities for networking. And let's not forget the exhibit hall cocktail party...who doesn't love buffalo wings and free beer?" — Sarah Wooten, DVM

Register now, or learn more at www.TheCVC.com.



San Diego, December 7-10



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THE PICKS

(what we care about now)

Have your clients been fooled by this doc(umentary)?

The assignment for our practitioner in the trenches, Dr. Sarah Wooten: Watch the popular Netflix documentary *Pet Fooled* and give us your take.

And take it she did! "I found most of this shock-you-mentary jaw droppingly inflammatory and inaccurate. You will have to watch it for yourself." But Dr. Wooten sees a definite upside for veterinary practices: "As irritated as I was after watching it (which I think was the point), I actually find value in this piece in that if we approach it right, it could open up lines of communication between veterinarians and pet owners." See all of Dr. Wooten's review at dvm360.com/petfooled. And don't miss the link to a sample script from Dr. Wooten and special guest Joe Bartges, DVM, PhD, DACVIM, DACVN, answering clients' likely questions about *Pet Fooled*.

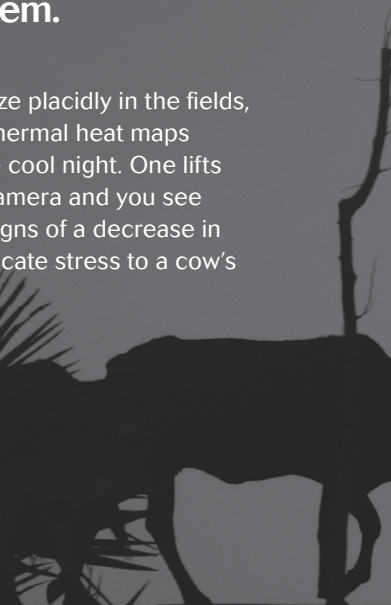


Check out this best-ever advice about managing clients' out-of-the-blue diet queries by asking yourself three simple questions: dvm360.com/nutritionquestions

Moo-ving PAIN research in heifers

Veterinary researchers are examining whether a decrease in eye temperature may give visual clues that point to stress to a cow's nervous system.

A starry night. Cows graze placidly in the fields, their bodies colorful thermal heat maps against the blue of the cool night. One lifts its head, gazing toward the camera and you see it—signs of pain. Or at least signs of a decrease in eye temperature that can indicate stress to a cow's

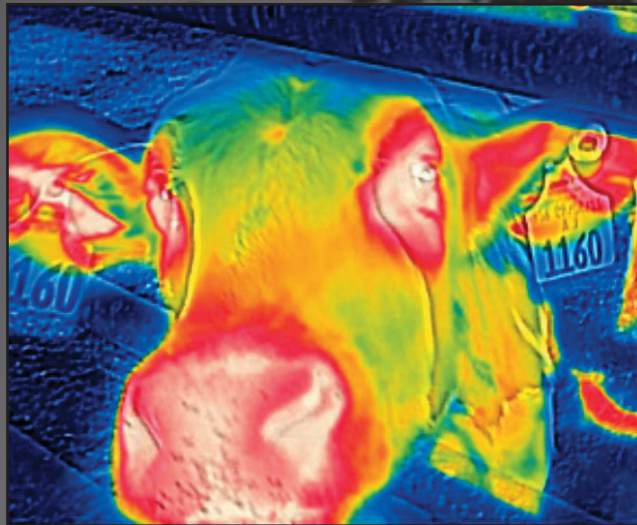


nervous system. Kyle Karlen, a DVM candidate, class of 2020, at the University of Wisconsin-Madison School of Veterinary Medicine, is part of a research team examining this topic.

"The photo was taken as part of a larger and more extensive research project that we are currently working toward publication called 'Analysis of Cortisol, Substance P, ocular and horn bud thermography, pressure algometry, and rate of gain in response to caustic paste disbudding with the use of oral meloxicam in Holstein heifer calves,'" Karlen says. "In addition to several of the more technical yet less aesthetically pleasing procedures described in the title, we used a thermal camera in an attempt to elucidate the pain response associated with disbudding in 3-day-old dairy calves via caustic paste."

Karlen says previous studies on disbudding and other painful procedures used a thermal camera for a technique known as ocular thermography, which works on the fight-or-flight response where an increase in stress causes stimulation of the sympathetic nervous system, resulting in vasoconstriction around the eye and therefore a marked decrease in eye temperature.

"In this project, we also developed a procedure that we called horn bud thermography, where we took a picture of the horn bud area before and after disbudding to monitor the heat and inflammation resulting from the procedure," he says. "We adapted many of the methods used by Dr. Hans Coetzee in



A decrease in eye temperature can indicate stress to a cow's nervous system, giving researchers the opportunity to monitor the animal's well-being. This thermal image was taken as part of a research project on calves' responses to a horn-removal procedure common to dairy cattle.

previous research projects on cautery disbudding. We chose to research caustic paste disbudding because it is becoming more widely adopted by large, progressive dairy farms in recent years, but there was a lack of research on the subject. The procedure appears to be very simple and innocuous, but we wanted to investigate it and the effects of oral meloxicam on the pain response to it in an attempt to improve animal welfare."

I CAN'T READ THIS!?

Focus in on these three techniques for better radiographs—
and better patient care. *By Michelle Fabiani, DVM, DACVR*

The lights in my office are off—the room dark the way I like it. The barks, meows and other various noises of our busy practice are hushed outside my closed door, which prevents interruption of my structured evaluation of each film. I search every pixel of my two black-and-white, high-definition medical-grade monitors. I'm intent on finding the cause of this patient's breathing difficulties.

Even though I will review radiographs on 25,000 patients this year, this one is exceptionally challenging. There's an entire portion of the lung field that is all black. This area lacks information, as it is burned through. I need to see what is not possible to visualize. I don't have the needed information to obtain a diagnosis for this sick patient. I sigh. I cannot help this one this time.

1 NO MYSTERY IN HISTORY

One challenge of working as a teleradiologist is that I never see my patients in person. Without physically examining them, being familiar with their history and talking to the owner, quite a bit of background can be lost. It's critical for whomever is taking and sending the radiographs, whether veterinarian or technician, to provide context that can help my assessment.

One practice we've implemented in our hospital is for the veterinarian to fill out the physical exam and history sections, thus providing more detail and nuance that can be quickly relayed to a technician or read from the presenting complaint in the chart. Our doctors also copy-and-paste pertinent parts of the electronic medical record into the radiology consult, relaying additional information to the radiologist.

2 COLLIMATE AND COMPARE

There's a medical benefit to collimating—focusing in on a single region of the patient's body—to improve the image quality of that region. There are only so many pixels on a digital radiograph plate. If the majority of the radiograph isn't really part of the area that you're interested in (for instance, taking a whole-body radiograph for a stifle lameness), then as a result the majority of the pixels are useless. The actual area of interest doesn't have enough resolution to evaluate adequately. How can you tell if this is happening on your images? Magnify to the region of interest and see if you notice a pixelated appearance. Collimating provides better image resolution and greater ability to accurately diagnose, resulting in better patient outcomes.

3 WANNA BE SEDATED?

As part of our initiative to provide better patient care at our specialty clinic, we're becoming a Fear Free hospital. We take patient stress, pain and fear seriously. Sedation is standard for all patient imaging in Fear Free Hospitals—not only radiographs, but all other imaging as well. Our goal is to make the entire patient visit (including imaging) a positive, calm, stress-free event, which ultimately makes the process safer for our staff and also increases the quality of images obtained.

Through sedation, we both assure patient safety and our ability to take the diagnostic images necessary to support treatment of the patient. Sedation also decreases radiation exposure to our staff because those images we do take are of the necessary quality and don't need to be repeated multiple times. For us, sedation is better for the patient and the staff—and it's better medicine.

Want more?

Find 4 more radiography tips at **dvm360.com/radicalrads**. Flip to page 9 to learn how to take diagnostic dental radiographs.

Dr. Michelle Fabiani is head of diagnostic imaging at Gulf Coast Veterinary Specialists in Houston, Texas. Her interests include exotic animal imaging, echocardiography, computed tomography and interventional radiology.

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Home sweet hospital

Offering enrichment tools and techniques to hospitalized patients can be challenging, says CVC (Now Fetch!) educator Debbie Martin, CPDT-KA, KPA CTP, LVT, VTS (behavior), but it can also be especially important for these patients who, on top of not feeling well, are in an unfamiliar place.

Start with creating a comfortable spot

to rest, says Martin. Play calming music to drown out potentially distressing hospital noises.

"If they're eating OK, we can consider using some puzzle-type food storage items or exploratory items to get their natural behaviors going," Martin says. She suggests using toys that can be easily cleaned. (Editor's note: Check out

the client handout at dvm360.com/cleanpuzzles on how to keep food puzzles clean and safe.)

"There's a new one I just heard about that I'm looking forward to using—the Woolly Snuffle Mat," says Martin. "It's similar to '70s fringe carpeting, but thicker." You can put a dog's dry kibble in the mat and allow the dog to forage for its food. And the best part: It's machine washable.



Fetch for enrichment

Find more great information about enrichment at Fetch in San Diego Dec. 7-10. Learn more about Fetch on page 1 or scan the code.



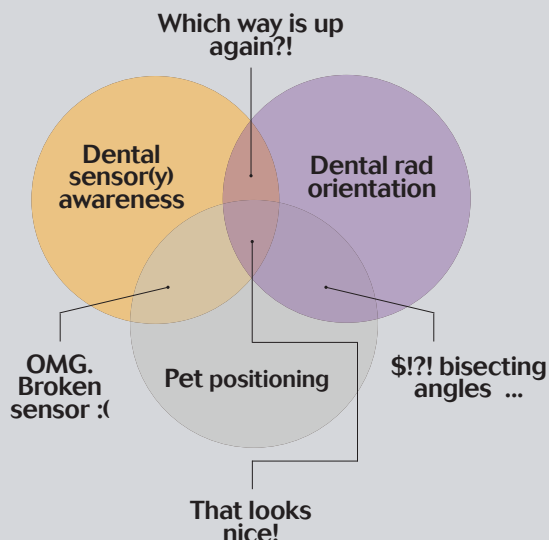
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Step 1: Get better dental radiographs

Need imaging help? Check out the (Mini) Team Meeting in a Box: A radical guide to diagnostic dental radiographs. With this free team training your team will learn how to take better dental radiographs and explain to clients the importance of the dental preventive care, diagnostics and treatments you and your fantastic veterinary team provide every day. Check it out at dvm360.com/teammeeting.

VETERINARY SNARK CHART

THE EMOTIONS BEHIND TAKING DIAGNOSTIC DENTAL RADIOGRAPHS



Editor's note: In "A preventive-care breakdown" that appeared in the August 2017 issue of *Vetted*, the information for Veterinary Credit Plans was listed incorrectly. Please visit dvm360.com/preventivebreakdown for an updated chart.

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Dermatology: Got culture?

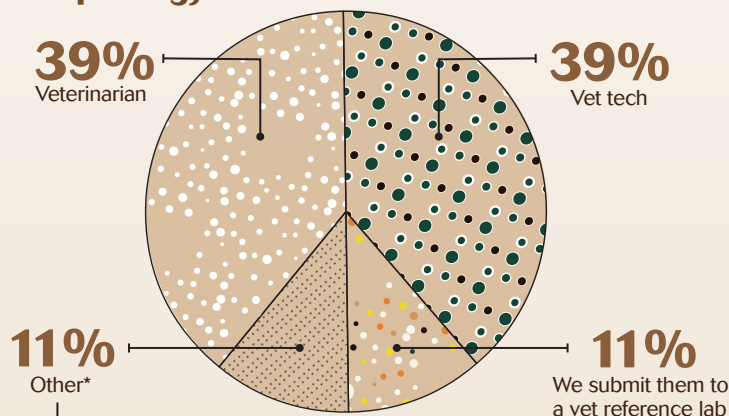
A fungal culture is the well-known gold standard for diagnosing ringworm. And the goal of most skin scrapings is to, of course, identify infectious organisms. But how are these skin scrapings and culture tests being carried out in the average veterinary practice—and how does it compare to what's being done in your own practice? Your fellow veterinarians took to answering in a recent dvm360 survey. Here's what they had to say:

Do you perform dermatophyte test medium (DTM) cultures in your hospital?

ONLY 14%

of respondents **do not perform** dermatophyte test medium (DTM) cultures in their hospital.

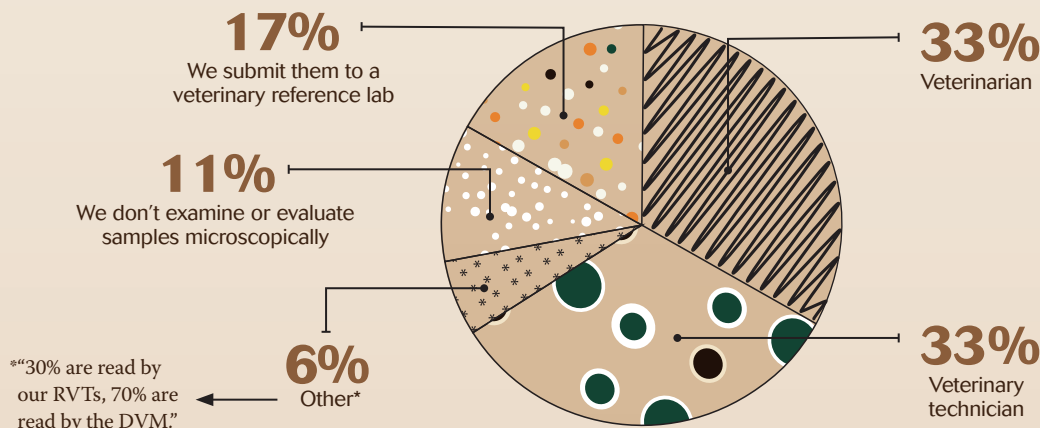
Who examines the culture plates macroscopically to evaluate media color change or gross colony morphology?



*“A CVT/LVT examines the in-house DTM for color change/growth then shows the report to the referring DVM, takes a picture and attaches it to the patient's record.”

*“Technicians confirm when growth is present, then a DVM reviews in order to diagnose species.”

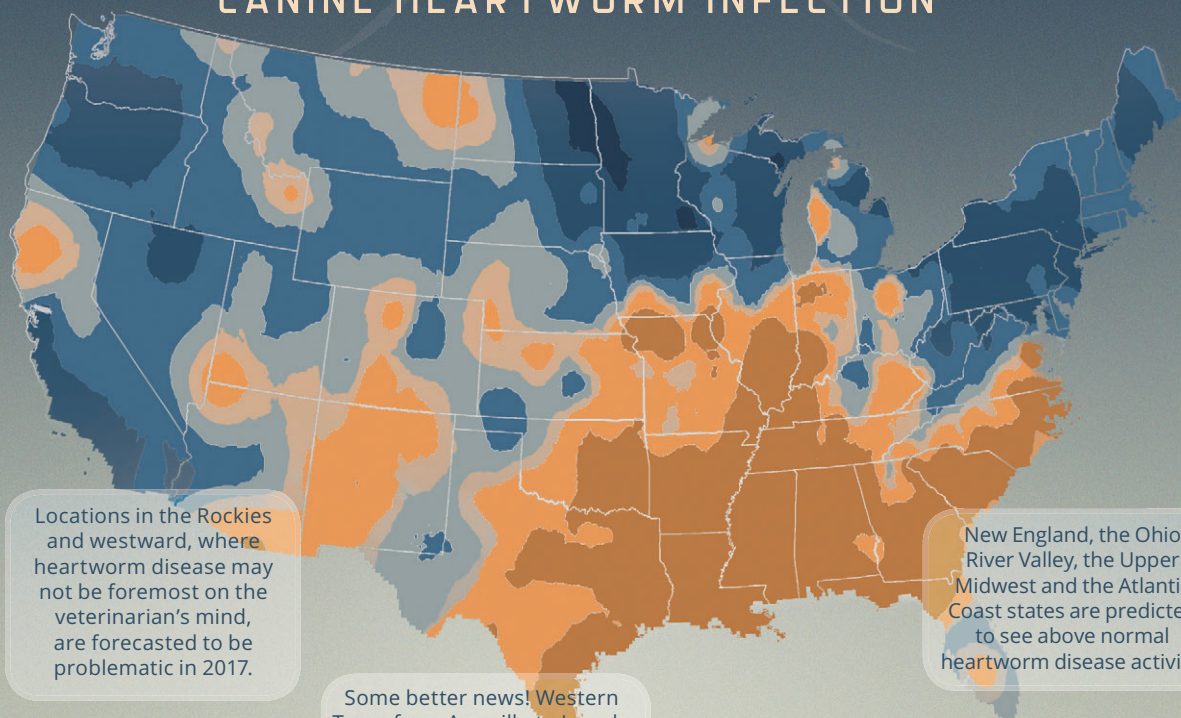
Who examines the fungal colony samples microscopically to positively identify the organism present?



Source: The dvm360 Clinical Updates: Dermatology survey was sent in April 2017 to subscribers of dvm360, Vetted and Firstline. The survey garnered 323 responses with a margin of error of 5%.

MAPPING THE RISKS

CANINE HEARTWORM INFECTION



Locations in the Rockies and westward, where heartworm disease may not be foremost on the veterinarian's mind, are forecasted to be problematic in 2017.

Some better news! Western Texas from Amarillo to Laredo may observe static to lower-than-average burden of heartworm disease in 2017.

New England, the Ohio River Valley, the Upper Midwest and the Atlantic Coast states are predicted to see above normal heartworm disease activity.

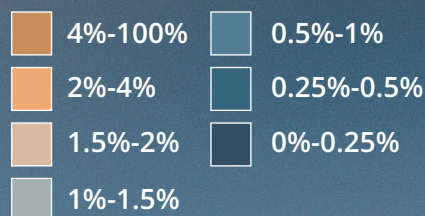
The Lower Mississippi Valley, where heartworm disease is rampant, is expected to observe greater caseloads than normal.

THE DATA IS IN!

The Companion Animal Parasite Council (CAPC) has developed and maintains current and accurate maps on a variety of parasitic diseases in the United States and Canada, based on data provided by IDEXX Laboratories and ANTECH Diagnostics. These maps, found at capcvet.org, are available for your veterinary care team to use in your client education efforts—

are you using them? On this page, you can see the 2017 forecast for heartworm disease, and on the next page you'll see current data on the prevalence of heartworm disease, all the way down to the county level! Keep reading to see how you can use these maps to their fullest and help reduce the risk of heartworm disease in your patients.

FORECASTED PREVALENCE 2017

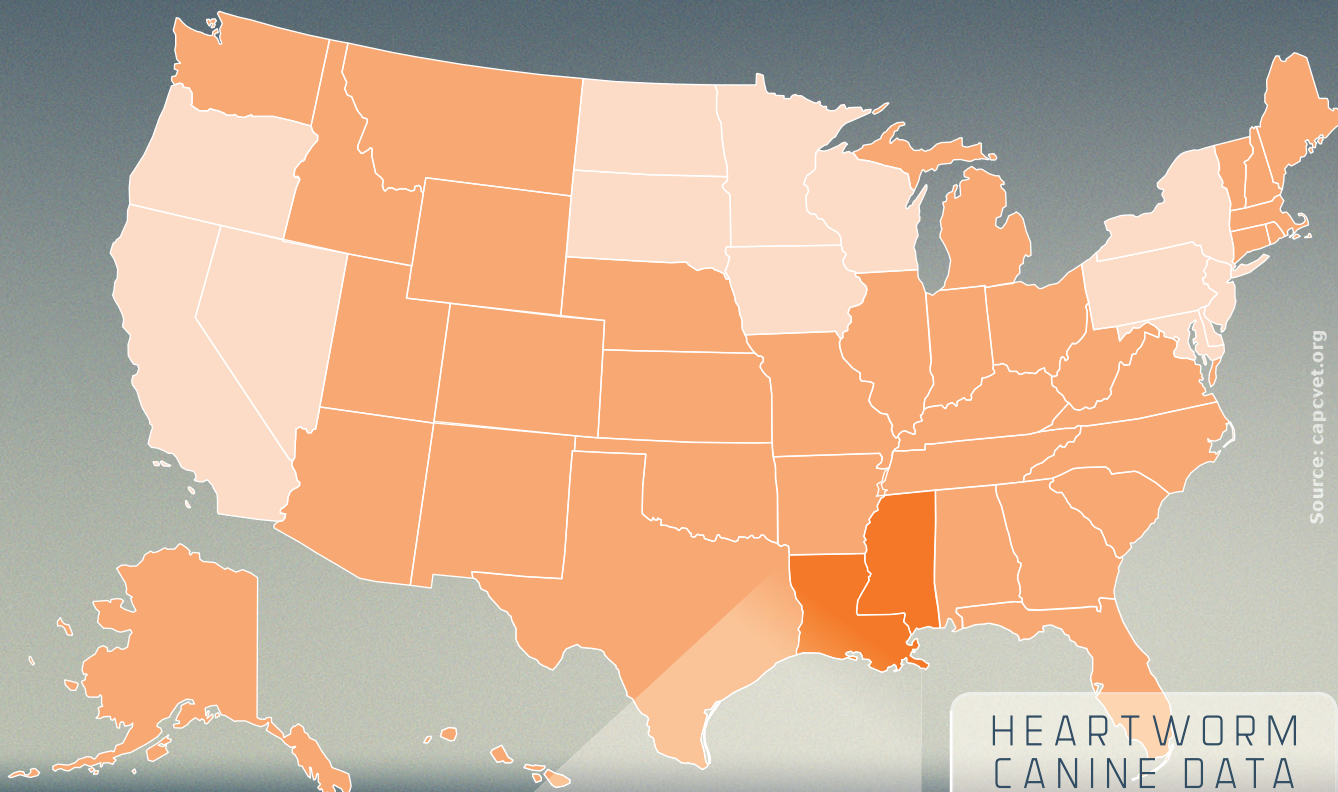


With an educational grant provided by

ProHeart[®]6
(moxidectin)

WHAT'S YOUR PATIENTS' RISK OF HEARTWORM

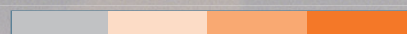
Go to capcvet.org to find out what the parasite risks are in your area, and select the parasite you want to track (in this case, heartworm). First you'll see the total number of heartworm-positive test results veterinarians have reported in the entire United States and the total number of tests conducted. Then click on your state. You'll see the totals there as well. Then click on your county—you'll see how many dogs and cats have tested positive in your immediate region. Here we're showing the data for Rapides County, Louisiana, part of the heartworm hot zone that is the Mississippi Delta. If you sign up for updates at capcvet.org, you'll get new numbers on a regular basis sent right to your email. Nine out of 10 veterinary clients say they want this info!



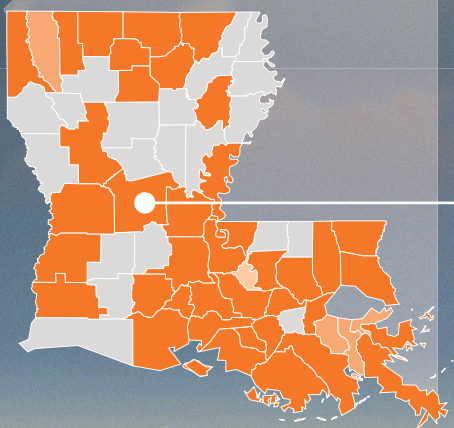
INFECTION RISK IN 2017

NO DATA

HIGH RISK



- Cases of both canine and feline heartworm disease have been reported in all 50 states.
- CAPC recommends that all dogs be tested annually for both heartworm antigens and microfilariae, even if they're on year-round preventives.



HEARTWORM CANINE DATA

US > LOUISIANA > RAPIDES PARISH

TESTED POSITIVE

11.84%

POSITIVE CASES

436

OF

TOTAL TESTED

3,683

DISEASE TODAY?

Use an old-school whiteboard to inform pet owners of local risks

Data on heartworms can provide a public service to your veterinary clients—and help protect your patients.

A simple dry erase whiteboard can change the conversation about parasite prevention from selling product to protecting patients. A 2015 study by the Companion Animal Parasite Council (CAPC) has shown that 90% of pet owners want their veterinarian to provide them with information on parasites. Posting local, timely parasite prevalence numbers in your waiting area can help stimulate conversation with your clients and provide a public service.

Step 1: Buy a whiteboard at an office supply store.

Step 2: Visit capcvet.org and click on “Parasite Prevalence Maps.”

Step 3: Identify the disease you want to highlight (such as heartworm infection) and find the prevalence data for your state and county.

Step 4: Write the number of cases in your county on the whiteboard and set it out or hang it near where clients check in and out.

Step 5: Educate clients about heartworm disease when they ask about the numbers on the board.

Step 6: Change the statistics you highlight on the board according to new data and changing seasonal risks (sign up to receive updates at capcvet.org).

Want to hear more?
Check out the video at dvm360.com/CAPCwhiteboard.



Consider keeping a heartworm-infected heart in a formalin jar to show to owners. Plastic models and parasite posters visualizing the disease also work.



Clients who have a hard time remembering to give a monthly preventive might do better with an injection every six months. Try telling them they only have to think about it twice a year instead of 12 times a year.

zoetis

BRIEF SUMMARY:

See package insert for full prescribing information.

NADA 141-189, Approved by FDA

ProHeart® 6 (moxidectin)

Sustained Release Injectable for Dogs

CAUTION

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

INDICATIONS

ProHeart 6 is indicated for use in dogs six months of age and older for the prevention of heartworm disease caused by *Dirofilaria immitis*.

ProHeart 6 is indicated for the treatment of existing larval and adult hookworm (*Ancylostoma caninum* and *Uncinaria stenocephala*) infections.

INFORMATION FOR DOG OWNERS

Always provide Client Information Sheet and review with owners before administering ProHeart 6. Owners should be advised of the potential for adverse reactions, including anaphylaxis, and be informed of the clinical signs associated with drug toxicity (see **WARNINGS, PRECAUTIONS** and **ADVERSE REACTIONS** sections.) Owners should be advised to contact their veterinarian immediately if signs of toxicity are observed. The vast majority of patients with drug related adverse reactions have recovered when the signs are recognized and veterinary care, if appropriate, is initiated.

CONTRAINDICATIONS

ProHeart 6 is contraindicated in animals previously found to be hypersensitive to this drug.

HUMAN WARNINGS

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

May be slightly irritating to the eyes. May cause slight irritation to the upper respiratory tract if inhaled. May be harmful if swallowed. If contact with the eyes occurs, rinse thoroughly with water for 15 minutes and seek medical attention immediately. If accidental ingestion occurs, contact a Poison Control Center or a physician immediately. The material safety data sheet (MSDS) contains more detailed occupational safety information.

WARNINGS

ProHeart 6 should be administered with caution in dogs with pre-existing allergic disease, including food allergy, atopy, and flea allergy dermatitis. In some cases, anaphylactic reactions have resulted in liver disease and death. Anaphylactic and anaphylactoid reactions should be treated immediately with the same measures used to treat hypersensitivity reactions to vaccines and other injectable products.

Owners should be given the Client Information Sheet for ProHeart 6 to read before the drug is administered and should be advised to observe their dogs for potential drug toxicity described in the sheet.

Do not administer ProHeart 6 to dogs who are sick, debilitated, underweight or who have a history of weight loss.

PRECAUTIONS

Caution should be used when administering ProHeart 6 concurrently with vaccinations. Adverse reactions, including anaphylaxis, have been reported following the concomitant use of ProHeart 6 and vaccinations (see **WARNINGS**).

Prior to administration of ProHeart 6, the health of the patient should be assessed by a thorough medical history, physical examination and diagnostic testing as indicated (see **WARNINGS**).

ProHeart 6 should not be used more frequently than every 6 months.

The safety and effectiveness of ProHeart 6 has not been evaluated in dogs less than 6 months of age.

Caution should be used when administering ProHeart 6 to heartworm positive dogs (see **ADVERSE REACTIONS**).

Prior to administration of ProHeart 6, dogs should be tested for existing heartworm infections. Infected dogs should be treated to remove adult heartworms. ProHeart 6 is not effective against adult *D. immitis* and, while the number of circulating microfilariae may decrease following treatment, ProHeart 6 is not effective for microfilariae clearance.

ADVERSE REACTIONS

In field studies, the following adverse reactions were observed in dogs treated with ProHeart 6: anaphylaxis, vomiting, diarrhea (with and without blood), listlessness, weight loss, seizures, injection site pruritus, and elevated body temperature. Dogs with clinically significant weight loss (>10%) were more likely to experience a severe adverse reaction. In a laboratory effectiveness study, dogs with 4- and 6-month-old heartworm infections experienced vomiting, lethargy and bloody diarrhea. These signs were more severe in the dogs with 4-month-old heartworm infections, including one dog that was recumbent and required supportive care, than in the dogs with older (6-month-old) infections.

Post-Approval Experience (Rev. 2010) 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.

Immune: anaphylaxis and/or anaphylactoid reactions, urticaria, head/face edema, pruritus, pale mucous membranes, collapse, cardiovascular shock, erythema, immune-mediated hemolytic anemia, immune-mediated thrombocytopenia (signs reflected in other system categories could be related to allergic reactions, i.e., gastrointestinal, dermatologic, and hematologic)

Gastrointestinal: vomiting (with or without blood), diarrhea with or without blood, hypersalivation

General: depression, lethargy, anorexia, fever, weight loss, weakness

Dermatological: injection site pruritus/swelling, erythema, multiform

Neurological: seizures, ataxia, trembling, hind limb paresis

Hematological: leukocytosis, anemia, thrombocytopenia

Respiratory: dyspnea, tachypnea, coughing

Hepatic: elevated liver enzymes, hypoproteinemias, hyperbilirubinemia, hepatopathy

Urinary: elevated BUN, elevated creatinine, hematuria, polydipsia, polyuria

Cardiopulmonary signs such as coughing and dyspnea may occur in heartworm positive dogs treated with ProHeart 6.

In some cases, death has been reported as an outcome of the adverse events listed above.

To report suspected adverse reactions, to obtain a Material Safety Data Sheet, or for technical assistance, call 1-888-963-8471.

For a complete listing of adverse reactions for moxidectin reported to the CVM see: <http://www.fda.gov/AnimalVeterinary/SafetyHealth/ProductsSafetyInformation/cvm055394.htm>

Revised: July 2014

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IMPORTANT SAFETY INFORMATION: PROHEART 6 should be used in healthy dogs. Do not administer to sick, debilitated, underweight dogs or dogs that have a history of weight loss. Prior to administration, PROHEART 6 certified veterinarians should continue to assess patient health through a medical history, physical examination and if deemed appropriate, diagnostic testing. Continue to use caution when administering PROHEART 6 concurrently with vaccinations. Adverse events, including anaphylaxis, have been reported following the concomitant use of PROHEART 6 and vaccines. In some cases, anaphylactic reactions have resulted in death. Use with caution in dogs with pre-existing or uncontrolled allergic disease (food allergy, atopy or flea allergy dermatitis). Dogs receiving PROHEART 6 should be tested for existing heartworms as per the product label. In people, avoid PROHEART 6 contact with eyes. If contact with the eyes occurs, rinse thoroughly with water for 15 minutes and seek medical attention immediately. PROHEART 6 is available only to veterinarians through a restricted distribution program. Only certified veterinarians and staff can administer it. See Brief Summary of full Prescribing Information on the prior page.

Elevate your 3 (easy) steps

You may think your clients judge you on your medical expertise alone, but the sad truth is that they're judging the exterior of your practice first. *By Katie James, Associate Content Specialist*

You take pride in the high-quality medicine you practice. Now it's time to show it in the first, or 400th, impression you present to clients. Turn the practice that gives you slight pangs of embarrassment when people come to see it into the sparkling gem it is. Just follow these three steps from Heather Lewis, AIA, NCARB, of Animal Arts in Boulder, Colorado.

STEP 1

WALK THE PERIMETER

Take a stroll around your building. Really. Get up, look at your exterior and answer these questions:

- > Is the paint faded or peeling?
- > Is your sign dirty or damaged?
- > Are your plants dead?
- > Do you see debris or trash in the parking lot?
- > Do the exterior light fixtures and parking lot lights work?

Because this practice is your baby and it's hard to be objective (we get it), it's even better to enlist a friend who won't be afraid to tell you the answers and give you an honest opinion.

While you walk the property, trash any garbage or debris you see. If you're unimpressed with the exterior you've got, get some inspiration for your new look in our gallery of veterinary hospital exteriors by visiting dvm360.com/hdext.

Don't forget to snap a "before" picture in this step. You'll happily compare it at the end. We promise.



BEFORE



AFTER

PHOTO BY TIM MURPHY, MURPHY FOTO IMAGERY

Pictures of Melrose Animal Hospital in Melrose, Massachusetts, illustrate a “modern” remodel that includes a lot inside (check the window changes for one). But, for the exterior’s sake, look at the difference a new coat of paint and an awning swap makes in creating the new, more modern look.

DON'T HAVE A HUGE BUDGET? NO PROBLEM.

Dan Chapel, AIA, NCARB, a Veterinary Economics Hospital Design Conference speaker, says you can accomplish a ton with only \$5,000. Put that money where it will do the most good—around your front door. Make sure your landscaping looks nice and your sidewalk is clean and unblemished. Perhaps upgrade your door itself or buy a logoed door mat. For more from Chapel on a tight remodel budget, watch the full video at dvm360.com/5kbudget.

SET YOURSELF UP FOR SUCCESS

These tips will get you started, but ideally you'd spread this work over a few weeks or even months. Don't lose steam after step one! We're here to help. Sign up for our FREE email program “3 Steps to Improve Your Curb Appeal and Attract Veterinary Clients” for even more helpful hints from Heather Lewis, AIA, and email reminders and encouragement. Visit dvm360.com/hdcurb to sign up.



STEP 2

PICK ONE THING AND DO IT

Plan and execute a significant touch to your building exterior:

- > Repaint your building.
- > Clean and fix your existing light fixtures—or install new ones.
- > Clean your signage—or invest in a new one.
- > Update your awnings, if applicable.

A relatively small cleaning job or one special update above could make a huge difference in the appearance of your building—without rebuilding your building.



STEP 3

SHOW OFF YOUR GREEN THUMB

Now, we're looking at Mother Nature's gift to your practice—the landscaping—as well as the start to everyone's trip into your hospital, the entryway.

- > Remove urine-soaked or dead bushes.
- > Add planters or new bushes.
- > Clean your floor mats—better yet, buy a new one for each day and rotate them.
- > If you have a vestibule, give it a nice coat of paint and think about installing a seating bench to make it a functional space.

Now—don't forget to take your “after” picture of your spruced-up space! You suitably impressed? We thought so.

TIME TO HEAD INSIDE

Find the latest on floors, cabinetry and more at dvm360.com/hdproducts.

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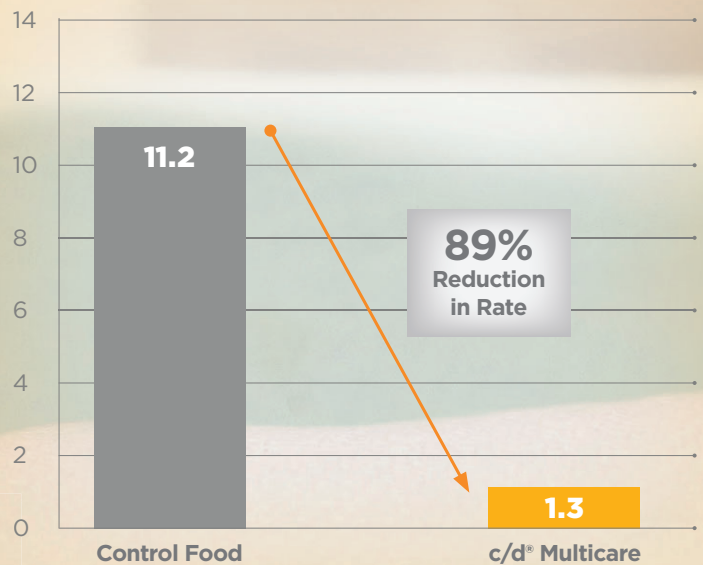


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¹Kruger JM, Lulich JP, MacLeay J, et al. Comparison of foods with differing nutritional profiles for long-term management of acute nonobstructive idiopathic cystitis in cats. *J Am Vet Med Assoc.* 2015;247(5):508-517.

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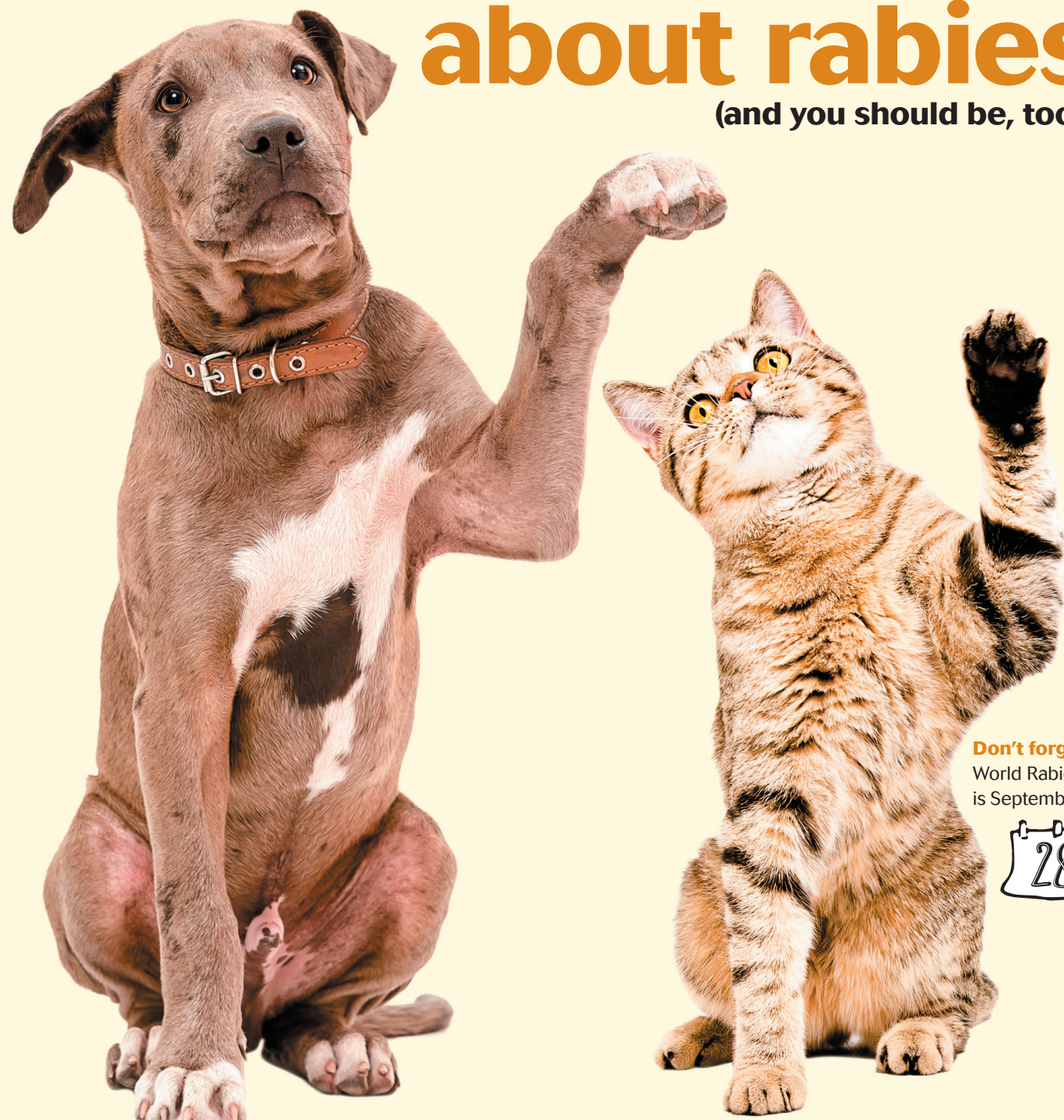
²Lulich JP, Kruger JM, MacLeay JM, et al. Efficacy of two commercially available, low-magnesium, urine-acidifying dry foods for the dissolution of struvite uroliths in cats. *J Am Vet Med Assoc.* 2013;243(8):1147-1153. Average 27 days in vivo study in urolith forming cats.

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We're still worried **about rabies** (and you should be, too!)



Don't forget!
World Rabies Day
is September 28.



know what you're thinking: "Didn't we get rid of rabies?" It depends on which domesticated species we're talking about. In dogs, we're doing great! In cats, not so much. *By Jenifer Chatfield, DVM, DACZM*

Rabies has been a public health issue in the United States almost since the beginning of the nation itself. It appears that the disease originated in the Old World (i.e. Europe) with the first outbreak likely in Boston in the late 1700s. Since then, great strides have been made in the control and prevention of the disease as the mystery of the virus's epidemiology has been illuminated. These days, post-exposure prophylaxis no longer includes removing the frenulum linguae (the mucous membrane that attaches the tongue) in an effort to remove the "tongue worm" or repeatedly submerging the patient in a pond or hot oil when a pond is not available.¹ Thank goodness!

From "mad dogs" to wildlife

For centuries, it was clear that encounters with "mad dogs" were responsible for most transmissions to humans, even though little else was accurately understood for some time. In fact, up until as recently as the 1960s, dog bites were the most common cause of rabies in people in the United States.²

Since then wildlife reservoirs have become

the predominant source of rabies outbreaks and subsequent human exposures in the United States. In the last four decades, domestic animals have been replaced by wildlife as the most commonly reported sources of human exposure, and true elimination of the disease in free-ranging wildlife seems unlikely. Different wildlife reservoirs maintain rabies in different regions of the United States: skunk, fox, raccoon and bat.

Despite the fact that rabies continues to provide a public health threat, many veterinary practitioners fail to recognize its persistence. Practitioners are not the only ones wearing rose-colored glasses and forgetting that vaccination alone is not the "silver bullet" for continued control of this nearly 100% fatal disease. If vaccination

is the foundation of rabies control, then animal control is the cornerstone of that foundation.

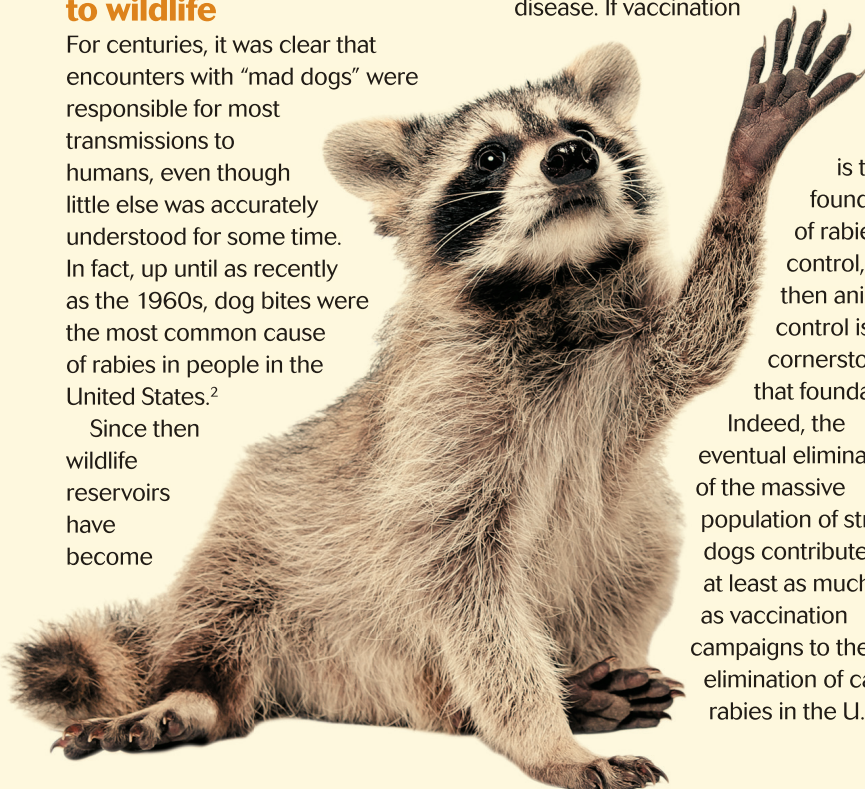
Indeed, the eventual elimination of the massive population of stray dogs contributed at least as much as vaccination campaigns to the elimination of canine rabies in the U.S.¹

The rise of the rabid cats

Thanks to significant programs for animal control, stray dogs no longer roam the streets in large packs ripe for disease maintenance and transmission. Dogs are no longer the most commonly reported rabid domestic animal—cats now have a firm hold on the title. Cats were reported rabid four times more than dogs in recent years.² Despite the ready availability of an efficacious vaccine (several vaccines, in fact), why are cats standing atop the rabies leader board among their domestic peers? The cause is likely multifactorial.

Cats are not routinely seen by veterinarians for preventive care. In fact, by some estimates, nearly 50% of owned cats are not seen for vaccinations. Surely this miscalculation of the import of routine care by cat owners is significant and contributes to the increase in reported rabid cats. But many cat owners keep their cats indoors exclusively, thereby severely limiting their rabies exposure. Still other owners complete the kitten vaccination series and simply fail to maintain preventive care in adult cats, likely providing some rabies immunity through initial vaccination.

An oft ignored, but increasingly more significant variable in the rise of felines in the rabies world is support for allowing large populations of stray cats to persist in urban areas. In an incredible show of "rabies amnesia," some municipalities allow or encourage feeding of stray cats to support the populations. Many stray cat populations are maintained by charity groups or individuals at



There's no such thing as a 'rabies visit'

Erne Ward, DVM, is on the board of Mission Rabies, so he's certainly not immune (see what we did there?) to the importance of rabies vaccinations. But he also gets positively rabid when veterinarians give up on these rabies-only appointments. Here's what he recommends when it comes to so-called "single-vaccine visits."

1 Overcome that mindset

"I was with a colleague not too long ago who called these 'single-vaccine visits,'" Dr. Ward says. Clients who are on the receiving end of this approach, of course, don't see value in a visit to your hospital: They're rushed in and out, pay their \$20 (or whatever) and get nothing but a vaccine. "They're not invited to further engage with your services," he says.

2 Approach every visit the same

"Even if the patient is only there for a rabies vaccine, it's still my job to be the patient advocate," Dr. Ward says. "I give at least a cursory free exam. I look the animal over. I mention a possible allergic reaction or let the pet owner know the ears could use better hygiene. Sometimes these pets come in with an obvious problem, an open wound or a healing laceration, and I ask, 'Hey, what happened here? Looks like there's a scar maybe on the side?' I show I'm concerned about the animal and the client."

3 Ask your favorite preventive-care question

Whatever it is you're into, ask: What kind of heartworm preventive is the dog on? What flea preventive does the cat use? Is the puppy spayed?

4 Leave an invitation

"At the very end, I find a nice way to say, 'I know today you were only here for a specific vaccine, but I want you to feel comfortable coming back. If there's anything we can do to help Buster, here's my business card, just keep it on file.' That may be all that person needs to feel welcome."

"Over time, if you're welcoming and give that invitation, some of these people will come back and do more," Dr. Ward says.



Dr. Jenifer Chatfield is the Staff Veterinarian at 4J Conservation Center, an instructor for FEMA/DHS courses, and a Regional Commander for the National Disaster Medicine System Team.

surprisingly significant financial cost. Such stray cats are trapped, neutered, vaccinated for rabies and then subsequently re-abandoned postoperatively. Setting aside the welfare implications of such treatment, these "TNR" programs do not effectively prevent or control rabies in these stray cat populations as originally posited.³

Where do we go from here?

Since stray dog population control was a cornerstone in the elimination of canine rabies in the U.S. and its subsequent persistent control, it stands to reason—and peer-review—that stray cat population control will be key in significantly decreasing rabies in cats as well. Despite the growing popularity of stray cats, it's important to remember that rabies remains a real public health threat in the U.S. Rabies has no consistently effective clinical treatment or cure to date. Our only response centers on the prevention of the onset of clinical signs with aggressive prophylaxis in people and exposed pets. People are not reported as infected with rabies if appropriate post-exposure prophylaxis is completed. Thus, a great number of people are exposed each year in the U.S., but the actual number of cases of human rabies reported in the U.S. is very low. These case numbers, or lack thereof, are misleading if one is not careful and can present the rosy picture of a nation without rabies.

Alas, we have not yet eliminated the risk and should take care that animal control policies do not allow the threat to continue to grow in our communities. It is vital that veterinary practitioners get engaged with their local public health departments and with other municipal authorities to provide guidance when necessary for animal control decisions. Veterinary practitioners should also educate their clients on the risk of allowing pets (including cats!) to roam freely. Even a one-night adventure outside for a cat could be life-threatening for many reasons, including an encounter with a rabid skunk or raccoon. Keep your patients and their owners safe from rabies by educating folks about the risk of rabies that still exists in the U.S.

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Being an associate veterinarian can be stressful at times, especially if you're a recent graduate. You may think you're not efficient enough, you spend too much time on surgeries, you don't communicate well enough with clients—and on and on. Plus, practicing veterinary medicine on your own for the first time is downright scary.

**“I’ll
never
pay off
these
loans...”**

**“Please
don’t
let me
kill this
patient...”**

Being a betterinarian

The advice in this article is based on Dr. Keen's session, "From veterinarian to betterinarian: How I improved my production," which you can see live at Fetch, a dvm360 conference, in San Diego, December 7-10. For more info, go to

fetchdvm360.com



As if all this weren't enough, you're also concerned about paying off school loans. You need enough money not only to survive but to chip away at that mountain. What you need to do is increase your gross production and therefore your income. I'm here to tell you it can be done—and the good news is that it's as simple as practicing great medicine. Here are a few ways I've increased my gross production. They'll work for you too. *By Jeremy Keen, DVM*

Ear cytologies

An ear cytology should be performed on every patient that's shaking its head, has red and inflamed ears, or just has a lot of dirt in its ears. This test is simple to perform and requires just a few minutes. It tells you if you're dealing with a yeast or bacterial infection and also guides you to the best treatment.

The average price for an ear cytology is \$18, and ear problems are rampant in veterinary medicine. So if you see just five ear cases per day and perform five ear cytologies, this creates \$20,700 in gross production if you're working 4.5 days per week. Ear cytologies help us practice good medicine and at the same time build income both for practitioner and practice.

Fecal examinations

A fecal exam is in order for every newly acquired pet and then annually as a good preventive measure. Vomiting, diarrhea and weight loss also signal the need for a fecal exam. It requires only a few minutes and supplies a large amount of information about the pet's gastrointestinal health. If you diagnose intestinal parasitism, the fecal examination will point you to the best deworming agent.

On average, I see 15 cases per day in which I perform a fecal exam, and the cost for this test is \$16. This creates \$55,200 in gross production for a 4.5-day workweek. It's much more satisfying to explain to a client exactly what we're treating (intestinal parasites, bacteria, etc.) after performing a fecal exam than just placing the patient on an antibiotic and hoping for the best. It's money well spent and clients respect us much more if we can give them a diagnosis.

Annual wellness bloodwork

We should be performing annual wellness bloodwork in all of our middle-aged to geriatric patients and recommending it for all patients. It's so much easier to diagnose a chronic condition such as liver or kidney disease if we closely monitor the numbers and initiate treatment at the ideal time. Clients love us when we diagnose their pet's condition before it's too late to do anything about. Also, if we perform bloodwork at a young age we obtain a good baseline to compare to in the future.

I see an average of five senior pets per day and the wellness bloodwork costs \$75. By doing this every workday, once again assuming

a 4.5-day workweek, you'll create \$87,750 in gross production for the year. Annual wellness bloodwork is a great practice builder, very good income producer and, once again, great medicine.

Chronic medication bloodwork

Any patient that's on a long-term medication such as an NSAID, corticosteroid, immunotherapy or seizure medication should have bloodwork performed every six to 12 months.

Supplements

Supplements designed to support patient health—glucosamine-chondroitin sulfate, omega-3 fatty acids, SAMe, silybin and many others—are a great option in practice today. There's some controversy over how well they work, but I personally am a great believer in these products and think they have the potential to increase the health and longevity of our furry friends. I find that when I present research findings for these supplements to my clients, coupled with my own experience with long-term results, they're very appreciative.

My clinic sells glucosamine-chondroitin by the bottle. A bottle



Arm up against parasites!

We can't talk about preventive care without talking about (your favorite topic ever) parasites! In the spirit of knowing thy enemy, let's go over all the resources dvm360.com makes available to you, good doctor.

- Before we assume anything, check out the top three myths veterinarians believe about parasites at dvm360.com/parasitemyths.
- Prep clients accordingly with handouts on life cycles, different types of ticks, prevention and removal and much more at dvm360.com/parasitehandouts.
- Shore up your reserves—and arm the team to go to battle with the dvm360 toolkit packages. Each one is full of data, explanations, tools and ideas. Find them at dvm360.com/fleatoolkit, dvm360.com/heartwormtoolkit and dvm360.com/ticktoolkit.

lasts five months for most patients and we sell it for \$61 per bottle. I recommend this supplement for all of my patients, but especially for large-breed dogs, small-breed dogs with orthopedic abnormalities, and middle-aged cats that hide their arthritic pains so well. I don't have an exact number of patients for you, but if you have 1,000 patients on this supplement daily, you'll be selling each one 2.5 bottles per year at \$61 per bottle. This creates \$152,500 in gross production for the year.

Having said this, I don't recommend marking up supplements very much since they're a long-term product and not a medication. My clinic routinely increases the client cost by 30 percent over clinic cost.

Weight loss plans

If you're like me, 60 to 70 percent of the patients you see are either overweight or obese. This is becoming a huge (no pun intended) trend and it doesn't seem to be slowing down. So I've begun formulating personal weight loss plans for my overweight patients. I discuss the pet's current weight, its ideal weight and the number of daily calories to feed in order to obtain the ideal weight. I break the plan down on a monthly basis and set weight loss goals for each month. I have the clients bring the pet in every month for a weight check.



During the initial visit I discuss the pet's body condition score. I ask the client how he or she feels about the pet's weight (underweight, ideal, overweight or obese), and then give my professional opinion. This is the best way to spark the conversation before diving into the details of the plan itself. It's wonderful to see the smiles on clients' faces when their pet comes in wagging its tail, at its ideal weight and happy as can be. I have found weight loss to be a great practice niche for me and an excellent production driver. If I take that extra step to formulate a plan, my clients tend to become clients for life.

These tips will help any veterinarian increase his or her gross production (the numbers speak for themselves) and build loyal clientele. If you just remember that practicing great medicine and possessing good communication skills equals healthy income production, you'll be successful.



Dr. Jeremy Keen is an associate veterinarian at Desoto County Animal Clinic and Precious Paws Animal Hospital, both in Southaven, Mississippi, and a speaker at Fetch, a dvm360 conference.

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BLAST those MASTS

Before you give in to that sinking feeling while staring at the cytology slide, review the latest on diagnostic and treatment options for conquering mast cell tumors.

By Sue Ettinger, DVM, DACVIM (oncology)

Your patient has a nasty red nodule on its muzzle. You poke it with a needle and it gets all pissed off.

[Insert expletive here.]

Even before you look at the slide, you know you're going to see a bunch of degranulated, angry mast cells surrounded by those purplish granules. Now what? Staging? Straight to surgery before staging? Referral?

First, calm down. Let's review.

Mast cell tumors are the most common cutaneous tumor in dogs, accounting for 16% to 21% of skin tumors.¹ Risk factors include age (there's a higher incidence in older dogs) and breed (boxers, Boston terriers, Labradors, beagles and schnauzers are at higher risk). The cause of mast cell tumors is still largely unknown.

Mast cell tumors are most common in dermal and subcutaneous tissues. Up to 60% of mast cell tumors show up on the trunk and 25% on the limbs, with the head and neck the least common sites. Tumors have a varied appearance. They are typically solitary, but 11% to 22% of cases involve multiple lesions.^{1,2}

The way a mast cell tumor looks to your naked eye in the exam room correlates well with how it looks on a slide. Well-differentiated mast cell tumors are typically single, 1 to 4 cm in diameter, slow-growing, rubbery, non-ulcerated and alopecic. They're most common in dogs older than 6 months of age. Undifferentiated mast cell tumors are large, rapidly growing, ulcerated and irritated. The surrounding tissue is edematous and inflamed, and small satellite nodules may be present.

If a dog with a mast cell tumor is sick when it comes in, blame histamine, heparin and other vasoactive amines. The patient may present with vomiting (possibly with blood), melena, anorexia and abdominal pain due to gastrointestinal (GI) ulceration—in fact, GI ulceration is noted in 35% to 83% of necropsy specimens.^{1,2} Metastasis is typically to local lymph nodes, the liver, the spleen and bone marrow.

Prognosis for these patients depends on several factors associated with the tumor, including:

- Histologic grade
- Clinical stage
- Location

- Systemic signs
- Recurrence
- Tumor size
- Mitotic index

Stay tuned for more details on these factors.

Diagnosis and staging

Preliminary diagnosis is made with fine-needle aspiration. On the slide you'll see small to medium-sized round cells, with abundant small uniform cytoplasmic granules that stain purplish-red. Next-step diagnostics can include incisional biopsy to determine grade, fine-needle aspiration of the lymph nodes, complete blood count (CBC), serum chemistry profile and urinalysis.

Additional procedures may include fine-needle aspiration of the liver or spleen, bone marrow cytology, buffy coat smears and abdominal ultrasonography. However, these diagnostics are of questionable value in staging since mast cells are also present in healthy animals. What's more, researchers have not found these procedures useful or definitive in patients with mast cell tumors.^{3,4}

Today, histologic classification is preferred for its superior prognostic capabilities in biological behavior and clinical outcome, and it's an accurate predictor for metastatic behavior. But it's not without controversy either. Let's look more closely.

Three tiers: Old-school but still useful. Here's the classical three-tiered approach to histologic classification:

Grade 1. Clearly defined cytoplasmic boundaries with regular, spherical or ovoid nuclei, rare or absent mitoses, and abundant large deep-staining cytoplasmic granules.

Grade 2. Closely packed cells with indistinct cytoplasmic boundaries, nuclear-cytoplasmic ratio lower than with the anaplastic type, infrequent mitoses, and more granules than with the anaplastic type.

Grade 3. Highly cellular, frequent mitoses, undifferentiated cytoplasmic boundaries, irregularly shaped and sized nuclei, and sparse cytoplasmic granules.

Mitotic index (MI) is an indirect measure of cell proliferation based on the number of mitotic figures present. It can be performed during routine histology and is part of both grading schemes. It is a strong prognostic factor for both metastasis and survival. In one study, dogs with a low MI (≤ 5) had a median survival time of 70 months, in comparison to 5 months for a MI of > 5 .⁵ Research is ongoing, as MI cut-off (high vs low) is not consistent from study to study.

It can also be especially difficult to predict some grade 1 and grade 2 mast cell tumors that result in death due to the mast cell tumor. In addition, there is interobserver variation among pathologists with the three-tiered system. As a result, the usefulness the current three-tiered staging system is being questioned.

WHY SO ANGRY?

Here's a fun fact: Darier's sign refers to the wheal and flare in surrounding tissues after manipulation of a mast cell tumor and is caused by mast cell degranulation.

Three cheers

for two tiers. To provide better prognostic significance, a two-tier histologic grading system has been devised based on the number of mitoses (< 7 or > 7), presence of multinucleated cells or bizarre nuclei, and karyomegaly (increased nuclear size). According to the two-tiered grading system, high-grade mast cell tumors are significantly associated with shorter time to metastasis or new tumor development and with shorter survival time. In one study, the median survival time was < 4 months for high-grade mast cell tumors but > 2 years for low-grade mast cell tumors.⁶

In conjunction with the two-tiered system, several markers are being utilized to better define and predict mast cell tumor disease. In addition to MI, Ki-67 determines the number of proliferating cells, and AgNORs correlates with the speed of cell proliferation. c-KIT mutations of exon 11 and 8 of c-KIT have been detected in canine cutaneous mast cell tumors, and aberrant KIT expression patterns have been linked with decreased survival time.

Yes, these are the kinds of things we oncologists geek out over—now on to the clinical relevance, which I know is what you're likely waiting for.

Mast cell tumor grading, cell proliferation analysis including MI, c-KIT polymerase chain reaction (PCR) testing and KIT immunohistochemistry results are all linked to survival and metastasis associated with mast cell tumors.

Michigan State University has a mast cell tumor panel that grades tumors according to the two-tiered system, cell proliferation analysis (Ki-67, AgNORs), c-KIT PCR to detect internal tandem duplication (ITD) mutations in exon 11 and exon 8, and KIT immunohistochemistry to analyze expression of this tyrosine kinase receptor. Reference laboratories can send samples to Michigan State University for a full panel or just test for the c-KIT mutation.

I recommend running a full mast cell tumor panel on low-grade (grade 1 or 2) mast cell tumors, to help with the decision to recommend chemotherapy. For a high-grade (grade 3) mast cell tumor, c-KIT mutation status alone is typically what is needed to help with the decision of which chemotherapy.

Refer or treat?

If you're going to refer, you're done here. If you plan to treat, check out the rest of my advice at **dvm360.com/mastcell**.

To see the references for this article, go to **dvm360.com/mastcell**.



Dr. Sue Ettinger is a practicing veterinary cancer specialist, international speaker and book author. You can see Dr. Ettinger live at CVC—now Fetch—in San Diego Dec. 7-10.

Scan the code for more on the conference or to register.



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HELPFUL STUFF

Unplug from the Matrix: Evaluate your email

A smart person once said, "Email is the to-do list that was written for you by someone else." To manage your time, you have to manage how you engage with your email.

Dr. Dave Nicol says to never ever check your device first thing when you wake up or last thing before you go to bed. He recommends checking email two times throughout the day.

Also, you need to unsubscribe from every email list. Try using a filtering service and be ruthless in unsubscribing. (Editor's note: Some of us are partial to Unroll.me. Just don't unsubscribe from your pals at dvm360, K?)

Want more tips from Dr. Nicol? Come to Fetch, the new conference from your friends at dvm360. He'll be presenting sessions like "How to unplug from the Matrix and take back your life," plus, he's leading a can't-miss happy hour with pal Dr. Andy Roark. See you in San Diego at Fetch, December 7 to 10! **Learn more at fetchdvm360.com.**



Got questions? Tune into "Vets Ask Dr. Dave" on dvm360.com—where he'll answer questions from associates. Things like "Help, I'm buried by paperwork! What do I do?" Or "I'm paid on production, but don't see the numbers. What up with that?!" Find more at dvm360.com/vetsaskdrdave.

Feed your content-hungry social media accounts with this engagement-rich campaign

Social media wiz and Fetch speaker Eric Garcia has an idea to foster engagement: Ask followers what their pets mean to them.



"This campaign is a fantastic way to engage your clients," he says. "When I first asked practices to share this campaign on social media, the results were amazing."

So what happened? People shared stories about their own pets, pets they know and pets they'd loved and lost—and those who shared losses were comforted by others. In other words, community happened.

"These are the conversations we don't often get to have with pet owners in the exam room anymore," Garcia says.

Foster these community-building conversations outside the clinic by using your practice's content-hungry Facebook, Twitter and Instagram accounts. According to Garcia, doing so will set your team apart from the competition and will help clients bond with your practice.

Watch the video to hear more from Garcia on the how and why of giving your clients something to talk about. Scan to watch now.



How to cut the clinic cord when you clock out

Allowing yourself to disconnect from the veterinary clinic can be one of the most difficult parts of the job—especially when you're leaving behind hospitalized patients, pending lab work results or coworker conflict. Even in the bright sunshine of the world outside your clinic walls, all of these unresolved issues make you feel like you're lugging around a crushing weight. Is there any way to really disengage after you clock out? I think it's possible.

Are you concerned about a hospitalized patient?

Are you wondering how the pet is doing after everyone has left for the day? Talk to your manager about investing in a wireless live-streaming camera. (Check out the ones Nest makes!) These fairly inexpensive devices cost less than \$200 and

can provide enormous relief to team members, who can check on patients anytime. And clients love knowing that team members are able to check on their pets throughout the night.

Is a coworker conflict keeping your mind on the hospital at night?

Never leave a conflict hanging. Address the issues that bother you with the person before you leave for the day. In other words, hash it out before you clock out. Even if it isn't possible to reach a resolution before heading home, you can at least know you did everything you could.



Are you worried about yourself?

Make time for taking care of yourself. Whether it's going out on a run, finding your Zen during a yoga session or reading a book, setting aside as little as 15 or 20 minutes a day for yourself can change your mindset for the better. Remember, to care for others you must care for yourself first!

*Nicole Harvey
Business Manager
Cottonwood Veterinary Clinic
The Retreat at Cottonwood Veterinary Clinic*



Watch for dogs' nonverbal cues

An upset patient is one that is likely to cause trouble in the exam room, says John Ciribassi, DVM, DACVB. "If you're not paying attention to subtle physical clues, the first time you're aware that the dog is having an issue is when it's snapping at you," he says.

But you can have a more rewarding—and safe—experience by paying better attention to body language.

Client education bonus: Get this crucial information about subtle signs of canine stress out to your clients. Embed this video of Dr. Ciribassi addressing pet owners on your clinic's website or social media platforms, or in an email or e-newsletter, to keep everyone safe and happy. Go to dvm360.com/nonverbalcues for more.

Tips to freshen that anal gland expression

A snappy solution

A 3% hydrogen peroxide solution kills the odor from anal sacs. It also works on cat urine.

*Jim Nelson, DVM
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... or maybe just your ideas. If you have a genius fix for freshening anal gland expressions or simply making life in veterinary medicine more efficient and pleasant, send it to us at vm@ubm.com! We'll pay \$50 for every tip we publish.



How cats say 'I love you'

Because, c'mon, as veterinary professionals we know cats aren't just going to outright say those three little words. Here's a handout depicting the telltale signs that a feline friend is giving his human heart-eyes.

There are killjoys who will tell you cats are simply trying to get fed by us rather than expressing some kind of love for their human—they call it "cupboard love."

Truthfully, as veterinary professionals, we know that nothing could be further from the truth. Cats demonstrate their devotion to their humans in a number of important and obvious ways, if you know what to look for. Give your veterinary clients this handout to make extra sure they know how fond their feline friend is of their human. Scan the code, right, to download the handout or head over to dvm360.com/iloveyou.



The flashy and new of SuperZoo

We went to the pet retailer show SuperZoo, and all we got you was awesome product news.



1 AN EDIBLE HEDGEHOG?

Actually, Whimzees are dog treats that come in a variety of shapes: toothbrush, hedgehog (that thing's a hedgehog—who knew?), stick, alligator, veggie ear, rice bone, cross bone and veggie sausage among them. Treats come in different sizes for six different dog weights, ranging from 11 calories for dogs under 5 pounds to 420 calories for dogs 60 pounds and more.

2 KEEPING TRACK

What looks like a kid's sippy cup hides soft, gentle silicone bristles to get mud and dirt off dog paws before they traipse their filth all over your car interior or carpet. The MudBuster from Dexas, marketed as the "gentle paw washer," comes in three sizes.

3 A LUNCH PAIL FOR YOUR PET

One side of this water bottle is for, well, water. The other side is made for kibble. The Snack-DuO from Dexas has two independent 12-ounce chambers, one side with a flip-open lid, the other with a pourable nozzle. An 8-ounce travel cup clips to the top of the bottle. Stick it in the dishwasher when you're done.



4 I'M WATCHING YOU ... PLAY

When the dog or cat owner is away, the pets may still play, thanks to products from Pawbo. Various Pawbo devices dispense treats remotely, play laser games with pets, play feather teasing games with cats, and see sneaky pets in the dark while they're sleeping or doing whatever pets do when we're gone. Pawbo is just one in a long line of "I'm not at home, but I want to interact with my pet" products connecting to the internet, tablets and smartphones to make pet owners stuck at work feel in sync with their favorite four-legged friends.



Check out more retail products that will be hitting the shelves this year at dvm360.com/petproducts.



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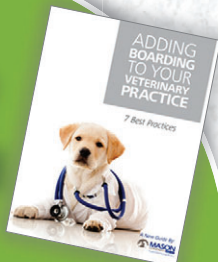
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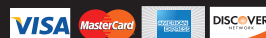
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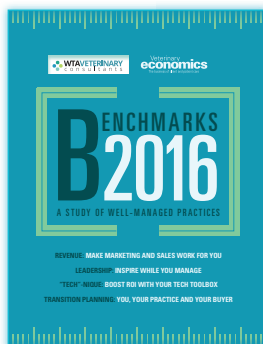
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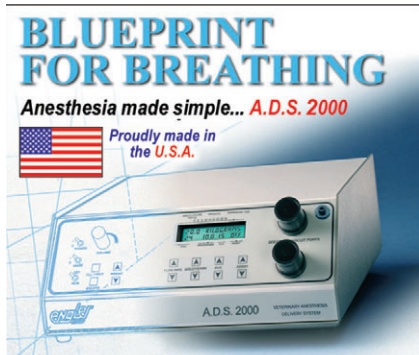


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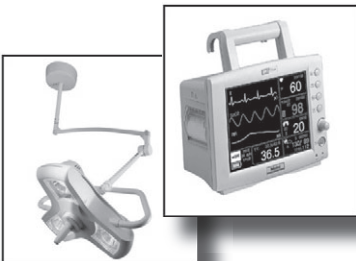
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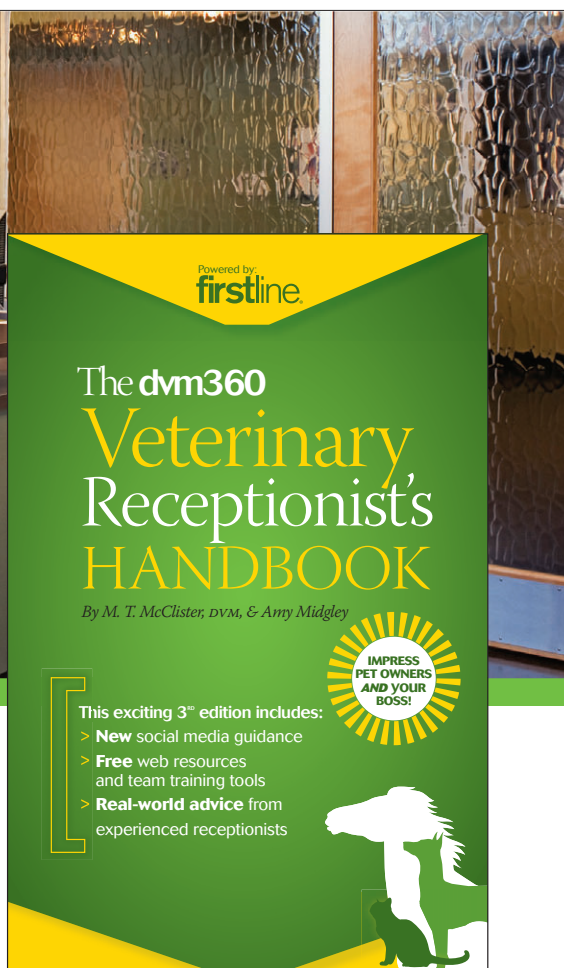


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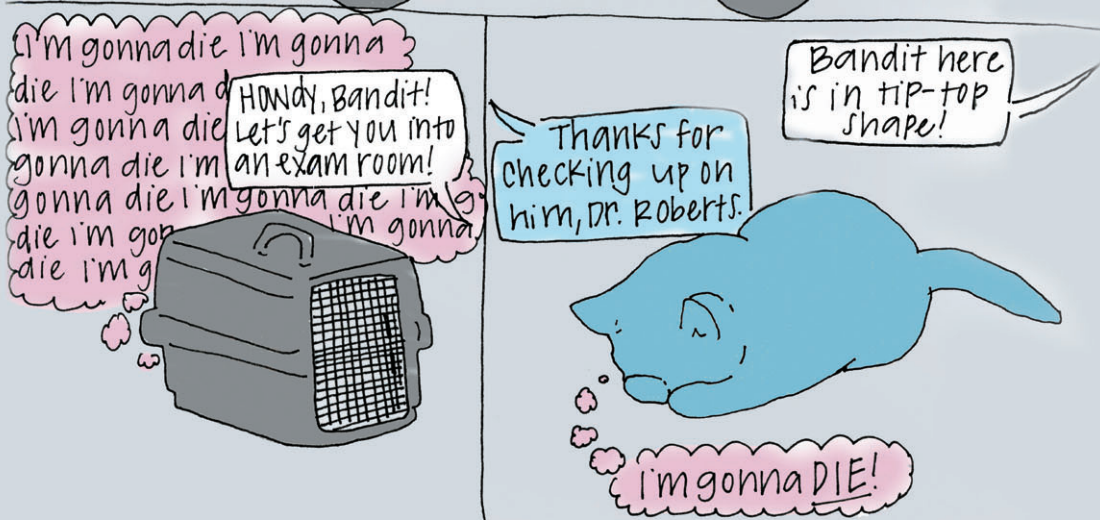
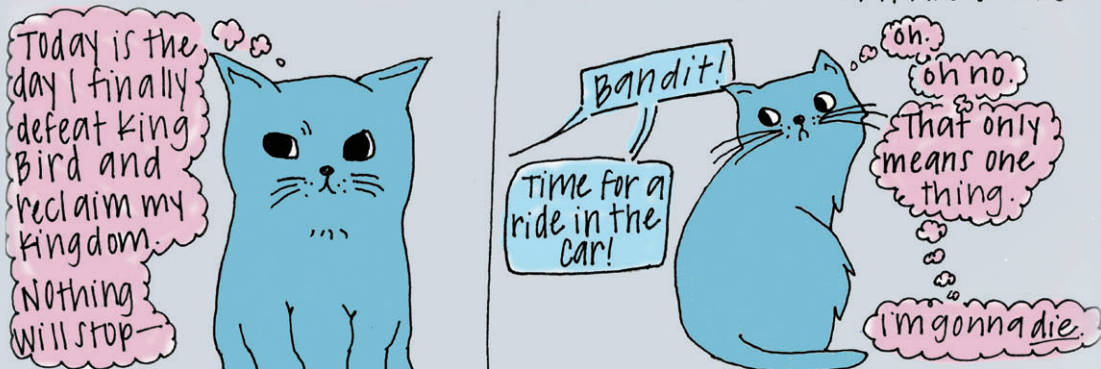
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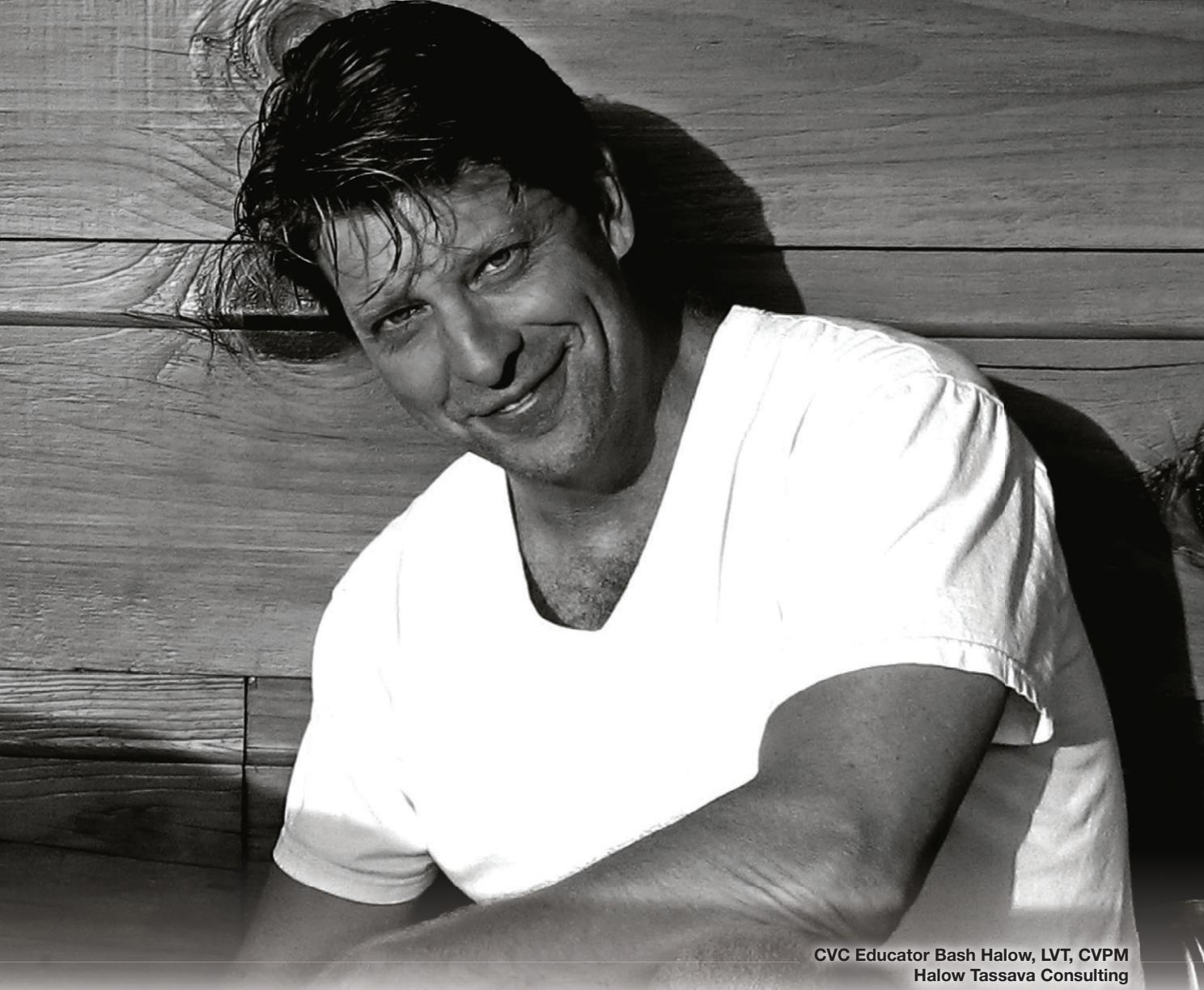
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