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'Tis the season for lots of munchies

Here's a handy guide to exam room conversations about your pudgy patients

page M1



The Winter years

Veterinary behaviorist Dr. Julia Albright shares tips for helping senior pets with cognitive dysfunction live their best lives, and helping clients through difficult periods of clinical signs like nighttime waking. *By Katie James*

As pets live longer lives, the likelihood that they'll suffer from age-related neurodegenerative disease also increases. In one international survey, an estimated 14.2% of older dogs suffered from canine cognitive dysfunction (CCD).¹ The study also found that only 2% of the dogs with clinical signs consistent with CCD had been diagnosed as such by a veterinarian.

The important thing to remember,
See page 20>



Rising from the ashes

A firsthand look at the Southern California fires—and the veterinary heroes who helped save all creatures great and small. *By Brandon Lomenzo Black*

With sustained Santa Ana winds blowing through land marked by chaparral and dry vegetation, the Woolsey Fire spread from Los Angeles County rapidly into Ventura County on Nov. 8, charring more than 70,000 acres in its first day. Within a few hours that same day, the Hill Fire broke out in the rural agricultural area of the Santa Rosa Valley in Ventura County.

Both wildfires unleashed a wave of mandatory evacuation orders as they grew in size and destruction. Apocalyptic images of residents and their animals fleeing from the fast-moving wall of flames soon dominated the headlines in media outlets from coast to coast.

On Nov. 9, acting Gov. Gavin Newsom declared a state of emergency for Los Angeles and Ventura counties. Three days later, President Trump issued a major disaster declaration for the state, releasing federal resources to combat the two blazes that by then had burned more than 100,000 acres.

See page 16>



Embrace your inner superhero in 2019 with Fetch dvm360
page 3



Too nice for too long? Codger's clinic adapts to the times.
page 22



Associates: Think you can still buy a practice someday?
page 24

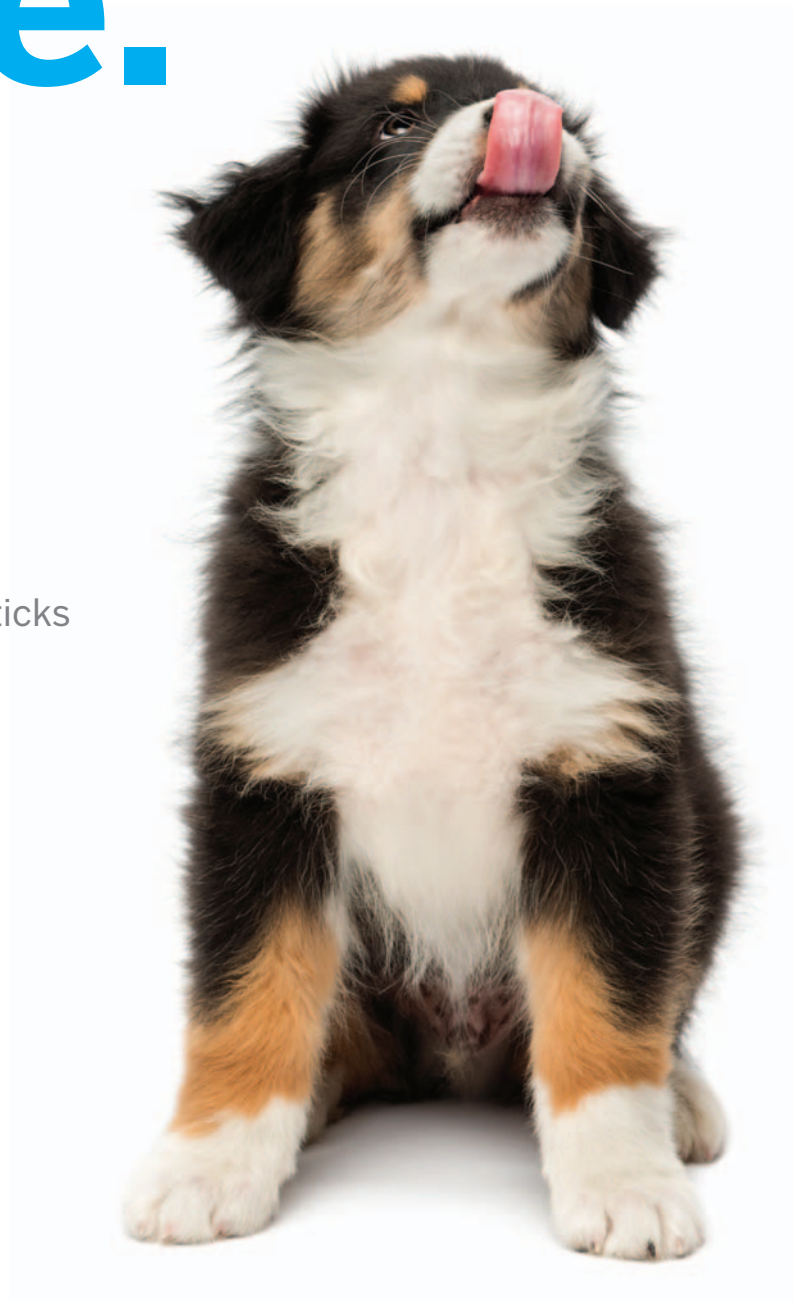


The best story ever told? Yours—with help from Uncharted
page 18

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NexGard® (afoxolaner) is the **ONLY** chew that combines all of the following benefits into the one that dogs prefer¹:

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- ✓ Kills ticks — lone star ticks, brown dog ticks, American dog ticks, and black-legged (deer) ticks
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¹Data on file.

NexGard is a Merial product. Merial is now part of Boehringer Ingelheim.



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IMPORTANT SAFETY INFORMATION: NexGard is for use in dogs only. The most frequently reported adverse reactions include vomiting, pruritus, lethargy, diarrhea and lack of appetite. The safe use of NexGard in pregnant, breeding, or lactating dogs has not been evaluated. Use with caution in dogs with a history of seizures or neurologic disorders. For more information, see the full prescribing information or visit www.NexGardForDogs.com.

Please see Brief Summary on page 3.

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Through its extensive network of news sources, **dvm360** provides unbiased multimedia reporting on all issues affecting the veterinary profession.

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UBM

Embrace your inner superhero in 2019

Alane Cahalane, BSc, MA, DVM, DACVS, wants to tell you about the bear that changed her life—and give you some food for thought about how you can change yours. At the Fetch dvm360 conference in Baltimore in May

2019 (fetchdvm360.com/baltimore), Dr. Cahalane will get you pumped for how you can affect the profession with your own set of superpowers. Want a sneak peek? Check her out on the TED stage at dvm360.com/cahalane.



NexGard® (afoxolaner) Chewables

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

Description: NexGard® (afoxolaner) is available in four sizes of beef-flavored, soft chewables for oral administration to dogs and puppies according to their weight. Each chewable is formulated to provide a minimum afoxolaner dosage of 1.14 mg/lb (2.5 mg/kg). Afoxolaner has the chemical composition 1-Naphthalenecarboxamide, 4-[5- [3-chloro-5-(trifluoromethyl)-phenyl]-4, 5-dihydro-5-(trifluoromethyl)-3-isoxazolyl]-N-[2-oxo-2-[(2,2,2-trifluoroethyl)amino]ethyl].

Indications: NexGard kills adult fleas and is indicated for the treatment and prevention of flea infestations (*Ctenocephalides felis*), and the treatment and control of Black-legged tick (*Ixodes scapularis*), American Dog tick (*Dermacentor variabilis*), Lone Star tick (*Amblyomma americanum*), and Brown dog tick (*Rhipicephalus sanguineus*) infestations in dogs and puppies 8 weeks of age and older, weighing 4 pounds of body weight or greater, for one month. NexGard is indicated for the prevention of *Borrelia burgdorferi* infections as a direct result of killing *Ixodes scapularis* vector ticks.

Dosage and Administration: NexGard is given orally once a month, at the minimum dosage of 1.14 mg/lb (2.5 mg/kg).

Dosing Schedule:

Body Weight	Afoxolaner Per Chewable (mg)	Chewables Administered
4.0 to 10.0 lbs.	11.3	One
10.1 to 24.0 lbs.	28.3	One
24.1 to 60.0 lbs.	68	One
60.1 to 121.0 lbs.	136	One
Over 121.0 lbs.	Administer the appropriate combination of chewables	

NexGard can be administered with or without food. Care should be taken that the dog consumes the complete dose, and treated animals should be observed for a few minutes to ensure that part of the dose is not lost or refused. If it is suspected that any of the dose has been lost or if vomiting occurs within two hours of administration, redose with another full dose. If a dose is missed, administer NexGard and resume a monthly dosing schedule.

Flea Treatment and Prevention: Treatment with NexGard may begin at any time of the year. In areas where fleas are common year-round, monthly treatment with NexGard should continue the entire year without interruption. To minimize the likelihood of flea reinfestation, it is important to treat all animals within a household with an approved flea control product.

Tick Treatment and Control: Treatment with NexGard may begin at any time of the year (see **Effectiveness**).

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

Warnings: Not for use in humans. Keep this and all drugs out of the reach of children. In case of accidental ingestion, contact a physician immediately.

Precautions: Afoxolaner is a member of the isoxazoline class. This class has been associated with neurologic adverse reactions including tremors, ataxia, and seizures. Seizures have been reported in dogs receiving isoxazoline class drugs, even in dogs without a history of seizures. Use with caution in dogs with a history of seizures or neurologic disorders (see **Adverse Reactions and Post-Approval Experience**).

The safe use of NexGard in breeding, pregnant or lactating dogs has not been evaluated.

Adverse Reactions: In a well-controlled US field study, which included a total of 333 households and 615 treated dogs (415 administered afoxolaner; 200 administered active control), no serious adverse reactions were observed with NexGard.

Over the 90-day study period, all observations of potential adverse reactions were recorded. The most frequent reactions reported at an incidence of > 1% within any of the three months of observations are presented in the following table. The most frequently reported adverse reaction was vomiting. The occurrence of vomiting was generally self-limiting and of short duration and tended to decrease with subsequent doses in both groups. Five treated dogs experienced anorexia during the study, and two of those dogs experienced anorexia with the first dose but not subsequent doses.

Table 1: Dogs With Adverse Reactions.

	Treatment Group			
	Afoxolaner		Oral active control	
	N ¹	% (n=415)	N ²	% (n=200)
Vomiting (with and without blood)	17	4.1	25	12.5
Dry/Flaky Skin	13	3.1	2	1.0
Diarrhea (with and without blood)	13	3.1	7	3.5
Lethargy	7	1.7	4	2.0
Anorexia	5	1.2	9	4.5

¹ Number of dogs in the afoxolaner treatment group with the identified abnormality.

² Number of dogs in the control group with the identified abnormality.

In the US field study, one dog with a history of seizures experienced a seizure on the same day after receiving the first dose and on the same day after receiving the second dose of NexGard. This dog experienced a third seizure one week after receiving the third dose. The dog remained enrolled and completed the study. Another dog with a history of seizures had a seizure 19 days

after the third dose of NexGard. The dog remained enrolled and completed the study. A third dog with a history of seizures received NexGard and experienced no seizures throughout the study.

Post-Approval Experience (July 2018): The following adverse events are based on post-approval adverse drug experience reporting. 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.

The following adverse events reported for dogs are listed in decreasing order of reporting frequency for NexGard:

Vomiting, pruritus, lethargy, diarrhea (with and without blood), anorexia, seizure, hyperactivity/restlessness, panting, erythema, ataxia, dermatitis (including rash, papules), allergic reactions (including hives, swelling), and tremors.

Contact Information: For a copy of the Safety Data Sheet (SDS) or to report suspected adverse drug events, contact Merial at 1-888-637-4251 or www.nexgardfordogs.com.

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

Mode of Action: Afoxolaner is a member of the isoxazoline family, shown to bind at a binding site to inhibit insect and acarine ligand-gated chloride channels, in particular those gated by the neurotransmitter gamma-aminobutyric acid (GABA), thereby blocking pre- and post-synaptic transfer of chloride ions across cell membranes. Prolonged afoxolaner-induced hyperexcitation results in uncontrolled activity of the central nervous system and death of insects and acarines. The selective toxicity of afoxolaner between insects and acarines and mammals may be inferred by the differential sensitivity of the insects and acarines' GABA receptors versus mammalian GABA receptors.

Effectiveness: In a well-controlled laboratory study, NexGard began to kill fleas four hours after initial administration and demonstrated >99% effectiveness at eight hours. In a separate well-controlled laboratory study, NexGard demonstrated 100% effectiveness against adult fleas 24 hours post-infestation for 35 days, and was ≥93% effective at 12 hours post-infestation through Day 21, and on Day 35. On Day 28, NexGard was 81.1% effective 12 hours post-infestation. Dogs in both the treated and control groups that were infested with fleas on Day -1 generated flea eggs at 12- and 24-hours post-treatment (0-11 eggs and 1-17 eggs in the NexGard treated dogs, and 4-90 eggs and 0-118 eggs in the control dogs, at 12- and 24-hours, respectively). At subsequent evaluations post-infestation, fleas from dogs in the treated group were essentially unable to produce any eggs (0-1 eggs) while fleas from dogs in the control group continued to produce eggs (1-141 eggs).

In a 90-day US field study conducted in households with existing flea infestations of varying severity, the effectiveness of NexGard against fleas on the Day 30, 60 and 90 visits compared with baseline was 98.0%, 99.7%, and 99.9%, respectively.

Collectively, the data from the three studies (two laboratory and one field) demonstrate that NexGard kills fleas before they can lay eggs, thus preventing subsequent flea infestations after the start of treatment of existing flea infestations.

In well-controlled laboratory studies, NexGard demonstrated >97% effectiveness against *Dermacentor variabilis*, >94% effectiveness against *Ixodes scapularis*, and >93% effectiveness against *Rhipicephalus sanguineus*, 48 hours post-infestation for 30 days. At 72 hours post-infestation, NexGard demonstrated >97% effectiveness against *Amblyomma americanum* for 30 days. In two separate, well-controlled laboratory studies, NexGard was effective at preventing *Borrelia burgdorferi* infections after dogs were infested with *Ixodes scapularis* vector ticks 28 days post-treatment.

Animal Safety: In a margin of safety study, NexGard was administered orally to 8 to 9-week-old Beagle puppies at 1, 3, and 5 times the maximum exposure dose (6.3 mg/kg) for three treatments every 28 days, followed by three treatments every 14 days, for a total of six treatments. Dogs in the control group were sham-dosed. There were no clinically-relevant effects related to treatment on physical examination, body weight, food consumption, clinical pathology (hematology, clinical chemistries, or coagulation tests), gross pathology, histopathology or organ weights. Vomiting occurred throughout the study, with a similar incidence in the treated and control groups, including one dog in the 5x group that vomited four hours after treatment.

In a well-controlled field study, NexGard was used concomitantly with other medications, such as vaccines, anthelmintics, antibiotics (including topicals), steroids, NSAIDs, anesthetics, and antihistamines. No adverse reactions were observed from the concomitant use of NexGard with other medications.

Storage Information: Store at or below 30°C (86°F) with excursions permitted up to 40°C (104°F).

How Supplied: NexGard is available in four sizes of beef-flavored soft chewables: 11.3, 28.3, 68 or 136 mg afoxolaner. Each chewable size is available in color-coded packages of 1, 3 or 6 beef-flavored chewables.

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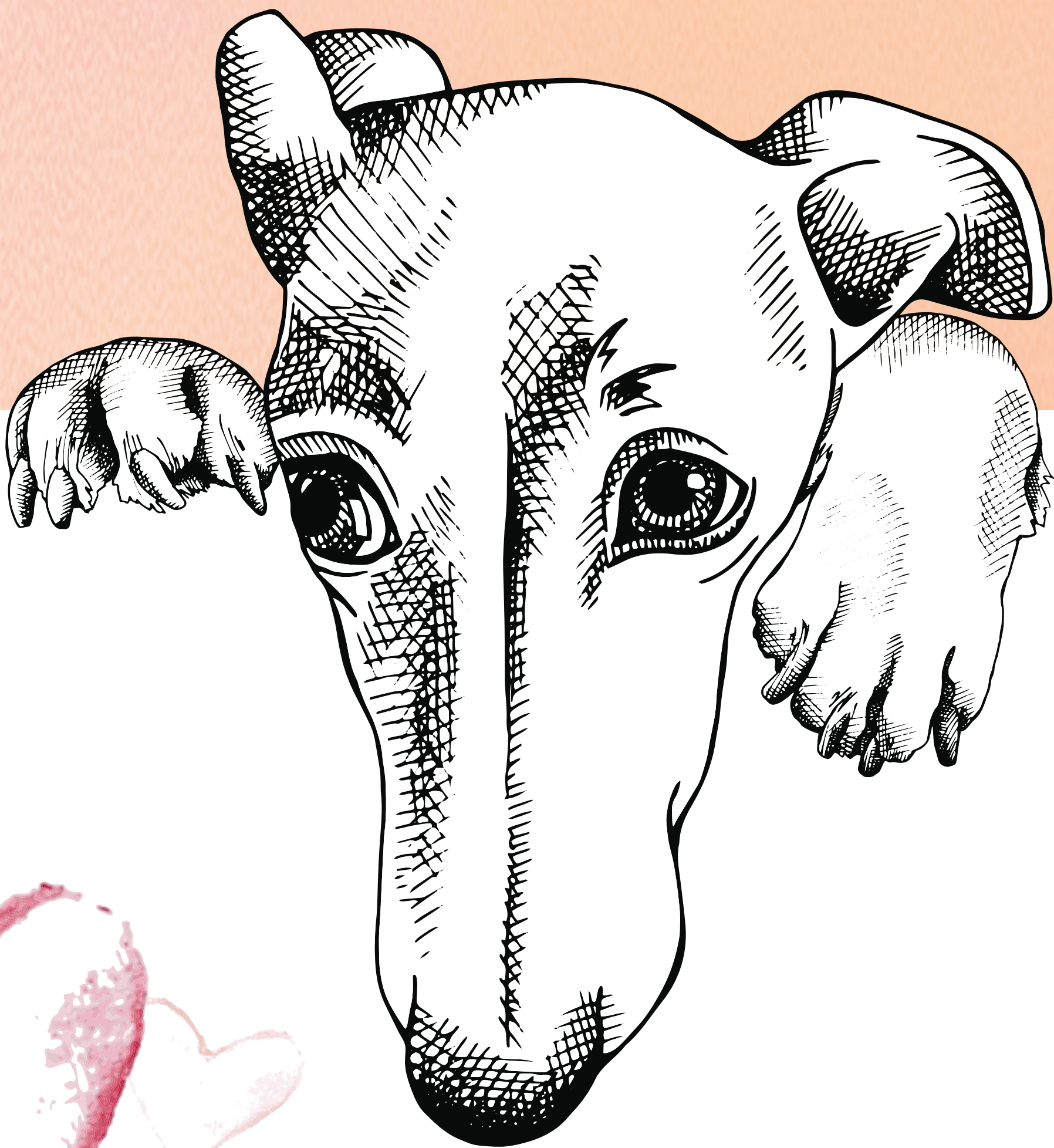
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NEWS

8 | Law and ethics

- » Study: Ethical dilemmas, moral distress widespread in vet field
- » New law changes pet custody options in California divorce cases



10 | Animal welfare

JAVMA study asks: Who’s using nonprofit spay-neuter clinics?

11 | Veterinary awards

- » Veterinarian honored with Lasker award for propofol discovery
- » American Humane announces Hero Veterinarian, Veterinary Nurse Award winners

14 | Veterinary headlines

- » Michigan veterinarian charged in death of his own pet
- » Michigan veterinarian’s license suspected after drug misuse

18 | Veterinary business

The greatest story ever told? Yours

32 | Hospital design

- » Open wide ... to two crucial hospital design details
- » Best of break rooms

42 | Oncology

3D printing repairs a dog’s skull through innovative surgery

46 | Equine medicine

University of Florida veterinarians successful in rare equine hip surgery

47 | Equine business

The tools you need to start off on the right hoof



49 | Trend watch

Petco bans food and treats with artificial ingredients

The winter years

ON THE COVER
Helping senior pets with cognitive dysfunction live their best lives » continues on page 20

ON THE COVER

- » Rising from the ashes

MEDICINE360

The small animal section begins after page 42.

M1 | Nutrition

Chewing the fat about fat with clients
Ryane Englar, DVM, DABVP (canine and feline)



M6 | Feline care

Feeding a limited-iodine diet to healthy cats may not have adverse effects
Michael Nappier, DVM, DABVP

M7 | Endocrinology

6 tips for managing canine and feline diabetes
David Bruyette, DVM, DACVIM

M8 | Diagnostic imaging

Avoid radiographic errors in your veterinary cases

COMMUNITY

34 | Feedback

- » I was an RN, and I’m cool with ‘veterinary nurse’
- » Equine medicine not a horror show but a place of respect

36 | Commentary

I’d never lost a patient without being able to explain why ...

40 | Commentary

My well-being fix

PRODUCTS360

- 50 | The latest veterinary products

SPECIAL CONTRIBUTORS

22 | Old school, new school

Too nice for too long?
Jeremy Campfield, DVM



24 | Letter of the law

Veterinary associates: Still think you can buy a practice someday?
Christopher J. Allen, DVM, JD

28 | AVMA eye on economics

Don’t be scared of money
Bridgette Bain, PhD

30 | The dilemma

‘What?! I didn’t see nothin’ ...’
Marc Rosenberg, VMD

58 | Can we talk?

Work hard now to smoothly sail later
Michael Paul, DVM

READER SERVICES

- 57 | Calendar

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Study: Ethical dilemmas, moral distress widespread in vet field

Authors also find that most veterinarians have little or no training on how to navigate the veterinary profession's complex ethical structure.

A study investigating moral distress in North American veterinarians has determined it to be a pervasive problem in the profession. The study was published in the October 2018 issue of the *Journal of Veterinary Internal Medicine*.

According to the study's authors, veterinary medicine's "complex ethical structure"—in which veterinarians have obligations to pets, pet owners, other veterinary professionals and society as a whole—often places them in "situations where the right course of action isn't clear." This happens, they continue, because "these obligations conflict either with one another, with the veterinarian's own moral standards, or both." The result? Moral distress.

To conduct the study, researchers surveyed 889 U.S. and Canadian veterinarians to find out whether they experienced certain dilemmas on a regular basis and what the effect was on them. Here's a snapshot of what respondents said:

- > 32 percent of veterinarians said they often have conflicts with clients about how

to proceed with care, and 53 percent said they sometimes have such conflicts.

- > 68 percent said they address these conflicts by discussing them with colleagues, while 15 percent said they do nothing.
- > 45 percent said they are sometimes asked to do something that feels wrong, and 6 percent said it happens often.
- > 63 percent said they sometimes or often can't do what they feel is right, and in such situations, 78 percent said this causes moderate or severe distress.
- > 78 percent said they sometimes or often feel conflicted or upset by a client's refusal to do what they believe is in the patient's best interest.
- > 29 percent said they sometimes or often receive what they consider to be inappropriate euthanasia requests, and in such cases, 63 percent said it causes them or their staff moderate or severe distress.

The results demonstrate that ethical conflict and moral distress are widespread and that most veterinarians have had little to no training on how to cope, the authors conclude—

78 percent of DVMs said they sometimes or often feel conflicted or upset by a client's refusal to do what they believe is in the pet's best interest.

more than 70 percent said they'd received no instruction in conflict resolution or self-care.

"For years, my colleagues and I suffered, mostly in silence, with the stress of our work," says lead study author Lisa Moses, VMD, DACVIM, research fellow at Harvard Medical School's Center for Bioethics and senior staff veterinarian at the MSPCA-Angell Animal Medical Center in Boston in an article from the Center for Bioethics.

The authors of the study hope their research brings attention to the issue and note the possibility that tools used to address moral distress in human healthcare professionals could be adapted to the veterinary field.

New law changes **pet custody options** in California divorce cases

Pets still considered 'property,' but judges now have authority to decide who keeps the family pet in divorce the same way child custody is handled.



A new law has been passed in California that grants judges the authority to decide who gets custody of the family pet in divorces cases, much as they decide child custody, according to the Associated Press (AP). Until now, pets have been considered property, a status that puts them in the same category as material items like TVs and vehicles.

A new bill signed by California Gov. Jerry Brown states that pets will still be considered community property, but the judge deciding who gets to keep the pet will be able to consider things like who feeds the pet, takes it to the veterinarian and walks it, the AP reports.

Without the law, which goes into effect Jan. 1, judges have had to get creative. According to the AP, some judges have tried to figure out which owner the pet liked better, or if the family had two pets, a judge would suggest splitting them up.

Assemblyman Bill Quirk (D), who introduced the law, feels pets should have the status they deserve—as family members. He found support from the governor, who has a photo of the "first dog," complete with biography, on his official website.



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JAVMA study asks: Who's using nonprofit spay-neuter clinics?

New report finds most use is by low-income families whose pets don't regularly receive veterinary care.

A new study published recently in the *Journal of the American Veterinary Association* (JAVMA) found that most pets seen in nonprofit spay-neuter clinics belonged to low-income families whose pets don't receive regular veterinary care, according to a release from Spay ASAP.

The study, titled "Characteristics of clients and animals served by high-volume, stationary, nonprofit spay-neuter clinics," examined pets and pet owners seeking services at nonprofit spay-neuter clinics across the United States to determine the extent clients were being diverted from private practice veterinarians, the release says. It surveyed 3,768 owners of 2,154 dogs and 1,902 cats admitted to 22 nonprofit spay-neuter clinics in a nine-month period and found that these clinics predominantly serve low-income clients and animals that lack regular veterinary care, as well as animals from shelters and community cats.

"Nonprofit spay-neuter clinics offer their services to pets who would not be sterilized otherwise, whether by private practitioners, or by animal shelters prior to adoption," says Sara C. White, DVM, MSc, executive director of Spay ASAP and lead researcher of the study, in the release. "Without them, a vital component of reducing pet overpopulation, as well as of public health, would be lost."

Lack of access to veterinary services, poverty and transportation challenges are all factors that delay or prevent spaying or neutering of family pets, the release states. The resulting litters of puppies and kittens put strain on local animal welfare organizations, and lack of sterilization usually goes hand in hand with lack of vaccination against diseases such as rabies, the organization continues.



"Nonprofit spay-neuter clinics offer their services to pets who would not be sterilized otherwise, whether by private practitioners, or by animal shelters prior to adoption," says lead researcher Dr. Sara White.

The study found that participants' household income was less than \$30,000 per year, and most of their pets hadn't seen a veterinarian in the last year. The release also notes that 81 percent of cats and 32 percent of dogs over 4 months of age had never been vaccinated against rabies.

It also found that while some spay-neuter clinics target services based on income, their primary goal is to sterilize pets that wouldn't otherwise be spayed or neutered. The authors speculate that basing access on income verification may seem invasive to the clients who need the services the most, the release says. Also, many aren't able to document their income or need, while others don't technically meet a definition of need but still struggle to afford basic care. Undocumented pet owners may also hesitate to find care

for their pet out of fears about their immigration status. In addition, these verification processes create an administrative burden on nonprofit clinics, many of which can't do them without negatively impacting their ability to serve patients, the release says.

"There are more than 23 million dogs and cats in families with limited means to pay for veterinary care," says Michael Blackwell, DVM, MPH, director of the Program for Pet Health Equity, part of the College of Social Work at the University of Tennessee. "The lack of access to veterinary care results in prolonged illnesses and recovery, or relinquishment to the animal sheltering community, or, worse yet, euthanasia, thus breaking the human-animal bond. These families need and deserve healthcare for all members, human and animal."



Post-spay-or-neuter
Go online to dvm360.com/spayhandout for a PDF with basic recommendations for clients going home with a newly spayed or neutered pet.

Veterinarian honored with Lasker Award for propofol discovery

Dr. John B. Glen has been awarded the coveted prize in medicine for his groundbreaking discovery in anesthesia.

The Lasker-DeBakey Clinical Medical Research Award was presented to veterinarian Dr. John B. Glen, who discovered and developed the drug propofol, the Lasker Foundation website reports.

In 1972, Dr. Glen joined Imperial Chemistry Industries (ICI, which later became AstraZeneca) to help find short-acting intravenous anesthetics. Dr. Glen and his team at ICI aimed to find an anesthetic that did not build up in the body through repeated use, which could cause patients to remain unconscious long after surgery, according to the foundation.

Dr. Glen and his team discovered that propofol could sedate mice in four to five minutes—the same time as the leading anesthetic at the time, thiopentone—but recovery happened much more quickly and with minimal side effects.

In 1986, the drug received regulatory approval in the United Kingdom, followed by FDA approval in 1989. Now, propofol is approved for use in 90 countries and is the gold standard in intravenous anesthetic induction, the foundation states, making surgery and medical tests more comfortable for people around the world.



Dr. John B. Glen, a veterinarian researcher in the U.K., was awarded the Lasker Award for his discovery of the drug propofol. Photo courtesy of Ellen Jaffe, Lasker Foundation.

American Humane announces 2018 Hero Veterinarian, Veterinary Nurse Award winners

Veterinary professionals who work with low-income pet owners and at-risk animals were honored in October in a national TV broadcast on the Hallmark Channel.

The search for the 2018 American Humane Hero Veterinarian and Hero Veterinary Nurse featured hundreds of nominees and

tens of thousands of votes from the American public, according to a release from American Humane. In the end, David Chico, VMD, MPH,

from Albany, New York, was named 2018's American Hero Veterinarian, and Tammy Boland from Oceanport, New Jersey, 2018's American Hero Veterinary Nurse.

Ten years ago, Dr. Chico created a free quarterly pet wellness clinic in partnership with Albany Damien Center's PAWS (Pets Are Wonderful Support), offering veterinary care to low-income, HIV-positive pet owners, the release states. He also volunteers with Animals Lebanon in Beirut, providing lifesaving care to severely abused and neglected animals.

Boland, 2018's Hero Veterinary Nurse Award winner, has saved hundreds of dogs over the past 11 years through her work with Pick Your Paw Animal Rescue, according to the release. Boland works with some of the busiest shelters across New Jersey,

New York and Pennsylvania to create a safe place for some of the most at-risk dogs to learn trust after physical and emotional pain.

"Dr. Chico and Ms. Boland are tremendous animal welfare advocates and we are so proud to learn of their laudable accomplishments aiding the animals in need in their communities and beyond," says Robin Ganzert, PhD, American Humane president and CEO, in the release.

The American Humane Hero Dog Awards are presented by the Lois Pope LIFE Foundation and Zoetis Pet-care and were broadcast nationally on the Hallmark Channel in October.

For more information about past winners and this year's American Humane Hero Veterinarian and Hero Veterinary Nurse Awards, you can visit herovetawards.org.



Dr. David Chico, from Albany, New York, was named 2018's American Hero Veterinarian, and Tammy Boland from Oceanport, New Jersey, 2018's American Hero Veterinary Nurse. Photos courtesy of American Humane.





– Dr. W. Chase Coale III,
Greater Annapolis Veterinary Hospital.
NVA partner since 2016.



What's your vision for the future of your business?

3 Questions to ask as you enter discussions with potential partners.

NO. 01

Is it the right culture fit for your team?

As you begin considering your options for selling your pet hospital business, it's important to find a partner aligned with your values, respectful of the individuality of what you've built, and equipped to grow your business, while your team and culture remain intact.

Ask around to find out which buyers have the best reputation for caring for pets and the people who love them.

NO. 02

Are there flexible deal structures?

Because selling your pet hospital is such a personal decision, you'll want to understand what types of options are available, and to what level they can tailor the terms to meet your needs.

ASK IF THE BUYER CAN:

- Make all cash offers with no finance contingency
- Offer Joint Venture partnerships for growth and flexibility
- Buy the real estate outright or lease from you

NO. 03

How comprehensive are the support services?

As you contemplate transitioning your business, you'll want to know every aspect is covered. Seek out a partner with a dedicated team seasoned in marketing (including digital advertising and social media strategy), web development and hosting, client satisfaction surveys, IT, HR, accounting, taxes, legal and more.

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Michigan veterinarian charged in death of his own pet

Practitioner is back in legal trouble following a July 2018 incident.

A Huron Township, Michigan, veterinarian has been charged in the July 2018 death of his own dog, according to the Wayne County Office of the Prosecuting Attorney. Martin McLaughlin, DVM, reportedly left his Labrador retriever in a vehicle, possibly leading to the pet's death.

"It is alleged that McLaughlin went into his home and left his dog inside his car overnight in extreme heat," a release from the prosecutor's office states. "The following morning, it is alleged that McLaughlin discovered the lifeless dog inside his car."

Dr. McLaughlin has been charged with two misdemeanors: abandoning/cruelty to an animal resulting in death and abandoning/cruelty to an animal, according to the prosecutor's office. The former is punishable by up to one year in jail under Michigan law.

Meanwhile, Detroit's WXYZ reports that the veterinarian has attributed the dog's death to other possible factors:

"[Dr. McLaughlin] didn't think being left in the hot vehicle caused his dog to die. [He] claimed Trigger was having some stomach issues the day before," the television station's news story reads. Trigger has since been buried without necropsy, according to WXYZ.



This isn't Dr. McLaughlin's first encounter with authorities, according to local reports. The *Huron Daily Tribune* reported in 2010 that Dr. McLaughlin was sentenced to six months in jail after pleading guilty to malicious destruction of property. In that incident, he fired a shotgun on a pickup following an argument with the truck's owner.

It was expected at press time that Dr. McLaughlin would turn himself in for arraignment Nov. 14, according to the prosecutor's office.

Michigan veterinarian's license suspended after drug misuse

Licensing board alleges that Virginia Leis diverted buprenorphine, tramadol and Dolorex pain medication intended for animal use.

The Michigan Department of Licensing and Regulatory Affairs (LARA) has summarily suspended the licence of Virginia Leis, DVM, after finding that she had allegedly diverted controlled substances intended for animals, according to a release from the agency. Dr. Leis is the owner of Agawa Companion Animal Hospital in Saginaw, Michigan.

According to the release, the Michigan Public Health Code allows for summary suspension of licenses

when public health, safety or welfare requires emergency action. LARA also served Dr. Leis with an administrative complaint alleging that she withdrew controlled substances from her hospital's inventory—specifically buprenorphine, tramadol and Dolorex (butorphanol tartrate injection)—for her own personal use. Dolorex is approved for use only in animals.

An April 2018 search conducted by the Saginaw Police Department found several controlled substances in Dr.

Leis' sleeping area, and her veterinary clinic was condemned. The complaint also alleges that Dr. Leis neglected and abused animals left in her care and displayed bizarre behavior, mistreated her staff, failed to pay bills and used controlled substances daily.

The next step in the legal process is for Dr. Leis to respond to the complaint from LARA. At press time, she had 30 days from the Oct. 9 filing. She can also petition to dissolve the summary suspension.



Educate clients that hot cars kill pets

Though it seems like it should be common knowledge, it's still worthwhile to remind people that hot vehicles can kill. Visit dvm360.com/hotcar to point clients to videos from Drs. Ernie Ward and Andy Roark on the dangers of leaving pets unattended in vehicles.



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California fires

> Continued from the cover

“I put out a call for help to the veterinary community because I needed trained people who could come in and be comfortable handling emergencies and not be overwhelmed or panicked.”
—Maria Sabio-Solacito, DVM

As one of six evacuation centers designated for large and small animals when natural disasters strike, Pierce College—a community college that includes a veterinary technology program in Woodland Hills, California—became ground zero for fire-related veterinary care. Public- and private-practice veterinary professionals came together from across Los Angeles to treat animals affected by the disaster.

Caring for those in need

Maria Sabio-Solacito, DVM, chief of staff from the Los Angeles County Department of Animal Care and Control (DACC), is in command of animal care response across the sprawling 426-acre Pierce campus, which also houses an equestrian center. As the fires blazed, Dr. Sabio-Solacito scrambled to get enough resources and experienced personnel out to her location.

“Whenever we go into emergency response, we try to make sure the animals being evacuated are free from injuries,” Dr. Sabio-Solacito says.

She put out a call to the Southern California Veterinary Medical Association (SCVMA) pleading for help from

veterinarians and veterinary technicians, posting her message and contact details to Twitter and other social media outlets. The response from across the nation was overwhelming.

“I was getting texts and phone calls from as far away as Washington, western Pennsylvania, Hawaii and New Hampshire,” says Dr. Sabio-Solacito. “I put out a call for help to the veterinary community because I needed trained people who could come in and be comfortable handling emergencies and not be overwhelmed or panicked.”

One source of help was Veterinary Angels, a medical center in Agoura Hills that was evacuated at 2 a.m. on the second day of the Woolsey Fire. Veterinary Angels provided staff and much-needed resources to both DACC and the Red Cross.

“When we’re working with L.A. County Animal Control we want to provide as much medical and clinical care as possible,” says Darlene Geekie, RVT, director of Veterinary Angels.

DACC and Veterinary Angels used a M.A.S.H.-style tent as a makeshift triage center to treat animals with burns and lacerations. “We would triage the animals on the spot,” Dr. Sabio-Solacito says. Some animals were stabilized in crates for a few hours before being transferred to a hospital.

If animals were brought in exhibiting signs of smoke inhalation, Dr. Sabio-Solacito and her team put them in an oxygen cage or oxygen tent to facilitate clean oxygen intake. When they came in with burns, the team took measures to ensure the animals were at minimal risk of infection.

“We clip out the burnt area, making sure it’s free of debris, and try to clean as much of the area as possible,” Dr. Sabio-Solacito says. “You also want to cool down the affected area so you don’t have progressive injuries developing in that area and deeper into the tissue.”

The triage tent was open from 8 a.m. until 6 p.m., but medical staff stayed on the clock until midnight so they could respond to urgent cases after hours. Veterinarians and veterinary nurses from DACC also made trips to the Red Cross shelter, which allowed co-housing of small pets with their owners, to check on the welfare of the animals. Moving among the population of evacuees, the team inspected kennels to make sure the animals had enough blankets, were adequately clean

and weren’t exhibiting signs of stress.

“The support that we provide isn’t just for the animals,” says Dr. Sabio-Solacito. “It’s also for the owners.”

Geekie concurs. “The most important element is that human-animal bond, and it’s making people feel safe and secure,” she says.

Bringing normalcy to an environment that was anything but normal, Dr. Sabio-Solacito and her team took care of routine checkups, nail trims, ear cleanings and even offered to walk evacuees’ pets.

All creatures and their caretakers

During the first few days, the equestrian center at Pierce College was inundated with evacuated animals. Its 115 stables filled to capacity within 24 hours of both fires breaking out. Emergency responders built temporary pens while many evacuees slept in their trucks with their horses and other large animals tied to the trailer.

During the peak of the evacuations, the center was handling upwards of 280 animals. While most were horses, evacuees also brought miniature horses, ponies, cows, donkeys, goats, sheep, alpacas, chickens, turtles and a rabbit.

Larger animals that sustained burns or lacerations were treated at the equestrian center similarly to their smaller counterparts. Wounds were cleaned and treated with medication and close monitoring. Systemic antibiotics and pain medication were incorporated into the care each animal received.

Calabasas resident Trish Costa was evacuated in the waking hours of the second day of the Woolsey Fire. With her three horses and two ponies in tow, she arrived at Pierce College to a chaotic scene she described as “surreal,” with scores of evacuees trying desperately to find shelter for their animals. Costa slept in her truck with her animals tied to the trailer. She ended up waiting nearly 30 hours to secure open stalls for her horses and ponies.

Another evacuee, Alexa Stiles, left Agoura Hills around the same time as Costa with 19 horses in two trailers. “Within an hour we went from not being too afraid to going into disaster mode to get the horses out,” she recalls. “The top of the pasture was already burning by the time we got out of there.”

Stiles, like Costa, tied up all 19 horses to the cattle trailer upon arriving at the



Above: Horses evacuated during the wildfires in Los Angeles County received treatment and shelter at the equestrian center at Pierce College, one of six evacuation centers designated for large and small animals when natural disasters strike in the region. Photo courtesy of Natalie Miranda.

Right: A cat receives oxygen therapy at the triage tent at Pierce College for small pets affected by the fires. Photo courtesy of the Little Angels project.



equestrian center and slept in her truck while awaiting shelter for the horses. Eventually, two spacious sand paddocks were given to accommodate the horses as their home away from home.

Handling the influx of horses and other large animals from evacuation zones is the purview of L.A. County's Equine Response Team (ERT). The all-volunteer group works with the DACC during natural disasters and emergencies and took charge of managing the equine center's shelters and barns where horses and other large animals would temporarily live.

ASPCA Los Angeles was also heavily involved, deploying a disaster response team to assist in the health and well-being of horses and other animals evacuated to Pierce College and other triage centers along with their owners.

Recalling her first weekend of handling Woolsey Fire evacuees and the barrage of animals that made their way to Pierce College, Tina Reddington of ASPCA Los Angeles says, "It was so busy and with so many emotions with people upset. Knowing the animals were being cared for by animal lovers and in good hands gave owners a lot of relief during this hectic situation."

The priority for ASPCA is for the animals to be treated well, according to Reddington, who is the volunteer program director and designated shelter manager at Pierce College. ASPCA is focused, she says, on ensuring "that the animals are receiving the love and attention they need and that their daily needs are met."

On Nov. 12, the Woolsey Fire was burning across canyons and valleys in Ventura and Los Angeles counties. More than 250,000 residents and their animals had been evacuated from Agoura Hills, Calabasas, Oak Park and Thousand Oaks.

Early that day ASPCA volunteers dropped off two alpacas from the Agoura Hills area at the equestrian center. Both alpacas had sustained burns. The county's ERT team called in an equine specialist to more accurately assess the two animals.

"There's the damage you can see and then there's the damage you can't see," explains David Ramey, DVM, an equine veterinarian who is on call during emergencies and states of natural disaster to assist the DACC.

Over the course of 24 hours, the female alpaca responded well to antibiot-



Above: A relative of *dvm360* financial analyst Christopher Holston snapped this picture of burning buildings from his vehicle as he evacuated his home in Paradise, California, with his two dogs. Photo courtesy of Dennis Holston.



Left: A dog receives treatment for burns from the team coordinated by the Los Angeles Department of Animal Care and Control. Photo courtesy of the Little Angels Project.

ics and began eating. But in that same 24 hours, the male "went from looking like something to be concerned about to dying," says Dr. Ramey. "He wasn't burned other than a few superficial spots. But the prolonged exposure to intense heat was detrimental."

Building from ashes

As of Nov. 19, the Woolsey Fire continues to burn, its path of destruction spanning more than 98,000 acres across Los Angeles and Ventura counties. According to California fire officials, the fire is nearing 100 percent containment.

The Hill Fire was extinguished within a week of its initial outbreak but left behind 4,500 scorched acres in Ventura County. In the fire's wake, hundreds of homes and properties have been reduced to ash and rubble. Stables have been burned to the ground. The number of deaths and missing people are still being counted.

But through all the chaos and tur-

moil, the veterinary partnerships from public and private sectors made the difference. Veterinary professionals responded around the clock to the needs of evacuees and their beloved animals.

"It's a collective effort. No one person or agency will be able to handle disasters like this on their own," says Dr. Sabio-Solacito.

Echoing these comments, Geekie says, "I've been impressed by everyone who has stepped forward, from doctors and RVTs who have come to help, to reps and hospitals who have given us supplies and people who have given monetary donations."

"The response of the private sector wanting to help gives me hope for us as a community and as a country," says Dr. Sabio-Solacito. "We can still come together and work together and be united."

Brandon Black is a Los Angeles-based freelance writer. Dogs have been part of his life since he was in the third grade.

"Knowing that the animals were being cared for by animal lovers and were in good hands I think gave owners a lot of relief during this hectic situation."

—Tina Reddington, ASPCA Los Angeles

The greatest story ever told? *Yours*



Senani Ratnayake asked her veterinary audience to arrange a meeting for all practice team members to share their inspiration for being in their jobs and then build a bulletin board to share these thoughts. This is the practice's story.

While speakers at Uncharted's Get Sh*t Done conference talked about branding, hiring and personnel management, they also seemed to be telling a story about the power of stories: your team members' and your practice's. Here's more. *By Brendan Howard*

When you think about a storyteller, you think entertainment first. But a veterinary conference focused, by name, on getting sh*t done (the Get Sh*t Done conference) in Greenville, South Carolina, last month really showed that stories are especially powerful for those in business and veterinary medicine too.

That might be a surprise, because many sessions centered on goal-setting, time management, focusing on the work you need to do and delegating the rest. But some speakers started with stories and values before getting down to the work of productivity. That will come as no surprise to those who know the conference is put on by Uncharted, a veterinary community masterminded by Andy Roark, DVM, who has himself made a speaking career over the past few years partly on the strength of sad, funny, instructive stories he tells veterinary audiences.

Those inspired by him, his simpatico mates, couldn't help sharing elements

of storytelling that could inspire your own veterinary practice's stories. Here are three examples from the conference that capture a taste of what it looks like to tell good stories to clients, inspire team members with good stories, and self-reflect to understand exactly what inspires you.

Getting to know your team members: Who's in your story?

How do you inspire team members? They should feel proud of where they work and who they work with. Senani Ratnayake, BSc, RVT, consultant and educator with the P3 Veterinary Partners hospital chain in Canada, conducted a workshop on hospital branding. She says she's disappointed if she ever hears team members, when asked where they work, "whisper the hospital name and seem ashamed." Ratnayake says veterinary professionals should be proud to say about their coworkers, "These are cool people, and I'm with them."

If your practice lacks such inspired pride, Ratnayake says it's time for some personal or group introspection. Why do you work in veterinary medicine? Why here? It's true—for some employees it may be just the paycheck, but Ratnayake says that doesn't often work in veterinary medicine, which draws team members with a strong purpose.

"If you're here to clock in and clock out, we probably won't like you," Ratnayake says.

Here's the exercise Ratnayake encouraged workshop attendees to try: Arrange a lengthy group meeting for everyone to share their answer to the question, "What is the memory or inspiration driving you to be present for this job, these animals, this team?" Perhaps ask team members to bring in pictures or objects that express these answers. Build a bulletin board in the practice to share these stories and take a picture of the meeting to put on the board of the big meeting. Show off the board to new hires: This is why we're here. This is your practice's story.

Jedi mind tricks
For more detail on Dr. Dave Nicol's psychological approach to self-reflection, hiring and communication, see him at the Fetch dvm360 conferences. Visit fetchdvm360.com.

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- Enteritis
- Colitis
- Intestinal parasites
- Inflammatory bowel disease / chronic enteropathy

OR

LOW FAT

Low fat concentration to help dogs with difficulty digesting fat



RECOMMENDED FOR:

- Acute and chronic vomiting and diarrhea
- Gastritis
- Enteritis
- Colitis
- Hyperlipidemia
- Lymphangiectasia
- Inflammatory bowel disease / chronic enteropathy
- Acute and chronic pancreatitis
- Protein-losing enteropathy

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And this is what inspires team members about their work, Ratnayake says—connecting the day-to-day job to these powerful purposes. The job of leaders in veterinary hospitals is to help team members “teach people how to make these connections,” she says.

Getting to know your shared values: What's your story really about?

How do you know what your story is? It's your brand. But you don't control that, said speaker Odie Marcovici, DVM, a VCA recruiting and professional relations director, in his session. Your actions over time dictate that.

“You cannot create your brand,” Dr. Marcovici told attendees. “You release it to the world, and people will tell you what you are.”

Your brand is a combination of service and actions over time, and your own serious focus on exactly what your hospital does best. “You've got to kill some of your darlings,” Marcovici told attendees, as he explained that every veterinary practice says it excels at medical care, client care and staff care—and those are all important—but great leaders and practice owners must choose which will be the focus.

Want to figure out the brand with a team? Marcovici demonstrated a fun team meeting approach to the exercise during his session. Ask each person on your team to answer this question on a piece of paper: “What's one thing we do well, one thing we can most be proud of?” Tally those answers in the “medical” or “client” or “team” categories. Often, there's an overwhelming winner in one of the three categories, and that tells you where your focus lies.

To compete in today's veterinary marketplace, for clients and job applicants, Marcovici's advice is you need to know your story, tell it to everyone, and live it: “Brands only get successful with time.”

Finding new team members: Who gets written into your story?

Unless you're opening a brand-new practice, your hospital has a story that's been written over the years, and the team members there today have their own emotional tales that guide them and bind them to the big veterinary adventure that is your hospital. What

happens when new characters show up? Do they fit in or ruin the tale?

Dave Nicol, BVMS, Cert. Mgmt MRCVS, a frequent Fetch dvm360 speaker with a veterinary podcast and a veterinary consulting company, says the success of your journey hinges on your hiring. And you need to know who you are, what your practice needs, and how to make sure your hire is a good fit.

Using what he describes as “Jedi mind tricks,” ideas out of so-called neurolinguistic programming, Dr. Nicol has devised questions he uses to see where people fall on a particular spectrum for such traits as:

- > goal-oriented vs. problem-solving
- > option-focused vs. procedure-following
- > change-loving vs. change-averse.

Questions like “What's important to you about your work?,” “Why did you choose your current (or previous) job?” and “How do you know you've done a good job?” can help a smart interviewer figure out whether a potential hire is a good fit. But only if the practice manager or owner has a handle on what the practice is like and the best fit for a particular role in that practice.

Before you know who you want to join you in your story, folks, you first need to know who you are already.



Dr. Odie Marcovici says you cannot actually create your brand—“You release it to the world, and people will tell you what you are.”



Dr. Dave Nicol uses “Jedi mind tricks” to figure out whether new recruits will be a good fit with your veterinary team.

The winter years

> Continued from the cover

says Julia Albright, DVM, DACVB, who spoke at a recent Fetch dvm360 conference, is that CCD can be diagnosed through simple questions about the pet's behavior during a veterinary visit.

Using the acronym DISHAA, created by Gary Landsberg, DVM, DACVB, DECAWBM (companion animals), you can take a history at each appointment to help to identify changes in the pet's behavior and cognitive functioning, Dr. Albright says. If you don't ask, the pet owner may not think to bring up behavior changes because they chalk them up to "normal aging."

DISHAA stands for:

- > Disorientation
- > Interactions (changes in how the pet interacts with owners)
- > Sleep-wake cycle alterations
- > House soiling

"You can explain that if the 14-year-old pet is only coming to the veterinarian once a year, that's like you going to the doctor every four or five years."

—Julia Albright, DVM, DACVB

- > Activity level changes
- > Anxiety level changes.

Behavior changes like sleep-wake cycle alterations and house soiling are the ones that bring pet owners in to see Dr. Albright most often when signs of CCD begin to become more severe. "Pet owners can deal with the other stuff, but they can't deal with a lack of sleep," she says.

While there's no cure for CCD, there are ways to intervene medically and behaviorally, Dr. Albright notes: "We can perhaps slow the progression—there are things that can be used to improve cognitive functioning and quality of life."

Medical management

The most important thing to do, Dr. Albright says, is to keep on top of any medical issues the pet may be experiencing in addition to CCD by pushing for twice-yearly veterinary visits. "You can explain that if the 14-year-old pet is only coming to the veterinarian once a year, that's like you going to the doctor every four or five years," she says. "That's not acceptable in a geriatric patient."

Antioxidants, either through diet or supplements, are also important for these patients. Vitamins A, C and E can be used individually, but for maximal

effect they need to be given together, Dr. Albright says. Fatty acids and L-carnitine are good for muscle maintenance in these patients as well. Several diets containing a combination of these supplements may help support pets' cognitive functioning, Dr. Albright says, including Hill's Prescription Diet b/d. Purina Pro Plan Bright Mind and Purina Pro Plan Veterinary Diets NeuroCare are medium-chain triglyceride diets and offer a different mechanism for improving cognitive performance by allowing the body to produce alternative fuel sources to glucose.

Situational anti-anxiety or sedating medications can be used in mild or stronger doses for problems such as nighttime waking. The first drug Dr. Albright usually reaches for with older animals is gabapentin. "It's really safe, it's anti-anxiety, and it's got a pain-altering effect," she says. She also uses trazadone with a number of her CCD cases, because she considers it fairly safe.

However, an increasing body of research is showing that benzodiazepines can hasten cognitive decline in geriatric people, Dr. Albright says. "It's not that I don't use them anymore, but I do warn the pet owner that we may be working on short-term quality of life and sacrificing longer-term cognitive health," she says.

There are also maintenance medications to consider, such as selective serotonin reuptake inhibitors, which increase serotonin and decrease moderate anxiety. "Those are something you commit to giving every day," Dr. Albright says. "They take weeks to take effect. It's not a good day, bad day kind of thing."

The drug Dr. Albright is the most careful with is selegiline, an FDA-approved medication for CCD, because it has the highest risk of causing serotonin syndrome, she says. "I would never use another serotonergic drug with selegiline," she says. "I don't prescribe it a lot because of this; I feel that

these patients need to be on polypharmacy and it limits what I can prescribe."

Environmental management

Mental enrichment is highly beneficial to CCD patients, Dr. Albright says. In fact, the more researchers learn about enrichment, the more she thinks it will be "prescribed" like a drug. Brain chemistry changes that occur after enrichment activities are similar to what happens in the brain when an antidepressant is taken. "You need to prescribe enrichment for all your patients," she says. "Especially the older ones."

Aromatherapy, pheromone therapy and classical music or white noise have all been shown to relax shelter dogs, Dr. Albright says. "I love white noise," she says. "With older dogs in particular, with nighttime waking they're perceiving the same noises they've heard for the last five to 10 years in different ways. And it can now sound scary to them."

Exercise can also be a vital component to managing signs of CCD. If a pet sleeps all day, it may not have a good night. "Even if you can't take them very far on a walk, they can still walk to the end of the block. Car rides or strollers, as silly as it seems, at least let them get out," Dr. Albright says.

Puzzle toys or scent games can be beneficial for these pets as well. "It's a great form of enrichment because there's no training involved and it's working their brain without a lot of physical strain," she says.

When the client's not sleeping

Dr. Albright stresses that if pet owners come in and says they're not sleeping, you have to do something right away—that pet is on the fast track to euthanasia or leaving the home.

"You just can't be rational when you haven't slept. We've boarded dogs before [at our hospital] when the pet owner has come in and said they're frustrated and want to euthanize," she says. "I say, 'I'm not going to try to change your mind, I just want to make sure you're in your full faculties when you make that decision.'"

Veterinarians can help them make that best choice, she says.

Reference

1. Salvin HE, McGreevy PD, Sachdev PS, et al. Under diagnosis of canine cognitive dysfunction: A cross-sectional survey of older companion dogs. *Vet J* 2010;184:277-281.

Continue the behavior learning live

For more great information on managing behavior issues in practice, attend the Fetch dvm360 conference in Baltimore. Visit fetchdvm360.com/baltimore.



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OLD SCHOOL, NEW SCHOOL



Too nice for too long?

The regime change is leaving a sour taste in the mouths of Dr. Codger's clients. And Dr. Greenskin is a little bit glad she's not taking the blame.

Some time has passed since Dr. Codger informed Dr. Greenskin about the eventual corporate takeover. Just a couple of months ago, the entire staff was also informed and the response was mixed. But things definitely are changing. Corporate capital is in the air: Greenskin can't help but be impressed—even the teeniest bit excited—about the renovation projects already beginning and the all-new in-house laboratory equipment. There are also talks of using computers to document transactions and keep legible medical records!

Yes, you could say that the practice is about to catch up to the 20th century. To catch the 21st century will take some more doing, but Green-

skin can't help but feel like that's much closer than even she could have executed had she been successful in buying out Dr. Codger on her own.

One consequence Dr. Greenskin is observing during this transition is one she'd predicted—and was one of her biggest hesitations in deciding whether to purchase the practice herself. Having had Dr. Codger as a mentor for several years, she knew that many of his management practices were directly opposite of what little business training she'd received in veterinary school. That was all well and good for Dr. Codger's fading regime, but since his exit, the remaining parties had been left to deal with the fallout: How were they supposed to retrain the



Jeremy Campfield, DVM

practice's clients not to expect all of the niceties they'd enjoyed for decades with the old guard?

The receptionists were working overtime, taking the brunt of the frazzled and confused clients' anguish. Among the endless chatter at the front desk, a few statements could be heard over and over again (please note: We have translated the following statements to reflect their true meanings. The actual

cost. However, rumor has it that Dr. Geezer might not be practicing much past 100 years old, which is coming up soon. And he's hearing some tempting stories from his colleague Dr. Codger about corporations paying smoking hot prices to take over vet clinics just like his.

As Dr. Greenskin watches these struggles, she can't help but feel just a teensy bit relieved that this really isn't really her problem as

"We're not cutting pills for you anymore! Enjoy this pill cutter." ... "Discount? What discount? We don't do discounts!"

messages delivered by the front-desk receptionists sounded much more pleasant!):

"We're not cutting pills for you anymore! Enjoy this pill cutter ... first one's on us!"

"Discount? What discount? We don't do discounts!"

"No, you really do need a current exam for us to refill your pet's medications. Yes, we know he's been on enalapril for eight years, but you haven't been here in six years so it's time for a new exam!"

"No, recheck exams aren't 'free.'"

"Well, that nail trim did require our technicians' time, so we are going to have to ask you to pay for it. I understand you're upset, but we're not aware of any surviving businesses that have paid their employees to work for free."

"It's 6 o'clock and our doctors are going home to their families. I know, I know—they've only been here for 12 hours. Well, actually they won't be done with records until 8 p.m., but *still*. Let me tell you about this wonderful place called the emergency clinic."

And those are only a few notable examples! The transition is looking more and more like a shakeup. Some of Dr. Codger's "best" clients are even leaving the practice altogether. Lucky for them, Dr. Geezer's place on the other side of town is always accepting new clients, and he seems to be one of the last veterinarians around who "actually cares"—which means he does lots of work at little or no

she's merely an employee of the company. They certainly would have been had she bought the place, although she probably would have phased in changes a bit more slowly. She's fairly certain the current pains are only temporary. And with the new branding and advertisements, new (and younger) clients are coming through the door, taking the place of the old.

Dr. Greenskin is doing her best to observe and learn all the steps involved in transforming the clinic into something more viable and modern. These lessons may still come in handy for her someday!

Are Dr. Codger's loyal clients being left out in the cold for no reason? Or are these the inevitable consequences of modernizing something that sat unchanged for decades? What lies ahead for Dr. Greenskin? Find out next time, in Old School, New School! And catch up on the old ones at dvm360.com/campfield.

Dr. Jeremy Campfield lives near Sacramento with his family, including an aging mini Aussie and an obstreperous pitbull mix that some mistake for a chocolate Lab (to the delight of her owners). When the family is not getting their hands dirty in the garden, Dr. Campfield indulges in his love for the outdoors with hiking, kitesurfing and climbing aboard any two-wheeled contraption. Please remember: Watch for cyclists, share the road, and pass them like you love them!

VET RAY

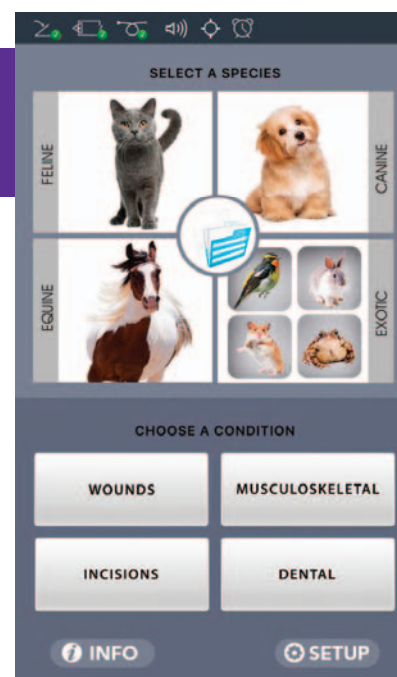
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Veterinary associates: Still think you can buy a practice someday?

The commoditization of the DVM may be making this dream less of a reality for many entrepreneurial hopefuls.

Corporate consolidation in the veterinary industry impacts a variety of players, and I recently discussed its effect on independent clinic owners. I also provided some food for thought on the likelihood of antitrust regulators intervening to protect smaller competitors such as individual owners, partnerships and smaller corporate consolidators.

Now let's discuss the segment of the veterinary universe that's by far the most dramatically impacted by corporate consolidation: associate DVM employees. I'm not talking about the folks who've sold their businesses and are working their way toward retirement or clinicians who never aspired to practice ownership in the first place. Corporate ownership generally doesn't concern these subgroups.

No, the movement toward practices owned by venture capital and corporate roll-ups most concerns those entrepreneurial veterinary graduates who long to control their own workplace either alone or in partnership with other DVMs. These are the doctors who a generation ago would have moved toward ownership within a decade of graduation.

Who are these practitioners being tossed about in the current cyclone of corporate practice acquisition?

> They're relatively young and new to the concept of nitty-gritty practice ownership. They're hesitant to pursue ownership on any terms until they feel comfortable both with medicine and with personnel management.

> They're burdened with astounding student debt and reticent to take on additional personal financial liability.

Semintra® (telmisartan oral solution) 10 mg/mL

For oral use in cats only
Angiotensin II Receptor Blocker

Brief Summary: Before using SEMINTRA, please consult the product insert, a summary of which follows:

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

Description: SEMINTRA (telmisartan oral solution) is a clear, colorless to yellowish viscous solution containing 10 mg/mL telmisartan.

Indication and Usage: SEMINTRA is indicated for the control of systemic hypertension in cats. The initial dose of SEMINTRA is 1.5 mg/kg (0.68 mg/lb) orally twice daily for 14 days, followed by 2 mg/kg (0.91 mg/lb) orally once daily. The dose may be reduced by 0.5 mg/kg (0.23 mg/lb) increments to a minimum of 0.5 mg/kg (0.23 mg/lb) orally once daily to manage SEMINTRA-induced hypotension. SEMINTRA can be administered directly into the mouth, or next to or on top of a small amount of food. Do not mix into food.

SEMINTRA should be administered using the dosing syringe provided in the package. The dosing syringe fits onto the bottle and has 0.1 mL incremental marks. The dose should be rounded to the nearest 0.1 mL. After administration close the bottle tightly with the cap. Rinse the dosing syringe with water and let air dry.

If the cat vomits within 30 minutes of dosing, the cat may be re-dosed.

Information for Cat Owners: Adverse reactions can occur with use of SEMINTRA. The most common adverse reactions reported during the field studies included vomiting, diarrhea, lethargy, weight loss, anemia and dehydration.

Contraindications: Do not use in cats with a hypersensitivity to telmisartan.

Human Warnings: Not for human use. Keep out of reach of children.

SEMINTRA is an angiotensin II antagonist/angiotensin receptor blocker (ARB). Pregnant women should avoid contact with SEMINTRA because substances that act on the renin-angiotensin-aldosterone system (RAAS) such as angiotensin receptor blockers (ARBs) can cause fetal and neonatal morbidity and death during pregnancy in humans.

Precautions: SEMINTRA can cause mild anemia or non-regenerative anemia. Cats should be monitored for anemia when initiating treatment with SEMINTRA.

SEMINTRA may cause inappetence and weight loss in some cats. Cats should be monitored for weight loss when initiating treatment with SEMINTRA. Use with caution in cats with a history of vomiting, inappetence or weight loss.

SEMINTRA has not been evaluated in cats with systolic blood pressure >200 mm Hg.

The safe use of SEMINTRA in cats with hepatic disease has not been evaluated. SEMINTRA is metabolized by the liver.

The safe use of SEMINTRA has not been evaluated in cats less than 9 months of age, or in cats that are pregnant, lactating, or intended for breeding.

See Human Warnings.

The safe use with other anti-hypertensive medications has not been evaluated.

Adverse Reactions: The safety of SEMINTRA was evaluated in a 28-day field study in 192 cats. Adverse reactions that occurred include vomiting 46 (24.0%), diarrhea 18 (9.4%), lethargy 13 (6.8%), weight loss 13 (6.8%), decreased appetite/inappetence 13 (6.8%) 7 (7.3%) non-regenerative anemia 11 (5.7%), dehydration 10 (5.2%), retinal lesions (target organ damage) 4 (2.1%).

The long-term safety of SEMINTRA was evaluated in an open label, 5 month field effectiveness and safety study in 107 cats that received at least one dose of SEMINTRA. Adverse reactions that occurred in this study are weight loss 37 (34.6%), vomiting 32 (29.9%), dehydration 18 (16.8%), non-regenerative anemia 17 (15.8%), anorexia 14 (13.1%), diarrhea 12 (11.2%),

lethargy 12 (11.2%), decreased appetite/inappetence 11 (10.3%), heart murmur 10 (9.3%), death, euthanasia, found dead 9 (8.4%), cough 8 (7.5%) and retinal lesions (target organ damage) 6 (5.6%).

Nine cats died or were euthanized during the study. Three cats had progressive chronic kidney disease that may have been affected by telmisartan treatment, concurrent disease, or inadequate control of hypertension. The other six cats died of causes unrelated to treatment (e.g. neoplasia).

To report suspected adverse drug events, for technical assistance, or to obtain a copy of the Safety Data Sheet (SDS), contact Boehringer Ingelheim Vetmedica, Inc. at 1-866-638-2226. For additional information about adverse drug experience reporting for animal drugs, contact FDA at 1-888-FDA-VETS or at <http://www.fda.gov/AnimalVeterinary/SafetyHealth>.

Effectiveness: Effectiveness was demonstrated in a 28-day multi-center, controlled, randomized and masked field study in client-owned cats with hypertension, and in an open-label 5-month field study.

28-Day Field Study

In a 28-day study, 288 cats with hypertension (systolic blood pressure [SBP] 160-200 mmHg) were enrolled in the study and randomized to treatment with SEMINTRA (telmisartan oral solution) (n=192) or vehicle control (n=96). The study population included cats with hypertension associated with chronic kidney disease or controlled hyperthyroidism, or idiopathic hypertension. The per protocol population for effectiveness was 141 SEMINTRA treated cats and 79 control cats. SEMINTRA was administered orally at 1.5 mg/kg twice daily for 14 days, then 2 mg/kg once daily until study end; the vehicle control was administered at a mL/kg volume equivalent to SEMINTRA. The two primary variables for effectiveness were comparison of the SEMINTRA and control group mean SBP (mSBP) from baseline to Day 14, and a decrease in mSBP >20 mmHg in the SEMINTRA group from baseline to Day 28. Cats with SBP >180 mmHg at Days 14 or 28 were rescued and removed from the study. There was a statistically significant difference between the mSBP for the SEMINTRA group compared to the control group at Day 14 (p=0.0005). At Day 14 the SEMINTRA group mSBP decreased by 23.2 mmHg, and the control group mSBP decreased by 7.3 mmHg. At Day 28, the SEMINTRA group mSBP decreased 23.9 mmHg compared to baseline.

5-Month Field Study

One hundred-seven cats from the SEMINTRA group that had successfully completed the 28-day study were enrolled in a 5-month open-label study. At the beginning of the 5-month study most cats were administered SEMINTRA at 2 mg/kg once daily. Cats that experienced hypotension (defined as SBP <120 mmHg) at 2 mg/kg once daily could have the SEMINTRA dose reduced to 1 mg/kg once daily. Cats that experienced hypotension at 1 mg/kg once daily could have the SEMINTRA dose reduced again to 0.5 mg/kg once daily. Cats were evaluated for SBP, target organ damage (TOD; primarily assessed by retinal photographs), clinical pathology and adverse reactions. SBP was measured on Days 28, 56, 98, 140 and 182 and retinal photographs and clinical pathology were collected on Days 28, 98 and 182. Seventy-three (68.2%) cats completed the study (Day 182), 8 cats were removed for hypertension (SBP >180 mmHg), 2 cats were removed for hypotension, 10 cats were removed by the owner or for owner non-compliance, 8 cats were removed for new or worsening TOD, and 6 cats were removed for adverse reactions unrelated to TOD. Twenty-six cats had dose reductions to 1 mg/kg once daily to manage hypotension. Of these 26 cats, 10 had an additional dose reduction to 0.5 mg/kg once daily.

NADA 141-501, Approved by FDA

Manufactured for:

Boehringer Ingelheim Vetmedica, Inc.
St. Joseph, MO 64506, U.S.A.

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Reference: Package Insert 449201-00 Revised 03/2018 09/2018

INTRODUCING

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IMPORTANT SAFETY INFORMATION

SEMINTRA is an angiotensin II antagonist/angiotensin receptor blocker (ARB). Pregnant women should avoid contact with SEMINTRA because it can cause fetal and neonatal morbidity and death during pregnancy in humans. Pregnant women should avoid contact with SEMINTRA because other similar drugs have been found to harm the unborn baby during pregnancy. **Precautions:** SEMINTRA can cause mild anemia or non-regenerative anemia. Cats should be monitored for anemia when initiating treatment. Cats should be monitored for weight loss when initiating treatment with SEMINTRA. Use with caution in cats with a history of vomiting, inappetence, or weight loss. The safe use of SEMINTRA in cats with hepatic disease has not been evaluated. SEMINTRA is metabolized by the liver. SEMINTRA has not been evaluated in cats with systolic blood pressure > 200 mmHg. The safe use of SEMINTRA has not been evaluated in cats less than 9 months of age, or in cats that are pregnant, lactating, or intended for breeding. The safe use with other anti-hypertensive medications has not been evaluated. For additional information, see the full prescribing information on page 24.

References: 1. Semintra® (telmisartan oral solution) Prescribing Information. Boehringer Ingelheim Vetmedica, Inc. 2018.
2. Zimmering T. Ease of use of Semintra® and its effects on quality of life—update on cat owner feedback ("EASY Programme") [abstract]. In: Proceedings from the 21st Federation of European Companion Animal Veterinary Associations (FECAVA); October 15–17, 2015; Barcelona, Spain. Poster.

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Semintra®

(telmisartan oral solution)

They rarely have a personal balance sheet that might entice a bank or other lender to loan them the million-plus dollars often needed to buy a clinic.

> They recognize that the window of opportunity for starting a family closes very quickly after one emerges from eight years of college and perhaps a year or more of postgraduate training. If family is a priority, young vets may not be immediately interested in taking on the burden of practice ownership that inevitably involves much more than a 40- to 45-hour work week. (Freedom from an “owner’s schedule” is something corporate clinics frequently offer, along with fairly generous vacation and sick time benefits.)

While not universal, these traits are common enough to explain why there’s an abundant supply of professional employees for corporate-owned veterinary practices. The marriage of debt-burdened, recently graduated doctors with corporate practice consolidators that can offer competitive salaries, predictable work schedules and modern facilities seems made in heaven—for the roll-up companies.

Their student debt falls, but the inflation rises

As corporatization expands, veterinary associates—both those working in independently owned practices and those who “choose corporate” for the

lifestyle benefits—watch time speed by. With each passing year, would-be veterinary clinic owners make small inroads into personal and student debt, but they simultaneously watch practice prices rise faster and faster, increasing well ahead of inflation rates. The more incrementally credit-qualified these docs become, the geometrically higher hospital prices go. Economics constantly seem to move the goalpost for this group.

And, of course, with every corporate acquisition there are fewer desirable clinics available to purchase. As the law of supply and demand holds, the prices for high-quality clinics rise as the number of independently held practices falls. And when prices are high, only the most creditworthy have the luxury of bidding.

Who gets first crack at ownership?

Imagine you’re a practice owner, either a midcareer practitioner with a clinic that’s recently doubled or tripled in value or one who’s simply preparing to retire. You’re being aggressively courted by multiple corporate suitors aching to purchase your business. The venture capital offer prices are delectable.

But you hesitate briefly. You think to yourself, “I’ll bet my senior associate would like a shot at buying this

place instead of becoming an employee of a big veterinary company.” Then you get real: “Nah, she’ll never get a loan for the whole thing without me helping finance, and there are three big companies ready to give me cash.”

‘Commoditization’ begins

Now consider again that large group of hopeful entrepreneurial associates who’ve found themselves with a costly degree and shockingly limited options. Some might call them the collateral damage of “progress.” I call what has happened to them the “commoditization of the DVM.”

I speak with these “commodity” doctors pretty much every day. They ask me to review their employment contracts, and when we discuss the offers they’re considering, I hear the same choruses:

- > “I have several offers, but the pay is basically identical—a base salary and an opportunity for a ‘bonus’ based on my production.”
- > “My vacation time isn’t really paid, because I have to work harder when I come back just to make my base. It’s really just three weeks unpaid ‘you don’t have to show up’ time.”
- > “There’s no actual health insurance; they just give me a small taxable ‘stipend’ so I can go out and buy my own.”

And I’m often asked, “How did it happen that every job is nearly the same?”

Though I always try to be upbeat, I frequently have to tell these job seekers—both those with an entrepreneurial bent and those who simply hope to maximize their pay and benefits—the same thing over and over: “When virtually all the positions are in the hands of a few employers, your degree becomes a commodity.”

And all the time I’m thinking to myself, “The independent guys who would’ve paid you more—to get your smile or your punctuality or your commitment? I’m afraid they’ve all moved to Florida.”

Dr. Christopher J. Allen is president of the Associates in Veterinary Law PC, which provides legal and consulting services exclusively to veterinarians. He can be reached via email at info@veterinarylaw.com.

“I think I’m ready to buy a practice, Jack!” “Hold your horses, doc.”

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Don't be scared of money

This year, make a New Year's resolution (or two or three) to better manage your personal accounts, your veterinary career and your practice's finances.

New Year's Day is coming. Whether you like to make fitness or family or spiritual goals, it can also be a good time to establish financial goals—for your practice or for yourself. Why not give some thought now to what you'd like to accomplish financially in the year ahead?

Start at home

Keeping your personal finances in good order is critical to support the lifestyle you work so hard to achieve. This could mean building a better budget, finding new ways to manage debt, bolstering your financial knowledge or even making a job change.

Create a budget. This helps you plan for the future and takes into account what's important to you, whether that's paying off debt or saving for a vacation. The first step is knowing how much you spend and how you spend it. *(Editor's note: Check out a financial advisor's sample spending analysis as well as other debt-hacking ideas at dvm360.com/curbyourdebt.)*

Nurture your career. Think about where you are now and where you want to be professionally in five years, 10 years or even longer, and make a

plan to get there. If you'd like to build your skills, take on more responsibility, earn a higher salary or improve your job satisfaction, you might be ready for a job change. That might mean seeking a promotion, an internal transition or, yes, a new job somewhere else.

Learn about managing money.

Knowledge is power when it comes to finances. Look for financial CE online and when you attend conferences or workshops. No matter how much you know, there's always more to learn.

Get your practice in order

If you own a practice, put a solid budgeting process in place for the new year. This means planning, reviewing financial statements and economic conditions, and setting goals that reflect realistic expectations.

Consider market share. Are there a half-dozen practices competing for customers in your target market area? You need to understand the veterinary landscape in your community so you can estimate the amount of business you can reasonably expect to come through your door.

Factor in the national and local economy. A majority of economists

AVMA help

AVMA and Student AVMA members have access to:

Personal finance

- > Personal financial planning tool at avma.org/MyBudget
- > Lead & Learn webinars at avma.org/Events/CE

Career development

- > Veterinary Career Center at avma.org/VCC
- > My Veterinary Life at myvetlife.avma.org

Practice management

- > Team-building tools at avma.org/TeamCPR

For students

- > Scholarships at avmf.org

needs like flea and tick prevention, or for help with pet behavior and socialization. These gaps represent opportunities for your practice.

Focus on the team

Everyone on the team contributes to success. Look at staffing and performance expectations to ensure you're making the most of your team members. Do you have adequate support staff? If your veterinarians routinely do work that doesn't require their medical training, you're not operating as efficiently as you could.

If you have an open position at your practice, resolve to fill it with the right candidate right away.

Look at your processes for onboarding, training, performance reviews and team-building. The AVMA has tools to strengthen your team and make the most of your staff resources.

are predicting the next recession to happen in the next 12 to 18 months. While economic corrections like recessions are a natural part of the business cycle and shouldn't be met with a doom-and-gloom mindset, as a veterinarian or practice owner you'll want to be prepared to weather the storm.

For example, if you're planning to apply for a line of credit to expand your practice or buy equipment, do it now, as credit lines squeeze during recessions. Or if you're looking to relocate and practice elsewhere, speed up your job search. It's harder to change jobs during economic downturns.

Set a regular schedule for reviewing key performance indicators (KPIs), and stick to it. As noted in our AVMA team's recent columns about goal-setting and executing to reach your goals, regular check-ins help you keep your budget on track throughout the year. This is true whether you're tracking revenue, expenses, client visits, product sales or other metrics.

Look for new revenue opportunities. Our newest Pet Ownership and Demographics Survey shows continuing gaps between the healthcare pets receive and best-practice care guidelines. Many pet owners don't see a veterinarian for common healthcare

Students: Start now

It's never too soon to start building your financial savvy. For veterinary students, the decisions you make today will affect your financial health for years to come.

Students need to budget, too.

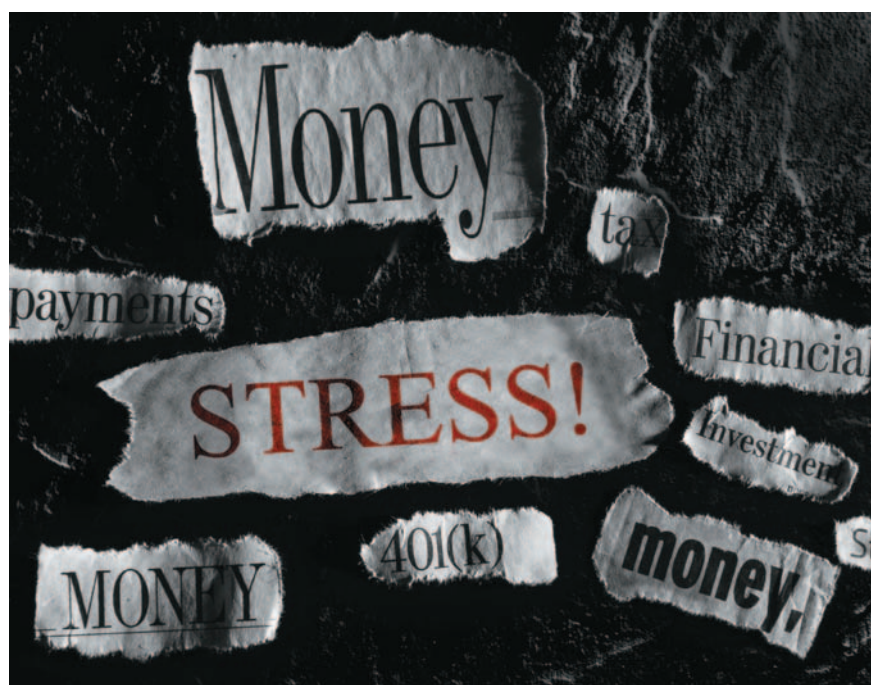
Create a budget every semester and decide ahead of time how much you'll spend on rent, food and entertainment. Contact your college bursar's office regularly to track how much tuition and other expenses you owe.

If you're borrowing money for your veterinary education, remember that your loans start accruing interest as soon as you receive the money. If you're a first- or second-year student, that means you'll be adding interest to your debt for two or three years before you make loan payments. If you find that you actually have more funds than you need to meet your budget, return the excess to the bursar.

Continue to apply for as many scholarships and grants as you can. Limiting borrowing is always better than repaying more debt.



Bridgette Bain, PhD, is associate director of analytics with the AVMA Veterinary Economics Division.



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INDICATIONS Adequan® Canine is recommended for intramuscular injection for the control of signs associated with non-infectious degenerative and/or traumatic arthritis of canine synovial joints.

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1. Adequan Canine Prescribing Information, Rev. 1/18.

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'What?! I didn't see nothin' ...'

This is what can happen when past employers aren't honest about possible new hospital hires.

The secrets to Dr. Howard's growing four-doctor, 14-team-member practice in a busy metropolitan suburb were cutting-edge veterinary medicine and an excellent support staff. When hiring a new team member, she demanded excellence and compassion and did not settle for mediocrity. She offered excellent salaries, flexible schedules and collegial mentoring.

She also had a unique approach to hiring: If someone interviewed with excellent references, impressive skills and a sparkling personality, she would hire whether there was a need or not. She didn't believe you could let someone with those attributes get away.

So far, so good

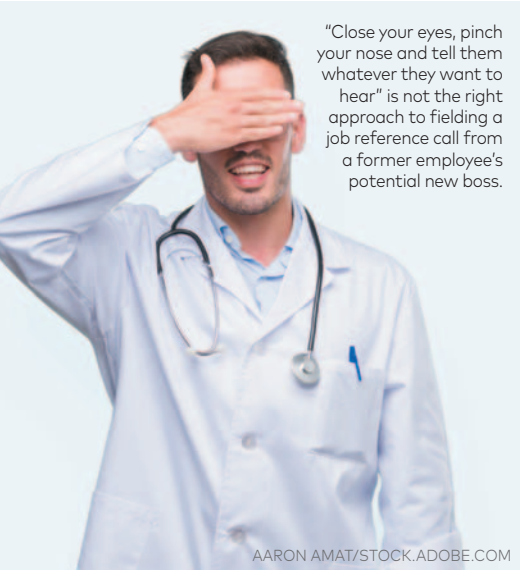
Dr. Howard had recently received a résumé from an experienced veterinary technician, Susan. Susan had moved to the area not long ago from another part of the state, with 12 years' experience and a broad, sophisticated skill set. She had several professional references and immediate availability.

Dr. Howard was impressed with Susan's interview and her volunteer work with the animal welfare com-

munity. She called the applicant's last employer, Comfort Care Animal Hospital, and spoke to the practice owner, Dr. Mason. He confirmed her excellent skills and remarked that he

was sorry she'd moved away. Dr. Howard hired Susan and was excited to have her join her clinic team. Initially, she proved to be just as advertised: skilled, articulate and efficient.

Cross-training goes south
Dr. Howard always believed that her technicians should spend shifts in reception both to familiarize themselves with how to execute a front-



GALLIPRANT® (grapiprant tablets)

For oral use in dogs only
20 mg, 60 mg and 100 mg flavored tablets
A prostaglandin E₂ (PGE₂) EP4 receptor antagonist; a non-cyclooxygenase inhibiting, non-steroidal anti-inflammatory drug
Caution: Federal (USA) law restricts this drug to use by or on the order of a licensed veterinarian.
Before using this product, please consult the product insert, a summary of which follows:
Indication: GALLIPRANT (grapiprant tablets) is indicated for the control of pain and inflammation associated with osteoarthritis in dogs.
Dosage and Administration: Always provide "Information for Dog Owners" Sheet with prescription. Use the lowest effective dose for the shortest duration consistent with individual response. The dose of GALLIPRANT (grapiprant tablets) is 0.9 mg/lb (2 mg/kg) once daily. GALLIPRANT tablets are scored and dosage should be calculated in half tablet increments. Dogs less than 8 lbs (3.6 kgs) cannot be accurately dosed. **See product insert for complete dosing and administration information.**
Contraindications: GALLIPRANT should not be used in dogs that have a hypersensitivity to grapiprant.
Warnings: Not for use in humans. Keep this and all medications out of reach of children and pets. Consult a physician in case of accidental ingestion by humans. **For use in dogs only.** Store GALLIPRANT out of reach of dogs and other pets in a secured location in order to prevent accidental ingestion or overdose.
Precautions: The safe use of GALLIPRANT has not been evaluated in dogs younger than 9 months of age and less than 8 lbs (3.6 kg), dogs used for breeding, or in pregnant or lactating dogs. Adverse reactions in dogs receiving GALLIPRANT may include vomiting, diarrhea, decreased appetite, mucoid, watery or bloody stools, and decreases in serum albumin and total protein. If GALLIPRANT is used long term, appropriate monitoring is recommended. Concurrent use with other anti-inflammatory drugs has not been studied. Concomitant use of GALLIPRANT with other anti-inflammatory drugs, such as COX-inhibiting NSAIDs or corticosteroids, should be avoided. If additional pain medication is needed after a daily dose of GALLIPRANT, a non-NSAID/non-corticosteroid class of analgesic may be necessary. The concomitant use of protein-bound drugs with GALLIPRANT has not been studied. Commonly used protein-bound drugs include cardiac, anticonvulsant and behavioral medications. Drug compatibility should be monitored in patients requiring adjunctive therapy. Consider appropriate washout times when switching from one anti-inflammatory to another or when switching from corticosteroids or COX-inhibiting NSAIDs to GALLIPRANT use. The use of GALLIPRANT in dogs with cardiac disease has not been studied. It is not known whether dogs with a history of hypersensitivity to sulfonamide drugs will exhibit hypersensitivity to GALLIPRANT. GALLIPRANT is a methylbenzenesulfonamide.
Adverse Reactions: In a controlled field study, 285 dogs were evaluated for safety when given either GALLIPRANT or a vehicle control (tablet minus grapiprant) at a dose of 2 mg/kg (0.9 mg/lb) once daily for 28 days. GALLIPRANT-treated dogs ranged in age from 2 yrs to 16.75 years. The following adverse reactions were observed:

Adverse reaction*	GALLIPRANT (grapiprant tablets) N = 141	Vehicle control (tablets minus grapiprant) N = 144
Vomiting	24	9
Diarrhea, soft stool	17	13
Anorexia, inappetence	9	7
Lethargy	6	2
Buccal ulcer	1	0
Immune mediated hemolytic anemia	1	0

*Dogs may have experienced more than one type or occurrence during the study. GALLIPRANT was used safely during the field studies with other concurrent therapies, including antibiotics, parasitides and vaccinations. To report suspected adverse drug events and/or obtain a copy of the Safety Data Sheet (SDS) or for technical assistance, call 1-888-545-5973. For additional information about adverse drug experience reporting for animal drugs, contact FDA at 1-888-FDA-VETS or online at <http://www.fda.gov/AnimalVeterinary/SafetyHealth>
Information for Dog Owners: 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, and decreasing albumin and total protein. Appetite and stools should be monitored and owners should be advised to consult with their veterinarian if appetite decreases or stools become abnormal.
Effectiveness: Two hundred and eighty five (285) client-owned dogs were enrolled in the study and evaluated for field safety. GALLIPRANT-treated dogs ranging in age from 2 to 16.75 years and weighing between 4.1 and 59.6 kgs (9-131 lbs) with radiographic and clinical signs of osteoarthritis were enrolled in a placebo-controlled, masked field study. Dogs had a 7-day washout from NSAID or other current OA therapy. Two hundred and sixty two (262) of the 285 dogs were included in the effectiveness evaluation. Dogs were assessed for improvements in pain and function by the owners using the Canine Brief Pain Inventory (CBPI) scoring system.¹ A statistically significant difference in the proportion of treatment successes in the GALLIPRANT group (63/131 or 48.1%) was observed compared to the vehicle control group (41/131 or 31.3%). GALLIPRANT demonstrated statistically significant differences in owner assessed pain and function. The results of the field study demonstrate that GALLIPRANT, administered at 2 mg/kg (0.9 mg/pound) once daily for 28 days was effective for the control of pain and inflammation associated with osteoarthritis.
Storage Conditions: Store at or below 86° F (30° C)
How Supplied: 20 mg, 60 mg, 100 mg flavored tablets in 7, 30 and 90 count bottles.
NADA 141-455, Approved by FDA
US Patents: 6,710,054; 7,960,407; 9,265,756
Made in New Zealand. Manufactured for: Aratana Therapeutics, Inc., Leawood, KS 66211
Reference: 1. http://www.vet.upenn.edu/docs/default-source/VIC/canine-bpi_userguide.pdf?sfvrsn=0
Additional information is available at 1-888-545-5973.
GALLIPRANT is a trademark of Aratana Therapeutics, Inc.
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Brief Summary: AT1-040-16

Indication

Galliprant is an NSAID indicated for the control of pain and inflammation associated with osteoarthritis (OA) in dogs.

Important Safety Information

Not for use in humans. For use in dogs only. Keep this and all medications out of reach of children and pets. Store out of reach of dogs and other pets in a secured location in order to prevent accidental ingestion or overdose. Do not use in dogs that have a hypersensitivity to grapiprant. If Galliprant is used long term, appropriate monitoring is recommended. Concomitant use of Galliprant with other anti-inflammatory drugs, such as COX-inhibiting NSAIDs or corticosteroids, should be avoided. Concurrent use with other anti-inflammatory drugs or protein-bound drugs has not been studied. The safe use of Galliprant has not been evaluated in dogs younger than 9 months of age and less than 8 lbs (3.6 kg), dogs used for breeding, pregnant or lactating dogs, or dogs with cardiac disease. The most common adverse reactions were vomiting, diarrhea, decreased appetite, and lethargy. Please see brief summary to the left for full prescribing information.



desk transaction and also to gain an understanding of just how challenging a receptionist's job was.

Recently, two regular clients had been contacted due to outstanding balances. Both emphatically insisted they had paid their bills and had the canceled checks to prove it. When Dr. Howard received copies of the

canceled checks, she saw that they'd been made out to her new technician, endorsed by her technician and deposited to her employee's personal account. It became clear that when Susan had been working as a receptionist, she took these checks and informed the clients she would stamp them with the clinic name. She then wrote her own

name on the payee line of the check.

Dr. Howard was furious. She called Susan into her office and confronted her. After a lot of tears and an offer to pay all the money back if the police weren't called, Dr. Howard relented. During the course of the discussion, Dr. Howard learned that Susan had been fired from her last job for

stealing. The deal then was that if she immediately paid the money back and left the practice without involving lawyers, her boss—Dr. Mason—would not give her a bad reference.

What do we owe in a job reference?

Dr. Howard was understandably upset. She'd lost a new employee, been the victim of embezzlement and been hoodwinked by a fellow doctor. When she called for the reference, her colleague could simply have confirmed the fact that Susan had worked for him and not commented on her performance. He could even have refused to participate in a conversation at all. What he should not have done was lie to her.

Dr. Howard filed a complaint of unprofessional behavior by Dr. Mason with the state board. She even considered going to civil court but really could not justify any tangible monetary damages. State boards usually distance themselves from veterinarian-against-veterinarian complaints unless they're severe. The board's focus primarily involves resolving disputes between the pet-owning public and licensed veterinarians. In this case, though, the board did indeed find that Dr. Mason had acted in an unprofessional manner by intentionally deceiving a colleague. The penalty was a sanction, a fine and a reprimand.

Do you believe Dr. Howard handled this correctly, and do you agree with the board's decision? Let us know at dvmnews@ubm.com.

Dr. Rosenberg's response

No matter your profession, it's not a good idea to intentionally lie or deceive anyone. The referring veterinarian took the easy way out. He decided he would make his problem someone else's problem and his worries would be over. This dilemma clearly demonstrates that making a deal with a thief doesn't benefit anyone. Both veterinarians paid a price, and the thief moved on to steal another day.

Dr. Marc Rosenberg is director of the Voorhees Veterinary Center in Voorhees, New Jersey. Although many of his scenarios in "The Dilemma" are based on real-life events, the veterinary practices, doctors and employees described are fictional.

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(grapiprant tablets)

Open wide ... to **two crucial hospital design details**

Many a practice owner has gotten bogged down obsessing over every tiny detail of every surface of every room of their new hospital. But you *do* need to think about these two things. *By Heather E. Lewis, AIA*

VETORYL® CAPSULES (trilostane)

5 mg, 10 mg, 30 mg, 60 mg and 120 mg strengths
Adrenocortical suppressant for oral use in dogs only.

BRIEF SUMMARY (For Full Prescribing Information, see package insert.)

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

DESCRIPTION: VETORYL Capsules are an orally active synthetic steroid analogue that blocks production of hormones produced in the adrenal cortex of dogs.

INDICATION: VETORYL Capsules are indicated for the treatment of pituitary- and adrenal-dependent hyperadrenocorticism in dogs.

CONTRAINDICATIONS: The use of VETORYL Capsules is contraindicated in dogs that have demonstrated hypersensitivity to trilostane. Do not use VETORYL Capsules in animals with primary hepatic disease or renal insufficiency. Do not use in pregnant dogs. Studies conducted with trilostane in laboratory animals have shown teratogenic effects and early pregnancy loss.

WARNINGS: In case of overdosage, symptomatic treatment of hypoadrenocorticism with corticosteroids, mineralocorticoids and intravenous fluids may be required. Angiotensin converting enzyme (ACE) inhibitors should be used with caution with VETORYL Capsules, as both drugs have aldosterone-lowering effects which may be additive, impairing the patient's ability to maintain normal electrolytes, blood volume and renal perfusion. Potassium sparing diuretics (e.g. spironolactone) should not be used with VETORYL Capsules as both drugs have the potential to inhibit aldosterone, increasing the likelihood of hyperkalemia.

HUMAN WARNINGS: Keep out of reach of children. Not for human use. Wash hands after use. Do not empty capsule contents and do not attempt to divide the capsules. Do not handle the capsules if pregnant or if trying to conceive. Trilostane is associated with teratogenic effects and early pregnancy loss in laboratory animals. In the event of accidental ingestion/overdose, seek medical advice immediately and take the labeled container with you.

PRECAUTIONS: Hypoadrenocorticism can develop at any dose of VETORYL Capsules. A small percentage of dogs may develop corticosteroid withdrawal syndrome within 10 days of starting treatment. Mitotane (o,p'-DDD) treatment will reduce adrenal function. Experience in foreign markets suggests that when mitotane therapy is stopped, an interval of at least one month should elapse before the introduction of VETORYL Capsules. The use of VETORYL Capsules will not affect the adrenal tumor itself. Adrenalectomy should be considered as an option for cases that are good surgical candidates. The safe use of this drug has not been evaluated in lactating dogs and males intended for breeding.

ADVERSE REACTIONS: The most common adverse reactions reported are poor/reduced appetite, vomiting, lethargy/dullness, diarrhea, elevated liver enzymes, elevated potassium with or without decreased sodium, elevated BUN, decreased Na/K ratio, weakness, elevated creatinine, shaking, and renal insufficiency. Occasionally, more serious reactions, including severe depression, hemorrhagic diarrhea, collapse, hypoadrenocortical crisis or adrenal necrosis/rupture may occur, and may result in death.

VETORYL® CAPSULES (trilostane)

Distributed by:
Dechra Veterinary Products
7015 College Boulevard, Suite 525
Overland Park, KS 66211

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NADA 141-291, Approved by FDA

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Veterinarians are classic for sweating the details in hospital design. Focusing on details is part of being a good doctor. So let's consider the moments when the tiny details aren't wasting a practice owner's time. Who doesn't love a good Pinterest page full of every single thing you want? It's fun and that's fine. It's good to indulge your mind that way as long as you know there's a time and place.

So, what *does* matter? Something you will not only see but touch every single day: door hardware. You touch a piece of door hardware every single way every single day. If it's bad, your workflow has issues. And, sure, there's nothing more boring than door hardware—does it have a lock? What kind of lock? (I want to die thinking about this stuff.) But every practice owner should force him or herself through this torture session so they get the hardware they want and need.

Bonus tip? Another crucial question



involves the thermostat—one of the most hotly contested (pun intended) elements of any building: Which office is it in? Who can get to it? These questions are important, and often veterinarians and builders will forget about their effect on workflow and client, patient and team member comfort.

Heather Lewis, AIA, NCARB, is a partner at design firm Animal Arts in Boulder, Colorado.

Best of break rooms

Veterinary architect shares the features that teams love.

The veterinary clinic break room at its best is a haven to which the staff can escape to recharge during a hectic day. HospitalDesign360 speaker Wayne Usiak, AIA, says the best break rooms feature common comforts:

- > Windows or access to a shaded patio
- > Kitchen amenities such as a sink, dishwasher and microwave
- > A vending area.

He also says there is value in keep-

ing the space flexible. This can be achieved by installing proper fixtures and furnishings:

- > Multiple smaller tables, as opposed to one large surface. This lets you “reconfigure the room and use it for continuing education, staff training, and staff meetings,” Usiak says.
- > A movable partition or a retractable wall.

Among these slices of home away from home, however, Usiak does caution against one thing:

“We’ve learned not to put lockers in break rooms because if something disappears from someone’s locker, they’ll assume someone went in



Online and in-person
For the best veterinary hospital design resources around, visit dvm360.com/hd. When you're ready to find funding and plan your build, register for the HospitalDesign360 conference at fetchdvm360.com/hd.

that closed room when no one was around,” he says.

Instead, Usiak suggests placing team members’ personal lockers in hallways or other open areas.

Treat Their Hyperadrenocorticism. Help Restore Their Vitality.



Prior to treatment with
VETORYL Capsules



Following 3 months of treatment
with VETORYL Capsules



Following 9 months of treatment
with VETORYL Capsules



VETORYL® CAPSULES (trilostane)

VETORYL Capsules are the only FDA-approved treatment for pituitary-dependent and adrenal-dependent hyperadrenocorticism in dogs (Cushing's syndrome). They contain the active ingredient trilostane, which blocks the excessive production of cortisol.

As with all drugs, side effects may occur. In field studies and post-approval experience, the most common side effects reported were: anorexia, lethargy/depression, vomiting, diarrhea, elevated liver enzymes, elevated potassium with or without decreased sodium, elevated BUN, decreased Na/K ratio, hypoadrenocorticism, weakness, elevated creatinine, shaking, and renal insufficiency. In some cases, death has been reported as an outcome of these adverse events. VETORYL Capsules are not for use in dogs with primary hepatic or renal disease, or in pregnant dogs. Refer to the prescribing information for complete details or visit www.dechra-us.com.

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I was an RN, and I'm cool with 'veterinary nurse'

This reader thinks credentialed veterinary technicians learn enough in school, do enough on the job to deserve 'nurse' title if they want it.

Editor's note: This letter is in response to "RNs fight veterinary technicians over the word 'nurse'" (see dvm360.com/rnfight.)

As a former practicing BSN (bachelor of science in nursing) and RN (registered nurse) who's now been employed for more than 30 years in the



veterinary field essentially doing technician work, I would have no issue with licensed veterinary technicians having the title of "veterinary nurse."

While I was practicing human medicine, patients often referred to the CNA (certified nursing assistant) who cared for them as "their nurse." Although I have great respect for the work, care and thoroughness of the CNAs who worked with me, there is a greater degree of responsibility, knowledge, protocol and chain-of-command responsibility that comes with the RN degree.

Still, the public understands that the caregiver is the one who gives care. How many times did I hear "nurse?" called out by a patient? They don't always understand the degrees. In fact, we're likely the only ones who care about titles.

As it is, some states can call technicians just that, but if they're not accredited, they're simply glorified assistants. And if they call themselves technicians, they get the evil eye from the accredited ones. Perhaps we need a category for veterinary technicians that's similar to CNAs in human medicine.

—Vicki Behrens, RN, BSN
Zion, Illinois

Equine medicine not a horror show but a place of respect

This veterinarian says she had a completely different experience than that reported in a recent look at life as a female student and practitioner.

I read "Don't call her 'lady doc' and other equine DVM horror stories" and would like to report a different experience. I graduated on the mixed animal track from a midwestern veterinary school in 1993. I now work in the western U.S. I have worked with several male veterinarians prior to, during and after graduation from veterinary school. Most of them graduated in the 1970s and had very few females in their class. I have always been treated with respect, and no one



has ever questioned my abilities as a female for the past 21 years—first in a mixed animal practice or now in a 100 percent equine practice. I do not carry a chip on my shoulder and am proud to appreciate my male and female colleagues from my pre-vet days, my pro-

fessors and clinicians during veterinary school and now in private practice, and the clinicians to which I refer cases.

—Lauri Stanley, DVM
Frontier Equine
Longmont, Colorado



Female practitioners
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I'd never lost a patient without being able to explain why ...

My surgery was textbook—until the patient didn't wake up. *By Andrew Rollo, DVM*

After my freshman year of college, I decided to pursue veterinary medicine and quickly found a job in the field to make sure I could stand the sight of blood. I started work at a small, one-doctor hospital where the practice owner was at the tail end of his career. To use the term “old school” would be appropriate, as it was 1998 and he still wasn't using gas anesthesia. He strictly used ketamine for all anesthetic procedures. No monitoring. No analgesia. Certainly, these practices wouldn't be acceptable today, and I'm sure many patients went through more pain than they should have. But in over 40 years of practice, he never lost a patient under anesthesia.

Once out of veterinary school, I found a job at a progressive hospital that was applying modern-day, multimodal anesthesia and had state-of-the-art anesthetic monitoring equipment. For a new graduate, the awesome responsibility of having a patient under anesthesia is one of the most nerve-racking aspects of the job. But by applying the principles I'd learned in school and working at a hospital that was providing everything it should, I expected to have the same track record as my old-school mentor.

As years passed, my comfort and confidence with anesthesia grew. In the beginning, I would emphasize the risk of anesthesia when asking owners to sign the release form. But over time, this emphasis with owners lessened. Routine surgeries became just that—routine—and going over release forms was merely a necessary but burdensome task.

For high-risk procedures, such as a patient with advanced heart disease or cancer, I would still engage in in-depth discussions about anesthesia risks. And if the outcome of the discussion was that we both believed the risk was worth the potential reward for the pet, I was not shy to assume those risks. With our sound preanesthetic requirements and anesthetic monitoring, we usually had a good



outcome. I've lost a few of these patients over the years, but both owner and myself had known the risks going into it. We also knew we'd done our best and accepted the outcome.

That changed recently. I went into the exam room to check in on one of my surgery patients. This was a family I'd known for a while, as we'd had our shares of ups and downs with a previous pet that had died two years earlier. The new pet was a Great Dane rescue, and it was time for her ovariohysterectomy. We chatted and I went over the release form quickly—as this was familiar to the owner and I had another patient to check on in the next room.

A few hours later, I placed the final suture on the Great Dane. Normally, I would be off to type in the patient's medical record or make a phone call. But because the dog was so large, I stayed to help her off the surgery table and onto the recovery mat. Once on the mat, I felt her pulse and waited for a breath. Thirty seconds might have gone by and I was still waiting. I asked my technician if she'd seen a breath. I pulled out my stethoscope and couldn't auscult the heart. We rushed her up to the treatment table. Five minutes of CPR, and nothing. Despite my fatigue I continued a couple more minutes because I was in disbelief.

I had never lost a patient without being able to explain why. I quickly had the technicians take some radiographs of the dog's chest. Did she have dilated cardiomyopathy with-

out me knowing, I wondered? No. I reviewed the anesthetic report, and there was nothing unusual.

I then had to make that phone call. These phone calls are never easy, but this one was unfathomable. The owner asked if I was kidding. I gave her the details and explained that I didn't know why the dog had died. I'm sure she heard little. Ten minutes later, I received a call from her husband, who was even more upset.

I waited an hour for them to arrive. They visited the pet and then sat in angry silence. I offered a necropsy or referral to the pathologist at the local university. They declined and asked to have the dog cremated. I felt terrible.

Part of our profession is losing patients—you just hope the next appointment is a puppy and you can go home and your family is none the wiser. Not so with this loss. My family could tell I was down. My team knew I was dragging. But you have to go on doing quality medicine, aiming for each day to be better than the last.

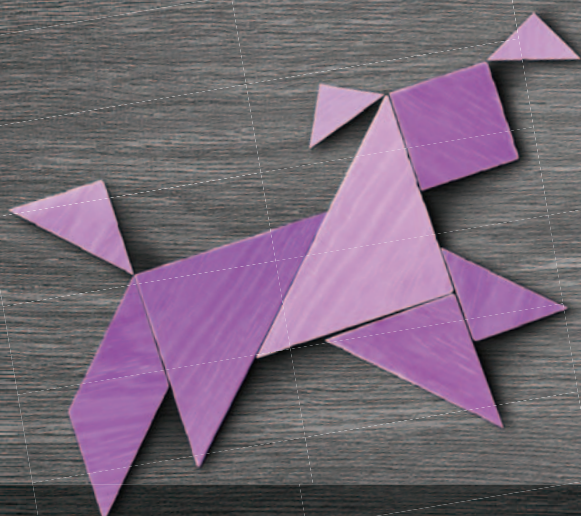
Last week, this same family came back to our hospital with a new Great Dane rescue and asked to see me. At the end of the appointment, they thanked me for everything I had done. I don't usually need acknowledgments, but this one meant something to me.

Dr. Andrew Rollo is a frequent contributor to dvm360.com and an associate at Madison Veterinary Hospital in Michigan.

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IMPORTANT SAFETY INFORMATION: METACAM (meloxicam oral suspension) and PREVICOX (firocoxib) are for use in dogs only. METACAM (meloxicam) Solution for Injection is approved for use in dogs or 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 and PREVICOX 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 or PREVICOX, then monitored regularly while on therapy. Concurrent use with another NSAID, corticosteroid, or nephrotoxic medication should be avoided or monitored closely.

Please see brief summaries of full prescribing information for products mentioned in this ad on pages 38-39.



CHEWABLE TABLETS

Brief Summary: Before using PREVICOX, please consult the product insert, a summary of which follows:

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

Indications: PREVICOX (firocoxib) Chewable Tablets are indicated for the control of pain and inflammation associated with osteoarthritis and for the control of postoperative pain and inflammation associated with soft-tissue and orthopedic surgery in dogs.

Contraindications: Dogs with known hypersensitivity to firocoxib should not receive PREVICOX.

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

For oral use in dogs only. Use of this product at doses above the recommended 2.27 mg/lb (5.0 mg/kg) in puppies less than seven months of age has been associated with serious adverse reactions, including death (see Animal Safety). Due to tablet sizes and scoring, dogs weighing less than 12.5 lb (5.7 kg) cannot be accurately dosed.

All dogs should undergo a thorough history and physical examination before the initiation of NSAID therapy. Appropriate laboratory testing to establish hematological and serum baseline data is recommended prior to and periodically during administration of any NSAID. **Owners should be advised to observe for signs of potential drug toxicity (see Adverse Reactions and Animal Safety) and be given a Client Information Sheet about PREVICOX Chewable Tablets.**

For technical assistance or to report suspected adverse events, call 1-877-217-3543. For additional information about adverse drug experience reporting for animal drugs, contact FDA at 1-888-FDAVETS or <http://www.fda.gov/AnimalVeterinary/SafetyHealth>

Precautions: This product cannot be accurately dosed in dogs less than 12.5 pounds in body weight. Consider appropriate washout times when switching from one NSAID to another or when switching from corticosteroid use to NSAID use.

As a class, cyclooxygenase inhibitory NSAIDs may be associated with renal, gastrointestinal 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 adverse events 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 and monitored. 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 produce gastrointestinal ulceration and/or gastrointestinal perforation, concomitant use of PREVICOX Chewable Tablets with other anti-inflammatory drugs, such as NSAIDs or corticosteroids, should be avoided. The concomitant use of protein-bound drugs with PREVICOX Chewable Tablets 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 the metabolism of PREVICOX Chewable Tablets has not been evaluated. Drug compatibility should be monitored in patients requiring adjunctive therapy. If additional pain medication is needed after the daily dose of PREVICOX, a non-NSAID class of analgesic may be necessary. Appropriate monitoring procedures should be employed during all surgical procedures. Anesthetic drugs may affect renal perfusion, approach concomitant use of anesthetics and NSAIDs cautiously. The use of parenteral fluids during surgery should be considered to decrease potential renal complications when using NSAIDs perioperatively. The safe use of PREVICOX Chewable Tablets in pregnant, lactating or breeding dogs has not been evaluated.

Adverse Reactions:

Osteoarthritis: In controlled field studies, 128 dogs (ages 11 months to 15 years) were evaluated for safety when given PREVICOX Chewable Tablets at a dose of 2.27mg/lb (5.0 mg/kg) orally once daily for 30 days. The following adverse reactions were observed. Dogs may have experienced more than one of the observed adverse reactions during the study.

Adverse Reactions Seen in U. S. Field Studies		
Adverse Reactions	PREVICOX (n=128)	Active Control (n=121)
Vomiting	5	8
Diarrhea	1	10
Decreased Appetite or Anorexia	3	3
Lethargy	1	3
Pain	2	1
Somnolence	1	1
Hyperactivity	1	0

PREVICOX (firocoxib) Chewable Tablets were safely used during field studies concomitantly with other therapies, including vaccines, anthelmintics, and antibiotics.

Soft-tissue Surgery: In controlled field studies evaluating soft-tissue postoperative pain and inflammation, 258 dogs (ages 10.5 weeks to 16 years) were evaluated for safety when given PREVICOX Chewable Tablets at a dose of 2.27 mg/lb (5.0 mg/kg) orally approximately 2 hours prior to surgery and once daily thereafter for up to two days. The following adverse reactions were observed. Dogs may have experienced more than one of the observed reactions during the study.

Adverse Reactions Seen in the Soft-tissue Surgery Postoperative Pain Field Studies		
Adverse Reactions	Firocoxib Group (n=127)	Control Group* (n=131)
Vomiting	5	6
Diarrhea	1	1
Bruising at Surgery Site	1	1
Respiratory Arrest	1	0
SQ Crepitus in Rear Leg and Flank	1	0
Swollen Paw	1	0

*Sham-dosed (pilled)

Orthopedic Surgery: In a controlled field study evaluating orthopedic postoperative pain and inflammation, 226 dogs of various breeds, ranging in age from 1 to 11.9 years in the PREVICOX-treated groups and 0.7 to 17 years in the control group were evaluated for safety. Of the 226 dogs, 118 were given PREVICOX Chewable Tablets at a dose of 2.27 mg/lb (5.0 mg/kg) orally approximately 2 hours prior to surgery and once daily thereafter for a total of three days. The following adverse reactions were observed. Dogs may have experienced more than one of the observed reactions during the study.

Adverse Reactions Seen in the Orthopedic Surgery Postoperative Pain Field Study		
Adverse Reactions	Firocoxib Group (n=118)	Control Group* (n=108)
Vomiting	1	0
Diarrhea	2**	1
Bruising at Surgery Site	2	3
Inappetence/ Decreased Appetite	1	2
Pyrexia	0	1
Incision Swelling, Redness	9	5
Oozing Incision	2	0

A case may be represented in more than one category.

*Sham-dosed (pilled).

**One dog had hemorrhagic gastroenteritis.

Post-Approval Experience (Rev. 2009): 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, anorexia, diarrhea, melena, gastrointestinal perforation, hematemesis, hematachezia, weight loss, gastrointestinal ulceration, peritonitis, abdominal pain, hypersalivation, nausea

Urinary: Elevated BUN, elevated creatinine, polydypsia, polyuria, hematuria, urinary incontinence, proteinuria, kidney failure, azotemia, urinary tract infection

Neurological/Behavioral/Special Sense: Depression/lethargy, ataxia, seizures, nervousness, confusion, weakness, hyperactivity, tremor, paresis, head tilt, nystagmus, mydriasis, aggression, uveitis

Hepatic: Elevated ALP, elevated ALT, elevated bilirubin, decreased albumin, elevated AST, icterus, decreased or increased total protein and globulin, pancreatitis, ascites, liver failure, decreased BUN

Hematological: Anemia, neutrophilia, thrombocytopenia, neutropenia

Cardiovascular/Respiratory: Tachypnea, dyspnea, tachycardia

Dermatologic/Immunologic: Pruritis, fever, alopecia, moist dermatitis, autoimmune hemolytic anemia, facial/muzzle edema, urticaria

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

For a complete listing of adverse reactions for firocoxib reported to the CVM see: <http://www.fda.gov/downloads/AnimalVeterinary/SafetyHealth/ProductSafetyInformation/UCM055407.pdf>

Information For Dog Owners: PREVICOX, 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 PREVICOX therapy 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: Two hundred and forty-nine dogs of various breeds, ranging in age from 11 months to 20 years, and weighing 13 to 175 lbs, were randomly administered PREVICOX or an active control drug in two field studies. Dogs were assessed for lameness, pain on manipulation, range of motion, joint swelling, and overall improvement in a non-inferiority evaluation of PREVICOX compared with the active control. At the study's end, 87% of the owners rated PREVICOX-treated dogs as improved. Eighty-eight percent of dogs treated with PREVICOX were also judged improved by the veterinarians. Dogs treated with PREVICOX showed a level of improvement in veterinarian-assessed lameness, pain on palpation, range of motion, and owner-assessed improvement that was comparable to the active control. The level of improvement in PREVICOX-treated dogs in limb weight bearing on the force plate gait analysis assessment was comparable to the active control. In a separate field study, two hundred fifty-eight client-owned dogs of various breeds, ranging in age from 10.5 weeks to 16 years and weighing from 7 to 168 lbs, were randomly administered PREVICOX or a control (sham-dosed-pilled) for the control of postoperative pain and inflammation associated with soft-tissue surgical procedures such as abdominal surgery (e.g., ovari hysterectomy, abdominal cryptorchidectomy, splenectomy, cystotomy) or major external surgeries (e.g., mastectomy, skin tumor removal \leq 8 cm). The study demonstrated that PREVICOX-treated dogs had significantly lower need for rescue medication than the control (sham-dosed-pilled) in controlling postoperative pain and inflammation associated with soft-surgery. A multi-center field study with 226 client-owned dogs of various breeds, and ranging in age from 1 to 11.9 years in the PREVICOX-treated groups and 0.7 to 17 years in the control group was conducted. Dogs were randomly assigned to either the PREVICOX or the control (sham-dosed-pilled) group for the control of postoperative pain and inflammation associated with orthopedic surgery. Surgery to repair a ruptured cruciate ligament included the following stabilization procedures: fabellar suture and/or imbrication, fibular head transposition, tibial plateau leveling osteotomy (TPLO), and 'over the top' technique. The study (n = 220 for effectiveness) demonstrated that PREVICOX-treated dogs had significantly lower need for rescue medication than the control (sham-dosed-pilled) in controlling postoperative pain and inflammation associated with orthopedic surgery.

Animal Safety: In a targeted animal safety study, firocoxib was administered orally to healthy adult Beagle dogs (eight dogs per group) at 5, 15, and 25 mg/kg (1, 3, and 5 times the recommended total daily dose) for 180 days. At the indicated dose of 5 mg/kg, there were no treatment-related adverse events. Decreased appetite, vomiting, and diarrhea were seen in dogs in all dose groups, including unmedicated controls, although vomiting and diarrhea were seen more often in dogs in the 5X dose group. One dog in the 3X dose group was diagnosed with juvenile polyarteritis of unknown etiology after exhibiting recurrent episodes of vomiting and diarrhea, lethargy, pain, anorexia, ataxia, proprioceptive deficits, decreased albumin levels, decreased and then elevated platelet counts, increased bleeding times, and elevated liver enzymes. On histopathologic examination, a mild ileal ulcer was found in one 5X dog. This dog also had a decreased serum albumin which returned to normal by study completion. One control and three 5X dogs had focal areas of inflammation in the pylorus or small intestine. Vacuolization without inflammatory cell infiltrates was noted in the thalamic region of the brain in three control, one 3X, and three 5X dogs. Mean ALP was within the normal range for all groups but was greater in the 3X and 5X dose groups than in the control group. Transient decreases in serum albumin were seen in multiple animals in the 3X and 5X dose groups, and in one control animal. In a separate safety study, firocoxib was administered orally to healthy juvenile (10-13 weeks of age) Beagle dogs at 5, 15, and 25 mg/kg (1, 3, and 5 times the recommended total daily dose) for 180 days. At the indicated (1X) dose of 5 mg/kg, on histopathologic examination, three out of six dogs had minimal periportal hepatic fatty change. On histopathologic examination, one control, one 1X, and two 5X dogs had diffuse slight hepatic fatty change. These animals showed no clinical signs and had no liver enzyme elevations. In the 3X dose group, one dog was euthanized because of poor clinical condition (Day 63). This dog also had a mildly decreased serum albumin. At study completion, out of five surviving and clinically normal 3X dogs, three had minimal periportal hepatic fatty change. Of twelve dogs in the 5X dose group, one died (Day 82) and three moribund dogs were euthanized (Days 38, 78, and 79) because of anorexia, poor weight gain, depression, and in one dog, vomiting. One of the euthanized dogs had ingested a rope toy. Two of these 5X dogs had mildly elevated liver enzymes. At necropsy all five of the dogs that died or were euthanized had moderate periportal or severe panzonal hepatic fatty change; two had duodenal ulceration; and two had pancreatic edema. Of two other clinically normal 5X dogs (out of four euthanized as comparators to the clinically affected dogs), one had slight and one had moderate periportal hepatic fatty change. Drug treatment was discontinued for four dogs in the 5X group. These dogs survived the remaining 14 weeks of the study. On average, the dogs in the 3X and 5X dose groups did not gain as much weight as control dogs. Rate of weight gain was measured (instead of weight loss) because these were young growing dogs. Thalamic vacuolation was seen in three of six dogs in the 3X dose group, five of twelve dogs in the 5X dose group, and to a lesser degree in two unmedicated controls. Diarrhea was seen in all dose groups, including unmedicated controls. In a separate dose tolerance safety study involving a total of six dogs (two control dogs and four treated dogs), firocoxib was administered to four healthy adult Beagle dogs at 50 mg/kg (ten times the recommended daily dose) for twenty-two days. All dogs survived to the end of the study. Three of the four treated dogs developed small intestinal erosion or ulceration. Treated dogs that developed small intestinal erosion or ulceration had a higher incidence of vomiting, diarrhea, and decreased food consumption than control dogs. One of these dogs had severe duodenal ulceration, with hepatic fatty change and associated vomiting, diarrhea, anorexia, weight loss, ketonuria, and mild elevations in AST and ALT. All four treated dogs exhibited progressively decreasing serum albumin that, with the exception of one dog that developed hypoalbuminemia, remained within normal range. Mild weight loss also occurred in the treated group. One of the two control dogs and three of the four treated dogs exhibited transient increases in ALP that remained within normal range.

Made in France
Marketed by: Merial, Inc., Duluth, GA 30096-4640, U.S.A.
1-877-217-3543
NADA 141-230, Approved by FDA
Rev. 09-2015

Brief Summary
NADA 141-213, Approved by FDA

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 wwa 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, 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).

Manufactured for:
Boehringer Ingelheim Vetmedica, Inc.
St. Joseph, MO 64506 U.S.A.

METACAM is a registered trademark of Boehringer Ingelheim Vetmedica GmbH, used under license.

601401-08/601413-04/6015161-10/6015268-04
Revised 07/2016

Brief Summary
NADA 141-219, Approved by FDA

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%, glycofuro 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 (meloxicam) 5 mg/mL Solution for 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 5 mg/mL Solution for 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 5 mg/mL Solution for 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 5 mg/mL Solution for 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 5 mg/mL Solution for 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 5 mg/mL Solution for 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 5 mg/mL Solution for 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 5 mg/mL Solution for 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.

Manufactured for:
Boehringer Ingelheim Vetmedica, Inc.
St. Joseph, MO 64506 U.S.A.

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My well-being fix

People sometimes ask me why I pay to volunteer to provide veterinary services and help thousands of miles from my home.

My simple answer? Because it makes me feel good. *By Colleen Mullally, DVM*

On a daily basis at work I hear someone say sarcastically that they're "living the dream." I know I'm guilty of saying it too. As an emergency and critical care veterinarian in a high-volume specialty practice, I find that it's easy to lose sight of why I became a veterinarian. In fact, I know that most of us—whether we're in general practice, specialty, small animal, equine, large animal, or zoo and exotics practice—have days we question why we became veterinarians. Our lives could be so much easier with less stress ... right?

The reality for me is that I am living my dream. I've wanted to be a vet since I was 8 years old, and while I joke around some days about moving to an island and becoming a SCUBA instructor, I really don't know what career path I would have chosen had I not gone to veterinary school.

So this is my dream, even if some days I want to yell back at a client, euthanize a pet I feel owners have gone too far with or just curl up under the covers cuddling my own furry family members and cry because I couldn't save a patient. I'm guilty of becoming disillusioned, frustrated, depressed and angry, but I've found the best way



Sometimes being a veterinarian *does* mean you get to play with puppies, like these 2-week-old cuties at the Protect Me Albania animal shelter, who are being cuddled by (R-to-L) Dr. Jade Huynh, Dr. Colleen Mullally and Valerie Mullally. The volunteers traveled to the nonprofit with World Vets.

to remember why I chose veterinary medicine is to travel to other countries where there is no veterinary care and give of my time and skills.

World Vets was founded in 2006 by Cathy King, DVM, PhD, when she realized a need for veterinary care in underdeveloped countries. At its core is the belief that all animals deserve kindness and compassion. Since its inception, World Vets has grown to include veterinary field service programs, disaster relief, training and civil-military humanitarian aid. The organization has worked in 46 countries on six continents and has more than 4,000 volunteers.

I was lucky enough to go on my first World Vets trip to Roatan, Honduras, in 2008 with two of my close friends from vet school, and since then I've been hooked, although a busy emergency and critical care life has prevented me from going on trips as often as I'd like. My second trip was to Ibarra, Ecuador, in 2012, and the third trip was to the Dominican Republic in 2017, when I convinced my mom (a retired RN) to come with me as a volunteer. Although the trips cost money

(roughly \$1,250 for hotel, ground transportation, supplies and some meals, plus the cost of flights), the experience and ability to feel like you're giving back is well worth the cost.

In April 2018 I traveled to Vlore, Albania, for my fourth World Vets trip. This was a pilot project, and none of us knew what to expect. On our second full day in the country we headed to the Protect Me Albania shelter for setup. As we entered the compound all we could hear were barking dogs and all we saw were large kennels with 10 or more dogs each that looked happy and well-fed. A two-story building backed the kennels, and this was to be our clinic for the next three days.

Liljana Breshani, the founder of Protect Me, took us inside, where we explored and went to say hi to some of our patients. That's when I met Laika, an adult female 40-ish-pound dog that clearly had an old fracture affecting her right rear leg. She had been found as a stray unable to use the leg and had spent more than a month with one of the local vets, who had "fixed the leg and put a pin in it." The leg was clearly painful. The distal tibia and tibia-tarsal



Happy Albanian dogs at Protect Me Albania.

joint were unstable, and the skin had a superficial infection. What's more, a 3-month-old puppy had decided to use Laika's leg as a chew toy. After evaluating her we recommended amputation. The shelter staff was hesitant and worried that she would be in more pain, but we assured them it was the right decision.

On our first day of clinics it was decided I would be Laika's surgeon. In my everyday job working with boarded surgeons I don't do much surgery. I do occasional lacerations, bite wounds and enucleations—but not amputations. I'm more likely to put a dog on a ventilator than amputate a limb these days. Luckily, with today's technology I knew I could get quick access to *Fossum's Small Animal Surgery* text. I had a friend in the U.S. snap a few pics of the pages on amputation and text them to me.

I quickly reviewed the pages. Although I hadn't done an amputation in years, I knew I would have backup. My closest friend and veterinary school classmate was also on the trip and was one surgical table away, and my mom scrubbed in to help stabilize the limb. Laika was given an epidural, set up on a lidocaine-ketamine constant-rate infusion, scrubbed and prepped, induced with injectable anesthetics and intubated. Although World Vets doesn't have gas anesthesia or oxygen, I felt more comfortable knowing she had an endotracheal tube in should something happen. I quickly removed her painful leg and sent her to recovery. Then I went right back to work doing spays and neuters.

Laika recovered uneventfully and seemed comfortable when we left that night. Over the next two days of clinics I kept a watchful eye on her, giving her extra injectable pain medications and fluids and hand-feeding her, just like I would for my patients at home. By the end of our last day I felt confident Laika would continue to do well. Three weeks after coming home I sent a message to the shelter asking how she was doing and received reports that she was doing well—her incision had healed and they were taking her to Italy to be adopted.

People have asked me why I pay to volunteer to do what I do at home in my own country. My simple answer is because I can and because it makes me feel good. Something happens on a World Vets trip that can't easily be

explained. All the irritation and frustrations from working with difficult clients and dealing with workplace politics disappears.

On a World Vets trip, you take the skills you learned in vet school and just get to work doing what has to be done. I'm proud of the fact that I can do an amputation, enucleation, splenectomy, spay, neuter, autotransfusion and even successful CPR in a field medicine setting without all the bells and whistles. These trips with World Vets help me remember why I became a veterinarian. You realize that you can do a good job without the equipment and staff you have at home and you can make a difference in the lives of animals and people thousands of miles from home.

You make new friends, whether they're other vets, technicians, volunteers or the ground staff in the country where you're working. You see the smiling faces of the people whose animals you're helping and know you're making a difference. You see the animals and remember that they are why you became a veterinarian.

Dr. Colleen Mullally is a staff veterinarian with VCA SouthPaws Veterinary Specialists & Emergency Center in Fairfax, Virginia. For more information about World Vets, visit worldvets.org. For more on Protect Me Albania, see protectmealbania.com.



How many puppies can fit in a single bathroom? These were all spayed or neutered by World Vets volunteers.



Laika recovering after a successful amputation.

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3D printing repairs a dog's skull post-surgery

After it was destroyed by a cancerous tumor, a dachshund's skull is repaired with a custom 3D-printed titanium plate.

The University of Guelph reports that Michelle Oblak, DVM, DVSc, Diplomate ACVS, ACVS Fellow of Surgical Oncology, along with small-animal surgeon Galina M. Hayes, BVSc, MRCVS, PhD, removed a large cancerous tumor from dachshund Patches' skull and replaced it with a 3D-printed titanium implant. The surgery was a breakthrough for cancer research in animals as well as humans, the university states.

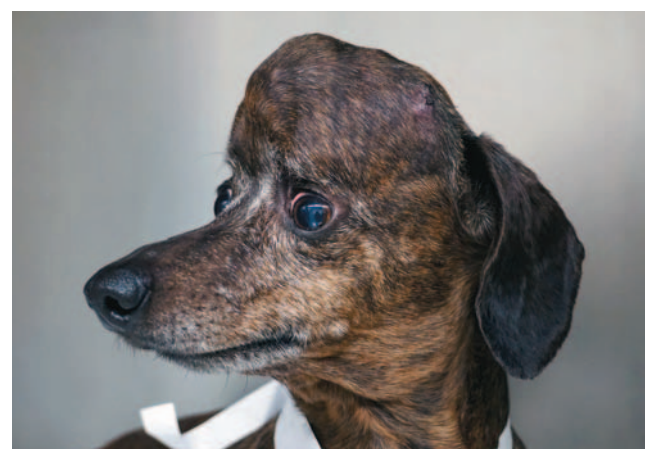
"The technology has grown so quickly, and to be able to offer this incredible, customized, state-of-the-art plate in one of our canine patients was really amazing," says Dr. Oblak, assistant co-director of the U of G's Institute for Comparative Cancer Investigation and board-certified veterinary surgical oncologist at Ontario Veterinary College, in a release from the university.

Dr. Oblak researches dogs as a disease model for cancer in humans, according to the release. In particular, she's interested in how digital rapid prototyping could help surgeons prepare for surgery and how 3D-printed implants could be used for reconstruction. She worked with a team at OVC to map Patches' tumor's location and size. Then, an engineer from Sheridan College's Center for Advanced Manufacturing and Design Technologies created a 3D model of Patches' head, so Dr. Oblak could virtually perform the surgery first.

According to the U of G, this method of creating a printed model to virtually operate on before surgery could reduce the time that patients spend under anesthesia while surgeons create models in the operating room. Patches' actual surgery lasted about five hours and afterward, she awoke alert.

"By performing these procedures in our animal patients, we can provide valuable information that can be used to show the value and safety of these implants for humans. These implants are the next big leap in personalized medicine that allows for every element of an individual's medical care to be specifically tailored to their particular needs," Dr. Oblak says.

Today, Dr. Oblak and the U of G team offer this surgery and customized skull plate through a veterinarian's referral to the OVC Health Sciences Center. However, animals diagnosed with a skull tumor must be evaluated by a veterinary surgeon and have a CT scan performed to determine eligibility for the procedure.



The patient, Patches, had a tumor growing on her skull, pushing perilously close to her brain and eye socket.



"These implants are the next big leap in personalized medicine that allows for every element of an individual's medical care to be specifically tailored to their particular needs," Dr. Michelle Oblak says.



Patches post-surgery



Delivering bad cancer news like ripping off a Band-Aid? Bad

Get advice on delivering tough news to concerned pet owners at dvm360.com/cancertalk.

MEDICINE | Nutrition

Chewing the fat about fat with clients

With exam room conversations about obesity, you're playing the long game. It might take a few chats to get a client on board and then working the plan. Try these tips. *By Ryane E. Englar, DVM, DABVP (canine and feline)*

It's no secret that obesity is on the rise among companion animal patients in the United States and abroad.¹⁻⁷ Up to 50 percent of pets in this country are obese.⁸⁻¹¹ This health status is shared by 22 to 40 percent of pets worldwide.¹²

As veterinarians, we know that obesity is a common link to systemic disease. The following medical conditions have been associated with obesity in dogs^{1,6,13-20}:

- > Bacteriuria and ascending urinary tract infections or urolithiasis
- > Cardiovascular disease
- > Diabetes mellitus and insulin resistance
- > Lameness and osteoarthritis

In addition, overweight dogs have shorter lifespans, by two years, than their slim counterparts.^{18,21}

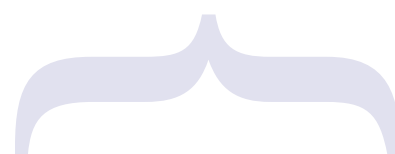
As professionals, veterinarians recognize that pet obesity is a serious welfare issue, yet we are reluctant

to address the figurative and literal elephant in the room.

Research also tells us that our clients are likely to underestimate the body weight of their furred companions.^{12,13,22-28} Therefore, clients are unlikely to initiate weight-reducing measures without our help.

To combat this growing epidemic, it's critical that we as a profession improve efforts to discuss nutrition and weight status openly. Only then

This cat is open to, but not necessarily enthused about, an extended discussion and action plan to reduce his weight.



FELINE RESEARCH **M6**

Feeding a limited-iodine diet to healthy cats may not have adverse effects

DIABETES **M7**

6 tips for managing canine and feline diabetes

DIAGNOSTIC IMAGING **M8**

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can we acknowledge, clarify and address weight concerns to effect change among the companion animal populations touched by our practices.

How can you effectively introduce this topic to a consultation without damaging the tripartite veterinary-client-patient relationship? Walk your way through the sample script

on these pages, with lessons along the way, to see if you can identify the places where you struggle and could change a little bit of your conversations to make a big difference ...

Let's look at Levi ...

Consider a clinical scenario in which you've just examined a 4-year-old

Labrador, Levi, at his annual wellness visit. At his last visit one year ago, Levi was estimated to be five pounds greater than his ideal body weight. Today, Levi weighs 20 percent more. You're anxious about bringing up his weight gain because you recall that the client wasn't eager to discuss Levi's weight at his last exam.

BIG IDEA

Don't assume that just because weight management was met with resistance before, it's automatically off-the-table as a subject. Use each consultation as a new opportunity to discuss weight-related concerns: "I know we've discussed Levi's weight in the past. Have you given any thought as to that conversation and how we might be able to work together to create change?"

You: Levi appears to be in good spirits. As we move forward with his exam today, are there any concerns you have about his overall health or well-being?

Client: No, I don't think so. He's been fine.

You: That's great! How is his activity and energy level these days? I remember that last year you said he was like the Energizer Bunny—he just had one speed and it was go, go, go!

Client: I think he's finally starting to settle out of puppyhood. He's not as bouncy as he used to be.

You: Yes, perhaps he's learning what it's like to be an adult. I also can't help but notice that Levi has gained a significant amount of weight since last year. Have you?

Client: Oh, I don't know, he's not that bad.

You: (speaking to Levi) What do you think, Levi? I see that you're getting quite the belly there. (speaking to the client) I am concerned that Levi has put on a significant amount of weight. Levi weighed 75 pounds at his last visit. He's now 90 pounds.

Client: He had some filling out to do since last year.

You: (speaking to Levi) I think you overshot your goal, Levi. (speaking to the client) What are your thoughts about his current weight?

Client: Well, now that you mention it ...

You: Do you think there's room for some improvement?

BIG IDEA

If you feel resistance, don't hide from it. Identify and acknowledge your client's non-verbal cues: "It feels to me as if you're closed off to this conversation." ... "I sense that you're uncomfortable about this discussion. Help me to understand where you are coming from and what I can do to put you more at ease."

BIG IDEA

Engage in dialogue with the patient concerning difficult topics: "Levi, it's time that you and I had a little chat about your weight ... "

BIG IDEA

Elicit your client's perspective: "Tell me your thoughts about Levi's weight." ... "Are there activities that Levi used to enjoy that he no longer seems able to? Why might you think that is?" ... "What are some barriers that might prevent Levi from losing weight?" ... "What are you most concerned about?"



Client: I suppose ... it's just that he really likes to eat, and it's hard not to give in.

You: Absolutely it is hard! I know! I struggle with the same issue with my own dog. They've all got "The Look." Do you know what I mean?

Client: Yes! Levi has mastered it. It's so much easier to just give in.

You: For sure! But what Levi doesn't know is that if he continues to gain at this same rate, his body can't keep up. May I share with you some of the other problems that obesity may cause as he ages?

Client: OK.

You: Obesity is very hard on Levi's joints. In fact, it may be one of the reasons he's less active than normal. But joints aren't the only body part that we worry about ...

[Start a conversation about obesity and its link to systemic illness]

Client: So you're saying Levi won't live as long if he's overweight?

You: Yes. On average, obese dogs have shorter lives than dogs that are healthy body weights.

Client: But he seems so happy.

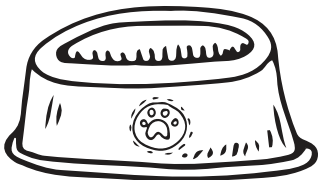
You: Yes, he is. For now. But he won't be happy if his joints start to hurt. And it won't be easy on you if he becomes diabetic and we need to manage that. Investing in the hard work now may save us from problems later.

BIG IDEA

Acknowledge that weight management is a challenging journey, and that it is a marathon, not a sprint:
"You're not alone. I sometimes struggle with ... "

BIG IDEA

Assess your client's knowledge about obesity in companion animals: "Did you know that weight gain could contribute to Levi's arthritis and make it more challenging for him to get around?" ... "Did you know that just carrying around a few extra pounds can shorten Levi's life?"



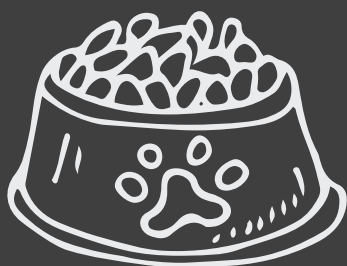


BIG IDEA

Take a thorough dietary history by using open-ended phrases to encourage the client to share details. Also take the time to understand the client's schedule, time constraints, and potential barriers to weight management by using open-ended questions to clarify daily routines: "Take me through a day in your life: share with me what mealtime is like in your household and how everyone, including Levi, is fed."

BIG IDEA

Check in with the client so that you both are on the same page: "What's your ultimate goal concerning Levi's weight?" ... "What do you think we should be working toward?"



Client: *I tried to cut back on food, but it didn't work.*

You: That's a good start. It isn't easy. I get that. Can you walk me through what specifically you've tried to do?

You: *I reduced how much I fed him from one scoop twice a day to three-quarters of a scoop, twice a day.*

You: I see. Is there a way for us to measure out how much food is in three-quarters of a scoop?

Client: *I have a gram scale at home. I suppose I could weigh it out. Would that help?*

You: Yes, it would. With your permission, I'd like to calculate how much he should be eating a day, compared to how much he's eating now.

Client: *OK.*

You: To do that, I'm going to need a little bit more information. Can you tell me everything that you feed Levi from the time he gets up to the time he goes to bed?

[Start a conversation about food intake, including snacks, followed by recommendations for how to move forward]

You: I appreciate your willingness to work together to get Levi back on track. I know it won't be easy, but we're in this together.

[Result: The veterinarian contracts for the next steps, to which the client agrees. The client calls back in the next few days to share the exact quantity of food fed at each mealtime. The veterinarian uses this to develop a feeding schedule with restricted caloric intake and provides recommendations for increasing Levi's activity level. The client commits to returning for bimonthly weigh-ins.]

'Oh please. It's NEVER that easy'

I get it. Although this conversation represents the best possible outcome for Levi, recognize that weight management plans may take time to obtain client buy-in. It could take several planned discussions before a pet owner is willing to consider weight loss as a feasible goal. It could take several more conversations before the client is spurred into action.

Don't accept the pet's weight loss as your only success. You need to consider that success takes many different forms. The first step toward success is simply getting the client to acknowledge that obesity is a problem. This requires patience and the ability to trade hats with clients to see their point of view. Clients need to feel safe to share their perspective, and they benefit from support throughout the weight-loss journey.

The fact that weight loss isn't an instant outcome works against the process. Your own committed and motivating attitude is often the first step toward a mutually agreeable solution.

Ryane E. Englar, DVM, DABVP (canine and feline practice), is an assistant professor and clinical education coordinator for Kansas State University College of Veterinary Medicine in Manhattan, Kansas. Her teaching responsibilities include designing and debuting a new Clinical Skills curriculum for veterinary students to improve their confidence and competence with professional and technical skills. Her research emphasizes veterinary client communication preferences. You can reach her at renglar@vet.k-state.edu.

Want more of the skinny on overweight pets? We are **dvm360** have curated our best, most informative articles about this topic to help you diagnose and treat it most effeciently and effectively at dvm360.com/petobesity.

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BIG IDEA

Celebrate small changes in the right direction, and use small victories to set new goals: "You've worked really hard to get that half-pound off Levi. Great job! Now that we've managed to get Levi down by a half pound, let's consider what it will take to get him to lose a full pound."

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Feeding a limited-iodine diet to healthy cats may not have adverse effects

In multicat homes, keeping a healthy cat from eating a hyperthyroid cat's food can be a struggle. But, do we know for sure if it's hurting the healthy cat to eat this food long term? *By Michael Nappier, DVM, DABVP*

Hyperthyroidism is a common disease in cats, with anywhere from 6% to 10% of cats over the age of 10 expected to suffer from the disease in the course of their lifetime. Many treatment options are available to treat hyperthyroidism, including thyroidectomy, radioactive iodine therapy and medical management using methimazole. However, no treatment is perfect for every cat.

More recently, medical management using a limited-iodine diet has become available. To be effective, cats must eat the limited-iodine diet only, with no other sources of iodine in their diet. This became problematic for multicat households, as it was not known whether feeding the limited-iodine diet exclusively to normal cats would cause health problems.

What they did

Thirty healthy cats aged 2-5 years were enrolled in the study and then

randomly assigned to the limited-iodine diet group or a conventional diet group. Baseline samples were obtained for a complete blood count, serum chemistry profile, urinalysis and thyroid hormone concentrations. Ultrasound measurements of the height of the thyroid gland were also obtained. Cats were then fed the diet of their assigned group, and blood samples and measurements were taken at six, 12, 18 and 24 months during the trial.

What they found

No significant abnormalities or clinically relevant differences were detected between the two groups.

Take-home points

Based on this study, it appears that a limited-iodine diet may be safe and healthy to feed to nonhyperthyroid cats on a regular basis. The authors caution that while the findings were

significant, the study does have limitations. First, the study looked only at healthy, middle-age cats, so the findings may not correlate well with senior or geriatric cats or cats with concurrent diseases. Second, the study timeframe was two years, and it's possible that effects of feeding a limited-iodine diet may be observed over a longer period.

For a link to the abstract, head to <https://www.ncbi.nlm.nih.gov/pubmed/28379113>.

Paetau-Robinson I, Melendez LD, Forrester SD, et al. Comparison of health parameters in normal cats fed a limited iodine prescription food vs a conventional diet. *J Feline Med Surg* 2018;20(2):142-148.

Dr. Michael Nappier is assistant professor of community practice in the Department of Small Animal Clinical Sciences at the Virginia-Maryland College of Veterinary Medicine in Blacksburg, Virginia.



This means war!

A behaviorist answers a cat owner's question about formerly friendly felines who've started fighting. Read it at dvm360.com/multicatmess.

6 tips for managing canine and feline diabetes

Clients get frustrated with diabetic treatment. That's a major problem. Here's some knowledge to help you master this endocrine disorder. *By David Bruyette, DVM, DACVIM*

Do you know the No. 1 cause of death in diabetic dogs and cats? It's not the disease itself. Rather, it's euthanasia resulting from the owner's frustration with the disease. This means communication with the pet owner is perhaps the most important component of managing diabetes mellitus. And the most crucial conversation you'll likely have with the owner is right after you first diagnose the condition. With that in mind, let's look at six ways you can help your clients manage their insulin-challenged pets.

1 Explain the goals of therapy for diabetic pets

Unlike in humans, who live with diabetes for 20, 30 or 40 years, sequelae such as diabetic retinopathy, nephropathy, painful neuropathies and cardiovascular disease are rare in our veterinary patients. Our patients don't live as long, so we don't need to restore euglycemia in order to avoid the effects of persistent hyperglycemia. We just need enough glycemic control to eliminate clinical signs, which means keeping the blood glucose concentrations below the renal threshold for the majority of the day.

In most cases this is going to require twice-daily injections of insulin. And even though the disease is easier to manage in pets than people, owners of diabetic dogs and cats are still being asked to do a great deal to help manage their pet's chronic illness. That means we need to do whatever we can to make the client's job easier while at the same time taking steps to assure maximum diabetic control.

2 Go for broke on remission when you first diagnose a cat

Of course, even better than effective management is complete remission of the disease. And thanks to the work

of Jacquie Rand, BVSc, DVSc, MANZCVS, DACVIM, of Queensland, Australia, we know that this is highly likely in cats if we take an aggressive approach right out of the gate. Insulin glargine has been shown to produce remission in 90% of newly diagnosed feline diabetics when the cat is also fed a high-protein, low-carbohydrate diet. This is great news—but we have to let pet owners know that cats in remission need to continue eating the diet. About 25% of them will become diabetic again, often because they've gained weight (these diets are highly palatable to cats), so the goal is to maintain ideal body weight. Every time a cat comes out of remission, your chances of re-inducing remission are lower—though it's still possible. The likelihood of remission is also much lower if a cat has been on another type of insulin for longer than six months.

3 Shake the snot out of your Vetsulin

This product, now manufactured by Merck, has a tortured history because no one knew it had to be shaken when it was first introduced. Vetsulin, a

porcine-derived intermediate-acting insulin, actually contains two products in the same bottle, resulting in a bimodal onset of action: one to prevent postprandial hyperglycemia and one to provide long-term glycemic control. The bottle must be shaken vigorously—until the product foams—before injection in order to provide the appropriate effect in the body. Here's a bonus Vetsulin tip: This insulin is only available at a concentration of 40 IU/ml (U-40), and appropriate syringes are hard to find at a human pharmacy. So make sure to provide plenty of U-40 insulin syringes to the owner.

4 Use home monitoring

With the AlphaTrak Blood Glucose Monitoring System (Zoetis), we have the ability to very accurately measure blood glucose concentrations in both dogs and cats using very small quantities of blood. This allows veterinarians and pet owners to obtain reliable results both in the hospital and at home, which can then be used to make informed decisions about treatment. These decisions might involve the type and dose of insulin, the frequency of

insulin administration, assessment of glycemic control, prevention of hypoglycemic episodes and monitoring for remission of diabetes in feline patients.

5 Get clients to tell you the truth about what they're feeding

The best diet for diabetic dogs is a high-fiber, low-fat, high-complex-carbohydrate diet. The best diet for diabetic cats is a high-protein, low-carbohydrate diet. Of course, you can recommend an appropriate food, but clients often won't follow your recommendations—they'll go on feeding Ol' Roy. And what's more, they won't tell you they're feeding Ol' Roy. So when you're discussing diet, do everything you can to get them to tell you the truth about what they're really feeding (no judgment). That way you'll at least know how to manage the insulin.

6 Don't ever talk to clients on the phone

This rule has increased my quality of life enormously. I know when Mrs. Smith is on line two with a "quick question," it's never a quick question, so I stopped taking these phone calls. That doesn't mean I leave clients in the lurch. I give them my cell phone number and my email address and tell them to text me or email me, and I'll respond—and they do it. It's much easier to answer questions this way, and you don't get trapped in a 20-minute conversation when you can't afford the time. Plus, with email, you have documentation of the conversation and can include it in the patient record.

Dr. David Bruyette was medical director at VCA West Los Angeles Animal Hospital and is currently chief medical officer at veterinary drug company Anivive Lifesciences. This article is adapted from his lecture at the Fetch dvm360 conference.



Even though diabetes is a treatable condition, pet owners are being asked to do a lot to manage their pet's disease, making communication with the veterinary team essential.

Avoid radiographic errors in your veterinary cases

It's easy to be convinced of a diagnosis by a single two-dimensional image. Get the whole picture by taking some additional angles.

As a boarded radiologist and experienced teleradiologist, Fetch dvm360 conference speaker Eli Cohen, DVM, DACVR, has seen his share of problematic diagnostic images.

The trouble starts, Dr. Cohen says, when you flatten a patient's 3D anatomy into a 2D frame. So, whether you're dealing with thoracic, abdominal or musculoskeletal cases, he has one overarching piece of advice: Obtain more views.

"We have to have an orthogonal view just to place things in space, much less make a diagnosis," he says.

While Dr. Cohen says some diagnoses may be made with only a lateral radiograph, there's the risk of being "rewarded for bad behavior," as he puts it.

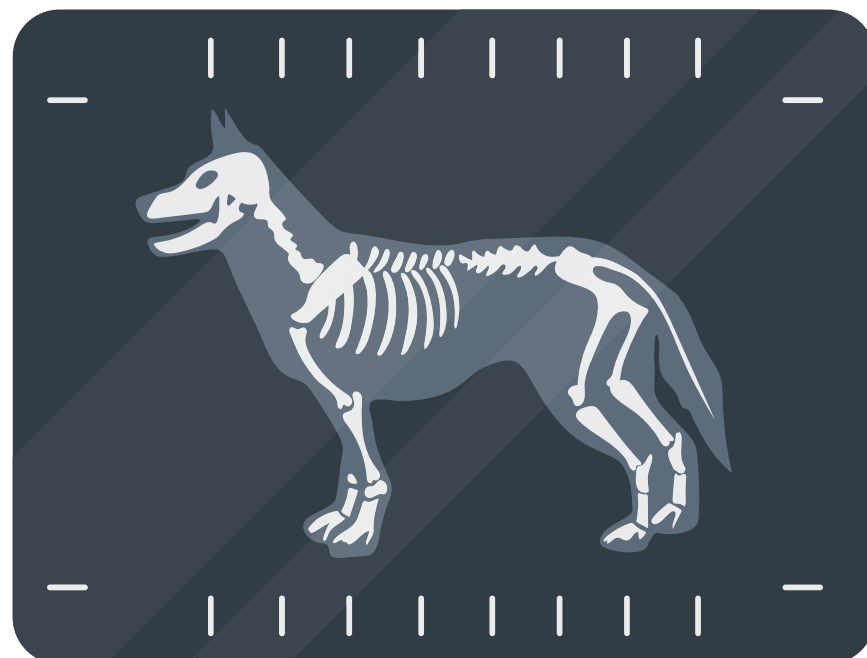
"Maybe you make a diagnosis on that lateral radiograph but didn't appreciate what else you might have seen," he says. "So you sort of get a false sense of confidence that that single view is giving you more than it really is."

The solution, he says, is a three-view series of images—right-lateral, left-lateral, and either ventrodorsal or dorsoventral views. This goes well beyond redundancy. Dr. Cohen considers each view a separate test, pointing to one simple reason—gravity.

Consider the thorax: Positioning patients in different recumbencies can cause the lungs, for example, to present differently. If this "dynamic airbag" is in the wrong orientation, the resulting radiograph can be physically distorted and cause elements to essentially disappear.

And it's not just incidental things you might miss, he says: "Severe pneumonia, cancer nodules, masses—those things can be virtually invisible on a single view in the down lung as that lung becomes atelectic, which will be very conspicuous on the other views."

Dr. Cohen says this can be the difference between making a diagnosis



and sending a sick pet out the door.

In the case of the abdomen, he says this phenomenon of shifting gases and fluids can be used to your advantage. He cites as an example the notoriously difficult-to-analyze gastrointestinal tract.

"We want to exploit gravity and gas to help outline lesions, particularly the left-lateral view, which is essential if we want to outline and assess the pylorus for outflow tracts, obstructions, foreign bodies or masses," Dr. Cohen says.

Musculoskeletal imaging also benefits from a comprehensive series.

"You could have a completely luxated joint that you can't tell on a lateral view that would only be visible on a ventrodorsal or orthogonal view," Dr. Cohen says.

Again, the method for proper diagnosis is centered, collimated views of the area of concern, he says.

Enjoy more of Dr. Cohen's thoughts and perspective at dvm360.com/radiographicerrors.

Help out your teleradiologist

In his capacity as a consulting teleradiologist, Dr. Cohen has occasionally received less-than-precise instructions as to what he's supposed to be looking for in the radiographs sent to him.

"[Lack of clinical context] makes life as a teleradiologist really difficult and inherently decreases the predictive value of that test because we don't know what you're looking for," Dr. Cohen says.

Check out the video at dvm360.com/helpmeout for his tips on getting the most out of the consultation process.

Influence of right versus left lateral recumbency positioning

In a video at dvm360.com/radiographicerrors, Dr. Cohen mentions a study on different positioning and order of radiographs—that's "Initial influence of right versus left lateral recumbency on the radiographic finding of duodenal gas on subsequent survey ventrodorsal projections of the canine abdomen" by Drs. Daniel VanderHart and Clifford Berry in the January 2015 issue of *Veterinary Radiology and Ultrasound*.

The authors write: "Results showed that dogs first placed in left lateral recumbency were significantly more likely to have duodenal gas on the subsequent ventrodorsal and right lateral radiographic projections compared to dogs first placed in right lateral recumbency. This study emphasizes the benefit of using initial left lateral abdominal projections prior to other views for subsequent evaluation of the duodenum."

Survey: Opioid shortages harming veterinary patients

Industry study reports clinicians' frustration with curtailed pain management options for surgery and treatment of severe injuries.

A survey by Wedgewood Pharmacy, which compounds medications for veterinarians, shows that there are unintended consequences for veterinary medicine caused by the Drug Enforcement Administration's (DEA's) efforts to address the national opioid crisis, according to a release from the company.

Opioids in animal medicine are the foundation—and often the only method—of pain control and anesthesia, Wedgewood states. They are critical for the treatment of animals that have been hit by a car, shot by a gun, mauled by another animal, undergone surgery, or suffer from a severe disease or other trauma. Most pet owners, regulators, elected officials, and state board of pharmacy members are not aware of the repercussions, according to the release.

To address the misuse and diversion of opioids by people, the DEA has proposed an average 10 percent decrease in the 2019 manufacturing quotas for six frequently abused opioids, including five opioid drugs commonly used by veterinarians. The DEA decreased allowable opioid manufacturing quotas by 25 percent in 2017 and 20 percent this year. When supplies of these drugs are limited, manufacturers and distributors give preference to allocating their limited supplies for use in human health, creating shortages for veterinary medical practitioners, the release states. For example, in August, Pfizer suspended delivery of injectable opioids to veterinary customers.

According to Wedgewood's survey, these shortages have had the unintended results of creating unnecessary pain, suffering and death of animals because alternatives are less effective and are more expensive.

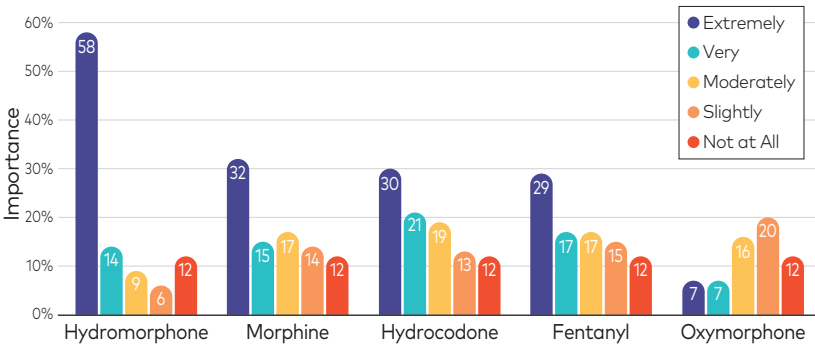
Here are some key findings from the survey's data:

- > In the past year, from 27 to 73 percent of veterinary professionals have had difficulty obtaining necessary supplies of five opioids they

Importance of opioids in veterinary medicine

The importance to patient health varies for five Class II opiates commonly used in veterinary medicine.

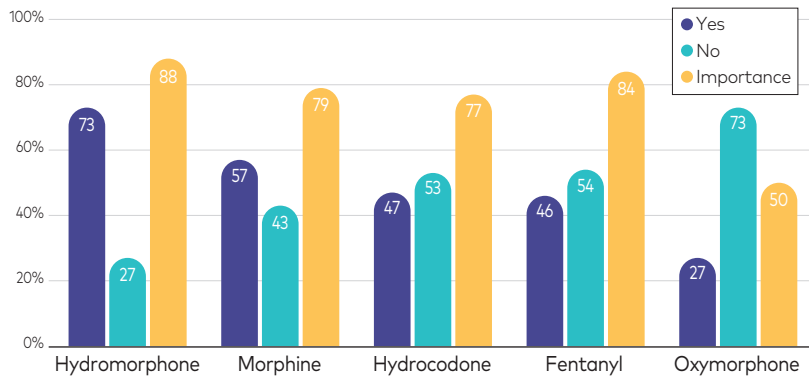
Q. How important to your practice and to your patients' health is having access to each of these Class II controlled substances?



Difficulty obtaining opiates in practice

In the past year, up to 73 percent of respondents have had difficulty obtaining the supply they require of five important Class II opiates.

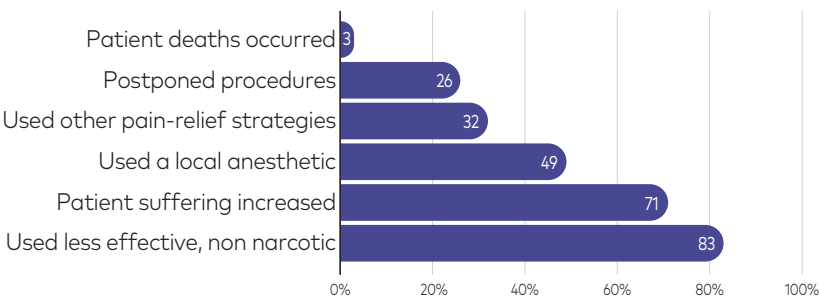
Q. In the past year, have you had difficulty obtaining the supply you require of any of these Class II controlled substances?



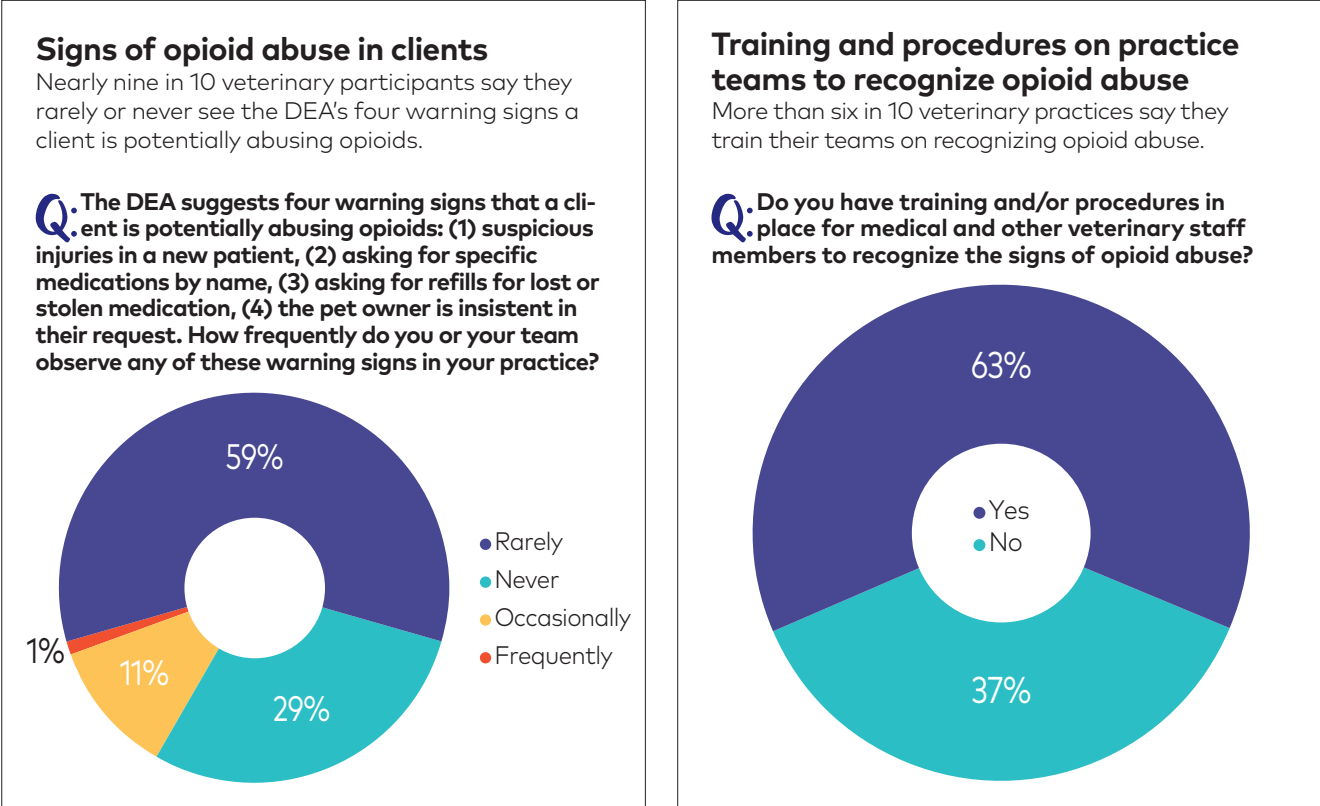
Impact on veterinary patient care

Of those reporting that they have experienced a shortage of these Class II drugs in the past year, the majority say they have used less-effective medications and that patient suffering has increased.

Q. If you've experienced a shortage of any Class II controlled substance in the past year, please indicate the effects of that shortage.



SOURCE: IMPACT OF OPIOID SHORTAGES ON VETERINARY MEDICINE, WEDGEWOOD PHARMACY, 2018



SOURCE: IMPACT OF OPIOID SHORTAGES ON VETERINARY MEDICINE, WEDGEWOOD PHARMACY, 2018

consider important to their practice and to patient health. They include hydromorphone, morphine, fentanyl, hydrocodone and oxycodone.

> Shortages of these Class II opioids have caused ...

- The use of less effective, non-narcotic alternatives such as NSAIDs (83%)
- Increased patient suffering (71%)
- Use of a local anesthetic (49%)
- Postponed procedures (26%)
- Patient deaths (3%).

> 88 percent of respondents “rarely” or “never” see the four warning signs published by the DEA that a client is potentially abusing opioids. Nev-

ertheless, 63 percent “have training and/or procedures in place for medical and other staff members to recognize the signs of opioid abuse.”

One veterinarian wrote this comment to illustrate the effect of opioid shortages: “We have an emergency practice, so we see a lot of very painful animals from surgeries, traumas and severe illness. Most of our patients in acute pain are not candidates for NSAIDs or other treatments like laser and acupuncture, which take longer to work and are not proven effective for severe pain. Not having access to opioids almost makes treatment cruel.”

Wedgewood conducted the survey

in September, sending the invitation to participate to 53,968 veterinary professionals, of whom 1,135 completed the survey. Wedgewood planned to submit the results (which include hundreds of write-in comments from veterinarians) in formal comments to the DEA regarding the proposed production quota reductions.

The sampling of participants in the survey was participant-driven, not random, and therefore measures of statistical significance such as confidence levels and sampling error do not apply to the results of the study, the release states. They represent the opinions of the professionals who participated.

Comments to the DEA from veterinarians

Wedgewood submitted these comments to the DEA as it reviews policies for 2019.

“How would you feel if your body had been ravaged by an F350 and the best your doctor could do was sedate you and have you swallow aspirin?”

“We are having to treat gunshot wounds, hit by car, traumatic fractures and limb amputations without full mu opioids, which is significantly increasing patient suffering.”

“I cannot practice effective medicine without access to these pain-modifying drugs. I don't script these potent medications out to clients, as they are only used in hospital for urgent pain management needs. Please rethink how you are designing your programs so that we do not have useless suffering.”

“Entire research studies have been halted due to not being able to acquire adequate pain meds. These studies will affect human medical care, as many are orthopedic studies where NSAIDs can't be used due to their mechanism of action.”

“I work on horses so need larger volumes for postop pain relief. Not all narcotics are useful in horses, so my options are already extremely limited.”

“We have experienced patients waking up from procedures in pain, recovery times increased, stress increased on the animals. For a shelter environment, prolonged lengths of stay and longer recoveries are life-threatening situations.”

“Patient deaths occur when a pet is painful and we can't get access to meds we need for comfort. The owner elects to put the pet down to ease suffering.”

“We had one patient die as a result of anesthesia complications that may have survived if we had access to morphine or hydromorphone.”

“It is entirely unethical to deny these essential pain-relieving medications to patients that will not develop a dependency on them. Veterinarians are not the medical professionals causing this opioid crisis and our patients should not suffer because of human weakness, laziness, or incompetence.”



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University of Florida veterinarians successful in rare equine hip surgery

Femoral head ostectomy in a horse? No problem when it's a miniature horse that can benefit from a surgery normally for companion animals.

Rico, a miniature horse, arrived at the University of Florida (UF) last year after a sustaining a dislocated hip.

"Rico was found down and non-weight-bearing lame last spring in a field," says Taralyn McCarrel, DVM, DACVS-LA, an assistant professor of equine surgery at UF, in a press release from the university. "His veterinarian diagnosed a dislocated right hip and contacted us to see what we would do and what it might cost."

Although it was unclear what had caused Rico's injury, Dr. McCarrel says trauma of some kind was suspected by the veterinary team.

Rico's veterinarian, Jennifer Miller, DVM, said his particular injury

was not one she'd seen often, and "certainly not in a full-sized horse."

A bonus for Rico and his family? At the time Dr. Miller responded to Rico's owner's call, she had a UF veterinary medical student working with her on a clinical rotation. The student was aware of an internal fund that was sometimes used to offset the cost of veterinary care in certain equine cases for teaching purposes and in cases of financial hardship on the part of the owner.

Dr. Miller knew that Rico's owner, Shelby Lewis, a college student, had limited funds, and that the type of surgery that might typically be conducted to fix the hip joint and hold it in place in foals with similar injuries would have been cost-prohibitive. She relayed the situation to Dr. McCarrel, who was able to obtain permission from UF Veterinary Hospital administrators to offset some of Lewis' costs through the Boone Memorial Fund.

A plan of action, tweaked for a horse

Dr. McCarrel researched her approach, delving into the small animal literature and limited equine literature to prepare for a femoral head ostectomy in Rico—a procedure seldom performed in horses.

"I'd never done one before, but I got as much information as possible about the different aspects of the procedure," says Dr. McCarrel. "One of the important things that was emphasized was that if an animal has good muscle mass, that's a positive. So that boded well for him."

Rico still had good muscle mass because he came in for surgery soon after his injury, she says, adding that in long-standing cases, the muscles become small and weak due to lack of use from pain.

Dr. McCarrel was mostly concerned about accessing Rico's hip joint with

minimal trauma, as the joint in a miniature horse is much deeper than in a canine patient due to the very muscle mass that would help him retain strength in his recovery.

"As equine surgeons, we don't typically approach the hip joint," explains Dr. McCarrel.

The femoral head ostectomy involves cutting and removing the top part of the femur. This eliminates the hip joint and transfers weight bearing to the muscles of the limb until a pseudoarthrosis forms through extensive physiotherapy, she says.

"Due to the depth of the joint and the approach needed to access the area, there is a risk of the incision falling apart after surgery due to fluid accumulation," says Dr. McCarrel. "Therefore, Rico had a drain placed at surgery to remove excess fluid from the incision."

Rico's pleasantly positive road to recovery

The drain was removed several days later and Rico's incision healed without complication. Rico went home about one week after his surgery, with instructions for his owner to conduct physical therapy in the form of passive range of motion of his leg daily for two weeks. After that, the passive range of motion exercises continued along with forced walking, and he was eventually allowed in a small area daily.

Lewis admits the process of recovery was not easy for her or for Rico.

"When he first came back, I wasn't sure I'd have enough time, but I had a friend who helped me work with him," says Lewis. "About six months ago, I started taking him swimming, and that has also helped him."

Just over a year after his procedure, he shows little sign of the trauma he endured. "He's just my little angel," says Lewis.



Rico one year after surgery with large animal surgery resident Dr. Andrew McClain.



The tools you need to start off on the right hoof

You have the veterinary degree. Now you need the equipment so your business can break into a gallop. Here's some guidance on what you should buy now and what can wait until later. *By Kyle Palmer, CVT*

Four years of undergraduate school: check! Four years of veterinary school: check! One year (in some states) of internship under supervision: check! *Now what?*

Equine practitioners beginning a solo career or starting their own business as part of a group will ask: What equipment do I need right now, and what can I put off buying until later? The short answer is, it depends. If you want the long answer, keep reading.

Vehicle

Unless you're operating a 100 percent haul-in practice, you need to put thought into your ride. Having a vehicle with four-wheel drive seems important in almost any geographical area, but those who expect to traverse significant distances in the course of practice should consider fuel efficiency. Overlooking the cost of gas as part of your budget is an expensive mistake. While some practitioners would

argue that the type of vehicle plays a crucial role in the client's perception of value and the veterinarian's qualifications, having a vehicle that meets your needs and contributes to organizational efficiency should be the focus. In other words, it may not be as important to roll up in a fancy pickup when a well-stocked minivan could make your life easier on a daily basis. A strong argument in favor of a pickup truck and prefabricated "vet box" is having your own water. However, there are other ways to get access to water, and I know practitioners who've simply used their clients' water their entire careers.

The verdict: Immediate need. But don't saddle yourself with unmanageable debt or ongoing gas and maintenance issues that will drain your resources for many years to come.

Basic equipment

Despite incredible advancement in technologies over the past 10 years,




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the most important component of any veterinary appointment remains the comprehensive physical exam and history. For equine work, the statistical frequency of lameness points to having a top-notch set of hoof tools at the ready when you drive out for your first day. Hoof testers, a good hoof knife, a hoof searcher and a hoof groover will ensure that the abscess is easily diagnosed, located and drained. And while you may not be a farrier, having some basic farrier tools will also come in handy, because your diagnosis may depend on removing a shoe or trimming a section of split or broken hoof.

It's hard to imagine any recent veterinary school graduate not having one already, but a high-quality stethoscope

Even experienced veterinarians will admit they've left their stethoscope behind on a call more than once, not noticing the absence until the next stop.

is essential. Given the nature of equine work, it's not a bad idea to buy two. Nothing makes a new practitioner look inept faster than not having one on hand. Even experienced veterinarians will admit they've left theirs behind on a call more than once, not noticing the absence until the next stop.

Small instruments such as a needle driver, thumb forceps, hemostat, surgical scissors and scalpel are vital components of minor field surgery and should be with you at all times. And because general practice seems to include the opportunity to castrate horses on at least a periodic basis, you can stock your vehicle with a dependable emasculator without breaking the bank.

Restraint is a touchy subject based on your philosophy, but carrying a couple of twitches (see previous comments about leaving something on a call) and stud chains can make your life easier on occasion. Assuming that the client has these things and knows when and how they should be used can edge you closer to danger in certain situations.

Since performing an eye or ear exam without an ophthalmoscope or otoscope is nearly impossible, invest in one of each (or a dual-use product). While some may tell you that you'd know in advance if such equipment

was needed, I don't recommend relying on your clients' understanding of all of their horses' needs.

The verdict: The whole list above is an immediate need.

Diagnostic imaging

Because of cost considerations, this is an area that may inspire some debate. Digital radiography is available in computerized radiography (CR) and direct radiography (DR) formats, and only one of these is appropriate for a completely ambulatory practitioner.

DR units let you produce an image onsite in real time, which is valuable for an immediate diagnosis and impressing clients. CR units require the use of cassettes (which aren't cheap) and a fixed-location piece of equipment that computerizes the images. That equipment can't be taken on the road and would presumably be best suited for a practice with a brick-and-mortar location or a mixed-animal practice. The downside of CR is often a fixed and limited number of cassettes and always a delayed diagnosis as they have to be processed later. Price considerations mean you need to think about how radiography will fit into your practice from day one.

Ultrasonography is also expensive and only occasionally used, but if you're planning on charging hard into the area of reproduction, then by all means, you'll need an ultrasound on hand every day. If you're not planning on doing any reproductive work (and many new practitioners can be squeamish about it), take a good look at waiting on this one. For rural practitioners, the concept above of a centralized practitioner focused on imaging could help here too.

The verdict: Weigh the costs. Consider starting your practice with neither of these pieces of equipment or just a basic radiography unit until you have a better handle on how often you'll use it and what options exist in your area for taking care of these patients in other ways.

Dental instruments

This depends on your practice. Proper motorized dental equipment, including handpieces and burs, can present significant costs. If this isn't a service you plan to initially offer, depending on where you live, you may be able to refer patients to another veterinarian

Join a team?

One concept worth exploring is that of multiple mobile practitioners using the services of a centrally located veterinarian with a practice focused on radiography. Instead of having 20 solo practitioners each carrying around \$50,000 worth of equipment that is used only occasionally, everyone would refer their clients to the same veterinarian for digital radiography.

in the area who focuses exclusively on dentistry. A good compromise would be to carry some inexpensive hand floating tools in case you come across something minor that requires immediate intervention while waiting for another veterinarian to see the horse.

The verdict: Depends on you. If you plan to do a lot of dentistry, invest in dental equipment. Not sure? Hold off and see how your practice develops.

Alternative equipment

Some veterinarians actively use shockwave and cold-laser therapy on patients with both acute and chronic lameness. Many practitioners still question the scientific measurement of the success of these treatments, and both present an unnecessary initial expense to a practitioner worried about cash flow and debt.

The verdict: Unless you sleep on a mattress stuffed with cash, hold off.

Starting a new practice comes with a great deal of unknowns: How busy will you be? What services do you want to provide? What services will your clients demand you provide? What services can you refer to another veterinarian without losing clients? As a new practitioner, you can expect to have a certain amount of practice-related stress in your life, so there's no good reason to add the fear of financial insolvency to the list. Plan smart, buy smart and practice smart, and you'll be sure to be around for years.

Kyle Palmer, CVT, is a frequent contributor to dvm360.com and dvm360 magazine, a Firstline Editorial Advisory Board member, and practice manager at Silver Creek Animal Clinic in Silverton, Oregon. Send your questions or comments to dvm360news@ubm.com.



Managing equine practice right

For more articles from mixed-animal practice expert Kyle Palmer, CVT, check out dvm360.com/kylepalmer.

Gen II Anal Sac Excision Kit

Petco bans food with artificial ingredients

Retailer aims to remove pet food and treats with artificial colors, flavors and preservatives by May 2019. *By Katie James*

In January, pet retailer Petco will begin removing the food and treats with artificial colors, flavors and preservatives from its shelves and e-commerce site, with a goal of removing all of them by May, according to a company release.

Citing research conducted by Edelman Intelligence in October that surveyed 1,300 pet owners, Petco states that this change reflects one of the top concerns pet owners have—nutrition. The research found that 87 percent of pet owners said that feeding their pet food made without artificial ingredients is important to their pet's health and well-being.

Petco is basing its definition of these artificial ingredients on Association of American Feed Control Officials (AAFCO) and FDA guidelines. These ingredients are defined by Petco as follows:

> Color from artificial sources: any dye, pigment or other substance that can impart color to a food that is not derived from a natural source

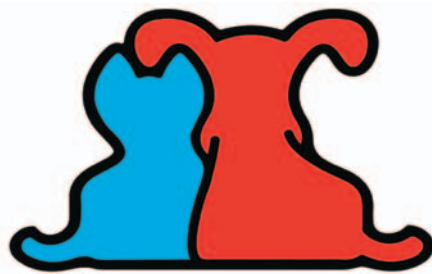
> Artificial flavor: any substance, the function of which is to impart flavor, that is not derived from a spice, fruit or fruit juice, vegetable or vegetable juice, edible yeast, herb, bark, bud, root, leaf or similar plant material, meat, fish, poultry, egg, dairy products, or fermentation products

> Artificial preservative: any chemical substance added to or sprayed on the outside of food to retard spoilage, deterioration, discoloration or contamination by bacteria and other disease organisms; does not include preservatives that are derivatives of natural compounds.

The company plans to use this initiative as a first step in "becoming the most trusted source for pet wellness," the release states. In 2019 it will also launch the Petco Pet Wellness Institute, a coalition of experts in "pet health and wellness." These experts, who will include veterinarians, nutritionists, pet psychologists, academic researchers and other credentialed leaders, will help Petco offer better information, education and services on a wide variety of topics, not only nutrition.

The *dvm360* team contacted several major pet food brands—Blue Buffalo, Hill's, Mars Petcare, Purina and Royal Canin—to find out how the change will affect their products. At press time, only Hill's and Royal Canin had not responded.

"Blue Buffalo does not use artificial colors, flavors or preservatives in any foods or treats for dogs and cats," says Bryan Brown, market-



Turning our back on artificial food.

This logo does a 180-degree turn to showcase the pet retailer's decision to ban more than 40 ingredients from pet food it sells.

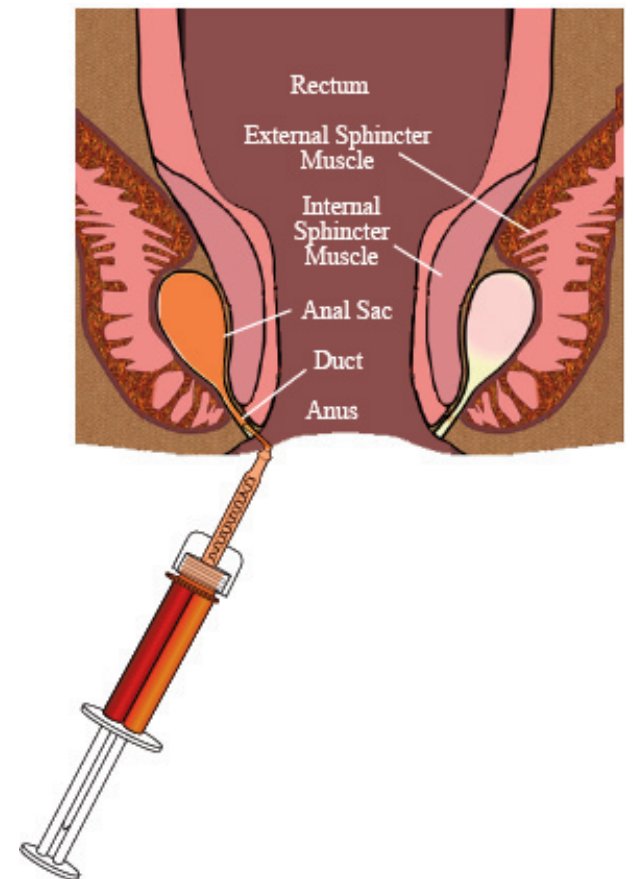
ing and PR consultant for Blue Buffalo Co. "This announcement does not affect any Blue Buffalo products. Blue Buffalo products already meet, or exceed, the new Petco nutritional strategy."

According to Wendy Vlieks, director of corporate public relations for Nestlé Purina PetCare Co., "Purina has been working with Petco to understand this development; however, it is too soon to know the specific impact. We are confident Purina will continue to provide Petco quality pet food products for our valued consumers."

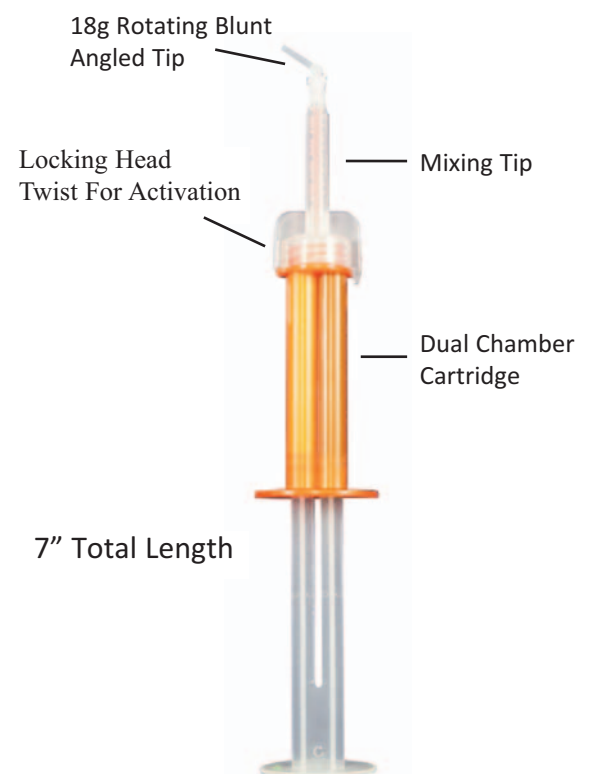
"At Mars Petcare, the first priority of all of our diets is to satisfy the nutritional needs of the pet. We then strive to ensure that our portfolio meets a broad spectrum of consumer preferences and price points," says Lisa Campbell, director of external affairs for the company. "We are aware of Petco's decision to focus their assortment on products without artificial colors, flavors, and preservatives, and Mars Petcare will partner with them to provide a range of products to achieve their objectives."

dvm360 also reached out to a board-certified veterinary nutritionist who asked to remain anonymous, who shared some reservations about the scientific basis for the change: "I think this is a purely marketing move not backed by science or nutritional needs and is going to make pet owners have misplaced worry and fear about the safety and quality of their foods. I'm more concerned about pet food marketing companies selling diets that lack basic safety and adequate nutritional standards than I am about any of the compounds of Petco's 'banned' list."

For more on the new standards, visit petco.com/betternutrition.



The Gen II uses a safe and nontoxic polymer gel that is infused as soft gel into the empty anal sac. The gel solidifies after 2-4 minutes in the anal sac providing an easily discernible mass that can be readily dissected out reducing both surgery time and the risk of leaving anal sac remnants.



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Blue Buffalo Wet foods for allergic pets

Blue Buffalo has released two new foods designed to help veterinarians and their clients nutritionally manage pets with adverse reactions to food. Blue Natural Veterinary Diet HF Hydrolyzed for Food Intolerance wet dog and cat foods contain salmon hydrolysate, a high-quality novel protein with a mean molecular weight of 2,000 daltons as the first ingredient. Blue Natural Veterinary Diet NP Novel Protein Alligator wet dog food is formulated with alligator, a truly novel protein, as the first ingredient. It's highly palatable and offers the efficacy veterinarians demand in therapeutic diets.

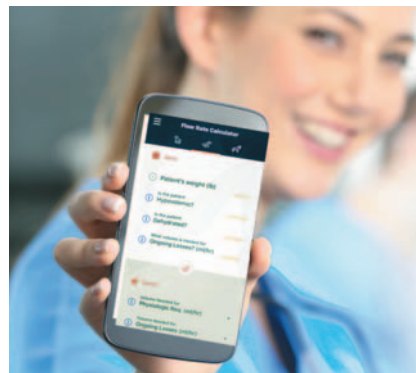
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Vetstream Bovine clinical education materials

Vetlexicon Bovis, a practical, peer-reviewed online clinical resource for veterinarians working with cattle, contains more than 750 articles and 1,500 images, videos and sounds from more than 120 of the world's leading experts in cattle medicine to help veterinarians deliver best-practice care. It also contains more than 50 fact sheets to support farmer education. The subscription-based service is updated weekly and is accessible from any internet-enabled device.

For fastest response visit vetstream.com.



Dechra Fluid calculator app

Dechra's Vetivex IV Fluids Calculator App is a free, easy-to-use tool to aid in determining fluid volume requirements for veterinary patients. The app provides assistance in calculating IV fluid requirements and infusion rates in dogs, cats and horses for veterinary professionals. The IV Fluid Flow Rate Calculator helps users generate a fluid plan by using parameters that assess hypovolemia, dehydration, ongoing losses and physiologic fluid requirements. Note that results are recommendations only—fluid therapy must be tailored to the individual patient's needs. The app is available for use on iPhone, iPad and Android devices.

For fastest response call (866) 683-0660.



MyVetImaging Portable equine imaging system

Citation is a portable equine digital imaging system that includes a 10-by-12-in flat panel digital radiography detector and tablet PC with detachable keyboard in a lightweight, durable case. An optional 4-by-6-in equine intraoral complementary metal oxide semiconductor (CMOS) sensor and 3.8-MHz linear ultrasound transducer with a USB connector round out the offering. The tablet PC provides a proprietary, equine-specific image processing algorithm for both the CMOS sensor and DR flat panel detector.

For fastest response visit myvetimaging.com.



Zoetis Allergic dermatitis claim

The USDA has granted an expanded indication for Cytopoint, a monoclonal antibody therapy, for the treatment of allergic dermatitis in dogs. Cytopoint was licensed to treat atopic dermatitis in 2016, so it is now indicated for both conditions. Administered every four to eight weeks, one injection of Cytopoint works by targeting and neutralizing interleukin-31, a key protein involved in triggering itch in dogs. It begins to relieve itch within 24 hours and provides relief for four to eight weeks, giving the skin time to heal. It may be used together with Apoquel (oclacitinib) to manage intermittent flare of pruritus due to fleas, food or seasonal factors.

For fastest response visit cytopoint.com.



Tripawds E-book for feline amputee owners

Cool Tips for Tripawd Cats, an interactive PDF-formatted book, provides fast answers to the most common concerns about cat limb amputation recovery and care. The book is written for cat owners but will also help veterinarians when discussing amputation by offering emotional support and addressing many common pet parent concerns, such as litterbox challenges. The book contains hundreds of direct links to blog posts, forum topics, videos, podcasts and more. Each link provides access to information presented at tripawds.com as well as other resources.

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Vets Against Insanity



The *slightly* scandalous card game for veterinary professionals.

Practicing veterinary medicine is rewarding, important and often all-consuming. It can also be awkward, annoying and (on most days) downright disgusting. Sometimes, all you can do is laugh about it. Enter Vets Against Insanity: a fun, slightly scandalous take on the work and life of a veterinary professional.

Who should play:

- Veterinary professionals (can be various states of frustrated/happy/slightly drunk/completely sober/tired/overworked)
- Anyone who recently had to squeeze a dog's anal glands
- Everyone who has recently thought, "I'll have to laugh about this so I don't cry"

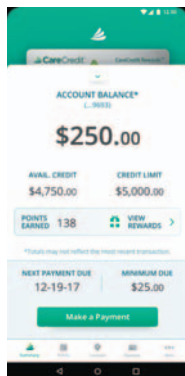
At its best, Vets Against Insanity is a hilarious tool designed to inspire veterinary professionals to take risks, laugh more, pursue personal development and enjoy more professional satisfaction and success.

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CareCredit Payment app for clients

The CareCredit mobile app, available in Google Play and the Apple App Store, lets cardholders pay their bill, locate enrolled providers and businesses that accept the CareCredit credit card, set custom payment alert notifications and more, all from a mobile device. Developed with extensive usability testing, the app leverages the same log-in credentials as CareCredit's online and mobile sites but incorporates enhanced security controls such as device authentication and Face ID. The app also incorporates pre-login access to the popular CareCredit digital card, allowing cardholders to access a digital version of their credit card on their mobile device.

For fastest response visit carecredit.com.



Zoetis 5 core equine diseases in one shot

Core EQ Innovator is the first equine vaccine to contain all five core equine disease antigens—West Nile, Eastern and Western equine encephalomyelitis, tetanus and rabies—in one vaccine. With a convenient 1-ml dose size, the vaccine is safe for use in healthy horses 3 months of age or older. These diseases are designated as core because all horses are at risk for exposure, all have a high fatality rate, and some may present a potential human health risk. Core EQ Innovator provides a safe and effective immune response against these five diseases as demonstrated in safety and efficacy trials.

For fastest response visit coreEQInnovator.com.



Animan Technologies Vet client video chat app

Anippanion 2.0 is a veterinary telemedicine app that connects pet parents and veterinarians through video chat technology with the goal of making veterinary care more convenient and accessible. The VCPR-compliant telemedicine platform offers white-label customization, cross-platform use and compliance enablement, and a proven cost-effective and convenient method for delivery of care. Veterinarians can brand the telemedicine platform with their own logo and color themes and utilize Anippanion on desktop, iOS and Android devices, offering flexibility and enabling practitioners to support their clients via “televisits” in or outside of the practice.

For fastest response visit anippanion.com.



Royal Canin Canine oral medication support

Pill Assist helps with the administration of medication through use of a treat that disguises the pill and helps pet owners ensure their veterinarian's prescription is an effective treatment at home for their dog. The product contains a soft texture that can easily be molded around any pill shape and is available in two sizes, one for small dogs and one for medium-to-large dogs. It features moderate calorie content, vitamins and prebiotics, and it can be used in conjunction with several Royal Canin veterinary-exclusive diets without compromising their efficacy.

For fastest response visit royalcanin.com.



E.I. Medical Portable equine ultrasound

The EVO II Portable Ultrasound features color-flow Doppler, remote control, improved features and remote image-viewing apps for better image resolution. EVO II is ideal for equine practices, companion animal practices, zoos and anyone demanding a high-quality image in a robust system. It offers three times brighter display, supports the new L7HD transducer and operates on version 2.0 firmware for improved image quality and features. The system also accommodates optional video headsets for viewing in bright or low-light situations.

For fastest response visit eimedical.com.



E.I. Medical Linear transducer

Developed exclusively for animal and livestock needs, the new L7HD linear transducer was engineered exclusively for use in conjunction with E.I. Medical's latest EVO ultrasound system. It has a 15-cm depth and higher frequency (5-9 MHz), offering an optimized focal position for reproductive exams. The L7HD is also ideal for use in bovine and equine reproduction and tendon and lung examination. Kevlar reinforcement with rigorous testing and design further ensure that the entire system can withstand the rigors of tough veterinary use.

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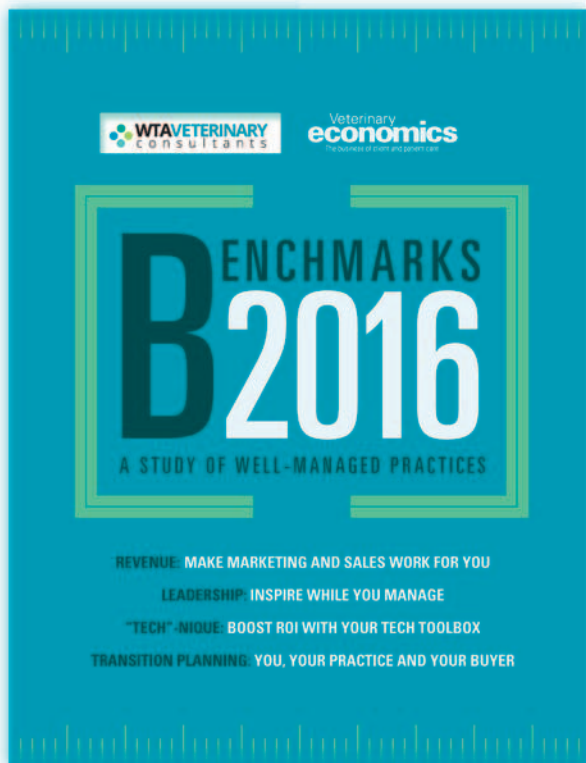
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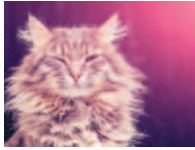
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(407) 851-3862
fvma.org

December 7-9
Veterinary Medical
Acupuncture for Sports
Medicine/Rehabilitation
Patients
Wheat Ridge, CO
caninerehabinstitute.com/Certification_Programs_Acupuncture.lasso

December 8-9
Outpatient
Medicine 2018
Athens, GA
(706) 542-1451
vet.uga.edu/ce/calendar

December 11-13
Practical Techniques
in Soft Tissue and
Orthopedic Surgery
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Veterinary Medicine
Association Convention
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August 2-5
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August 2-6
AVMA Convention
Washington, DC
avma.org/events

August 15-18
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Veterinary

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vet.upenn.edu/education/continuing-education/penn-annual-conference

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Work hard now to sail smoothly later

It's important to plan for retirement in a veterinary career. The security others had in government programs won't cut it anymore.

For most of my life I wanted nothing more than to be a veterinarian and to provide care for my patients and clients. It would be years before I began to consider the next phase of my life, with my wife sharing her outlook with a simple question: "Do you want to keep doing what you're doing now every day for the rest of your life—until you die—or do you want to do something else?" That opened the door for me to explore a future that might not include using a stethoscope.

If you're just counting on Social Security, you're unlikely to be happy ...

Today, the average Social Security benefit received is \$1,404 monthly, and the maximum is \$2,788 monthly, according to *Forbes* (benefits are paid based on earnings). Imagine yourself getting by on that cash flow.

That's why CNBC has estimated that 40 percent of middle-class Americans will retire in poverty. Social Security should be viewed as a part of retirement planning, but it cannot alone sustain an enjoyable retirement. Retirement is no longer a passive transition. It requires planning and commitment.

How much will you need?

Like so many things in life, it depends. How long will you be in retirement? How much and what kind of investments have you already accumulated? Have you considered long-term healthcare needs and the possibility of major unforeseen expenses?

Most experts advise that people begin retirement with at least \$1 million in investments, according to CNBC. That sounds like a lot, but if every year you withdraw the recommended 4 percent, which allows for mainte-

age American couple only has \$5,000 saved for retirement, only one-third of Americans contribute to their employer-sponsored retirement accounts and 43 percent of working-age families have no retirement savings at all. Start saving now, whether you're just starting out in your career or looking back on years of work.

A basic plan for early-career veterinarians

If you're just starting out in your veterinary career, begin by maximizing any

"Do you want to keep doing what you're doing now every day for the rest of your life—until you die—or do you want to do something else?"

nance of the principle investment, that comes to just \$40,000 annually.

How much do you invest?

Planning to invest is one thing, but actually setting up a timeline and getting the money committed is a big step. The biggest factors are where you are in life and what you've accumulated so far—many experts will advise you based on these facts. Your salary will increase as time goes by, and it's important to keep your investments proportionate to your salary and your age.

I realize that most young veterinarians have significant student debt, which means not a lot of free capital, but there is usually some. If you wonder whether it's worth it to put away \$5 or \$10 a month until you can contribute more—it is. While it may not seem like much, stashing away even a little money every month will enable you to open up an IRA.

Get started investing regularly, regardless of how small the amount. It's never too soon or too late. According to an analysis by the Federal Reserve done last year, the typical working-

401(k) contributions. By the time you're 30, you should have the equivalent of one year's salary invested while you continue to reduce your student debt.

By 35, you should plan to have two years' salary invested. Increase your investment commitment to 10 to 15 percent, so that by age 55 you've invested four to five times your salary. Take advantage of catch-up contributions to your IRA and 401(k).

Learn about finances and investing. There are dozens of websites, books and magazines that provide education and advice. Read and learn and ask questions. Work with a certified financial advisor—not someone who will take charge of your future but who will educate and advise you.

Whatever you do, start now.

Dr. Mike Paul is the former executive director of the Companion Animal Parasite Council and a former president of the American Animal Hospital Association. He is currently the principal of MAGPIE Veterinary Consulting. He is retired from practice and lives in Anguilla, British West Indies.



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5 steps to get
you out from
under debt..... 8

What I spent: A
week of overtime
and a little
play time..... 10

Does this
smartphone app
save or break
my bank? 13

Keep loan interest
in check with a
few bucks
a day 14

What debt
feels like: Vet
confessions..... 15

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Curb your debt

When your salary doesn't match your investment, it can damage more than your financial health. In this Leadership Challenge, the dvm360 team explores some of the realities of student debt for veterinary professionals as well as the various professional and personal options they have to rein in its effects on their wallets and well-being.

Like other Americans, veterinary professionals are being saddled with the ballooning cost of education. But when these newly-minted veterinarians and veterinary team members land their first jobs, the pay simply doesn't add up and can damage more than their financial well-being.

Join as we explore the realities of student debt for vets and techs as well as various professional and personal options that could help restrain the stresses and limitations it brings. Our ultimate goal: to curb debt's control over your life so it doesn't curb your enthusiasm for this amazing profession.



Supported by an educational grant from:





Expelliarmus *debtus!* **MAGIC TRICKS** for facing student debt

OK, there's no spell for veterinary technicians or vet tech students to cast and make student debt disappear. Believe me, I've tried. However, the tips and tricks I've found along the way are pretty magical indeed. *By Torry Chamberlayne, RVT*

Money mindfulness—in other words, being really intentional about your spending, saving and acquiring or earning—means setting up a plan to be as smart as possible with your finances. This is especially true when it comes to the matter of student debt, and is an issue I hold close, because it's often the barrier that gets in the way of an individual taking that first step to go to school. It's a conversation I often have with colleagues that work in my hospitals. For me, I'd love nothing more than to help them get over the initial fear of "school" and "debt."

And while there's no easy trick to erase the school debt incurred by following your dreams, there are ways to work through it ... mindfully. I wish I could say these will magically solve all your problems, but they're more so reminders and actions that veterinary technicians or soon-to-be-techs can take to be intentional about debt while achieving their dreams. Let's get started.

Make a plan

Just like with any big endeavor, it's smart to go in with a plan. Start by asking yourself the basics. How long will school be? How will I fund the

debt? The reality is, there are sacrifices to be made to follow your dreams. And, truth be told, most of us don't get into this field for the money—we do it for the passion!

A helpful tip can be to go through your finances with a fine-toothed comb. Where can you cut back to put more into your schooling? Make lunches

gaining experience rather than finding an immediate job. I have employed students straight from their externships—so the possibility is there, yet still not a guarantee. Find an entry-level position in a veterinary hospital or clinic as soon as you decide that this is your path.

You may wonder how this helps with money mindfulness.

The biggest tragedy I see is when students spend money (a lot of it) and so much time in school on a path to live out their dream of being in veterinary medicine only for it not to be realized, or to later decide to change their mind.

at home rather than eating out. Do you really need that daily (insert expensive coffee house establishment drink), or can you make coffee at home?

Areas to consider cutting out? Cable TV, any print or online subscriptions, anything extracurricular that will take away time better spent on school. Remember, it's short term, not forever, and it's so entirely worth it!

Work in the field

My best piece of advice—something I have shared with my students over the years—is to get your foot in the door. While there will be externships that place you in hospitals, that time is designed more for

The biggest tragedy I see is when students spend money (a lot of it) and so much time in school on a path to live out their dream of being in veterinary medicine only for it not to be realized, or to later decide to change their mind.

Getting your foot in the door can help you see if this is truly what you want to do and can help you start to work your way up and hone those skills needed, so that when you do finish school, you're in a much better place financially. You'd be surprised at just how flexible your hospital or clinic will be with your schedule knowing that you're there to get your license. A little secret: Today, there are countless

LEADERSHIP challenge

practices that will actually help with tuition costs, partial reimbursements and covering the costs of your license and testing fees! It's a win/win!

Don't wait

OK, vet tech students, listen closely. Are you ready? Sign up for your Veterinary Technician National Exam immediately! Please don't wait. This is the part where fear takes over and we question ourselves and lose some of that confidence.

"Am I ready?" YES!

"What if I forget everything!"
YOU WON'T!

"I'm not prepared, I have to wait ..." YOU'RE READY!

This is one thing that breaks my heart. Students put in all this effort and work and then don't test right away. All the knowledge you'll have is right there—I promise you! Trust yourself. The longer you wait, the more knowledge slowly leaks out. I could provide you with tons of testimonials that

tip is to choose a time of the year to make an "extra" payment directly to the interest portion of the loan. You can also negotiate a lower interest rate on your loan after a specific amount of time. Do your homework.

My last bit of advice? Reach out to a financial advisor. We don't do this nearly enough.

Reach out to a financial advisor. We don't do this nearly enough. These financial advisors can be your little genie in a bottle.

speak directly to this.

With that license comes a much-deserved (and quite equitable) pay raise, and you're worth it! You can also now start putting larger chunks toward your debt. Did I mention that most companies (including private practice) will pay for your testing and your license fees? Seize the moment and take that test now.

Pay against the interest

This may seem like a small one, but it can make a huge impact. You've heard it: "They'll get you with the interest." Most loans will allow you to separate out how you pay against your loan. While paying your minimum, pay an additional amount onto the interest portion of your loan.

Another good

These financial advisors can be your little genie in a bottle. Use your network. There's always someone who knows someone, so all you have to do is ask around for a recommendation. My absolute best connections have come from mutual friends.

Torry Chamberlayne, RVT, is a San Diego, California, field director for Banfield Pet Hospital. She's been an RVT for over 20 years, all while being a busy mom of six kiddos, two doggos and one guinea pig (guinea piggo). She loves to practice and teach yoga, especially to colleagues in the veterinary field. Fun Fact: In high school, she volunteered at a teaching museum and trained red-tailed hawks to teach the public about how to interact (or rather NOT interact) with them and how they behave out in the wild.





TACKLING veterinary student DEBT

ONE-HOUR WEBINAR

Get an hour of CE credit as you learn the first steps to curbing debt's control over your life so it doesn't curb your enthusiasm for the profession.

Need some real advice about how to manage your veterinary school debt? Join financial professionals David Lazenby, PhD, and Stephen Brinker, MBA, who are trying to help veterinary professionals better understand their current student loans and explore strategies to pay off that debt. The goal

is to address the stress and financial confusion surrounding this topic. After completing this webinar, you should feel confident to take the first steps to tackle your school loans.

So, get one hour of CE, stop running from your debt and start taking charge at dvm360.com/debtwebinar.

5 steps to get you out from under vet school debt

A little common sense—and some support from your veterinary colleagues—will keep you from being crushed by the mountain. *By Kathryn Primm, DVM*

Think there's no way you can scale the steep cliff of your student debt? You absolutely can—but you need to be realistic about your situation. Here are tips that helped me, and I'm passing along to you.

1 Frame your expectations. While you were scrimping and saving your way through your veterinary education, you may have fantasized about your first real job—and the paycheck that would let you buy the things you want. But the sad news is, your first few years out of school are not the time to go crazy.

I went to a local VMA meeting once and someone joked that three of the vets present were wearing the same designer boots. I was one of them, but I had agonized over the purchase—and I'm a practice owner (who just finished paying off my student debt last year). The other two attendees were associates and recent grads.

I know how it is to scrape and save, and eat ramen noodles all through vet school. There was a

time when I had 17 cents in my bank account and there were times when I was overdrawn. When we graduate, we all have visions of how things will be with a paying job—but the industry has let you down. Just because you've graduated doesn't mean you're out of the woods on debt (or learning). Designer clothes and expensive tastes may have to wait until you're more financially stable. It may not be good news, but it's life.

2 Don't borrow any more money. We don't think of credit cards as borrowing, but they are. It's way too easy to feel like you're not even spending money when you use a credit card. When I first graduated from veterinary school, I got a credit card. I felt like an adult and I used the credit card to furnish my new grown-up apartment. It was awesome!

But when the bills started to come in and my new-grad salary allowed payment only of the minimum monthly fee, I felt the sting of ridiculous interest rates

and carried-balance fees. It's a fact of business that no one is going to let you use their money without paying a fee. The credit card companies are no different.

This is how credit works: You get to buy the cool things right now, but it's not cool when you forget how much you've charged and then the bill comes. Don't forget that credit card companies are really banks, and charging items is increasing debt.

3 Create a budget for yourself. There are computer programs and apps available at no charge through many banks to help you manage your income and expenses. You might find that you have very little left over after you pay your expenses, and this is disheartening, but it's important to be aware of where your money is going. If you're oblivious to your budget and just depend on how much is in your bank account at any given time, you'll end up going further into debt just to make ends meet.

No matter how excited you

are to be out in the working world, you cannot let yourself be carried away on unrealistic visions. You have to build your life on the facts. If you don't live below your means, you'll never see your way out of debt.

4 Analyze your options. After you look at your income-to-expense ratio and set up a budget, look critically at your current employment. Is there opportunity for growth at the practice? Write down the pros and cons of your job. If the pros don't outweigh the cons, you need to gather information on other options.

The AVMA provides economic information and job listings to members free of charge. Be aware that in certain parts of the country, the veterinary market is more competitive, which drives down

salaries. If you relocate to an underserved area, that position may pay you better—and come with a lower cost of living. These positions tend to be in rural settings, and even if you don't see your future in a rural practice, you'll gain valuable hands-on experience with a varied caseload and clientele.

When your debt's paid off, you can figure out where you want to live permanently. You might find that you enjoy something that's quite different from where you originally saw yourself. (I went to veterinary school with a passion for equine medicine and I now own a small animal practice. Life is funny like that.)

5 Manage extra money wisely—but give yourself a break too. If you're watching your budget, you'll know if you have a little extra money. There

are online surveys veterinarians can take that pay honorariums to help cover your expenses or provide a little fun money. You might get a tax refund.

If you do get some unexpected (and unbudgeted) money, apply at least 80 percent of your windfall to your debt, but spend 20 percent on yourself for something to improve your quality of life. Treat yourself to ice cream. Buy a book. Go on an adventure. Search the web for affordable things to do: "Fun and free things to do in ____." All work and no play makes Dr. Jack a dull girl.

The best thing you can do, no matter your situation, is know you're not alone. Your colleagues know how you feel. If you need someone to talk to, join a group on social media. You can comment on this article or reach out to me by email (kat@drprimm.com). Veterinary debt is a very real hurdle, and if we work together to support each other and discuss our challenges, everyone wins.

Kathryn Primm, DVM, the author of Tennessee Tails: Pets and Their People, owns Applebrook Animal Hospital in Ooltewah, Tennessee. She is a frequent contributor to dvm360.com and other publications, and she was the nation's first Fear Free certified professional.



A week of overtime and a little play time



In an effort to pay off her student loan by the end of the year, this vet tech and her husband watch spending but still find moments to splurge.

I'm a CVT who works in the Twin Cities but commutes daily from western Wisconsin. Seven years ago, I made the choice to take on close to \$40,000 in student loan debt to pursue my dream of becoming a CVT in an emergency and critical care setting. Since I finished school, my student loan debt has been

looming and my husband and I have been working hard to pay it off as fast as possible. We make \$1,000 payments monthly, though our required payments are only \$300 per month, and we're on track to pay them off in six years, instead of the original 10- or 30-year plan that so many students opt for out of necessity.

Of course, making such hefty payments takes its toll in our lives. We've put off trips and daily treats, we buy everything used, and we hardly ever eat out.

I wouldn't trade my job for anything. Next year, when we're student-loan-debt-free and have \$1,000 a month to spend on ourselves, we're going to explode

into the world. I just hope the world can see how hard we've worked to get there.

Monday

I knew this week was going to be a doozy. We're short-staffed, and the powers that be have approved any amount of overtime to help cover the shifts. I'm scheduled for three 12-hour shifts this week in addition to two normal eight-hour shifts. I love my job, so it's easy to work the long shifts, and this Saturday we're going to a campground with my sister and her family—something to look forward to after a long week.

After my 4 a.m. to 4 p.m. shift, we hit the local A&W for Free Root Beer Float day. We always try to get as much free stuff as possible. We also brought a coupon for free chili fries, which we shared, and our entire meal for the two of us, plus root beer floats, was \$15.

Editor's note: This article is part of our "Personal accounts" series. We ask veterinary professionals from different jobs and areas of the country to track their spending for one week. Our goal: to share what they've learned from a deep dive into the cost of living and the choices we make every day. Read them all at dvm360.com/personalaccounts.

When we got home, I was happy to see a \$30 rebate in the mail for our Bravecto. We also received a \$100 Walmart gift card from our credit card rewards, which we'll use to buy daily necessities like toothpaste, shampoo, body wash, etc. I love getting free money!

Daily total: \$15

Tuesday

This is my only day off alone this week, so I had to make it count. While my husband worked 6:30 a.m. to 3 p.m., I spent the day planning meals and making a shopping list for my husband for later. My meals are centered around what's on sale and include taco pasta, chicken alfredo lasagna and, for tonight, a teriyaki pork and rice with broccoli and green beans from our garden. I'm proud of this one, because we bought the pork loin for half price as it was nearing the expiration date and just froze it, rice is cheap and the garden veggies are free. Two meals plus lunches for about \$4!

I prepacked my lunches and snacks for the next three days so I don't feel the need to order out because I'm busy.

When my husband got home, we headed out to a local state park, did some hiking and played in the waterfall. We bought a pass for the year (\$25) and are proud that this trip will make it

“paid off” because the entrance fee is \$5, and this is our fifth trip since we bought the pass.

After the park, we stopped for a couple of beers for \$8. Hiking takes a lot out of you ;) We also had to stop for gas—\$32.

Daily total: \$44

Wednesday

Today I'm working 4 a.m. to 4 p.m. again. My husband goes shopping with the lists I made from grocery store ads and hits up all the store discount bins too. He picks up my one “splurge,” ground Caribou Coffee. We buy two bags at a time (\$12 each, but two for \$20) and freeze one until I get to it. Total groceries: \$105

Finally, he stops at Fleet Farm and picks up chicken feed—\$13 to feed our four chickens. This is an expense I don't mind, because they provide us with free eggs and good company.

After a 12-hour day, I don't do much. My husband makes the taco pasta I prepped and I pack leftovers for lunch for my shift tomorrow. I take a bath and read a book I've had from the library. I then head to bed at 7 p.m. because I have to be up at 2 a.m.

Daily total: \$138

Thursday

Today is a second 12-hour day in a row, but tonight we can watch the Green Bay Packers on TV

PERSONAL ACCOUNTS

Occupation

CVT, emergency/ICU at Twin Cities, MN, referral practice

Monthly income

\$2,925 (gross)/\$2,220 (take-home)

Monthly expenses

Housing:	..... \$835	Trash pickup:	..... \$20
Student loan:	..... \$1,000	Internet:	..... \$120
(\$300 required)		Vacation savings:	..... \$100
Car loan:	..... \$350	401(k):	..... \$300
(\$250 required)		Online entertainment:	\$15
Electricity:	..... \$105	Additional:	
Gas (propane):	..... \$85	Average groceries	..... \$465
Water and trash:	..... \$20	Average eating out	..... \$65
Health/vision/dental:	\$258	Average car gas \$335
Cell phone: \$100		
Car insurance: \$150		
		Total expenses: \$4,323

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for a great free activity. I stopped for gas this morning—\$31. My husband stopped at Fleet Farm again to pick up canning supplies and found a great deal on an outdoor chair for us to use for reading outside. Total—\$23.

I get home around 5 p.m. and my husband has supper ready. We sure do make a great team. I take another bath and read my book, and I'm proud when I make it to the start of the second quarter of the game before I need to go to bed.

Daily total: \$54

Friday

It's Friday, baby! I made it! Today, eight hours flew by compared to my 12-hour shifts. My husband stopped at Fleet Farm (again, I know ... it's our version of Target) to get some mousetraps (yay, homeownership)—\$10. It's leftovers for dinner. We spend some time outside reading in the sunshine and puttering around the property. While mowing, my husband bends a mower blade so badly that we'll have to replace it (ugh, I hate unexpected expenses)! We finish off our night with a movie we own and some adult beverages.

Daily total: \$10

Saturday

Finally a day off together! My sister invited us to Jellystone campground/resort for the day.

My mother-in-law spent the day with our dogs for us (we paid her in free eggs!).

We filled up with gas before we left for the 90-minute drive—\$36. Entrance to the campground/resort was \$52 for the two of us—well worth the price. We spent the day in the sun recharging, playing games, swimming and grilling out—all while spending time with my sister, brother-in-law and niece.

We brought snacks and our own beer so we wouldn't spend too much on food, though we did splurge on some food from the Pik-a-Nic Basket. We shared some chicken tenders, fries and a burger—\$15. I also just had to get an ice cream cone for \$4.

We were pretty beat by the time we got home, so we hung out watching TV until bedtime.

Daily total: \$107

Sunday

Since I work emergency and we're open 24/7, I'm required to work Sundays. I was scheduled 8 a.m to 4 p.m. today, but it was slow enough that they kicked me out at 2 p.m. I put in a total of 51 hours this week (that's going to be a nice paycheck!).

My husband went to town to buy the mower blade replacement, which was only \$26, and also stopped at Walmart to buy some groceries, including cereal and granola bars

for the coming week—\$52.

I had to stop again for gas—\$39. When I got home, we got to work canning tomato sauce. We have a garden and always do some preserving so we can eat free, healthy food all year. This took up a big part of our evening, and we turned in early.

Daily total: \$117

BREAKDOWN

Weekly total \$\$ spent
\$814

Weekly expenses

Food and drink	\$201
Entertainment	\$65
Home and health	\$72
Clothes and beauty	\$0
Transportation	\$476

Overall, we spent more money this week than normal. Some unexpected expenses came up and we did grocery shopping that will last us a couple of weeks, but I still feel stretched.

We took some money out of our "vacation savings" account to cover expenses from Saturday. We put money in each week, so we don't feel guilty when we want a mini-vacation. Cutting corners and splurging only on things that truly bring us happiness are going to be the keys to getting that student loan paid off by the end of this year!

Your money, your life: Does this app save or break my bank?

When it comes to repaying veterinarian or technician school debt, are savings apps like Digit worth the download? *By David Lazenby, PhD, Stephen Brinker, MBA*

Q I use the Digit smartphone app to save money, and they just announced a new feature that helps put money aside to pay off debt. Do apps like this help?

We're glad you're using new technology to look for ways to take control of your finances, but we always tend to approach "free" apps with a bit of scrutiny. It's important to pay attention to the fine print and understand what you're really signing up for.

Many apps offer a free trial period and begin charging you after that or require you to open an account with them to benefit from the rewards. Digit works by analyzing your spending and automatically moving money from your checking account to your Digit account when you can afford it. It does, however, cost \$2.99 per month. Also, with financial apps, security is especially important. Sensitive financial data is often linked to these accounts, so protection is critical to prevent this data from

ending up in the wrong hands.

However, the bigger issue is something we see in the app-friendly world when we end up with multiple apps performing similar tasks. As busy adults, we look for shortcuts—which can speed along basic tasks, true—but also sometimes start to head down a road before we even know where we're going.

When it comes to finances, we think the first step is developing a plan with or without a financial professional that helps you pursue your goals. Once this plan is in place, technology and other tools can be enlisted to keep the plan on track.

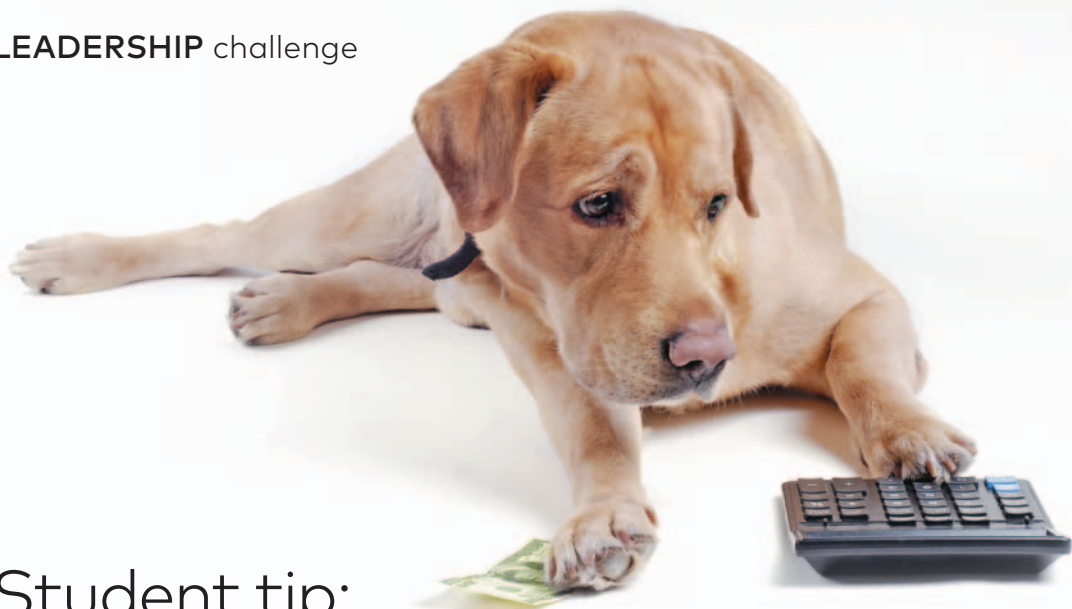
Psych hint: Remember: Research shows that pursuing a goal with intentionality can be more fulfilling than actually achieving the goal—meaning, the journey is as important as the destination.

Dr. David Lazenby is director of Advanced Planning at Kalibr, a financial consulting firm in St. Louis, Missouri. Stephen Brinker is a consultant at Kalibr.

Summary takeaway

- > Watch out for the fine print—don't get caught by an app's surprise subscription fee.
- > Be cautious of becoming too app-obsessed—having too many apps doing similar things is not the same thing as having a plan.
- > Technology and tools are helpful, but make sure that they help you pursue your goals and that you know what those goals are.





Student tip: **Keep loan interest in check** with a few bucks a day

Knowledge is power, and a simple formula can help even poverty-stricken veterinary students keep debt from snowballing. *By Patrick Crannell*

As a veterinary student, I think my job is to learn not only about veterinary medicine, but also about managing money. Becoming financially literate is a lifelong skill that more of us need lessons on early in our careers. Personally, I've tried to go out of my way to understand basic financial concepts and terminology while I'm still in school.

One of the best things I've learned is a formula that helps my personal budget. Here it is:

$$\begin{aligned} &\text{Interest rate (in decimal format)} \\ &\times \text{current principal balance} \\ &\div \text{number of days in the year} \\ &= \text{daily interest} \end{aligned}$$

Depending on a student's principal balance, the interest he or she accrues is typically around

a few dollars a day. If many days go by with the interest accruing on the principal balance, then daily interest will of course go up; a larger numerator with an unchanging denominator produces a bigger number.

It's easy to keep this daily interest down with a budget plan. By saving just \$20 a week at the grocery store, you can put that saved money toward accruing interest and decrease a growing mountain of student debt.

Knowledge is power, and I think if more students are financially cognizant and active, then we'll see debt-related frustration, anxiety, anger and struggle decrease. Our debt will become not a weakness but a mastered skill.

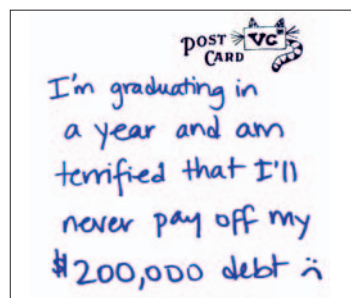
Patrick Crannell is a student at Michigan State College of Veterinary Medicine.

Vet confessions on student debt

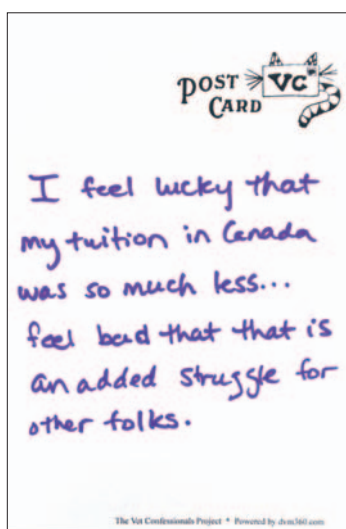
Read about how your colleagues in the veterinary world really feel regarding educational loans.

Whether it's made light of or made into the dark storm cloud hanging over your head, veterinary professionals have a wide spectrum of thoughts and feelings when it comes to student debt. Through the Vet Confessionals Project, an anonymous effort that allows veterinary professionals to express themselves freely, you can take a closer look at how your colleagues in the veterinary world really feel.

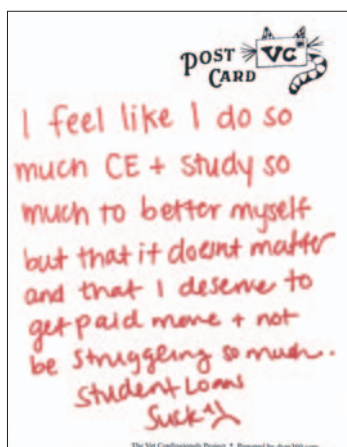
Editor's note: Confessions like these are submitted on dvm360.com or written live at Fetch [dvm360](http://dvm360.com) by attendees. Need to get something off your chest? Submit your anonymous confession at dvm360.com/confess.



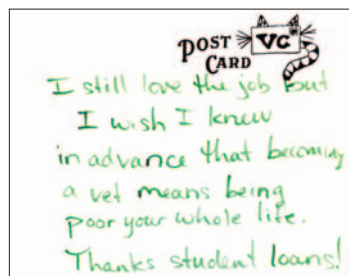
I'm graduating in a year and am terrified that I'll never pay off my \$200,000 debt :(



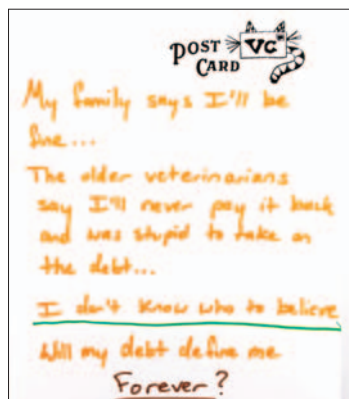
I feel lucky that my tuition in Canada was so much less ... feel bad that that it's an added struggle for other folks.



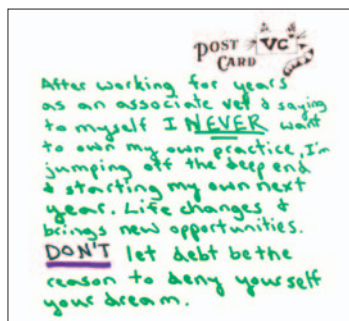
I feel like I do so much CE & study so much to better myself but that it doesn't matter and that I deserve to get paid more & not be struggling so much. Student loans suck. =(



I still love the job, but I wish I knew in advance that becoming a vet means being poor your whole life. Thanks, student loans!



My family says I'll be fine ... The older veterinarians say I'll never pay it back and was stupid to take on the debt ... I don't know who to believe. Will my debt define me forever?



After working for years as an associate vet & saying to myself I NEVER want to own my own practice, I'm jumping off the deep end & starting my own next year. Life changes & brings new opportunities. DON'T let debt be the reason to deny yourself your dream.

We think
you're the
cat's
MEOW



TOGETHER, WE ARE
EMPOWERING
A HEALTHY TOMORROW

Now hiring talented veterinary professionals.
Join our team of cool cats today.

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