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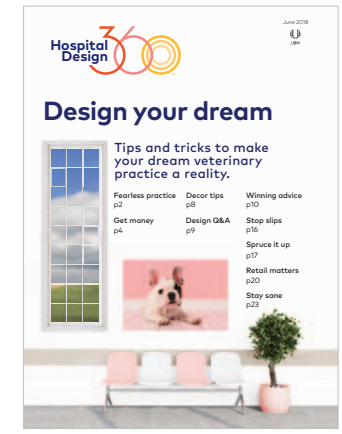

Grit vs. grades:

Veterinary schools face potential flaws in admissions system

Application process may be keeping out the most tenacious and hard-working candidates before they get the chance to begin coursework, experts assert. *By Katie James*

There's no question that the veterinary profession has changed through the years in its demographic makeup, from a profession that was mainly made up of men to one that becomes more and more female each year. But is veterinary medicine lacking diversity in other areas? Are there groups of people who would make great veterinarians but are pushed out before they can even complete an application? And what does that mean for the profession?

Lisa Greenhill, MPA, EdD, senior director for institutional research and diversity at the Association of American Veterinary Medical Colleges (AAVMC), is looking for answers to these questions.

"My work with the AAVMC has always advocated for increased diversity and inclusion in

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Equine veterinary professionals learn a lot of safety protocols. But one real danger rarely gets addressed in practice—and that needs to change, these experts say. *By Hannah Wagle*

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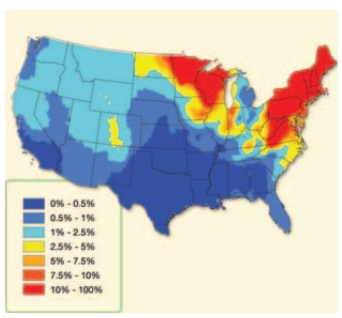

CAPC sees spread of heartworm and Lyme disease

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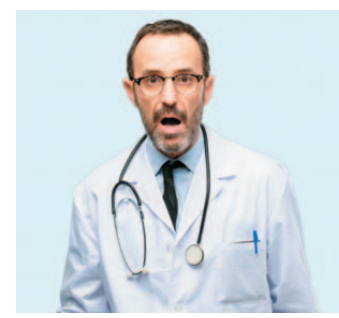

Scrub the tight scrubs? A workplace attire conflict

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Pregnancy isn't an eviction notice for the family cat

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UBM

One key to happiness: Get out of the freaking way

Keynote speakers discuss the art and science of delegating.

Recently at the Fetch dvm360 conference in Virginia Beach, our two keynote speakers tackled the topic of rediscovering happiness in a veterinary career. And while their talk was full of brilliant advice, two of the points that stood out to me at the time both had to do with delegation.

Dani McVety, DVM, is the founder of the Lap of Love veterinary hospice network, which employs nearly 200 veterinarians. As such, she can't personally oversee every project and hope to have a shred of time or sanity left. So she delegates, and she uses her 0/30/90 rule. This means she meets with the person responsible at the beginning of the project—when zero percent has been accomplished—and then at 30 percent completion to make sure things are on track, and again when the project is 90 percent finished to address any last-minute issues.

"This keeps our meetings on target and our conversations focused, and it generally sets good expectations," Dr. McVety says.

Andy Roark, DVM, the other keynote speaker, also addressed delegation as a key to a happy and well-balanced life, and he discussed a pitfall many veterinarians (and other perfectionists) encounter when they hand off an area of responsibility.

You see, when you first delegate, your workload increases. It takes more of your time and effort to train the new person and oversee their progress than it did to simply perform the work yourself.

"At this point, most veterinarians say, 'Oh crap!' and take all of it back," Dr. Roark says. Big mistake, because with a little more time and patience, the workload would decrease, first to baseline and then down even further, freeing up more of your time than before.

To read more of our speakers' words of wisdom, visit **dvm360.com/fetchkeynote**. And check out our Kansas City program at **fetchdvm360.com/kc**. (Spoiler alert: Dr. McVety makes another keynote appearance!)

Dr. Dani McVety adapted a famous exhortation from Mother Teresa and shared it with attendees at the Fetch dvm360 conference in Virginia Beach.

Correction

Due to an editor's error, Merit Award-winning hospital owner Dr. Russell Brewer's name was misspelled on page 21 of the March issue. To see a corrected version of the winning hospital list, visit **dvm360.com/2018awards**.

Take a deep breath at the Fetch dvm360 conference

fetch dvm360 CONFERENCE

Torry Chamberlayne, RVT, brings yoga and meditation to the CE conference experience.

CE is serious business, and at Fetch dvm360 conference, we're dedicated to providing you top-notch education. But while you're nurturing your mind, we also want to help you nurture your body. Torry Chamberlayne, field director for Banfield Pet Hospital and a yoga instructor, plans to do just that by leading yoga and meditation at our conferences.

With 20 years in the veterinary industry under her belt, veterinary medicine is Chamberlayne's first passion. But when compassion fatigue began to set in, she knew she needed to find a healthy outlet for her workplace stress.

"I started doing yoga to create a space outside of work that was just for me," she says, "and I found that yoga also helped me deal with the stresses of work more effectively."

Now, Chamberlayne frequently leads an hour-long practice in the park for her veterinary staff, teaching them how to control their breathing and focus on the present moment.

At Fetch dvm360 conference, she plans to take a similar approach. "My yoga sessions will be focused on waking the body up, especially the core, and developing strength from within. We will focus on breathing and becoming aware of our surroundings. All levels are definitely welcome," she says.

We hope that you'll join one of Chamberlayne's sessions and return to your practice refreshed, reenergized and ready to take on new challenges.

To learn more about the wellness sessions at the Fetch dvm360 conference in Kansas City, visit **fetchdvm360.com/kcprogram.**

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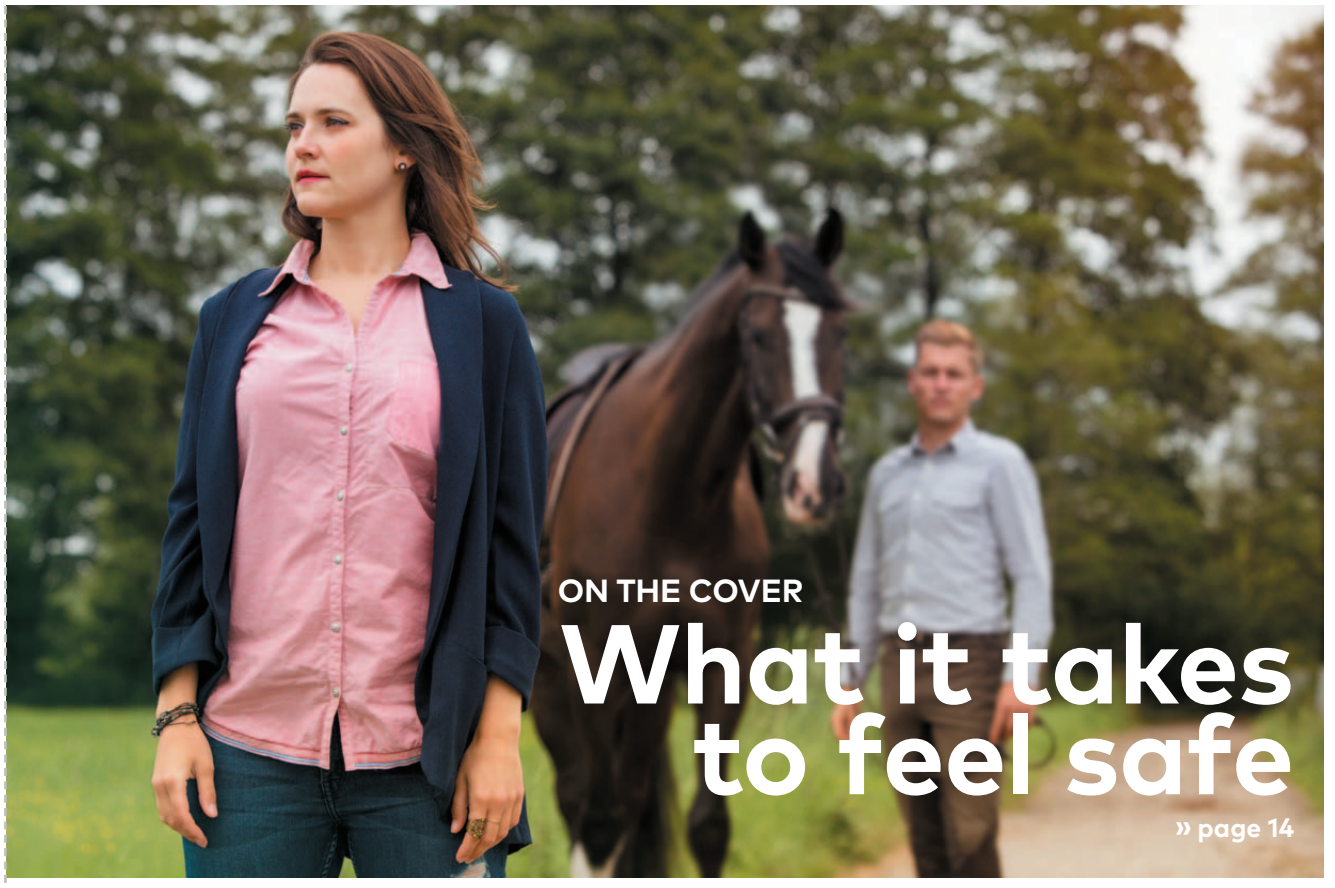

ON THE COVER

What it takes to feel safe

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CAPC predicts **spread of heartworm and Lyme disease in 2018**

Check out the annual CAPC forecast based on weather patterns and other factors affecting disease activity.

The Companion Animal Parasite Council (CAPC) has released its annual parasite forecasts for 2018, predicting an increase in the prevalence of heartworm and Lyme disease. Heartworm is forecasted to spread aggressively across the United States and Lyme disease to spread west into states east of the Rocky Mountains.

The warm, wet weather over the last two years has contributed to the expansive nature of heartworm disease, a release from the organization says. Shifting weather patterns have created ideal breeding conditions for heartworm-transmitting mosquitoes across the country. Another contributing factor is the relocation of unknown heartworm-positive dogs across the country that survived the hurricanes in 2017.

CAPC also predicts that Lyme disease will spread into non-endemic areas, including the Dakotas, Iowa, Missouri, southern Illinois, Ohio, Kentucky, Tennessee and North Carolina. *Borrelia burgdorferi*, the Lyme disease agent transmitted by ticks, is spreading as the white-tailed deer population grows and migratory birds carry ticks to new areas, the release says.

"Our annual forecasts provide critical and important information to help veterinarians and pet owners understand parasites are a true risk to both pets and people," says Dr. Dwight Bowman, CAPC board member and professor of parasitology at Cornell University College of Veterinary Medicine, in the release. "This year there are significant shifts in prevalence, making our maps a criti-

cal educational tool for veterinary hospitals and allowing veterinarians and pet owners to see that parasites are ever-changing and widespread—sometimes surprisingly so."

Aside from increased prevalence of heartworm and Lyme, the council also predicts the following areas of risk in 2018:

> Heartworm, besides being above average nationwide, will be even more active than normal in the lower Mississippi River region. The northern-tier states from Washington state to Vermont may see a rise in heartworm infections among veterinary patients.

> Lyme disease is a high threat this year, and veterinarians near Lyme's endemic boundary line (the Dakotas, Iowa, Missouri, southern Illinois, Ohio, Kentucky, Tennessee and North Carolina) should be on alert. Western Pennsylvania, eastern Ohio, West Virginia and the Appalachian region in Virginia should prepare for an active year, the release states. The area from Washington, D.C., to Philadelphia and eastward, along with the Boston/Cape Cod area, are expected to see relief this year.

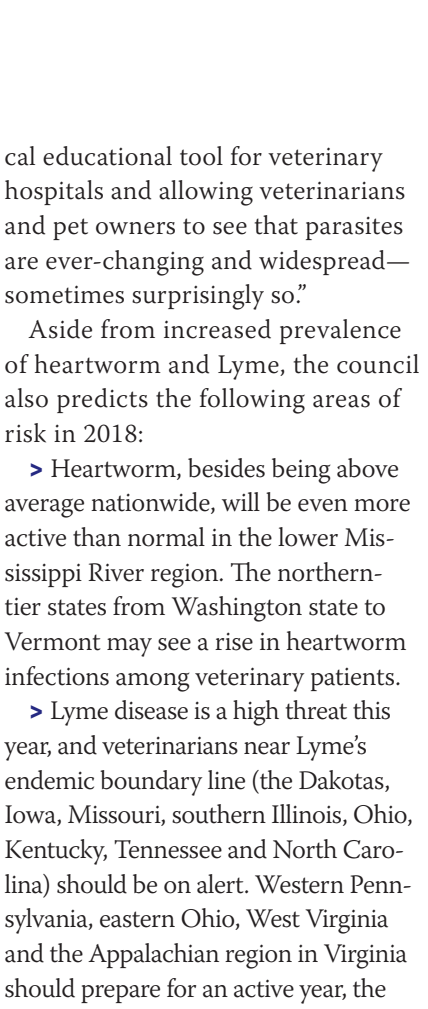
> Much of the United States is forecasted to see the transmission of anaplasmosis in 2018, but northwestern Minnesota will have an especially active year. The Wisconsin/Minnesota border area and the Boston/Cape Cod region are expected to see less activity than normal.

> Southern Virginia and northern North Carolina are predicted to be more active than normal in ehrlichiosis transmission. The rest of the United States is expected to see normal prevalence in 2018, the release says.

The parasite forecasts represent collective expert opinion of academic parasitologists who participate in ongoing research and data interpretation to better understand and monitor vector-borne disease agent transmission and the changing life cycles of parasites. These annual forecasts are based on many factors that include temperature, precipitation and population density, the release notes.

For free prevalence data that localizes reported disease activity at the county level that can be used in discussions with veterinary clients, visit the CAPC website at petsandparasites.org.

To view these forecasts and more, visit **dvm360.com/capc-resources**.



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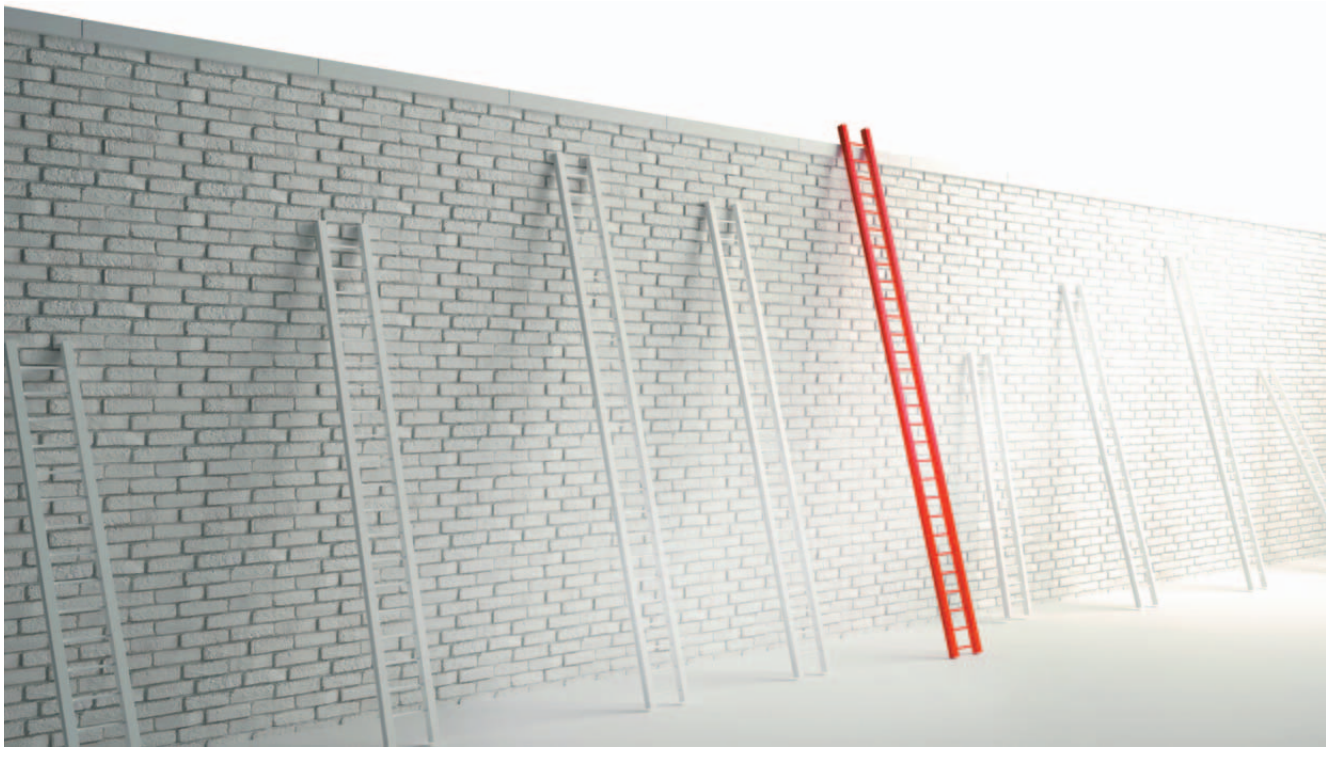

the veterinary profession. To that end, we're interested in making sure we can recruit and create the most diverse and developed pool of talent that we can," Dr. Greenhill says. "We want to recruit a lot of different people with a lot of different kinds of talent and experiences, because that raises the overall competitiveness of the pool."

This competition includes other things than just academic experience, Dr. Greenhill explains—it means broader life experience as well. Applicants who are lower socioeconomic status (SES) or first-generation college attendees are what Dr. Greenhill calls the "grittiest" applicants, and there's a lot of overlap with racially and ethnically underrepresented populations within those groups, she says.

Dr. Lisa Greenhill

Dr. Greenhill's research shows that these applicants are far more likely to be working part- or full-time during their undergraduate education, and they may take longer to complete that undergraduate degree because they have to balance education with earning. They also don't have the family resources that their more well-off counterparts do.

"The lower SES or first-generation applicants have about one-third more undergraduate debt than more affluent applicants," Dr. Greenhill says. "So they come in with more debt, and they're working and they don't have time to volunteer, so they have to find experiences [to list on their application] that are paid."

"The people who have more financial resources actually have greater freedom to think about cost than the lower income students who've risked everything on that one letter [of acceptance], and that's where they'll go."

The implications are significant, Dr. Greenhill explains. Because of the challenges low-income and first-generation students face, they often take longer to complete their undergraduate education, taking fewer credit hours during a semester. A veterinary school admissions committee may see that and wonder if the applicant can bear the full weight of a DVM curriculum.

"What's not shown in that application is that they're taking less hours because they're also working 40 to 50 hours a week," Dr. Greenhill continues. "They're hustling and they're gritty and putting in the work, but there are a lot of barriers to getting to the application and being able to afford the application itself."

Cost isn't a driving factor

These applicants also put a lot of thought and strategy into where they apply to veterinary school, because they may only be able to afford one shot. That means they get one letter of acceptance, unlike their more affluent peers, who might have multiple offers. When you have multiple letters of admission, Dr. Greenhill explains, you have more choices when it comes to cost.

"The research shows that that's when people start to think about cost a lot more," she says. "The people who have more financial resources actually have greater freedom to think about cost than the lower income students who've risked everything on that one letter [of acceptance], and that's where they'll go."

Dr. Greenhill notes that all veterinary school applicants work hard to get into the pool, but this year, about 30 percent had overcome major barriers, including navigating the higher education system for the first time. These applicants don't have multiple generations of family members who have been to college and understand the higher education system, including financial aid options and the types of advising available to students.

In her research Dr. Greenhill also found that lower income applicants typically have more experience hours listed on their applications, but those hours are more likely to be from paid positions. This can hurt their chances of acceptance.

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References: 1. Six RH, Geurden T, Carter L, et al. Evaluation of the speed of kill of sarolaner (Simparica™) against induced infestations of three species of ticks (*Amblyomma maculatum*, *Ixodes scapularis*, *Ixodes ricinus*) on dogs. *Vet Parasitol.* 2016;222:37-42. **2.** Six RH, Everett WR, Young DR, et al. Efficacy of a novel oral formulation of sarolaner (Simparica™) against five common tick species infesting dogs in the United States. *Vet Parasitol.* 2016;222:28-32.

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"The low-income and first-generation applicants have a higher likelihood that they're in paid positions, because they have to be," Dr. Greenhill says. "The more affluent applicants who can afford to volunteer may have more diversity in the type of hours or clubs they're able to participate in. Lower-income or first-generation applicants don't have as much diversity in their experience, because if you have a job you can't jump around as easily."

This means lower income students often don't present as nice a mix of experience as what the colleges are looking for, even though their experiences are still valuable, Dr. Greenhill says.

Is there a path forward?

As part of its annual conference this year, the AAVMC rolled out guidance on a holistic review program that encourages veterinary schools to look for attributes that will make someone a good veterinarian, not just a good student, Dr. Greenhill says.

"We're looking for applicants who are diverse in all areas—men, rural backgrounds, applicants from areas where there may be a veterinary care desert, or who are interested in working with certain types of communities," she says.

Dr. Greenhill wants to see member colleges use this diversity data to guide outreach and recruiting efforts. "We value folks who have come up on the rough side of the mountain because we recognize that there are qualities in these applicants like resilience, grit, courage and independence that we value and will make amazing professionals later in life," she says.

How one school aims to see change

Virginia-Maryland College of Veterinary Medicine has taken just the kind of holistic look at its application and admission process that Dr. Greenhill applauds. Jacque Pelzer, DVM, director of admissions and student services, told *dvm360* that she thought diversity in their program existed at one time but that the veterinary admissions process over time has introduced the wrong kind of barriers.

"We've looked at the actual application process and tried to identify potential barriers to underrepresented applicants, and I think that in itself has increased diversity within our applicant pool and given our program access to people other schools aren't looking at," Dr. Pelzer says.


Dr. Jacque Pelzer

One step the college has taken is to reduce the number of veterinary experience hours it requires of its applicants. Dr. Pelzer says there's no literature in any medical profession that addresses how many experience hours an individual needs to be successful in the profession.

"Where is an African-American male from Washington, D.C., going to get large animal experience? And

should that in itself keep him out of veterinary school?" Dr. Pelzer asks. "So for our program we're no longer looking at a variety of species, and we've actually decreased the number of experience hours to no more than 100."

Testing requirements have also changed at the college. Many veterinary programs require applicants to submit scores on a standardized test, such as the Graduate Record Exam (GRE), as part of the admission process, but this isn't the case at Virginia-Maryland anymore.

"We no longer require the GRE because that's a barrier," Dr. Pelzer says. "It's a test of affluence because some people can afford

"If you have an all-white female population practicing, you're not really addressing societal needs."

to take it over and over to get a competitive score. Or they can take a Kaplan course that costs $1,800. Not everyone can afford to do that, and it's excluding individuals."

Dr. Pelzer also notes that Virginia-Maryland looked at its own data and found that students who scored better on the GRE didn't necessarily perform better in school.

The college also changed how it weighted different elements of the application. As an application is processed in the system it's assigned points—a certain value for GPA, another for veterinary experience and so on—and then the applications are ranked based on those points, Dr. Pelzer says. It has recalibrated the weighting system, moving from an 80 percent academic/20 percent non-academic value to a 60 percent academic/40 percent non-academic value.

The GPA cutoff has also been removed. Now the college reads every application it receives rather than discarding those that didn't cross the GPA threshold.

"We found that we were missing out on applicants who had very compelling stories," Dr. Pelzer says. "Sometimes those stories would explain why they weren't what we'd consider 'competitive' academically. Maybe someone is a first-generation applicant who grew up in Appalachia and had to work on the farm in the morning and evening and that impacted their ability to study all the time. Or someone was supporting themself through an undergraduate program and had to wait tables to get through, and that impacted their ability to study. We didn't feel like individuals should be penalized because of what they had to do to make it through."

The other important piece of the the application review process is looking at attributes that critical to success in the profession—things like communication skills and ethical and moral judgement, Dr. Pelzer says. Those attributes are looked for during the interview process, which consists of multiple mini interviews after students have been selected via the initial ranking and application-reading process.

"We invite the students who we think would be academically successful and who have told compelling stories to an interview," Dr. Pelzer says. "The rankings are reset to zero at that point, and the interview itself determines if the applicant is admitted or wait-listed. That's how important we feel the interviews are, and we have the data to support that."

Addressing the skeptics

Dr. Pelzer says she's faced skepticism from her colleagues when she speaks about the changes Virginia-Maryland has made.

"People make assumptions about me because of my appearance sometimes, and they think I'm crazy because we're doing something different here. But we have the data to back up why we've made these changes," she says. "Some schools are so entrenched in tradition and 'we've always done it this way, and we graduate veterinarians,' but we're not graduating veterinarians that look like society. If you have an all-white female population practicing, you're not really addressing societal needs."

Though the application requirements have changed, the standards haven't been lowered, Dr. Pelzer says. Students still have to pass the same rigorous curriculum as before; the school just has a different way of looking at the applications.

"We care about the outcome because we're graduating them and we want them to be good veterinarians," Dr. Pelzer says. "We're still considering if they have the aptitude and if they'll make it through the program, but unless we push the boundaries we'll never have answers. The thinking is they'll fail out of the program if academically they're not going to do well, but that hasn't been the case. The applicant pool is made up of highly motivated individuals."

The attrition rate at the Virginia-Maryland College of Veterinary Medicine hasn't changed since changes were made to the application review process, Dr. Pelzer says. Very few students fail out of the program, and if they do it's typically because they have other things in their life that impact their ability to focus. It's not because they don't have the ability, she says.

"We recognized that we were excluding people, and that was a big thing for us," she says. "Our process might not work for other schools, but it's worked for us. It's broadened the net and has given us access to more underrepresented applicants."

Working with horses comes with obvious dangers: Equine veterinarians can be kicked, bitten, stomped, thrown and maimed. There are protocols readily available for keeping oneself safe from these risks. What doesn't come with a protocol, though, and is potentially just as dangerous, is the threat of harassment and assault from the human holding the lead rope.

When a practitioner visits a remote location solo, perhaps on an emergency visit late at night, she may have no knowledge of what or who she'll find waiting. Perhaps a profession-wide safety protocol—or any proactive step toward alleviating these kinds of threats—is long overdue.

Assault—or just the hint of it

"I recently opened a veterinary practice, and I have no protocols in place," says Stephanie Freese, DVM, owner of Polaris Equine Mobile Veterinary Clinic in Pittsboro, North Carolina. "No other place I've worked at has had protocols to deal with this kind of safety either."

Even if overly-friendly comments are well-meaning and free of sinister intent, they often don't sit well with the recipient—especially in the context of what should be a professional relationship. "[A client will] describe your level of care, and then tack on a comment like, 'You're pretty on the eyes,'" Dr. Freese continues. "I've been cutting off the tail of a dead horse when someone has asked me on a date."

"I saw a client last week who said too many creepy things and asked for too many hugs—but he spent two grand in a single visit. And I think, how can I go back there and approach that? But I have to."

Fortunately, she's only had to deal with clients' words. "I don't know what I would do if someone was actually aggressive," she admits. "Realistically, I'm five-foot-one. There's no way I'm defending myself in the field, and I go out to these calls alone almost always."

Part of Dr. Freese's challenge is that she's building her business from scratch. "I don't know any of my clients yet," she says. "They're all finding me on the internet, which is actually very scary. I don't think about it, because if I did I wouldn't want to go out there and my business would fail. I tell myself it's no different than the risk I put myself in every day when I'm dealing with a horse. That risk, to me, seems more likely than sexual assault."

Dr. Freese also wonders about inherent challenges due to the nature of equine practice. "It's hard to see how you could create a protocol that could be effective given how the job works," she says. "When there's an emergency, you get up and you run to it. And unless you're married to your assistant or have someone with a flexible schedule, you're on your own. Giving someone a call to let you know where you are won't protect you in the moment of an attack. How can you protect yourself like that?"

Dr. Freese notes that some equine professionals carry guns but, for her, the risks outweigh the benefits. "The practitioners that have guns keep them in their truck, which gives them peace of mind. But unless it's at your hip, you're going to be too far from your gun," she says. "It feels even more dangerous to me because it'd be so easy to take from you while you're busy with the horse. It doesn't seem like a foolproof way to ensure safety."

And finally, what about those creepy clients with deep pockets? What if refusing to treat their horses would harm your financial situation even as it preserved personal safety? "There are times I feel like I can't say no," Dr. Freese says. "It's tied to my livelihood. … I saw a client last week who said too many creepy things and asked for too many hugs—but he spent *two grand* in a single visit. And I think, how can I go back there and approach that? But I have to."

Building a protocol is easier than you'd think

Not long after Dr. Freese spoke with *dvm360*, we contacted Philip Seibert Jr., CVT, veterinary safety expert and founder of safetyvet.com, and posed some of her dilemmas to him. Seibert believes not only that a safety protocol against assault is possible, but that it's easier to implement in equine practice than it may seem.

"A violence-prevention strategy is looked at in the same light as many other prevention strategies," he explains. "Veterinary professionals often view a plan as a reaction to take if something bad happens. But a plan starts way before that."

Seibert says he tells veterinarians that when they sense danger, it's important not to overreact but also not to underreact. "If you see someone who's coughing a lot, you can react accordingly rather than assume he has tuberculosis," he says.

An essential part of knowing the difference is to be prepared for the situation when it occurs. "Just like in medicine, we have to learn about the scenario, prepare for it and create a protocol, and then deal with it when it arises," Seibert says.

The first thing that needs to happen is a frank discussion with your veterinary team—or a mentor, peer group, consultant or other trusted expert if you practice alone, Seibert says. Make a list of clear warning signs that signal potential danger. "Define the difference between criticism or rudeness and threatening behavior," he says. "At what point do words and behavior become something more? Be realistic."

The second step is to prepare yourself to respond to the danger—or prevent it in the first place. "If you're going to be out on your own to see people you've never met, you need to take a self-defense course," Seibert says. "Set up a system where someone knows where you're at when you're away. Whenever you go out to a farm or somewhere else, call your office or someone specific and let them know. Equine vets love their freedom, but that freedom comes with a risk."

If you're not comfortable packing a weapon, Seibert recommends a few non-firearm tools. "They make cellular panic devices you can carry on your person," he explains. "They

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work like Life Alert, except when you push the button to summon help, it's not because you've fallen and can't get up but because you need help. I also highly recommend investing in dash cams to put on the front and back of your car. If something happens, you always have video evidence to back your claim up."

And if a client gives you the creeps but you're not ready to cut him loose just yet, Seibert is stolid in his assertion that there's always something you can do to remain secure. "You control the environment and situation you're in," he says. For example, you can request that a horse be moved into an open area near where your truck is parked. "You don't have to go into that old raggedy barn in the back with someone you don't trust."

Safety from assault involves the whole team

Of course, the issue at hand is about more than just protocols. It's about support. It's about discussion. "As someone who's mostly been an associate, I want to feel like my bosses have my back in these situations," Dr. Freese says. "The associates out there receiving this sort of unwanted attention don't want to do something wrong. There needs to be dialogue with a manager or owner—someone who says, 'If something happens, leave. Call me, text me. Do what you need to do.' I've never had a boss say that to me—and I've worked for a lot of different people."

Seibert agrees. "Managers and owners should go over scenarios with their teams," he says. "Role play what could happen and how to get out of a tight spot. One thing I suggest is to 'accidentally' drop a syringe and say, 'Oh, shoot, I contaminated that—let me go to my car and get a new one.' Then get in your truck and lock the door and make a call or get somewhere safe.

"If there's any instance at all of inappropriate behavior," Seibert continues, "there needs to be a mechanism in the practice to investigate it. It might be as simple as putting a note in the record saying, 'This guy is harmless but piles on the dirty jokes.' Then the manager or owner can decide if they need to pick up the phone and have a discussion with that client."

Clearly, the conversation is far from over. But starting a dialogue and creating the right protocol is a great start. And it helps immensely to keep a healthy sense of perspective, Dr. Freese has found.

"I've lived on three different continents and I've met people from everywhere," she says. "Generally speaking, the vast majority are good people." She laughs. "Horse people are crazy, but they're my kind of crazy."

Safety tip: Stash a spare key

Philip Seibert paints a picture of how easily it is to end up in a situation with no escape routes. "If someone has the intention of doing harm to you, it won't take much to just take your keys and throw them away from you," he says. "It's like a horror movie, when you get to your car and realize your keys are no longer in the ignition."

The solution? Stash another key inside the vehicle. "Having a spare hidden somewhere inside of your truck ensures that you can get away," Seibert says. "Once you're in your car and have locked your doors, you can find the spare and get out of there."

Florida vet school employee arrested on lewd behavior charge

Daniel Joseph Sanetz, 46, worked in the human resources department at the UF College of Veterinary Medicine. *By Katie James*

Daniel Joseph Sanetz, 46, an associate director of human resources at the University of Florida College of Veterinary Medicine, was arrested on April 6 on charges of lewd and lascivious behavior toward a victim between the ages of 12 and 16, according to an arrest report from the Alachua County Sheriff's Department. The charge is a felony.

On January 20, the sheriff's department responded to a report of sexual battery in which Sanetz was identified as the defendant, according to the report. In an interview with the sheriff's office's child protection team Feb. 1, the victim said Sanetz entered the tent where she and Sanetz's daughter were sleeping. He lay down beside his daughter while the victim was lying on the other side of the tent. Sanetz then reached over and began rubbing the victim's hip, rested his hand on her knee and later got up and left the tent.

Fifteen to 30 minutes later, Sanetz returned to the tent and lay back down, the victim said. He began touching her hip again and then began rubbing the small of her back. Sanetz then moved his hand inside the victim's pants, and she "did not move because she was terrified," the report states. Sanetz then began touching her more intimately. The victim said she turned her body, which forced Sanetz's hand out of her pants, and got up and walked to the house, where she told an adult about the incident.

On April 6, the victim participated in a controlled phone call with Sanetz where he admitted to touching her inappropriately and also said multiple times he was sorry, according to the arrest report. Sanetz was then placed under arrest and charged with lewd or lascivious battery, the report states.

After his arrest Sanetz was being held in the Alachua County Jail in lieu of $250,000 bond, but after a hearing on April 16 he was released on his own recognizance on the condition that he have no contact with the victim's family or children under 18 and that he be fitted with an electronic monitoring device. He also must not have unsupervised contact with his two children, the judge's order says, and he must refrain from possessing firearms or weapons.

Margot Winick, director of news and content management at the University of Florida, told *dvm360* that the university has terminated Sanetz's employment. According to a College of Veterinary Medicine newsletter, Sanetz had worked at the university for more than 20 years.

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Please see brief summary on page 16

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ENT-0064

Louisiana veterinarian awaiting trial in fatal dog shooting case

Dr. Kelly Folse's attorney maintains his client's innocence, says her gun was not the weapon used. *By Rachael Zimlich*

Kelly Folse, DVM, is at home on bond awaiting trial after her Dec. 19 arrest in Louisiana for allegedly shooting and killing her neighbor's 15-month-old bulldog, Bruizer, six days earlier. Her attorney, who spoke with *dvm360*, says Dr. Folse has been unable to find employment as a result of the charges brought against her.

According to the court affidavit for the charges filed against the 35-year-old veterinarian, Dr. Folse "shot her neighbor's dog in the head, killing him." The dog was in its backyard, which borders an elementary school, at the time of the shooting.

The dog was taken to Abadie Veterinary Hospital in Harahan, Louisiana, where Dr. Folse also happened to be employed as a veterinarian, but he had to be euthanized, according to local reports. Dr. Folse was not involved in the dog's care.

Dr. Folse's attorney, Robert Garrity Jr., told *dvm360* in an exclusive interview that Dr. Folse would not be commenting, but that she was shocked when she reported to work Dec. 14 to find she'd been fired in response to the accusation from the pet owners that she'd shot their dog. Dr. Folse had worked at Abadie, first as a veterinary technician and later as a veterinarian, for about 20 years.

Scott Abadie, DVM, owner of Abadie Animal Hospital, did not return calls seeking comment.

In addition to a cruelty to animals charge filed Feb. 21 by the Jefferson Parish District Attorney's Office, Dr. Folse was also charged with illegal discharge of a firearm for the crime's proximity to a school, as well as two drug charges. The drug charges stem from officers' discovery during a search of Dr. Folse's home at the time of her arrest of four half-pills of 500-mg methocarbamol, three-and-a-half 10-mg diazepam tablets and 18 Adderall pills, all of which were in prescription bottles bearing Dr. Folse's name. Dr. Folse could not produce prescriptions for any of the medications confiscated by police, according to court records.

Garrity had just received information about the charges from the district attorney's office when reached for comment by *dvm360* and declined to discuss the specifics of the case, but he did note that his team would be unable to get any physical information about the dog since it had been cremated. He said he doesn't believe a necropsy was performed.

Garrity has accused the sheriff's office in local media reports of pursuing a case against Dr. Folse for political purposes to win an upcoming election. He says Dr. Folse is innocent and that the dog had been causing problems for everyone in the neighborhood.

"We are 99 and nine-tenths percent sure that her gun did not shoot that dog," Garrity told *dvm360*.

In response to the charges related to the medications found in Dr. Folse's home, Garrity says they were for rescue dogs she cared for in her home, and he claims that the law does not require her to have a prescription when she is operating within the course of her license.

"I think the state's just being chickenshit with those two charges," Garrity says.

According to the Louisiana Board of Veterinary Medicine, Dr. Folse's license remains active at this time, but Garrity says she's been unable to find work because of the pending charges.

"She's kryptonite right now," Garrity says. "She's unemployable."

At the time this was written, a pretrial hearing for Dr. Folse was scheduled for April 26, and Garrity says he hopes her trial will take place this summer.

Zoetis to acquire Abaxis for $2 billion

Point-of-care portfolio expands Zoetis' diagnostics presence.

Zoetis and Abaxis have announced a merger agreement in which Zoetis will acquire Abaxis, a developer of diagnostic instruments for veterinary point-of-care services, for $83 per share in cash, or about $2 billion total. The acquisition is expected to enhance Zoetis' presence in veterinary diagnostics, an animal health category that's seen compound annual growth of about 10 percent over the last three years, according to a media release from both companies.

Abaxis is known for its VetScan portfolio of benchtop and handheld diagnostic instruments and consumables. Zoetis is primarily a provider of veterinary vaccines and medicines, with complementary lines in diagnostic products, genetic tests, biodevices and a range of services.

"Together we can bring more veterinarian customers a broader range of products that fit into our comprehensive solutions and innovations, from prediction and early detection of disease in animals to prevention and treatment," says Zoetis CEO Juan Ramón Alaix in the release.

"We see a prime opportunity to grow our business as part of Zoetis," says Clint Severson, Abaxis chairman and CEO. "Zoetis has the global presence and direct veterinary customer relationships to deliver greater value to more customers around the world and accelerate the growth of our international operations."

The veterinary diagnostics category, which includes reference laboratory and point-of-care diagnostics, is estimated to be more than $3 billion, according to the release. Zoetis expects the diagnostics category to continue to grow faster than the animal health industry, with growth in the mid to high single digits, driven by international adoption of point-of-care equipment due to rising medicalization rates, an increasing standard of veterinary care and the convenience of in-clinic testing.

The transaction is subject to customary closing conditions, including regulatory approvals and the approval of Abaxis shareholders, the release states. Zoetis expects to complete the acquisition before the end of 2018.

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Thoroughbreds back at California training facility after **wildfire evacuation**

Hundreds of horses were scheduled to return in mid-April to the newly rebuilt San Luis Rey Training Center after a December wildfire near San Diego.

Many horses that survived a California wildfire have returned the weekend of April 13-14 to the San Luis Rey Training Center after being evacuated in December, according to a report in the *Los Angeles Times*.

A veterinarian on site during the fire at the training center in Bonsall in San Diego County, California, described to *dvm360* the speed of the blaze and his and staff members' frantic work to free as many horses as possible. During the worst of the fire, however, Chuck Jenkins, DVM, had to sit and watch:

"When the flame and smoke were at their most intense, there wasn't much I could do. I moved my truck over to an area where tractors and other heavy equipment were stored, out of the way of the burning barns. I had to just basically sit there. I tried to get out of my truck a few times, but then 40 to 50 horses would go running by in a herd. So if I got out of my truck, I was going to die of smoke inhalation, burn by fire or get trampled by horses. I just had to wait until things calmed down a bit so we could start actually gathering the horses up and getting them to a safe place."

Now, more than 400 thoroughbreds that had been staying 35 miles away at the Del Mar Fairgrounds are back to new or newly repaired buildings at the 240-acre site. Also returning were more than 200 trainers, assistant trainers, groomers and stable hands who stayed with the horses at Del Mar during the postfire cleanup.

The so-called Lilac Fire of Dec. 7, 2017, ultimately claimed the lives of 46 horses and destroyed more than 100 nearby homes.

A horseman leads a horse to safety at San Luis Rey Training Center in Bonsall, California, Dec. 7, 2017. (Photo courtesy Dr. Chuck Jenkins)

TRESADERM® (thiabendazole, dexamethasone, neomycin sulfate solution) Dermatologic Solution Brief Summary: Before using TRESADERM, please consult the product insert, a summary of which follows: CAUTION: Federal (U.S.A.) law restricts this drug to use by or on the order of a licensed veterinarian. WARNING: For topical use in dogs and cats. Avoid contact with eyes. Keep this and all drugs out of the reach of children. DESCRIPTION: TRESADERM Dermatologic Solution contains the following active ingredients in units per mL: 40mg thiabendazole, 1mg dexamethasone, 3.2mg neomycin (from neomycin sulfate); and inactive ingredients: glycerin, propylene glycol, purified water, hypophosphorus acid, calcium hypophosphite, about 8.5% ethyl alcohol and about 0.5% benzyl alcohol. INDICATIONS and USAGE: TRESADERM aids in the treatment of certain bacterial, mycotic, and inflammatory dermatoses and otitis externa in dogs and cats. The amount to apply and frequency of treatment are dependent upon the severity and extent of lesions. Five to fifteen drops of TRESADERM should be instilled in the ear twice daily. In treating dermatoses affecting areas other than the ear, the surface of the lesions should be well moistened (2-4 drops per square inch) twice daily. The volume required will be dependent upon the size of the lesion. PRECAUTIONS: Application of TRESADERM should be limited to a period not longer than 1 week. On rare occasions, application of the product may result in erythema or discomfort in the treated area. Erythema of the treated area can last from 24 to 48 hours. When applied to fissured or denuded areas, transient discomfort can follow with the expression of pain usually lasting 2-5 minutes. While systemic side effects are not likely with topically applied corticosteroids, the possibility of such side effects should be considered if use is prolonged or extensive. If signs of salt and water retention or potassium excretion are noticed, such as increased thirst, weakness, lethargy, reduced urine output, gastrointestinal disturbances or increased heart rate, treatment should be discontinued and appropriate measures taken to correct the electrolyte and fluid imbalance. The full FDA-approved product insert can be found at http://www.merial.us/SiteCollectionDocuments/TRESADERM-PI.pdf. For technical assistance, to request a Safety Data Sheet or to report suspected adverse events, call 1-877-217-3543. For additional information about adverse event reporting for animal drugs, contact FDA at 1-888-FDA-VETS, or http://www.fda.gov/AnimalVeterinary.

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

Description: IVERHART MAX® Soft Chew is a combination of three anthelmintics (ivermectin/pyrantel pamoate/praziquantel). The soft chews are available in four sizes in color-coded packages for oral administration to dogs according to their weight **(see Dosage and Administration)**.

Indications: For use in dogs to prevent canine heartworm disease by eliminating the tissue stage of heartworm larvae *(Dirofilaria immitis)* for a month (30 days) after infection and for the treatment and control of roundworms *(Toxocara canis*, *Toxascaris leonina)*, hookworms *(Ancylostoma caninum*, *Uncinaria stenocephala*, *Ancylostoma braziliense*), and tapeworms *(Dipylidium caninum*, *Taenia pisiformis).*

Dosage and Administration: IVERHART MAX Soft Chew should be administered orally at monthly intervals and the recommended minimum dose level of 6 mcg of ivermectin per kilogram (2.72 mcg/lb), 5 mg of pyrantel (as pamoate salt) per kg (2.27 mg/lb), and 5 mg of praziquantel per kg (2.27 mg/lb) of body weight, as follows:

Dog Weight Pounds	Soft Chew per Month	Soft Chew Size	Ivermectin Content	Pyrantel Pamoate Content	Praziquantel Content
6.0 to 12	1	Toy	34 mcg	28.5 mg	28.5 mg
12.1 to 25	1	Small	68 mcg	57 mg	57 mg
25.1 to 50	1	Medium	136 mcg	114 mg	114 mg
50.1 to 100	1	Large	272 mcg	228 mg	228 mg

IVERHART MAX Soft Chew is recommended for dogs 8 weeks of age or older. For dogs over 100 lbs, use the appropriate combination of these soft chews.

Remove only one dose at a time from the packaging. Return the remaining soft chew(s) to their box to protect from light. The soft chew can be offered to the dog by hand or added, intact, to a small amount of dog food. Care should be taken to ensure that the dog consumes the complete dose. The treated dog should be observed for a few minutes after administration to confirm that none of the dose has been lost or rejected. If it is suspected that any of the dose has been lost, redosing is recommended.

IVERHART MAX Soft Chew should be given at monthly intervals during the period of the year when mosquitoes (vectors), potentially carrying infective heartworm larvae, are active. The initial dose must be given within a month (30 days) after the dog's first exposure to mosquitoes. The final dose must be given within a month (30 days) after the dog's last exposure to mosquitoes.

When replacing another heartworm preventative product in a heartworm disease prevention program, the first dose of IVERHART MAX Soft Chew must be given within a month (30 days) of the last dose of the former medication. A heartworm test should be performed prior to switching heartworm preventative products.

If the interval between doses exceeds a month (30 days), the effectiveness of ivermectin can be reduced. Therefore, for optimal performance, the soft chew must be given once a month on or about the same day of the month. If treatment is delayed, whether by a few days or many, immediate treatment with IVERHART MAX Soft Chew and the recommended dosing regimen will minimize the opportunity for the development of adult heartworms.

Warnings:
For use in dogs only. Keep this and all drugs out of reach of children and pets. In safety studies with ivermectin/pyrantel pamoate/praziquantel tablets, testicular hypoplasia was observed in some dogs receiving 3 and 5 times the maximum recommended dose monthly for 6 months (see Animal Safety).

In case of ingestion by humans, clients should be advised to contact a physician immediately. Physicians may contact a Poison Control Center for advice concerning cases of ingestion by humans.

Precautions: Use with caution in sick, debilitated, or underweight animals and dogs weighing less than 10 lbs **(see Animal Safety).** The safe use of this drug has not been evaluated in pregnant or lactating bitches.

All dogs should be tested for existing heartworm infection before starting treatment with IVERHART MAX Soft Chew, which is not effective against adult *Dirofilaria immitis*. Infected dogs should be treated to remove adult heartworms and microfilariae before initiating a heartworm prevention program.

While some microfilariae may be killed by the ivermectin in IVERHART MAX Soft Chew at the recommended dose level, IVERHART MAX Soft Chew is not effective for microfilariae clearance. A mild hypersensitivity-type reaction, presumably due to dead or dying microfilariae and particularly involving a transient diarrhea, has been observed in clinical trials with ivermectin alone after treatment of some dogs that have circulating microfilariae.

Adverse Reactions: In a field study with IVERHART MAX Soft Chew, self-limiting adverse reactions, including vomiting, diarrhea, lethargy, difficulty swallowing, excessive salivation, increased water consumption, and coughing were reported. Self-limiting adverse reactions, including lethargy, limpness, salivation, shaking, diarrhea, decreased appetite, licking lips, and belching were reported between 20 minutes and 72 hours following treatment in a field study with ivermectin/pyrantel pamoate/praziquantel tablets.

In field studies with ivermectin/pyrantel pamoate tablets, vomiting or diarrhea within 24 hours of dosing was rarely observed (1.1% of administered doses). The following adverse reactions have been reported in dogs following the use of ivermectin products: depression/lethargy, vomiting, anorexia, diarrhea, mydriasis, ataxia, staggering, convulsions, and hypersalivation.

To report suspected adverse events, for technical assistance, or to obtain a copy of the Safety Data Sheet (SDS), contact Virbac AH, Inc. at 1-800-338-3659 or us.virbac.com. For additional information about adverse drug experience reporting for animal drugs, contact the FDA at 1-888-FDA-VETS or online at http://www.fda.gov/AnimalVeterinary/SafetyHealth.

Effectiveness: Prevention of the tissue larval stage of heartworm *(Dirofilaria immitis)* and the elimination of the adult stage of hookworm *(Ancylostoma caninum*, *Uncinaria stenocephala*, *Anyclostoma braziliense)*, roundworm *(Toxocara canis*, *Toxascaris leonina)*, and tapeworm *(Dipylidium caninum*, *Taenia pisiformis)* infections in dogs was demonstrated in well-controlled laboratory studies.

Palatability: In a field study of 132 dogs, IVERHART MAX Soft Chew was offered once monthly for 3 months. The dogs voluntarily consumed 86.3% of the doses from the owner's hand or from a bowl within 5 minutes, 13.0% accepted the dose when it was offered in food or administered by placing onto the back of the dog's tongue (pilling), and 0.7% of the doses were unable to be administered.

Animal Safety: Studies with ivermectin indicate that certain dogs of the Collie breed are more sensitive to the effects of ivermectin administered at elevated dose levels (more than 16 times the target dose level of 6 mcg/kg) than dogs of other breeds. At elevated doses, sensitive dogs showed more adverse reactions, which included mydriasis, depression, ataxia, tremors, drooling, paresis, recumbency, excitability, stupor, coma, and death. No signs of toxicity were seen at 10 times the recommended dose (27.2 mcg/lb) in sensitive Collies. Data from these studies support the safety of ivermectin products in dogs, including Collies, when used at the label recommended dose.

Because ivermectin and praziquantel are approximately 30% more bioavailable in the IVERHART MAX Soft Chew than in the ivermectin/pyrantel pamoate/praziquantel tablets used in the following target animal safety studies, the margin of safety is narrower than reported in these studies. The potential for adverse reactions may be greater in individual dogs administered IVERHART MAX Soft Chew than ivermectin/pyrantel pamoate/praziquantel tablets.

In a target animal safety study using ivermectin/pyrantel pamoate/praziquantel tablets, doses were administered to 8-week-old Beagle puppies at one, three, and five times the maximum recommended dose of 12.5 mcg/kg ivermectin, 10.47 mg/kg pyrantel, and 10.47 mg/kg praziquantel. The dogs were treated every 30 days for 6 months. Vomiting within 6 hours of dosing and soft or watery feces within 24 hours of dosing were observed. Other observations during the study were: ano-genital swelling, lethargy, head movements, shallow, audible or difficult breathing, and salivation. One dog in the 5X group had tremors and decreased activity. All of these signs were transient. No treatment was required. Histopathology showed testicular hypoplasia in the 3X and 5X groups **(see Warnings)**.

In a laboratory safety study using ivermectin/pyrantel pamoate/praziquantel tablets, 12-week-old Beagle puppies receiving 3 and 5 times the recommended dose once weekly for 13 weeks demonstrated a dose-related decrease in testicular maturation compared to controls. In this study, all treated puppies had significantly higher cholesterol levels compared to untreated controls.

In a reproductive safety study, adult males were treated at 37.5 mcg/kg ivermectin, 31.4 mg/kg pyrantel, and 31.4 mg/kg praziquantel every 14 days during two full spermatogenic cycles (112 days). The quality of semen and reproductive health were not affected by treatment. Treatment-related vomiting and soft feces were reported during this study.

In a study of the effectiveness of ivermectin/pyrantel pamoate/praziquantel tablets for the treatment of *Toxocara canis*, one 8.1 lb, 72-day-old puppy died 6 days after administration of the label dose. This puppy and many other puppies in the study had high worm burdens and were reported to have diarrhea, sometimes bloody, frequently before and after treatment. Dehydration and signs of anemia (pale mucous membranes) were the only abnormal gross necropsy finding observed. No definitive cause was determined. In a 90-day field study using ivermectin/pyrantel pamoate/praziquantel tablets, the most serious adverse reactions (lethargy, limpness, and salivation) were seen in dogs weighing less than 10 lbs **(see Precautions)**.

Storage Information: Store at 20°C to 25°C (68°F to 77°F), excursions permitted between 15°C and 30°C (59°F to 86°F).

How Supplied: IVERHART MAX Soft Chew is available in four dosage strengths **(see Dosage and Administration)** for dogs of different weights. Each strength comes in a package of 6 soft chews.

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†The only ivermectin-based, bacon-flavored soft chew for heartworm and other internal parasites.

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Reference: 1. Data on file. Virbac Corporation.

Hurricane lessons: Four things we learned from Harvey and Irma

As the 2018 hurricane season approaches, check out these tips from BluePearl hospitals in Florida and Texas—they just might come in handy with your own veterinary team if you ever find yourself in the midst of disaster. *By Jennifer Welser, DVM, DACVO*

Last year's hurricane season was not kind to people or animals. We all saw how storms flooded Houston, tore through Florida and hammered Puerto Rico.

As the 2018 hurricane season approaches, I've been thinking about the lessons these storms taught us. BluePearl Veterinary Partners kept animal hospitals open 24/7 in the midst of both Hurricane Harvey and Hurricane Irma. This means we learned a lot, because natural disasters never follow a script.

I wanted to share some of the lessons we learned, in hopes that they'll help your veterinary practice in the event of a natural disaster.

1. Your power predictions will probably be wrong.

Our canny team staff in the Houston area managed to rent a generator for our hospital in Spring, Texas—it arrived one day before Harvey hit. Even though waters were rising everywhere, we miraculously never lost power and didn't even need to turn the generator on.

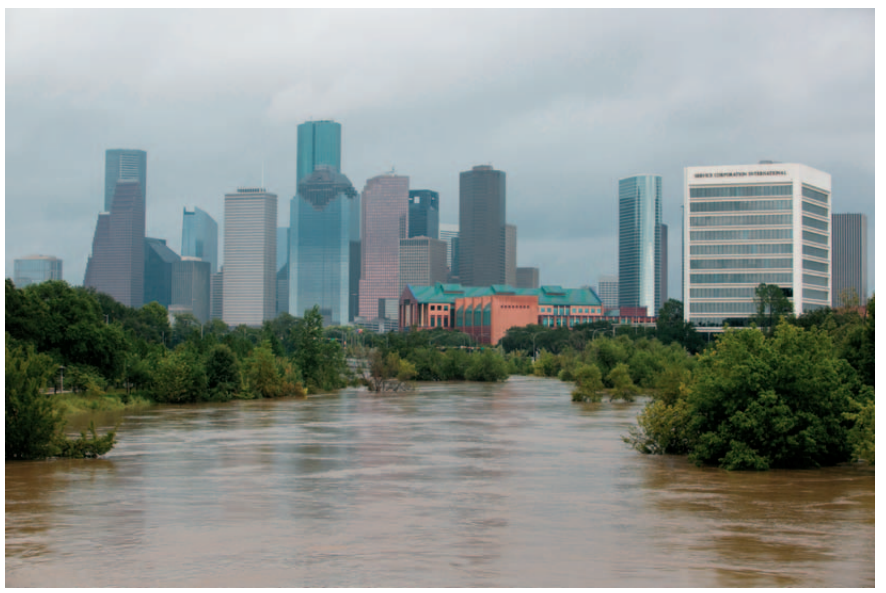
Meanwhile, a maintenance crew checked the permanent generator in our Tampa hospital one week before Irma. They said: thumbs up, good to go. After Irma hit, that generator kept us going for two solid days—and then gave out. Our team heroically transported patients to BluePearl hospitals in Brandon and Clearwater, which are 19 and 22 miles away. Fortunately, power crews restored electricity in Tampa that afternoon.

So you'll lose power where you don't expect to lose it and keep power where you don't expect to keep it. Needless to say, we evaluated all of our generators with new insight and installed a new one in Tampa.

2. Your team will save you, so save your team.

We knew our associates would come in to work even during the storms, because that's the kind of superheroes they are—but some of our people even reported for duty as their own homes were being flooded and destroyed. I cannot express how humbled this makes me feel. Many slept overnight in our hospitals. I don't think words exist to describe their dedication and teamwork.

We stocked up on food and toiletries for the team members who would essentially be living in our hospitals, but next time we'll do even more—as one of my colleagues put it, "There's only so many crackers you can eat." Our Houston team waited two hours in a grocery line for the ingredients to make pancakes and bacon after Hurricane Harvey. When bottled water disappeared from shelves in Tampa, our people found some in an unlikely place—gas stations that had run out of gas. No one was shopping there anymore, so they had water left.



Afterward, many of our employees who weren't in the paths of the hurricanes asked what they could do to help. We set up a BluePearl hurricane fund that allowed our associates to contribute to fellow employees who suffered losses during the storm. BluePearl itself put $10,000 into the account. We're happy it provided some relief to those who lost homes or property during the storms.

3. Your patient load will change, so be flexible.

You'd think that in a disaster like Hurricane Harvey, patients would be coming in for trauma and life-threatening conditions. And they did. But we also got a wave of patients with ear infections, minor scrapes and other matters that would normally be ably handled by primary care veterinarians. We don't offer primary care treatment, because our focus is specialty and emergency medicine. But many of our close partners in the primary care veterinary community were flooded or closed. The only humane thing for us to do was to treat these primary care patients until their family veterinarians could get back on their feet, so that's what we did.

In Florida, we had a huge number of dogs biting other dogs or cats, which was probably the result of so many people and pets fleeing their homes and staying with friends and family. One dog doesn't always understand that the other dog is an invited guest. We also experienced a high number of urinary tract blockages. When people drive a couple hours away with their pets, get into a hotel, and maybe set out food and water a bit later, the stress and dehydration can have an effect on the pet.

4. Infectious diseases are going to spread.

Picture all the news footage you watched of dogs and cats being loaded into boats in Houston, and then making their way to shelters. Now ask yourself: How likely is it that each of these animals was properly vaccinated? We all know the answer—highly unlikely. In disasters, animals are oftenthrown together, and it's quite possible that canine influenza, canine distemper, parvovirus infection and other infectious diseases will spread.

People often flee to the north to get away from hurricanes, so it stands to reason that their pets' communicable diseases will travel to Georgia or northern Texas right along with them. It's part of our responsibility to know which infectious diseases are common in our local areas and to get the word out through veterinary associations to make sure others are prepared for what may be coming.

As we prepare for the new hurricane season to begin in June, I have one other takeaway from last year's storms. And that is simply that we veterinarians, technicians and assistants have a very important job during natural disasters. It's a role that often goes unrecognized. But we all know that pets are family, and people will do anything to protect their families. That's why we stay open during hurricanes. We're saving the lives of pets. And we're helping people with what matters most.

Jennifer Welser, DVM, DACVO, was chief medical officer for BluePearl Veterinary Partners at the time this article was written. On May 1 she became chief medical officer for Mars' Veterinary Health Group.

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Microchip chatter

Prepare to talk about microchips and their role in keeping pets safe.

By Sarah J. Wooten, DVM

June is National Pet Preparedness Month, which means now is the perfect time to get your clients up to speed on the value of microchips. Take the time to target new clients and all clients in your database who don't have a microchip on file with succinct, powerful communication that will move them to action. Here are a couple of ways the conversation could go:

Team member: Our records indicate that Buddy doesn't have a microchip on file. Do you know if he's microchipped?
[*Client's answer doesn't really matter here.*]
Team member: I'm going to go ahead and scan your pet to see if he's microchipped and, if he is, to get the chip number.
[*No chip on scan.*]
Team member: Looks like Buddy doesn't have a microchip. Can I tell you more about microchipping and how it would help you locate Buddy if you got separated?
Client: I'm not interested.
Team member: OK. Do you mind if I ask why for medical records purposes?
[*The client often talks herself into having it done at this point.*]

Or ...

Client: Yes, that would be fine.
Team member: A microchip is an easy, inexpensive, nonpainful technology that lets animal control organizations, shelters and veterinarians know who to call if Buddy were to get lost.

Microchips are around the size of a grain of rice. They function as a form of ID that's implanted under a pet's skin. The chip is encrypted with a unique number that's used to identify both Buddy and you as his owner. The microchip doesn't require a battery and is reliable for Buddy's entire life.

We'll inject the chip between Buddy's shoulders in much the same way we would give a shot. Once the chip has been implanted, you'll register Buddy with his name and your name and contact information in an online registry that's accessible worldwide. This safeguards Buddy against an "identity crisis" if he's ever separated from you.

We can put it in today. Would you like to go ahead and do that?

Dr. Sarah Wooten is an associate veterinarian in Greeley, Colorado, a Fetch dvm360 conference speaker and frequent contributor to dvm360

What's new with dog flu?

What's going on with canine influenza? Well, there's a website and a week, and now the Canadians are involved. Here's what you need to know to keep your veterinary patients safe. *By Sarah J. Wooten, DVM*

Did you know that there is now an annual Dog Flu Prevention Week? In response to the thousands of dog flu cases reported last year and recent outbreaks, Merck launched the Inaugural Dog Flu Prevention Week on April 16.

With flu in focus, I've gathered some updates and tips from Jason W. Stull, VMD, MPVM, PhD, DACVPM, an assistant professor at The Ohio State University and owner of Island Dog Consulting.

Some quick flu facts:

Here are some fast factoids from dogflu.com (Merck's new resource) to get started:

> Unlike human flu, canine flu is not seasonal. It's a year-round problem, and the most commonly affected dogs are middle-aged, not puppies or seniors.

> Dogs infected with canine influenza are potentially infectious for up to three weeks after onset. Dr. Stull recommends advising clients with confirmed dog flu to keep their dogs home and isolated from other dogs for four weeks.

> The H3N2 strain produces only mild disease, but it's extremely infectious and easily vectored on human hands and clothing. Once flu has been introduced into a veterinary hospital or other group setting, it spreads like wildfire.

> There is no evidence that canine flu infects humans.

Current hot spots

Santa Clara, California, and Reno, Nevada, are currently experiencing canine flu outbreaks. Not to be left out, Canada has now joined the club with its first canine flu cases confirmed, including an outbreak in central Ontario with 25 confirmed cases—most likely linked to a shipment of rescue dogs from Asia. To stay current on outbreaks, Dr. Stull recommends bookmarking Cornell's page (ahdc.vet.cornell.edu/news/civchicago.cfm) or visiting the Worms and Germs blog, both of which have up-to-date disease surveillance maps.

GASP! You're in a hot spot! Here's what to do ...

Keep calm, says Dr. Stull, and follow these tips:

Understand the vaccine. Even though the bivalent canine influenza vaccine reduces the risk of a dog contracting canine influenza, it doesn't provide sterile immunity. Much like the human influenza vaccine, it reduces the clinical signs if a dog is infected and consequently reduces the number of cases and helps control spread of the disease.

Proactively reach out to at-risk patients. Send out an email informing your clients of the risk and highlight the need to vaccinate at-risk patients, such as those that travel, go to doggie daycare, participate in dog shows and so forth.

Check your infectious disease prevention protocols. If you have gaps in your infectious disease prevention protocols, influenza will reveal them. Influenza travels quickly and overwhelms a facility. Dr. Stull can tell stories of clinics where one flu suspect infected the whole hospital, where veterinary staff infected their

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[2] Freedom of Information: NADA140-971 (January 15, 1993).

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Heartgard® Plus (ivermectin/pyrantel)

See brief summary on page 26

own dogs and where doggie daycare and grooming facilities had to be shut down for decontamination.

According to the AVMA, canine influenza virus may persist in the environment for approximately two days and be viable on hands for 12 hours and on clothing for up to 24 hours. It appears to be easily killed by disinfectants, so follow proper handwashing and biosecurity protocols. Patients suspected of having the flu should not be allowed to enter or exit through the main entrance or permitted in the waiting room. Dr. Stull advises keeping these patients in the car, and, if possible, conducting the exam in the vehicle; the employee should wear personal protective equipment (gloves and a gown at minimum).

Why wait? Vaccinate!

Part of the challenge of preventing canine influenza outbreaks is helping people realize the risks and encouraging a proactive approach. It's hard to talk a client into yet another vaccine during a wellness visit when they've already agreed to a battery of core vaccines. The good news is that there's a bivalent vaccine available (remember when we had to give separate vaccines for H3N2 and H3N8?), so it's at least one less poke.

People have a basic human need for autonomy and like to be involved in choosing what happens to their pets. With this in mind, try my tips for educating clients:

> Canine influenza is a lifestyle vaccine: not every dog needs it, and one size does not fit all. Give veterinary clients the opportunity to take the AAHA risk assessment (you can find it on aaha.org) while they're sitting in the waiting room or exam room to determine which vaccines their pet needs.

> Ask clients to read a dog flu fact sheet (visit **dvm360.com/dogflu** to find links to client handouts) while they're waiting for the doctor and then ask if they have questions and if they'd like their dog to receive the flu vaccine during their visit.

> Human medicine does a huge marketing push for influenza vaccines every year at the beginning of flu season. While canine flu is year-round, you may be able to piggyback on the awareness surrounding human flu and gain greater compliance through the parallels drawn to human health. Consider hosting an influenza vaccine fair with low- or no-cost exams on a Saturday either at your clinic or at a local health fair. People are more likely to say yes if you focus on a single vaccine.

> Use dogflu.com to educate your clients and your staff. There's a free downloadable infectious disease handbook, an interactive outbreak map that spans several years and tips for everyone (including groomers, dog walkers, concerned pet parents and veterinary professionals).

Manage disease risk in group settings

Places where dogs come together, such as dog shows, dog parks and training and boarding facilities, are at highest risk for disease spread and need the most disease prevention attention, says Dr. Stull. Funded by a grant from the American Kennel Club, a team from The Ohio State University put together a website (vet.osu.edu/preventive-medicine/vpm-research/disease-prevention-canine-group-settings) detailing everything you need to know about infection control in group settings, including a white paper for clients, an open access article from JAVMA, an infectious disease risk calculator and fact sheets you can use to protect your business and your patients.

Dr. Sarah Wooten is an associate veterinarian in Greeley, Colorado, a frequent contributor to dvm360.com and a speaker at the Fetch dvm360 conferences.

Tiny makeover: Declutter your veterinary hospital's reception area

Need some cleaning inspiration in your clinic? Crack open the windows to let in that beautiful breeze and then grab your paper tiger by the tail. *By Kristi Reimer Fender*

In the words of Marie Kondo, author of *The Life-Changing Magic of Tidying Up*, "My basic principle for sorting papers is to throw them all away." OK, so maybe you can't actually do that, but you can take steps to declutter your front desk area for a fresh start for spring. Consider these tips from Ashley Shoults, AIA, of Animal Arts, a veterinary architecture firm in Boulder, Colorado.

1. Get rid of paper. If you can't throw it all away, at least purge the extraneous papers that have been collecting in stacks since 2011. If it's essential to keep certain documents, consider scanning them and storing them in the cloud, Shoults advises.

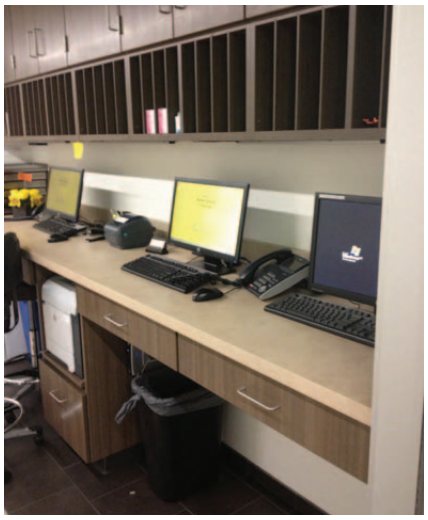
2. Get things off the counters. "This is a huge part of tidying," Shoults says. Drawers, cabinets, shelving—they're all better for holding stuff than your precious counter space. One fairly simple solultion? Install a pencil drawer at receptionists' knee level so you can do away with the pen and pencil jars cluttering up the workspace.

3. Find a better home for the printer. Another counter-clearing move is to revamp the cabinetry under the reception desk to make a slide-out shelf for the printer to sit on rather than the countertop. "This will cost a little bit, but it won't break the bank and can go a long ways toward decluttering," Shoults says.

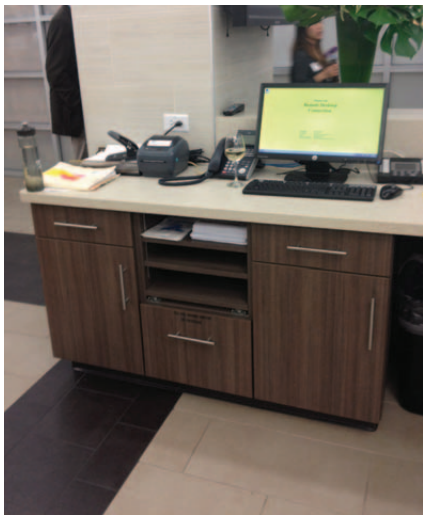
4. Organize client materials. Build some cabinetry that includes horizontal slot dividers for information brochures and client handouts.

Storage solutions for the reception area are neglected all too often, says artchitect Ashley Shoults. This hospital incorporated shelving and a backup counter. (All photos courtesy of Ashley Shoults.)

Cabinetry and a backup counter behind the reception desk.



A printer on a sliding shelf below the counter and vertical slot storage above.



Horizontal slot dividers incorporated into below-counter cabinetry.

5. Call for backup. Shoults says it's painfully common for veterinary hospitals to neglect to include backup space for the reception desk—usually, they get a wall and that's it. "Buy a storage unit, install shelving or build a backup counter," Shoults says. "That extra storage can help you clean up and store things for easy access."

6. Get creative in the waiting area. Shoults says tidying your lobby can be as easy as combing IKEA for storage solutions for magazines and other items. "Find something fun and whimsical that shows your practice's personality and helps you keep organized," she says.

A mobile storage unit under the desk keeps the surface clear of clutter.

7. Elevate cats in carriers. A waiting area with a bunch of cat carriers on the floor can look cluttered, Shoults says. A solution? "Build in cubbies or countertops to set cat carriers on," she says. "This helps cat owners feel special and cats feel more calm and secure because they're up higher."

8. Get pretty. A fresh coat of paint can do wonders for making your reception area look cleaner, Shoults says—new artwork can help a lot too. "Just make sure there's consistency with the artwork," she says. "Matching frames and a consistent color scheme can impart a clean, fresh feeling."

Cornell takes the lead in **cannabidiol research**

Still wondering if CBD oil lives up to the hype, or if you'll go to jail for recommending it? New research from Cornell backs the claims, and the federal government seems to be loosening the noose on veterinary recommendations. *By Sarah J. Wooten, DVM*

A new pharmacokinetic and clinical study recently completed at Cornell suggests that 2 mg/kg of cannabidiol (CBD) oil twice daily can help increase comfort and activity in dogs with osteoarthritis. The abstract was submitted to the 2017 American College of Veterinary Surgeons Summit in Indianapolis and is pending peer review.

The science

The study was headed by Joe Wakshlag, DVM, PhD, DACVN, DACVSMR, associate professor and section chief of nutrition at Cornell University. The objectives were to determine the basic oral pharmacokinetics, determine safety and assess efficacy of CBD oil in managing pain in dogs with osteoarthritis, according to the abstract.

The research team pharmacokinetically tested two different doses of CBD oil—2 mg/kg and 8 mg/kg—which was provided by ElleVet, the abstract states. They determined the elimination half-life to be 4.2 hours at both doses. No negative side effects were noted at either dosage; however, serum chemistry did show that alkaline phosphatase activity increased ($p = 0.005$).

Investigators tested CBD oil's pain management properties using a randomized, placebo-controlled, double-blind crossover study. Dogs received either CBD oil at 2 mg/kg every 12 hours or they received placebo oil, according to the abstract. Dogs were treated for four weeks with a two-week washout period. The dogs' owners completed questionnaires and veterinarians conducted assessments—including physical exam, hematology and serum chemistry—before treatment and at weeks two and four. The Canine Brief Pain Inventory score and Hudson activity score (a visual analogue scale questionnaire used to assess pain and lameness in dogs) determined response to treatment. All variables were analyzed by a mixed model of variance. A p value of < 0.05 was deemed significant.

The results seem to support anecdotal reports of CBD oil's benefits. Veterinary assessment showed that CBD oil reduced pain ($p < 0.03$), and the Canine Brief Pain Inventory and Hudson activity scores showed clinically significant reduction in pain and an increase in activity with CBD treatment ($p < 0.001$), the abstract reports.

According to Dr. Wakshlag, in addition to this study, his team is completing a pharmacokinetic and safety study in cats, and there are plans for additional studies on the efficacy of CBD oil in acute pain management, behavior management, feline pain and concurrent usage with chemotherapy in oncology patients—so stay tuned.

The law

OK ... so the science is starting to support the benefits of CBD oil usage in pets, but what does the law say? First of all, hemp plants contain less than 0.3 percent tetrahydrocannabinol (THC), the psychoactive chemical found in cannabis. In 2014, President Obama signed the Agricultural Act of 2014 (the Farm Bill), which allowed for the study and cultivation of industrial hemp for limited purposes. This led to the Industrial Hemp Farming Act of 2015, which allowed American farmers to produce and cultivate industrial hemp more widely. This legislation removed hemp from the controlled substances list as long as the hemp grown contained no more than 0.3 percent THC.

Even Attorney General Jeff Sessions isn't interested in prosecuting veterinary professionals from using or recommending hemp products. "I am not going to tell Colorado or California or someone else that possession of marijuana is legal under United States law," Sessions said in a recent Q&A session at Georgetown University Law Center. "But federal prosecutors haven't been working small marijuana cases before; they are not going to be working them now."

Still not sure?

Neither was I, so I asked my own lawyer to do some research for me on CBD oil use in pets. Everything he found supported the premise that CBD oil being manufactured and distributed for veterinary use is not considered illegal either federally or on the state level. Just remember, each state has its own rules, you are responsible for maintaining your license in good standing, and this memo is not a substitute for you doing your own research.

Dr. Sarah Wooten is an associate veterinarian in Greeley, Colorado, a frequent contributor to dvm360.com and a Fetch dvm360 conference speaker.

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What veterinarians should know about pet bloggers

You're familiar with the top veterinary blogs, but do you read any blogs by pet parents too? Perhaps it's time to start. *By Theresa Entriken, DVM*

Rats are cool, and I got to sit next to one in a session at a recent conference for pet bloggers—where the furry blog stars were encouraged to network, learn and try new products alongside their writer-parents. And who hasn't gone to a conference where people annoyingly snore in post-lunch sessions? Somehow when a dog or cat does do it, it's kind of adorable (and yes, perhaps a sign of an obstructive upper airway condition).

I learned more about the pet blogging world thanks to Carol Bryant, a lifelong cocker spaniel lover and creator of the blog Fidose of Reality. Carol granted me press access at the 10th BlogPaws Conference held in April in Kansas City, Missouri. The annual conference is an educational and networking event for pet enthusiasts who dish on their beloved companions and pet-related products via their websites and social media posts. (Are any of your clients pet bloggers? If so, some of your patients might be social media celebrities!)

Here are a few reasons why you may want to explore this pet-loving community too.

Four BlogPaws attendees ride in style.

They're passionate pet advocates

Through engaging stories and inviting photos, pet bloggers emotionally connect with other pet lovers—they're vocal aficionados of dogs, cats, horses, birds, rabbits, fish or other species. Bloggers share their experiences, opinions and curated research on a myriad of pet topics including wellness, medical conditions, nutrition, behavior and welfare, as well as information on lifestyle, travel, fashion, pet adoption and fostering, and pet-related charities.

Pet bloggers number in the thousands! The BlogPaws community alone has about 5,000 members, according to BlogPaws' director of influencer marketing, Felissa Elfenbein.

They're reviewers of pet products, services and trends

Bloggers' posts often involve product and service recommendations, reviews and comparisons. In these posts, you'll find scores of new and established pet toys and enrichment activities, foods and treats, grooming supplies, preventives and therapeutics, leashes and carriers, and fundraising campaigns and charities. You'll keep up on trends from pet parents' perspectives—trends that tend to follow people's preferences (the humanization of pets) such as activity trackers, telemedicine and dietary ingredients. (Keep in mind that some of these may be sponsored or paid posts.)

By investigating these pet blogs, you may discover sites that you can suggest to your clients that support their interests, amusements and causes, along with the trusted veterinary sources you already recommend.

They're brand ambassadors and market influencers

Bloggers sway many other pet owners' beliefs and purchasing decisions. And

Among the exhibitors at BlogPaws were Carol Borchert, senior director of communications at Morris Animal Foundation. Truman (a participant in the Golden Retriever Lifetime Study) stopped by with his pet parent Andrea Cole.

pet product companies—including veterinary product manufacturers and professional associations—have taken note of social media influencers.

According to BlogPaws keynote panelists from Elanco, Chewy, WellPet and Central Garden & Pet in their session "A day in the life of a brand marketer," product managers are interested in building relationships with pet bloggers who believe in their goods. These company representatives are aware that bloggers create terrific content experiences and interact with engaged audiences. They also appreciate that pet bloggers deliver creative, consistent messaging to a targeted segment of pet owners and can influence their purchasing decisions—bloggers' reviews can make or break a product. Bloggers also connect with their followers in a personal voice that may not work for companies attempting to connect with customers on a larger scale.

Manufacturers also value the feedback bloggers garner when pet owners find novel uses for products, or when a product doesn't work, because it helps companies in their product development efforts.

They're interested in connecting with veterinarians

In addition to blogging about their own pets' veterinary experiences, many bloggers would appreciate the opportunity to build a relationship with a veterinarian. They would like to have the veterinarians' feedback and ensure their information is accurate. A blogging conference—like BlogPaws—or a pet expo—like our upcoming Vet+Pet West convention and expo for veterinarians, pet retailers and pet parents in San Diego—provide excellent opportunities for bloggers and veterinarians to meet!

So, peruse a few pet blogs to stay informed about what your clients may be learning from these resources. The knowledge will help you anticipate and prepare responses to many of your clients' questions. Plus, you'll learn about cool new pet products you may have never heard of!

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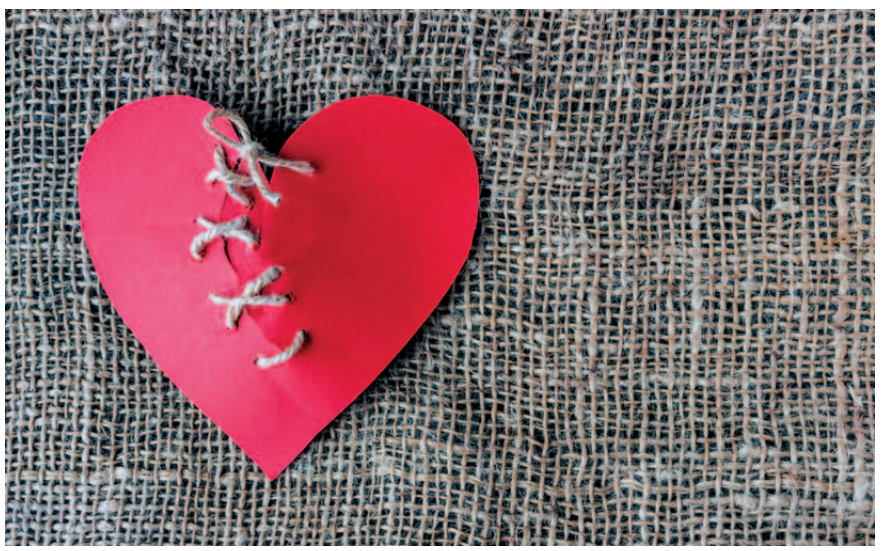
Falling in love with veterinary medicine again through loss

I was devastated after the passing of two of my classmates and best friends, but I found a way to pull myself together and love this profession again.

By Maureen Horner Noftsinger, DVM

I went to vet school at Virginia-Maryland College of Veterinary Medicine. In my class, we chose seats and sat in those spots for an entire year. I got to know Chris the summer before second year when I learned he was going to be my lab partner. I met Matt because he and Chris worked together that summer. Second year, we came in on the first day of class and some of us chose new seats. I sat behind Chris and Matt so I could talk to both of them. Those were our seats for the next two years.

Chris and Matt had a very strong bond by then, and I became their sidekick. The three of us were always joking. I was the voice of reason with those two. They were the class clowns who kept everyone laughing, and they also helped me learn to laugh at myself and not take myself so seriously. We studied together, skipped classes together and passed notes. We partied. We also did Hokie football together—that was the glue. We lived for Hokie football. Matt lived within walking distance of the stadium and hosted tailgates for every game. We met each other's families, traveled together and graduated side by side. Those were some of the happiest times of my life, and when I'm asked if I would make the choice to go to vet school again, I always say, "Absolutely." I loved vet school. As difficult as it was, I met incredible people who are my best friends today.



Jumping into the 'real world'

I started at Emergency Veterinary Services of Roanoke (EVS) right out of school. I ended up, by default, managing the clinic. After a few years, Matt came to work with me at the emergency clinic. Chris finished his internship and wanted to work in emergency medicine, so naturally he came to EVS too. The three of us worked together for a few years. It was like a dream come true to work with my two best friends. Don't get me wrong—it wasn't all good times. We had disagreements. It was much harder to spend time together outside of work because one of us was always working. But we were connected and there was a love and mutual respect among the three of us that bound us together. Plus, laughter and stories were woven through our lives and could bring us to hysterics in an instant.

Chris eventually went to work at another emergency practice, then opened his own practice. Matt and I continued to work together for more than 10 years. We faced many challenges in our personal lives and survived with laughter and love. He was a brother to me and to many others we worked with. We would openly tell each other we loved each other, and I referred to him as my brother constantly. Our clients adored him because of his good looks and charm.

But Matt had suffered from depression for years. A few years ago, we both felt it best for him to leave full-time emergency medicine because of the unique challenges faced by ER doctors. I told him his mental health had to be his priority and that I would support him and love him no matter where he worked. He stopped working full-time but still was working a few days a month with us. He seemed to be doing well—laughing again—and he even started dating. He seemed happy and took a trip to South Africa.

When we learned he had died by suicide, we were devastated. He had seemed better. He had seemed happier and content in his life. Everyone was in shock because he was always so easygoing. He was loved by everyone he met.

Chris, Matt and I had grown apart over the years. Hokie football always drew us together though, and even if we weren't together, we always texted during the games. So as soon as I found out Matt had died, I contacted Chris because I wanted him to hear it from me. We cried together. I told him I loved him—that he was my brother and I wanted to reconnect.

Chris wasn't happy running his practice anymore. He told me he wanted to come back and work with me at EVS. He said I had been through hell and back with my personal medical problems, the issues at the clinic and Matt's death, and I had survived. He said he wanted to help me grow the clinic. I hired him back full-time.

Things were good for a while. Chris seemed to be more mellow but still kept everyone laughing. He enjoyed emergency medicine. He loved the challenge of the cases, genuinely wanted to help the animals and was open to feedback that would improve his clinical skills. There was a soft side to him that he would occasionally let other people see. But he wasn't the same Chris. He had always had insomnia but now it was worse. He was rarely sleeping. His behavior was erratic at times. Things got worse. One morning, Chris stopped by the clinic, joking as always, then he checked into a hotel and was found dead shortly after. We don't truly know what happened. It doesn't matter—Chris was dead too.

Chris' wife called to tell me and I fell to the ground. I couldn't do this again. I couldn't carry my staff through this again. It had only been 14 months since Matt's death, and now Chris was dead too. How could this be possible?

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BRAVECTO®
(FLURALANER)
TOPICAL SOLUTION

Pet owners already have a lot to remember. Give them one less thing to forget.

Only BRAVECTO® delivers up to 12 weeks* of flea & tick protection with one topical dose

Fewer doses = fewer potential gaps in protection = less stress for cats, pet owners, staff.[1]

Ask your Merck Animal Health Rep about BRAVECTO or Visit Bravectovets.com

*BRAVECTO kills fleas and prevents flea infestations for 12 weeks. **BRAVECTO Topical Solution for Cats** kills ticks (black-legged tick) for 12 weeks and American dog ticks for 8 weeks.

[1]BRAVECTO Topical Solution for Cats [prescribing information]. Madison, NJ: Merck Animal Health; 2016.

IMPORTANT SAFETY INFORMATION:

BRAVECTO Topical Solution for Cats: The most common adverse reactions recorded in clinical trials were vomiting, itching, diarrhea, hair loss, decreased appetite, lethargy, and scabs/ulcerated lesions. BRAVECTO has not been shown to be effective for 12-weeks' duration in kittens less than 6 months of age. BRAVECTO is not effective against American dog ticks beyond 8 weeks of dosing. For topical use only. Avoid oral ingestion. The safety of BRAVECTO has not been established in breeding, pregnant and lactating cats. Use with caution in cats with a history of neurologic abnormalities. Neurologic abnormalities have been reported in cats receiving BRAVECTO, even in cats without a history of neurologic abnormalities.

See full Prescribing Information on page 34.

BRAVECTO®

(fluralaner topical solution) for Cats

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

Description:
Each tube is formulated to provide a minimum dose of 18.2 mg/lb (40 mg/kg) body weight. Each milliliter contains 280 mg of fluralaner.

The chemical name of fluralaner is (±)-4-[5-(3,5-dichlorophenyl)-5-(trifluoromethyl)-4,5-dihydroisoxazol-3-yl]-2-methyl-*N*-[2-oxo-2-(2,2,2-trifluoroethylamino)ethyl]benzamide. Inactive ingredients: dimethylacetamide, glycofurol, diethyltoluamide, acetone

Indications:
Bravecto kills adult fleas and is indicated for the treatment and prevention of flea infestations (*Ctenocephalides felis*) and the treatment and control of *Ixodes scapularis* (black-legged tick) infestations for 12 weeks in cats and kittens 6 months of age and older, and weighing 2.6 pounds or greater.

Bravecto is also indicated for the treatment and control of *Dermacentor variabilis* (American dog tick) infestations for 8 weeks in cats and kittens 6 months of age and older, and weighing 2.6 pounds or greater.

Dosage and Administration:
Bravecto should be administered topically as a single dose every 12 weeks according to the **Dosage Schedule** below to provide a minimum dose of 18.2 mg/lb (40 mg/kg) body weight.

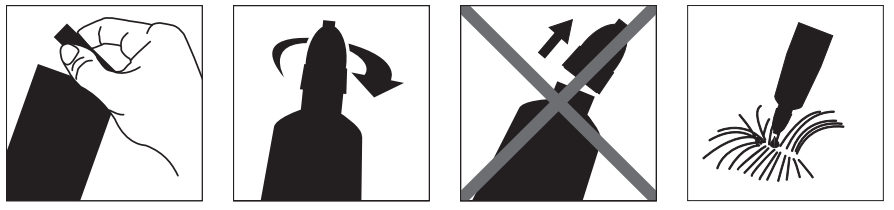
Bravecto may be administered every 8 weeks in case of potential exposure to *Dermacentor variabilis* ticks (see **Effectiveness**).

Dosage Schedule:

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

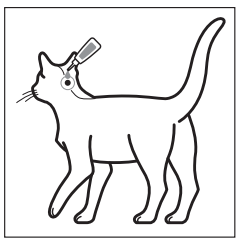
* Cats over 27.5 lb should be administered the appropriate combination of tubes.

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



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

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



Treatment with Bravecto may begin at any time of the year and can continue year round without interruption.

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

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

Do not contact or allow children to contact the application site until dry.

Keep the product in the original packaging until use in order to prevent children from getting direct access to the product. Do not eat, drink or smoke while handling the product. Avoid contact with skin and eyes. If contact with eyes occurs, then flush eyes slowly and gently with water. **Wash hands and contacted skin thoroughly with soap and water immediately after use of the product.**

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

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

Use with caution in cats with a history of neurologic abnormalities. Neurologic abnormalities have been reported in cats receiving Bravecto, even in cats without a history of neurologic abnormalities (see **Adverse Reactions**).

Bravecto has not been shown to be effective for 12-weeks duration in kittens less than 6 months of age. Bravecto is not effective against *Dermacentor variabilis* ticks beyond 8 weeks after dosing (see **Effectiveness**).

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

Adverse Reactions:
In a well-controlled U.S. field study, which included a total of 161 households and 311 treated cats (224 with fluralaner and 87 with a topical active control), there were no serious adverse reactions.

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

Adverse Reaction (AR)	Bravecto Group: Percent of Cats with the AR During the 105-Day Study (n=224 cats)	Control Group: Percent of Cats with the AR During the 84-Day Study (n=87 cats)
Vomiting	7.6%	6.9%
Pruritus	5.4%	11.5%
Diarrhea	4.9%	1.1%
Alopecia	4.9%	4.6%
Decreased Appetite	3.6%	0.0%
Lethargy	3.1%	2.3%
Scabs/Ulcerated Lesions	2.2%	3.4%

In the field study, two cats treated with fluralaner topical solution experienced ataxia. One cat became ataxic with a right head tilt 34 days after the first dose. The cat improved within one week of starting antibiotics. The ataxia and right head tilt, along with lateral recumbency, reoccurred 82 days after administration of the first dose. The cat recovered with antibiotics and was redosed with fluralaner topical solution 92 days after administration of the first dose, with no further abnormalities during the study. A second cat became ataxic 15 days after receiving its first dose and recovered the next day. The cat was redosed with fluralaner topical solution 82 days after administration of the first dose, with no further abnormalities during the study.

In a European field study, two cats from the same household experienced tremors, lethargy, and anorexia within one day of administration. The signs resolved in both cats within 48-72 hours.

In a European field study, there were three reports of facial dermatitis in humans after close contact with the application site which occurred within 4 days of application.

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

Clinical Pharmacology:
Peak fluralaner concentrations are achieved between 7 and 21 days following topical administration and the elimination half-life ranges between 11 and 13 days.

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

Effectiveness:
In a well-controlled European laboratory study, Bravecto killed 100% of fleas 8 hours after treatment and reduced the number of live fleas on cats by > 98% within 12 hours after treatment or post-infestation for 12 weeks. In well-controlled laboratory studies, Bravecto demonstrated > 94% effectiveness against *Ixodes scapularis* 48 hours post- infestation for 12 weeks. Bravecto demonstrated > 98% effectiveness against *Dermacentor variabilis* 48 hours post-infestation for 8 weeks, but failed to demonstrate ≥ 90% effectiveness beyond 8 weeks.

In a well-controlled U.S. field study, a single dose of Bravecto reduced fleas by ≥99% for 12 weeks. Cats with signs of flea allergy dermatitis showed improvement in erythema, alopecia, papules, scales, crusts, and excoriation as a direct result of eliminating flea infestations.

Animal Safety:
Margin of Safety Study: In a margin of safety study, Bravecto was administered topically to 11- to 13-week (mean age 12 weeks)-old-kittens at 1, 3, and 5X the maximum labeled dose of 93 mg/kg at three, 8-week intervals (8 cats per group). The cats in the control group (0X) were treated with mineral oil.

There were no clinically-relevant, treatment-related effects on physical examination, body weights, food consumption, clinical pathology (hematology, clinical chemistries, coagulation tests, and urinalysis), gross pathology, histopathology, or organ weights. Cosmetic changes at the application site included matting/clumping/spiking of hair, wetness, or a greasy appearance.

Oral Safety Study: In a safety study, one dose of Bravecto topical solution was administered orally to 6- to 7-month-old- kittens at 1X the maximum labeled dose of 93 mg/kg. The kittens in the control group (0X) were administered saline orally. There were no clinically-relevant, treatment-related effects on physical examination, body weights, food consumption, clinical pathology (hematology, clinical chemistries, coagulation tests, and urinalysis), gross pathology, histopathology, or organ weights. All treated kittens experienced salivation and four of six experienced coughing immediately after administration. One treated kitten experienced vomiting 2 hours after administration.

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

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

How Supplied:
Bravecto is available in three strengths for use in cats (112.5, 250, and 500 mg fluralaner per tube). Each tube is packaged individually in a pouch. Product may be supplied in 1 or 2 tubes per carton.

NADA 141-459, Approved by FDA
Distributed by:
Intervet Inc (d/b/a Merck Animal Health), Madison, NJ 07940

Made in the USA.

159363 R3 017392

Rev. 09/16

MERCK Animal Health

My staff immediately called my husband to come and they surrounded me with their arms as I lost it, kneeling on the floor rocking back and forth. My EVS family felt slapped by the pain and we gathered at the clinic in disbelief.

My husband arranged for me to see my therapist immediately and then drove me there and sat with me. Everyone was worried about me. I was worried about me. And for the first time in my life, I could only focus on me and my immediate family—on making sure that my mental health was my priority. The EVS staff is also my family, and during those first few days, we gathered at the clinic just to be together to talk about Chris and process this grief. It was compounded because we hadn't yet fully recovered from Matt's death. I'm not sure you ever fully recover from something like that.

We had an EVS family memorial for Chris. We needed closure to try to get back to functioning. The clinic had to close for a few days and I couldn't set foot in it to work for weeks. One Saturday night I was lying in bed and I was supposed to work the next morning but I just couldn't do it. I felt physically ill and like I was suffocating just thinking of it. I called one of our shareholders and choked through tears and a rising feeling of panic to ask him to work for me. Thankfully, he agreed. I will always be grateful for that.

Finding peace

Right before Chris died, my husband and I had bought a small farm and it became my sanctuary. It's peaceful and beautiful there. I watched the dogs play in the pond and chase dragonflies. I did a lot of thinking, reading, praying and yoga. I walked and hiked just to be outside. I reveled in my children's happiness and focused my efforts on being present with them. My husband was very observant and protective of me, and I am grateful for that. He was afraid to leave me alone for the first few days after Chris' death and I welcomed the company. I focused on gratitude and all of the wonderful things in my life. As each day passed, I was able to breathe and to realize the gift that I had been given in knowing my two friends.

When I went back to work, I realized being at the clinic felt different. Things had changed for me. Seeing clients didn't fulfill me as much anymore. The overnight shifts were draining me to the point that I wasn't recovering physically anymore. I wanted to be with my EVS family but didn't want to be there working. Something in my soul had shifted and I knew I needed to focus my efforts somewhere else.

Over the last six months I've instituted a lot of changes. I'm not working overnights anymore and I've delegated a lot of the day-to-day responsibilities to the staff and focused on growing the clinic and moving forward. I like to describe myself as the clinic visionary. I want to create a workplace where people are truly happy to be there. I want to work with people who are passionate about what we're doing, who believe in my mission and help me elevate our standard of care. By focusing on the animals and the care they need, we can be challenged and fulfilled, creating job satisfaction.

I'm not a psychiatrist or therapist but I know you can shift your thoughts in ways that can help you fall in love with your life again. The negative thought loops in your head can be interrupted.

At the same time, one of our doctors was out because of complications with her pregnancy, another doctor was out to have surgery on an abscess in her hamstring, and another doctor was on a trip to Israel to visit her father. For the first time in the more than 16 years I had been at the clinic, I cried "uncle." I couldn't do it. My mental health was at the breaking point. I wondered what God was trying to tell me. How could all of this happen at one clinic? Emotionally, I wasn't doing well. I continued to see my therapist because I knew I had to take care of myself.

I also want to help shift the staff's perspectives to make veterinary medicine more enjoyable. I want to help us find satisfaction and fulfillment in what we're doing. I want the staff to be challenged, support their career goals and find ways to achieve them. This takes a lot of open dialogue and communication. I want to prioritize mental health not only in me, but in my clinic and veterinary medicine as a whole.

Many of us have an idealized view of veterinary medicine before and during veterinary school. We want to work with animals, and every veterinarian I've met has been passionate about this in some way. Then reality hits after we get out of school. The student loans become a hard reality when you realize what your payments will be. Most of us strived for perfection our whole lives to get into veterinary school. And then we realized that there is no way we can be perfect. And yet our mindset is that we should be.

Historically, as veterinarians, we've contributed to this dilemma by being on call 24/7, forgoing our personal lives and health to be there for the animals. Traditionally, our jobs were to care for animals in a very practical way, often for trade. As the profession has changed and developed, unfortunately the service model hasn't been adapted. Clients expect us to be there because we always have been. It's our collective job to set the boundaries that we haven't been good at enforcing.

I love veterinary medicine and veterinarians. We are an incredible group of people who are hard-working, dedicated, passionate, loving and caring. The suicide epidemic in our profession is devastating. I'm saddened every time I hear of another veterinarian who has taken their life. Many organizations are doing things to promote wellness, but we have a long way to go.

I know that my mission is to help in some way. Obviously, I'm not a psychiatrist or therapist but I know that you can shift your thoughts in ways that can help you fall in love with your life again. The negative thought loops in your head can be interrupted. It seems very hard, but it's easy once you have the tools.

Steps you can take

My advice for you is simple, really:

1. Meditate. Meditation can change your life. Take five minutes in the morning and evening to settle your mind. It takes practice, but make it a non-negotiable part of your day.

2. Focus on gratitude. You'll be amazed by the shifts you will feel in your life. I do it every day. On the really bad days, my gratitude is for the things we can take for granted like my heart beating without my thinking about it, or my breath or running water.

3. Stop complaining. This alone can shift so many thoughts you will be amazed. I participated in a challenge where I just noticed my complaints on a daily basis. I was shocked at how much better I felt just by not putting those complaints out there for me to hear over and over again. When you complain you're attracting people who will also complain, and it becomes a vicious cycle. When you focus on gratitude, the complaining stops.

4. Don't go it alone. Most important, find someone who can help you refocus your thoughts. For me, therapy became a swirl. I felt like I was going around and around in circles. But it wasn't until I started focusing on my thoughts and beliefs and realizing that I could change those that I started to feel a shift. My therapist noticed this shift and commented on it.

5. Identify helpful resources. Life isn't supposed to be hard, but it can be if you don't have the tools to function with. There are many places to find these tools and how you use them depends on your journey. There are courses you can take, books you can read or listen to, videos to watch. Some of the information is free and some you'll have to invest in. Think of it as investing in your mental health and ask yourself if it's worth it to have a strong heart and mind.

My own mental health became the most important thing because without it I can't function. Being there for my kids is very important to me. It isn't selfish to invest in yourself. It seems silly, but you have to be willing to make you a priority. If you're ready to change and are willing to accept that you are responsible for your life, you can truly fall in love with your life, job, marriage and relationships again. It takes work and it helps to have friends that can hold you accountable, but it can be done.

Dr. Maureen Horner Noftsinger is the CEO at Emergency Veterinary Services of Roanoke in Roanoke, Virginia.

Double identity:
When you're veterinarian and practice manager

Are you a high-flying veterinarian by day and a reluctant veterinary practice manager by night? I don't want to take the wind out of your cape, but your neglected alter ego may need a boost.

In the past 10 years or so, having a practice manager has become the rule rather than the exception. Yet, there are still many solo (and even small) veterinary hospitals that just can't take that step for financial or logistical reasons (or both). So who's managing these practices? You are, Doc. But how you're managing that role is a harder question to answer.

It's rare for practitioners to set aside time to focus on administrative tasks, so let's assume you don't either. Don't feel bad. You spent eight years in school learning to save lives, and if you're like most vets, the last thing you want to do is "push paper." However, whether you notice it or not, managing is happening every day. So if you're not managing your practice, it's managing you.

Finances: Don't dilly-dally

Taking care of a practice's financial resources requires more than just writing checks periodically, and treating this task like something you can put off until the last minute isn't wise. Several supply vendors still offer a discount for paying early, so if you manage cash flow wisely, taking advantage of that offer is a little like getting free money. And on the flip side, many of your utilities and recurring service providers will start adding late charges if you let bills sit around too long.

Employing a bookkeeper is an option, as is using a bookkeeping service or training someone on your staff. Writing checks and putting them in envelopes is busywork, but regardless of who does it, make it a priority to hold onto signing authority and take the time to look at every bill. Keeping an eye on the expense trends in your practice is a valuable and informative exercise. You need to know when your garbage service goes up, and you need to know how much power your building is using now compared to the same period in the past as well as a hundred other measurements.

It's easy to look at your gross daily receipts as an indicator of how your practice is doing, but that number is meaningless without factoring in expenses. Using a yearly budget is a terrific tool, but if you go that route, be sure to include accounts designed to build up funds for future capital needs. Expanding your facility, replacing a vehicle or buying radiography equipment should be contemplated well in advance to minimize cash flow disruption. Include a capital fund for the unexpected too, as we all know unanticipated needs will arise despite thorough planning.

PR IMAGE FACTORY/SHUTTERSTOCK.COM

HR: Do your homework

I can't stress enough how important it is for practitioners without a manager to become semi-experts in the area of human resources. If you employ one or more staff members, handling their employment properly is not only the most important job you have but also represents an avenue of huge liability if you fail to do it. Employees have rights, and every state has a department that helps protect those rights and helps you understand and respect them.

Understanding payroll laws, meal break rules and how to handle the administration of a new employee—not to mention how to handle the processing of a terminated employee—are some areas you need to become familiar with. Learn about holiday pay, sick leave pay, vacation pay, workplace harassment and discrimination, and make sure you're on the right side of your responsibilities as an employer. You'll never feel like the time you invest in becoming proficient in these areas has been a waste.

Vendors: Play the field

I cringe when I hear a practice say that all their supplies come from a single vendor. Our industry is fortunate to have several large distributors, and they all do a terrific job. But despite what these distributors may say, they don't work for you. They work for themselves. It's not a matter of honesty but of complacency. If they own your entire supply business, what incentive do they have to deliver you the most competitive pricing?

Make no mistake: All distributors offer deals based on your buying volume and your relationship with them. Buying groups are becoming more mainstream, but I'll simply never feel comfortable with a single distributor knowing I'm not continuously shopping around. It may be unreasonable to ask for an advance price for every order, but you should be checking them periodically and comparing them to previous prices. Everyone makes mistakes, and if you don't look you'll never know.

Another thing that makes me shudder is failing to take advantage of generics. Veterinary manufacturers of nongenerics are certainly important players in our industry and make things like continuing education meetings, industry magazines and many important studies possible. I'm not advocating that you leave them cold, but do pay attention to what you're buying from them.

They all have proprietary, effective—and in some cases revolutionary—products that either have no peer or no equally efficacious peer. These companies also all sell products that have long been available in generic form for a fraction of the cost. If you want your services to have the widest and deepest reach, you may want to include lower-cost medications in the equation (when possible) to allow Mrs. Jones on a fixed income to spend more on your services. Veterinary industry experts have been ringing that bell for over 15 years—generate more revenue from professional services and less from inventory sales.

In this day and age of major chains competing for your medication revenue, this is your one really good tool for staying "in the game." In addition to being able to deliver medications more inexpensively, competing with online or big-box retailers can also help to slowly heal the black eye our industry had for many years due to unreasonable product markups.

Tech: Use your smartphone

Of course, the newest technology makes ultrasound, radiology and diagnostic testing more informative and often ensures that answers are delivered more swiftly, but I'd argue that those aren't the most important technology aides in your world. If you don't have a smartphone, it's well past time to make the jump. Accessing emails, managing your schedule, communicating via text messaging and using the internet as a productive tool are all ways this amazing device can help you run your practice.

If you have a brick-and-mortar facility, make sure your phone is connected to your schedule (Microsoft Outlook and Google calendars sync automatically). Employ mainstream practice management software to invoice clients, maintain medical records and keep your fee schedule from being guesswork in the field. Software can easily run on a laptop and even many tablet devices. I've been in this industry long enough to remember when handwritten carbon invoices were standard, and I can only imagine how many of them were lost, damaged or destroyed, and with them, all evidence of charges that had and hadn't been paid. Missed charges fall straight to the bottom line.

Either find the time or the money

While it may seem like this list of things to help you manage your practice is relatively small and easily attended to, it only seems that way. In fact, these things (collectively, at least) will take 10 percent of your practice time away or will require you to spend 10 percent more time in the evenings or on weekends just to keep up.

If you must continue into the future owning a veterinary practice that lacks a dedicated manager, you need to at least find the time to take care of these areas. That being said, if your practice does flourish and grow stronger, I would argue that there's no more important business expense than hiring someone who can address administrative issues and tasks. Find someone you trust and make sure they have the correct skillset. You won't be sorry.

Kyle Palmer, CVT, is a frequent contributor to dvm360 *magazine and a practice manager at Silver Creek Animal Clinic in Silverton, Oregon, the town where he also serves as mayor.*

Scrub the tight scrubs?

A conflict over veterinary workplace attire

What do you do when an employee's appearance creates a distraction in the veterinary clinic? An edgy dilemma.

"Dr. Doyle Veterinarian" is what the practice's original sign said. Now 27 years later, with a staff of five doctors, 12 technicians and five receptionists, the clinic name still remains Dr. Doyle Veterinarian.

The practice is located in an upscale metropolitan suburb, with a clientele that demands high-quality pet care and a comfortable clinic. Veterinarians are required to wear white lab coats with their names on the breast pocket. Veterinary technicians wear scrubs with the clinic name and logo tastefully displayed. Dr. Doyle provides this specialized staff clothing. He feels that this dress code demonstrates both a professional image and the impression that they are a team.

Tailor-made problem

Lisa is a new technician at the practice. Her credentials, practice experience and references are impeccable. After her initial training, she's given her practice scrubs and first month's schedule. She's already well-liked by her coworkers and anxious to get started in her new role.

Lisa reports to work the next morning with a startling adjustment to her apparel. She had altered her clinic scrubs, tailoring them to be more form-fitting than normal surgical scrubs, which tend to fit like loose pajamas. It should be noted that Lisa's new scrubs did not feature a plunging neckline or cover less of her body than those of her coworkers. They just fit more closely.

Lisa and her attire create a bit of a buzz around the clinic from the other team members. In addition, her striking appearance generates attention from some "admiring" clients. Dr. Doyle, the only man among the 22 team members, has a problem. He sees Lisa's altered uniform as a clinic distraction and schedules a time to speak with his new technician.

Who's changing for whom?

As always, Dr. Doyle is professional yet direct. He tells his new technician that her altered scrubs are a distraction and drawing unnecessary attention from staff members and clients.

Lisa is assertive but respectful in her reply. She tells Dr. Doyle her scrubs fit no differently than a woman's business suit in a professional workplace. She goes on to say that this "distraction" isn't her issue but rather the result of undisciplined, immature behavior on the part of others. Dr. Doyle understands her position but says that, regardless, a distraction exists, and he wants it remedied.

Lisa responds that she respects the practice and enjoys her work, but she doesn't feel it's fair to blame her for this. They end the meeting amicably.

Dr. Doyle debates drawing a line in the sand for his technician but decides not to. He informs his staff that any comments concerning staff appearance that aren't in violation of clinic policy are unprofessional and should cease. He assumes Lisa will deal with any unwanted attention from clients in a professional manner. He realizes that in 2018, not only does he have to pick his battles, but he also has to evaluate the integrity of the battles themselves.

Was this a good fight for Dr. Doyle to duck? Let us know what you think at **dvmnews@ubm.com.**

Dr. Rosenberg's response

On one hand, the unisex look of baggy scrubs in the close working environment of a clinic tends to equalize appearances in a practical way. On the other hand, these are professional adults whose individual choices regarding appearance should be respected as long as they're not violating workplace directives.

I believe this discussion revolves around individual maturity. We are not all the same. It would be unrealistic to believe that neither staff nor clientele notice body differences among employees in the workplace, whether shapeliness or largeness or smallness. It's the veterinary professional's obligation to focus on the task at hand and not judge others for things beyond their control.

Dr. Marc Rosenberg is director of the Voorhees Veterinary Center in Voorhees, N.J. 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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Good **mourning**

When Dr. Codger invites Dr. Greenskin to a morning meeting, the young associate fears she'll get eaten for breakfast for dismissing the bully technician the old-timer can't live without.

The evening after the "Actright Affair" (visit **dvm360.com/actright** to read about the bitter battle), our beloved Dr. Greenskin sits at home, feeling conflicted.

Deep down, she knows something needed to be done, but she can't help wondering whether her actions were a little too impulsive. After more self-reflection and a Moscow Mule in her shiny new copper mug from Amazon.com, she sighs, "I am who I am. Something had to be done, and I managed a difficult situation when I needed to."

Dr. Greenskin makes a mental note to follow up with her boss the next time she sees him and tries to set work aside. She unpauses Netflix to resume her binge of *Better Call Saul* and unsticks her frozen lower lip from the frosty copper mug. Time to settle in for some much-needed R & R …

Beep! Beep! Beep!

Dr. Greenskin's downtime is interrupted by an alert from her phone—the tone she's chosen for messages in the "work or otherwise unpleasant" category. She picks up her phone with a sigh and reads the unwelcome text bubble.

> **Dr. C:** We need to meet for breakfast tomorrow. Please come to Larry's Diner at 7 a.m. so we can catch up before work.

The young associate replies in the affirmative while muttering that it's going to be a Unisom night, for sure. Tossing the phone aside, she turns back to the screen to see what shenanigans Jimmy and Mike will encounter next.

A full mug of feedback—hold the sugar

At 7 a.m. sharp the next day, Dr. Greenskin opens the door to Larry's Diner to find Dr. Codger in a booth by the window, cradling what is surely his third or fourth cup of coffee. After some less-than-cozy salutations, Dr. Greenskin notices that Larry's menu includes nothing even remotely akin to avocado toast. With little appetite anyway, she orders a bowl of rolled oats and settles in for a tongue-lashing.

Dr. Codger is clearly doing his best to start things out kindly, though his tone seems strained.

"I definitely want to hear your side of what happened," he begins, "but I think I have a pretty decent idea. I've worked with Mrs. Actright for almost 40 years, so I'm well aware of her faults. This situation is the most serious I've faced with her, ever. She threatened to quit yesterday, and I had to rush out late last night to meet her in person because we can't afford to lose her. I bought us some time by offering her extra paid vacation days so she can think things over and I can work on resolving this issue in the hospital."

Greenskin feels a bit sheepish about the turmoil she's spurred, but she manages to find the confidence to bring up the real issue at hand.

"I really am sorry that this is such a troubling issue, Dr. Codger," she says with genuine remorse. "I didn't mean to cause such a stir. However, I think this issue has been brewing for years and is only coming to a head at this moment because Mrs. Actright has been left to her own devices for so long, without guidance or correction."

Dr. Codger isn't having it.

"Dr. Greenskin, I also read the veterinary business journals and am aware of the corporate trends and how newer clinics maintain and develop their staff," he says coolly. "What you need to realize is that the hospital you currently work for has been around longer than any other clinic in the area—long before any of that business babble you get in your email inbox every day. When I started this thing, I did much of the technician work myself. Mrs. Actright and I were the only two employees for a good number of years. We were focused on survival through hard work."

Dr. Codger pauses to gulp his freshly refilled black coffee.

"All of your heartfelt desires to talk about our feelings and develop people through staff meetings and fancy CE events—all of that is *luxury*," he continues. "I don't deal in *luxury*, Dr. Greenskin. I have spent my career fighting to keep the practice alive as a valuable service to the community, and I have done that. I've not always done a perfect job, but I've done it. The bottom line is, I really wish you would've handled this thing a bit more gingerly. I'm in a pretty tough spot right now, you know."

Dr. Greenskin looks down at her bowl of cold gray mush, feeling about as useful as one of the shriveled raisins anointing the gloppy pile.

Dr. Codger waits a moment, but sensing that his associate isn't ready to respond, he continues, "The question now is, what do we do and how do we move forward? I would love for you and Mrs. Actright to chat it out together, but I don't think that'll work. The best I can figure is that when (and if) she returns, all three of us will need to sit down together so I can serve as a mediator."

Determined to get this day off to a better start, Dr. Greenskin reaches deep into her positivity stash.

"I know we can work through this together," she says. "I've shared some good times with Mrs. Actright, and I'm confident she'll return. While she's on vacation, I'm hoping you and I can work to better understand each other's expectations. I don't want anything like this to happen again. I bet we can avoid it if we take time to hold hands and gab about our feelings." She winks at the old-timer.

The grizzled doctor tries to hold back a smile while draining his last cup of joe.

"I'd like that, Dr. Greenskin. Now get back to the clinic!" he says, trying to regain some of his gruffness.

The coffee may be gone, but the problems aren't

Is Mrs. Actright gone for good? Or will she continue to be a wedge between our two docs? How much longer can Dr. Codger prioritize his personal relationships before realizing that the time has come for change? When will Dr. Greenskin understand that human relationships are more dynamic and complicated than anything in her social media feeds? Stay tuned for the next episode of Old School, New School!

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 owners' delight).

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Like travel, CE should expand our horizons

Think of a convention program as a map, with unfamiliar topics like unexplored cities.

In nearly 50 years of involvement in veterinary medicine, one of my hobbies was organizing continuing education (CE) programs on a local, national and occasionally international level. I realized early on that it was a great way to hear from experts on topics I was interested in and also to meet the giants of our profession.

Years ago I was speaking with a lifelong learner, Dr. Larry Lippincott of Los Angeles, when I wondered aloud why some subjects attracted just a handful of attendees while others spilled over into the hallway. Dr. Lippincott pointed out a truth that I've found applies not just to CE but also to personal preferences in food, travel, societal interactions and even politics: People tend to go where they're comfortable. We're drawn to people like ourselves.

Yeah, I know that!

We tend to read, watch and listen to topics we agree with and avoid those we aren't familiar with or disagree with. We sit in a lecture and nod our agreement … damn, we're smart! Why should we expose ourselves to anything new when our comfort zone is so *comfortable*?

Flipping through the program at a CE meeting we generally skip topics we're not interested in. And for many veterinarians, that means anything nonclinical. But is enhancing our existing clinical skills always our best option? Is it a good idea to have our knowledge grow deeper but not wider—in other words, to learn more and more about less and less? Maybe it's time to dig a wider ditch, not just a deeper one.

No goat cheese, please

I see similar issues among people who "don't like" something even though often they've never experienced it or learned about it. I am my own example. I've always been a meat-and-potatoes guy; I do love ethnic food and have had more than my share of Cachaça (a distilled spirit made from fermented sugarcane juice) and Mekong whiskey, but I don't eat fish or goat cheese.

I grew up during a time when fish for dinner meant frozen fish sticks or canned tuna … so I don't eat fish. The same is true with goat cheese. I was in my 20s when I found out there were cheeses other than Velveeta. I have come to love cheese, but I won't even try goat cheese. It tastes like goats. I'd rather eat green eggs and ham.

Let the trip take you

I love traveling. I used to tell people if they put me on a bus to Bakersfield, California, I would go. (Although with apologies to folks in Bakersfield, once was quite enough.) Travel is the greatest developer of personal horizons that I can imagine.

Travel should be one surprise after another. I don't eat fish or goat cheese, but I've had Indian food from street vendors, mystery meat tacos in the Yucatan and who knows what in China.

Back to CE!

Our approach to CE should be like traveling to a place we've never been. Make it special. Expand your horizons. Attend a few sessions on topics you have no experience in and will likely never use. In my time in Anguilla we've cared for an injured seal that was way off course, dolphins that had been brought to the island from Cuba and more goats than I can recall. I wish I had sat in on a few more lectures on pinnipeds, cetaceans and caprine reproduction.

Some of this and that

Consider that conference program as sort of a road map. Mix in a smattering of curiosity-driven choices that will expand your horizons—just as travel does.

Dr. Mike Paul is the principal of MAG-PIE Veterinary Consulting. He is retired from practice and lives in Anguilla, British West Indies.

Expand your CE horizons at Fetch dvm360 in Kansas City this August. Learn more at **fetchdvm360.com/kc**.

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MEDICINE | Infectious disease

Living with **FeLV-infected cats:** A guide

With proper management by the owner and healthcare from the veterinary team, cats with this retrovirus can live longer, more comfortable lives. *By Glenn Olah, DVM, PhD, DABVP (feline)*

Feline leukemia virus (FeLV) is an RNA gamma-retrovirus of cats found worldwide, infecting anywhere from 3% to 14% of domestic cats depending on geographic location, sex, lifestyle and general health.[1] Experts speculate that the virus evolved from rats during the late Pleistocene era up to 10 million years ago in the North African desert. Ancestral rats and cats roamed freely, and the virus was likely transmitted to cats through rat ingestion or bite.[2,3]

There are three primary outcome stages of FeLV infection: abortive, regressive and progressive.[4] Approximately two-thirds of cats exposed to FeLV will experience either the abortive or regressive stage of infection, and about one-third of cats develop progressive infection.[5] Here are some additional details:

Abortive stage. An abortive infection occurs when a cat clears the infection.

Regressive stage. While a regressive infection causes a cat to become temporarily viremic, the cat eventually clears the viremia and does not become ill from FeLV-associated diseases. However, it does have viral DNA integrated into its genome.[6-8]

Progressive stage. Progressively infected cats shed virus in their saliva, ocular and nasal secretions, urine, feces and milk and are thus infectious to other cats.

If a cat is FeLV-positive but displaying no clinical signs, it should receive a physical examination at least twice a year.

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Progressively infected cats can survive months to years, with a mean survival of 3.1 years, and may die of FeLV-associated diseases.[9] However, with proper management and veterinary care, an FeLV-infected indoor-only cat may live much longer with a good quality of life. Focal infection may occasionally occur; it is characterized by persistent atypical local viral replication (such as in mammary glands, the bladder or the eyes).[4,10]

Progressively infected cats can survive months to years, with a mean survival of 3.1 years, and may die of FeLV-associated diseases. However, with proper management and veterinary care, an FeLV-infected indoor-only cat may live much longer with a good quality of life.

FeLV-associated diseases include lymphoma, leukemia, anemia and infectious diseases that are potentiated by the virus' immunosuppressive effects. Outcomes of FeLV infection depend on an individual cat's immune status, genetic makeup and age, the presence of any other infectious diseases, and the pathogenicity and infectious dose of the FeLV virus.

Determine FeLV status of all cats in a household

If a cat tests positive on a screening test for FeLV, it should be confirmed as "true positive" with a confirmatory test; both tests are typically performed on peripheral blood. Screening tests are usually ELISA-based tests designed to detect p27 FeLV antigen, and most cats will test positive within 30 days of exposure.[11] Recommended confirmatory tests are either indirect fluorescent antibody (IFA) tests that detect p27 FeLV antigen in infected leukocytes or platelets, or polymerase chain reaction (PCR)-based tests that detect FeLV provirus. IFA tests don't usually yield positive results until secondary viremia has occurred after infection of bone marrow (about 45 to 60 days after initial infection).

The stage (abortive, regressive or progressive infection) should be determined for all FeLV-infected cats. Abortive infected cats will test FeLV-negative and IFA- or PCR-negative, but they will seroconvert and test FeLV antibody-positive; however, antibody testing isn't usually performed in a clinical setting. Regressively infected cats usually test FeLV antigen-negative no later than 16 weeks after infection, while progressively infected cats remain FeLV antigen-positive.[12] Both regressively and progressively infected cats can test PCR FeLV provirus-positive as soon as two weeks after infection,[13,14] and they will remain positive thereafter.[14]

Here are some additional principles for FeLV testing:

> Any new cats or kittens should be screened for FeLV infection before being introduced into a household.

> Household cats that go outdoors or share a house with cats that go outdoors should be FeLV-tested at least yearly. Also, any cat that becomes clinically ill should be tested for FeLV immediately if it shares a household with an FeLV-infected cat.

> Household cats that may have been exposed to other cats with unknown FeLV infection status should be immediately tested for FeLV and retested six weeks after exposure. In some cats, it can take up to four months to figure out the stage of FeLV infection. In a multicat household, it can be difficult for the owner to confine FeLV-exposed cats, assess risk to other cats and decide how to manage the situation.

> FeLV tests detect infection, not clinical disease. A decision for euthanasia should never be based solely on whether a cat is "confirmed" FeLV-infected. While FeLV infection can be life-threatening, proper management and veterinary care can help regressively and even progressively infected cats have long, healthy lives.

Which cats should be vaccinated for FeLV?

The decision to vaccinate an individual cat against FeLV is based on risk assessment for infection and lifestyle. Cats that should be vaccinated include:

> Kittens, because they're more susceptible to infection and their lifestyle is still in flux. Note that although FeLV infection susceptibility decreases as cats get older, the risk does not necessarily reach zero; it depends highly on a cat's lifestyle and degree of viral exposure.

> Cats with access to the outdoors and cats that have contact with cats with outdoor access.

> Cats living with FeLV-infected cats.

> Cats that may encounter other cats with unknown FeLV status.

Managing healthy FeLV-positive cats

If a cat is FeLV-positive but displaying no clinical signs, it should receive a physical examination at least twice a year, with attention paid to unintentional weight loss, enlarged lymph nodes, clinical signs of upper respiratory infection and oral health. All cats should have the anterior and posterior segments of the eye examined. Complete blood count, biochemical profile, urinalysis, urine culture and fecal examination are indicated at least once a year.

Infected queens and toms should not be bred, and they should be spayed or neutered, to reduce behaviors that increase risk of disease exposure or transmission. Routine gastrointestinal and external parasite controls should be provided. Some FeLV-infected cats have been shown not to mount an adequate protective response to rabies vaccination;[15] therefore, it's prudent to advise owners that FeLV-infected cats should not have outdoor access, especially in rabies-endemic areas.

Regardless, FeLV-infected cats should still be vaccinated with core vaccines and possibly vaccinated more frequently (for example, every six months) based on an individual cat's risk assessment and lifestyle.[4] There is controversy surrounding the use of inactivated, modified-live or recombinant vaccines. Some researchers and clinicians suspect an increased risk for the development of injection-site sarcomas with the use of adjuvant killed vaccines,[16] and others are concerned that modified-live vaccine viruses may regain their pathogenicity in immunocompromised cats.[17,18]

Managing clinically ill FeLV-positive cats

Early therapeutic intervention is key to a successful treatment outcome in FeLV-infected cats that display clinical signs. First, the clinician should determine whether the illness is directly associated with FeLV infection (for example, lymphoma or anemia) or a secondary disease associated with immune dysfunction (opportunistic infection or oral inflammatory disease).

Most FeLV-infected cats respond well

to appropriate medications and treatment strategies, but they may require a longer or more aggressive course of treatment and need to be more closely monitored during recovery. While several antiviral drugs, immunomodulators and alternative therapies have been investigated for efficacy in FeLV treatment, most have been shown to be ineffective or only marginally beneficial.[19,20]

Educating owners of FeLV-infected cats

Initial diagnosis may illicit quite a bit of anxiety in an owner. To alleviate this anxiety, it's helpful to educate the owner about FeLV infection etiology, its clinical effects, and how proper home management and veterinary care can provide the best health and quality of life for the cat. In addition, you can alert owners to the 10 common feline signs of illness:[21]

1. Inappropriate elimination
2. Changes in social interaction
3. Changes in activity level
4. Changes in sleeping habits
5. Changes in food and water consumption, changes in chewing and eating habits
6. Unexpected weight loss or gain
7. Malodorous breath
8. Changes in sleeping habits
9. Changes in vocalization
10. Signs of stress.

The best situation for an FeLV-infected cat is to live in an indoor-only environment and be the only cat in the household.[10] A nutritionally balanced diet is also essential. Cats are obligate carnivores and evolved from a desert environment; thus they thrive on high-quality (animal-based) protein (more than 45% by dry matter), low-carbohydrate, moderately low-fat and high-moisture diets.[22]

Canned cat foods are ideal because they have high water content. It's possible to transition cats that prefer dry food to a canned food diet, but this should be done cautiously. Remember that many cats would rather starve to death than eat unfamiliar foods or foods they don't like. It's better to have a cat eat than not eat, so if dry foods must be fed, then research dry foods with a good nutrient profile. Raw diets should be avoided in FeLV-infected cats because of the increased risk of foodborne bacterial and parasitic diseases.

Although it's preferable for FeLV-infected cats to live in single-cat households, thereby avoiding viral transmission to cat housemates and preventing high-risk behavior such as cat fights, this isn't always possible. If they're to be part of a multicat household, then separation of FeLV-infected cats is ideal. Since FeLV is primarily transmitted by close contact (both friendly and aggressive) and the sharing of food bowls, water bowls and litterboxes, it's unlikely that an owner will create an environment completely void of FeLV infectious virions. However, providing separate feeding stations for infected and non-infected cats may help decrease the degree of exposure. FeLV is also labile outside of the host, remains infectious for only minutes in the environment and is readily inactivated with soap and disinfectants, so frequent cleaning of litterboxes and other potential fomites with soap and disinfectant may decrease viral load. FeLV is not zoonotic.

Recommendations in this article are based on the 2008 American Association of Feline Practitioners (AAFP) Feline Retrovirus Guidelines but also include some updated material and perspectives.[10] The AAFP Feline Retrovirus Guidelines are in the process of being updated.[23]

To see the references for this piece visit **dvm360.com/FELVrefs**.

Dr. Glenn Olah is a practicing clinician at Albuquerque Cat Clinic in his home state of New Mexico. He is currently president of Winn Feline Foundation, a nonprofit organization that has provided funding for feline health research for the past 50 years. He formerly chaired the AAFP Research Grant Committee and is a board member of Felines and Friends, a cat rescue organization in Santa Fe, New Mexico.

The American Association of Feline Practitioners (AAFP) improves the health and welfare of cats by supporting high standards of practice, continuing education, and scientific investigation. The AAFP has a long-standing reputation and track record in the veterinary community for facilitating high standards of practice and publishes guidelines for practice excellence which are available to veterinarians at the AAFP website. Over the years, the AAFP has encouraged veterinarians to continuously re-evaluate preconceived notions of practice strategies in an effort to advance the quality of feline medicine practiced. For more information, visit catvets.com.

Winn Feline Foundation is a nonprofit organization established in 1968 that supports studies to improve cat health. Since 1968, Winn Feline Foundation has funded almost $6 million in health research for cats at more than 30 partner institutions worldwide. This funding is made possible through the support of dedicated donors and partners. Research supported by Winn Feline Foundation helps veterinarians by providing educational resources that improve treatment of common feline health problems and prevent many diseases. Grants are awarded at least twice yearly with the help of the foundation's expert review panel. For further information, go to winnfelinefoundation.org.

Adrenal disorders in cats:

The more you know ...

... the more you diagnose. Endocrinology expert Dr. David Bruyette says hypoadrenocorticism and hyperaldosteronism are underdiagnosed and underreported in cats. Time to raise your clinical bar and catch these diagnoses. *By Sarah J. Wooten, DVM*

Feline hypoadrenocorticism and hyperaldosteronism are diseases with vague, nebulous clinical signs, says Fetch dvm360 conference educator David Bruyette, DVM, DACVIM, Chief Medical Officer at Anivive Lifesciences and CEO of Veterinary Diagnostic Investigation and Consultation. Because of that, he thinks they are underreported and underdiagnosed in cats. He goes as far as saying that these disorders are so common that if you look for them, you will probably diagnose either disorder in the next month.

Feline Addison's disease

According to Dr. Bruyette, Addison's disease, or hypoadrenocorticism, is seen in middle-aged cats, and there's no sex predilection. In dogs, Addison's is an autoimmune disease, but it's unknown if it's the same in cats, says Dr. Bruyette.

Cats in an addisonian crisis present the same as dogs—in shock, hypovolemic, bradycardic and hyperkalemic—but Dr. Bruyette says most cats with Addison's will not present this way. The biggest problem with Addison's in

BENJAMIN SIMENETA/SHUTTERSTOCK.COM

cats is that the clinical signs are often nonspecific. Addisonian cats are lethargic, dehydrated, ADR ("ain't doing right"), anorectic, have lost weight and occasionally vomit. Signs are episodic. The typical story is that you treat them with fluids and corticosteroids and they get better.

Notice that that is every sick cat on the planet?

The biggest problem with Addison's in cats is that the clinical signs are often nonspecific. Signs are episodic. The typical story is that you treat them with fluids and corticosteroids and they get better.

Diagnostic pointers. Laboratory abnormalities with feline Addison's include sodium:potassium ratio < 24, hyponatremia and hyperkalemia. Don't forget that effusions of various types can cause the same electrolyte abnormalities and must be ruled out, Dr. Bruyette says. Hypercalcemia is uncommon in cats with Addison's.

The main reason Dr. Bruyette thinks addisonian cats get misdiagnosed is that a lot of them present with azotemia and are diagnosed as having kidney disease. He says that if you have a feline patient that presents with azotemia that resolves after 24 hours of fluid therapy, then kidney disease was not the cause of that azotemia. In these cases, he recommends adrenal testing to the owner to rule out Addison's.

Adrenal stimulation is conducted with cosyntropin (Cortrosyn) at a dose of 5 µg/kg given intravenously, says Dr. Bruyette. Blood samples are collected before and then 60 minutes after administration. Cats with Addison's disease will have undetectable cortisol concentrations both before and after.

Treatment options. Addisonian cats need mineralocorticoid replacement—either oral fludrocortisone (Florinef—Pfizer) or intramuscular injections of desoxycorticosterone (DOCP). The fludrocortisone dosage is 0.1 to 0.2 mg given orally twice a day. Dr. Bruyette says that fludrocortisone does not control sodium concentrations as well as DOCP does—cats often measure low on blood sodium concentrations and have normal blood potassium concentrations. He does not recommend raising the dosage of fludrocortisone to correct hyponatremia if the blood potassium concentration is normal, nor does he recommend salting the cat's food because that will cause polyuria/polydipsia (PU/PD).

Fludrocortisone has glucocorticoid-like activity, so supplemental corticosteroids are usually not required. However, Dr. Bruyette always sends home a small supply of corticosteroids with any addisonian patient and tells clients that if their pet is not feeling well at any time to give a dose of corticosteroid and call the clinic.

The advantage to DOCP is that it does not have to be given daily, is very safe and consistently controls sodium and potassium concentrations better than fludrocortisone. The dosing interval ranges from 21 to 38 days. The disadvantage is that DOCP does not provide any glucocorticoid activity, so supplement corticosteroids must be given in addition to DOCP.

Determining the dosage of the glucocorticoid is the most challenging part of treatment, Dr. Bruyette says. Glucocorticoids are dosed to eliminate the side effects of poor appetite and activity level, and the dosage ranges from 1.25 to 2.5 mg/day. Some cats need the full dose daily. Other cats may need the low end of the dose every other day. Dr. Bruyette says give to effect, and if the patient exhibits PU/PD on the dose to lower the dose. Transdermal formulations are available.

What about a monthly methylprednisolone injection? Dr. Bruyette discourages this practice because absorption is variable, and, over time, methylprednisolone injections lead to insulin resistance and development of Type II diabetes.

Feline hyperaldosteronism

If there is a winner in the underdiagnosed feline hormonal disorders category, hyperaldosteronism caused by aldosterone-secreting adrenal tumors or bilateral adrenal hyperplasia would receive the gold medal. Hyperaldosteronism is much more common than we suspect, Dr. Bruyette says, and affected cats tend to be older and often have concurrent endocrinopathies or renal disease. He says if you look for it, you will find it—there might be one sitting in your waiting room right now!

Diagnostic pointers. Classic hyperaldosteronism in cats presents

with muscle weakness, lethargy, anorexia and cervical ventroflexion due to profound hypokalemia. Retinal detachment can occur secondary to hypertension. Laboratory abnormalities, including severe hypokalemia, high creatinine phosphokinase activity, and hypertension, are what clue us into diagnosis, says Dr. Bruyette. Blood sodium concentrations are usually normal. Hyperaldosteronism is usually missed when hypokalemia and hypertension are mistakenly associated with renal disease.

If you suspect you are dealing with a hyperaldosteronism case, Michigan State has a plasma and serum aldosterone assay for dogs and cats. If high concentrations of aldosterone (> 1,000 pmol/L) are detected, then Dr. Bruyette says the next step is to perform an abdominal ultrasonographic exam to find the adrenal mass.

Treatment options. Dr. Bruyette says the treatment of choice is surgical removal after controlling the hyperaldosteronism with a potassium supplement, amlodipine and spironolactone. Spironolactone is a terrible diuretic, he says, but it functions well as an aldosterone blocker. To avoid giving his surgeons intraoperative panic attacks, Dr. Bruyette has all of his cases undergo a computed tomography scan before going to surgery to determine whether the mass has invaded the vena cava.

Things get tricky when cats have what Dr. Bruyette calls primary non-tumorous hyperaldosteronism. These cats have classic signs of hyperaldosteronism plus rapidly advancing renal disease due to renal fibrosis secondary to hyperaldosteronism.

Things get tricky when cats have what Dr. Bruyette calls primary non-tumorous hyperaldosteronism. These cats have classic signs of hyperaldosteronism plus rapidly advancing renal disease due to renal fibrosis secondary to hyperaldosteronism. What makes this a difficult diagnosis is that the adrenals image normally on abdominal ultrasound.

Because hyperaldosteronism is so common, Dr. Bruyette recommends screening all feline chronic renal failure patients for hyperaldosteronism with the Michigan State assay, especially hypertensive or hypokalemic patients, even if their adrenals image normally. If your patient has a high aldosterone concentration along with hypertension and hypokalemic, then Dr. Bruyette says that patient can benefit from spironolactone administration to slow down the progression of renal disease. An inexpensive, generic preparation is available.

Now you know

Just as with Cushing's disease in cats, as we've covered previously, knowing when to suspect hypoadrenocorticism and hyperaldosteronism in cats is a major piece of the puzzle. Now that the pieces have been laid out before you, let's go save some cats.

Fetch dvm360 educator Dr. Sarah Wooten graduated from UC Davis School of Veterinary Medicine in 2002. A member of the American Society of Veterinary Journalists, Dr. Wooten divides her professional time between small animal practice in Greeley, Colorado, public speaking on associate issues, leadership and client communication, and writing. She enjoys camping with her family, skiing, scuba and participating in triathlons.

3 updates in feline **anesthesia and analgesia**

Veterinary medicine has come a long way in caring for its purring patients in recent years, including new drugs and a different approach to fluid therapy.

If you want to know the latest on feline anesthesia and analgesia, Fetch dvm360 conference speaker Sheilah Robertson, BVMS (Hons), PhD, DACVA, DECVA, CVA, MRCVS, is a go-to source.

"Luckily, we've come a long way in feline anesthesia and analgesia recently—a lot of it is to do with new drugs that are specifically approved for use in cats," says Dr. Robertson.

First on her list: the versatile induction drug alfaxalone, which is known for having a wide safety margin. Second: FDA-approved, feline-specific buprenorphine, which is a very good analgesic for cats, Dr. Robertson says.

For the third and final update, Dr. Robertson points out that while dogs and cats have historically been treated similarly with respect to fluid therapy while anesthetized, there's a known difference in their blood volumes—an issue she's crusading to correct.

"We do know that cats do need a much, much lower fluid rate during anesthesia, and that's what we're trying to tell everybody," she says.

To hear more from Dr. Robinson about these updates, visit **dvm360.com/felineupdate.**

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Pregnancy isn't an eviction notice for the family cat

Dr. Susan Nelson of Kansas State University wants to debunk the myth that cats and pregnant women can't safely coexist.

A positive pregnancy test often comes with a negative view of the family cat due to toxoplasmosis fears—and not without reason.

Felines are the definitive hosts of *Toxoplasma gondii*, which, according to the Centers for Disease Control and Prevention, infects an estimated 60 million plus people in the United States. Most infected people with healthy immune systems experience only mild symptoms, if any. But in pregnant women, toxoplasmosis can cause miscarriage, stillbirth and severe eye and nervous system problems in the child.

Despite the risks, Susan Nelson, DVM, clinical professor at Kansas State University's Veterinary Health Center, says in a recent university release that many pregnant women have been mistakenly advised to give up their cats.

"Toxoplasmosis can be a devastating disease, but with proper precautions, a woman does not need to rehome her cat if she becomes pregnant," Dr. Nelson says.

The release notes that cats aren't even the most common way people become infected. Raw meat, unpasteurized goat milk, raw vegetables, contaminated water and gardening are the most common sources.

Dr. Nelson offers a list of safety precautions directed at the general public, not just pregnant women:

1. Change your cat's litterbox every day. Infected cats can shed millions of microscopic *T. gondii* oocysts in their feces, and it takes one to five days for these oocysts to become infective after being shed. Pregnant women should avoid changing the litterbox, if possible. If not, they should wear disposable gloves and wash their hands with soap and water afterward.

2. Cats pick up the *T. gondii* parasite by eating rodents, birds and small animals, so keep your cat indoors.

3. Don't feed your cat raw or undercooked meats.

4. Don't adopt or handle stray cats while pregnant.

5. Keep outdoor sandboxes covered so cats are unable to defecate in them.

6. Freeze meats at subzero temperatures for several days before cooking, then cook them to recommended safe temperatures.

7. Peel or wash fruits and vegetables before eating.

8. Don't eat raw or undercooked oysters, mussels or clams.

9. Don't drink unpasteurized goat milk, and don't feed it to cats.

10. Use soap and hot water to wash cutting boards, dishes, utensils, counters and your hands after they have come in contact with raw meat, poultry, seafood and unwashed fruits or vegetables.

11. Wear gloves when gardening and while coming in contact with soil or sand that could be contaminated with cat feces. Wash your hands afterward.

12. Instruct children to wash their hands to prevent infection.

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Christopher J. Allen, DVM, JD | LETTER OF THE LAW

What to expect when you're expecting ... **to dispute your noncompete**

Noncompete terms are the gifts that keep on giving well after you leave a veterinary practice. If you're hoping to get out of yours, here's a picture of how that could go—as well as some words of advice.

When I'm asked to handle a veterinary contract noncompetition disagreement, it always fits into one of two categories: a noncompete that's been signed and noncompete that hasn't. It may sound simplistic, but this subtle distinction is a major player in determining whether the veterinarian will obtain a good outcome or an unpleasant one and whether the problem will end up being expensive or simply temporary inconvenience.

Unsigned and unfettered

Until an employment contract is actually executed (signed), the noncompetition language remains open to discussion, negotiation and modification. The promise to refrain from competitive practice can be honed and massaged until it's workable for both sides. For example, one large corporate veterinary chain is often willing to allow "post-employment competition" on a relief, per diem or "infrequent" basis so that a former associate can earn income while seeking a full-time position outside the circumscribed region.

And even in instances where a veterinary practice insists on a complete prohibition of practice in its perceived "service area," the size of that area may be open to discussion. If the practice is anxious to fill a vacant position, it may be open to reducing the area covered by the noncompete clause. It may even consider reducing the period of time the noncompete is supposed to remain in force.

However, the situation is entirely different as soon as the noncompete agreement is signed. Once the document is approved by both parties, it tends to endure through subsequent employment contracts with the same employer and to be immutable through renegotiation.

Signed and sealed

Once an associate or partner veterinarian has executed a contract with a noncompete clause, it's not uncommon for circumstances to change such that the party agreeing to refrain from competing (sometimes called the "burdened" party) no longer wishes to honor the noncompetition pledge. The reasons vary, but here are the most common:

> The burdened party no longer feels that the agreed-to distance is fair.

> The burdened party hadn't intended to remain in the area for more than a year or two but later meets a significant other with roots in the area.

> The burdened party identifies a practice within the noncompete region that he or she feels would constitute a much better "fit" than the practice where he or she works.

What options do you have with a signed noncompete?

Let's look at the steps involved when a veterinary practice and one of its associates or partners raises a genuine dispute over the terms and enforceability of a noncompetition term in a contract.

My use of the word "genuine" here implies that we're talking about

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something that could lead to potential arbitration or litigation—not merely a theoretical dispute. This is important because in our legal system, judicial bodies generally don't render opinions about rights of parties on a hypothetical basis. For example, a court generally won't answer something like the following: "What would happen if I violated this noncompete? Would you, Court, hold it valid?" In our system, there usually has to be a party that finds itself aggrieved by another party. Thus, to find out whether the noncompete holds water, one side must violate it, and the other side must sue.

In order to see what happens when a veterinarian no longer wishes to honor a noncompetition agreement he's signed, let's look at an example.

Let's assume that Dr. Adams, an associate, has decided that his 12-mile, three-year noncompete is unfair. He's always viewed it as unfair, but when he took the job he'd only planned on staying a year or two before moving on. Then he met and married a local woman, and things have changed. Now he wants to work in his wife's hometown (just not for his current employer).

If Dr. Adams honored his noncompete, the couple would have to move in order for him to find another position as an associate. Because Dr. Adams has located a better position 6.2 miles from his current employer, he wants out of the noncompete—or at least to modify it down to a six-mile practice prohibition.

He calls an experienced employment attorney and is told he has several options:

Option 1: Dr. Adams can politely ask his employer to agree in writing to refrain from enforcing the noncompete beyond six miles. If the employer wants to continue a collegial relationship with Dr. Adams, it might consider the request.

Option 2: Dr. Adams can offer to "buy out" his noncompete—say for $10,000—to trim it to six miles.

Option 3: Dr. Adams can attempt to assess the factors his employer would consider in choosing whether to litigate his noncompete violation, of which there are several:

> Noncompete litigation is expensive. It's usually billed hourly by attorneys for both sides in the dispute, regardless of who prevails. Such litigation is not covered by malpractice insurance, nor does a license defense policy rider cover it.

> Does the employer reasonably believe it could win a fight to enforce its noncompete? If the clinic drafted the broad 12-mile noncompete term just to scare off potential competition from past associates, it may not feel confident enough in its reasonableness (and therefore enforceability) to undertake a costly lawsuit against Dr. Adams.

Don't assume that just because a noncompete seems unfair or unenforceable that you can get it judicially set aside.

> Would the employer be willing to stand the social media buzz about the dispute if it sought and won a temporary restraining order against Dr. Adams (who has an extremely loyal following)? Perhaps the employer would be better off with a competitor 6.2 miles away than with losing scores of clients who've read about how Dr. Adams was "beaten up" by "that terrible clinic."

> Is the employer owned by a big company (or a private individual with plenty of money) that's just waiting for a chance to prove it will sue any associate with the gall to challenge it?

Option 4: Dr. Adams can decide that he's willing to litigate. Here's how that could go:

First, Dr. Adams would have to find an employer willing to hire him despite his noncompete.

Second, because the veterinary community is small, it shouldn't take long for Dr. Adams' former employer to discover that he's practicing in violation of the 12-mile practice prohibition.

Third, Dr. Adams and his wife will need to stay tough and not be intimidated by several registered letters from his former employer's attorneys insisting that he "cease and desist" from the alleged violation of the noncompete terms in his employment contract. The new employer is likely to receive similar letters.

Fourth, Dr. Adams and his new boss must be prepared to both receive a summons and complaint drafted by the former employer's law firm alleging breach of contract and several other more creatively crafted legal causes of action. There will be a demand that the court award Dr. Adams' former employer all its legal fees from Dr. Adams if he loses at trial.

Fifth, Dr. Adams and his new employer will likely have to pay thousands of dollars toward a retainer to obtain representation in the inevitable hearing for a temporary restraining order against them. These pleadings can cost thousands of dollars and may need to be prepared within a week or less from the time they're served with the summons and complaint by the process server.

Sixth, oral arguments will be heard by a judge to determine whether Dr. Adams should be legally restrained from continuing to work at his new job. If a temporary restraining order is issued, a trial date will be set well into the future. During the wait, Dr. Adams will be forced to seek other work and his new boss will be indefinitely down a veterinarian.

Parting words of advice

If you're an associate veterinarian, the two most important terms in your employment contract are the compensation and noncompetition language. The money and benefits are nice, but when you leave the job, the money issues end. The noncompete, however, is the gift that keeps on giving. Follow these steps before signing:

1. Make certain you understand the noncompete fully.

2. Brainstorm what possible life changes could make a seemingly acceptable noncompete a genuine thorn in your side later on.

3. Don't assume that the noncompete terms (distance and length of time) cannot be negotiated. They probably can.

4. Most importantly: Don't assume that just because a noncompete seems unfair or unenforceable that you can get it judicially set aside. While it may be possible on a theoretical basis, the logistics and cost of doing so may make successful litigation impossible.

Dr. Christopher Allen is president of Associates in Veterinary Law PC, which provides legal and consulting services to veterinarians. Call (607) 754-1510 or e-mail info@veterinarylaw.com.

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Reference: 1. Data on file, Vetstreet Data Analytics. Virbac Corporation.

Virbac

Shaping the future of animal health

How do you eat an elephant like **student debt?**

Answer: One bite at a time, of course, says AVMA's new chief economist Dr. Matthew Salois—but be sure to share the task with colleagues from other disciplines.

As an economist, the best advice I ever received was to be "more than just an economist." As strange as that may sound at first, it's proven to be true. In its own right, economics is a valuable discipline, but across all areas of science we're seeing a more interdisciplinary approach. By collaborating with veterinarians and other professionals spanning the animal health spectrum, economists can apply new and different lenses and philosophies to economic-based problems, gleaning better insights and informing better solutions.

At the AVMA, we are focused on the veterinary community's core challenges: new graduate debt, depressed starting salaries and lingering gender pay gaps, to name a few. Beyond those traditional challenges are income-related obstacles such as practice performance and profitability, a gap in client compliance and the need for continued innovation in products and services to grow demand.

These are big issues with complex solutions. But by taking a holistic view, by mingling and intersecting disciplines, we can move beyond identifying problems and begin to formulate practical steps for improvement. Grounded in the right data and information, tools such as communication, education and innovation can be leveraged to drive demand for veterinary services. We can begin to identify specific actions every veterinarian can adopt and implement to drive small, positive change. And that means over time we will begin to turn the tide toward improved practice economics—both at the clinic level and professionwide.

As I have stepped into my current role as AVMA's chief economist, my approach is to focus on short-run wins while pursuing long-run change, asking first and foremost: what can be influenced in the short run? What can we do now, in the near term, to help improve the profession one step at a time? Because as we all know, we're not going to change the debt problem overnight. But with an integrated approach, bringing multiple disciplines to the table to tackle a specific challenge, we can help improve the veterinarian's life today. And that, over time, will change the profession.

In the five years since its inception, the AVMA economics team has built an incredible foundation to understand the dynamics of veterinary economics. As we enter the next phase of converting that knowledge into tangible tools, I look forward to bringing those actionable insights to you.

My approach is to focus on short-run wins while pursuing long-run change, asking first and foremost: what can be influenced in the short run? What can we do now, in the near term, to help improve the profession one step at a time?

AVMA | Veterinary Economics

Dr. Matthew Salois worked in private industry, government and academia before joining the AVMA in 2018 as director of veterinary economics. Most recently, he served as director of global scientific affairs and policy at Elanco Animal Health, supervising a team of scientists in veterinary medicine, human medicine, animal welfare, economics and sustainability.

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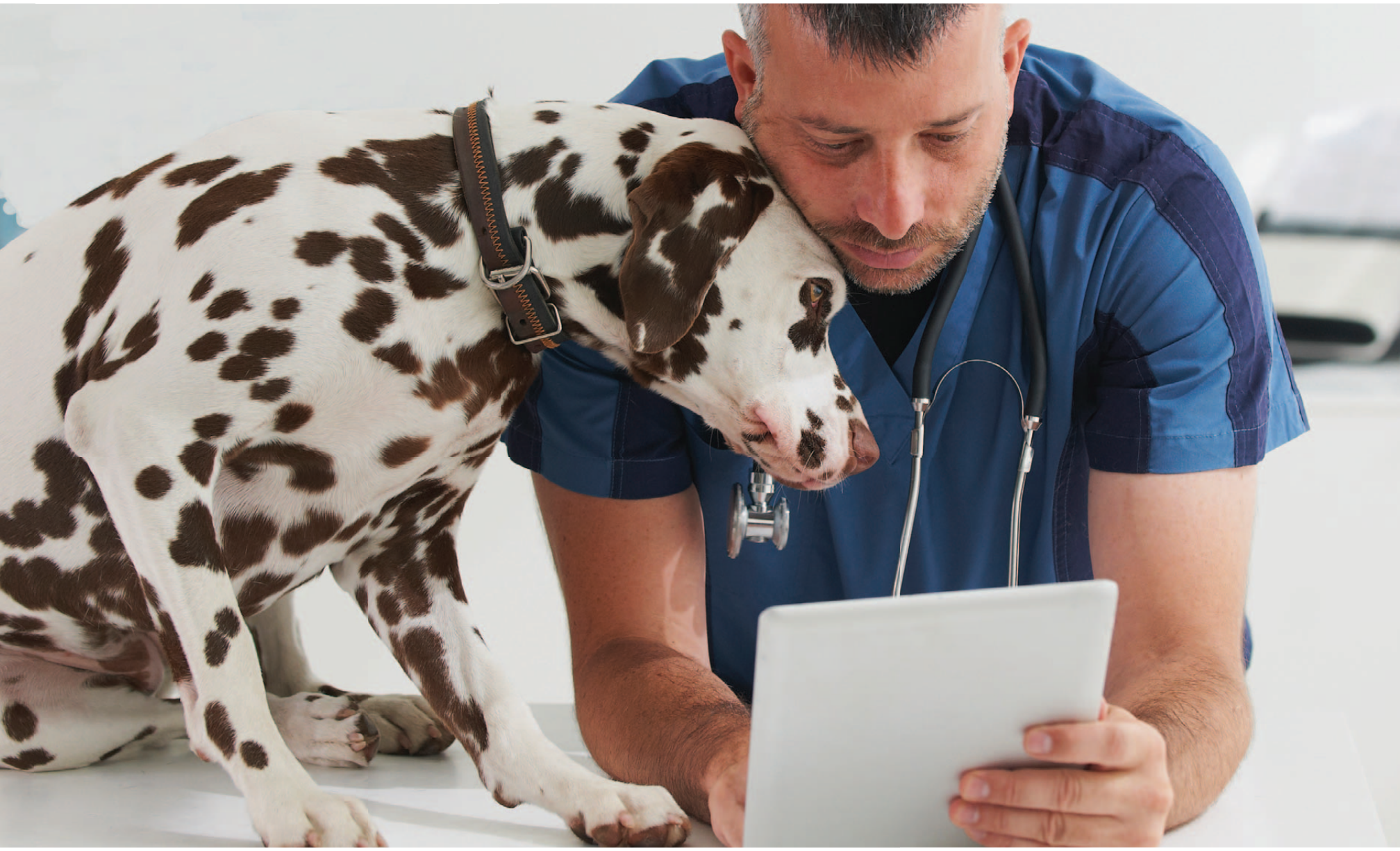

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1. Path To Purchase Research, Veterinary Category, conducted on behalf of CareCredit by Rothstein Tauber, Inc., 2016.

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Stone Manufacturing's smart rabies tag is a state-approved aluminum rabies tag that includes a QR code on the back that provides a digital pet health data card, along with key information on the owner and veterinary clinic. It includes a GPS feature that will automatically send a text or email alert to the owner, along with a GPS location of exactly where the pet was found. The tag is also cross-linked to the pet's microchip number. Another feature allows pet owners the ability to upload their pet's veterinarian-signed rabies and vaccination certificates, so they have proof for boarding facilities right on their smartphone.

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This pet remembrance product incorporates ash cremains, paw prints and fur clippings into a frameable piece of art. Clients email their favorite digital picture, and it is turned into an etched ink print. This etching is combined with a pet's paw print, clipping of fur and cremain ash into a beautiful commemorative keepsake. The product is popular with individuals honoring both pets that are living and have passed and veterinarians hoping to comfort grieving pet parents.

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Henry Schein to spin off, merge veterinary business with Vets First Choice

Merger will create independent public company called Vets First Corp.; Henry Schein expects to receive up to $1.25 billion in cash from deal. The deal is expected to close by end of 2018.

Henry Schein Inc. and Vets First Choice announced plans April 23 for Henry Schein to spin off its animal health business and merge it with Vets First Choice, according to a media release from Henry Schein. Henry Schein is the top distributor of animal health products and a provider of practice management software for veterinary practices, and Vets First Choice is an online veterinary pharmacy and tech-services platform. Both are publicly traded.

The new company, to be called Vets First Corp., will combine data analytics, digital communications, practice management software and supply-chain expertise into a multichannel platform, the release states. After spinning off its animal health division, Henry Schein plans to focus on its medical and dental businesses.

Ben Shaw, founder and CEO of Vets First Choice, will become CEO of the new company, which will be headquartered in Portland, Maine, current home of Vets First Choice.

"We are early in the lifecycle of rapid technological change in the animal health market," Shaw says in the release. "This merger creates an enhanced value chain that connects the veterinarian, the manufacturer and the pet owner through insights and analytics that will support better clinical and financial outcomes."

Henry Schein Animal Health (HSAH) employs approximately 4,300 people, and its active customers include about three-fourths of U.S. veterinarians, the release reports. In addition, more than half of U.S. veterinary practices use Henry Schein's practice management software. Vets First Choice employs about 750 people in the U.S., and more than 5,100 veterinary practices use its prescription management platform.

Immediately after the spinoff, HSAH will combine with Vets First Choice to form a new publicly traded company. The companies had combined 2017 sales of approximately $3.6 billion, the release states. The new board of directors will be made up of current members from the boards of the separate companies. David Shaw, chairman of the board of Vets First Choice, as well as founder of IDEXX Laboratories and Ben Shaw's father, will serve as chairman of Vets First Corp.

Organizers of the merger expect that Henry Schein shareholders will own 63 percent of Vets First Corp. common stock after the transaction, while Vets First Choice shareholders will own 37 percent. In addition, Henry Schein expects to receive up to $1.25 billion in cash on a tax-free basis as part of the deal. The transaction has been unanimously approved by the boards of both companies and is expected to close by the end of 2018.

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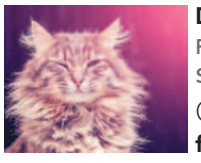

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A shared passion **for horse feet**

The relationship between farrier and veterinarian doesn't have to be one of begrudging acceptance.

I was in a farmer's barn looking at a sick pig when I met Randy. He was putting shoes on an old gelding and I watched him work from across the expanse between the pigs and the horses. Randy made the backbreaking job look easy. I'd been around farriers my whole life, and I could tell this was a good one.

I'd only been in Lamesa for about a year and had heard Randy's name thrown around as the best farrier in the area, but I'd never actually met him. Today was the day. I went over and introduced myself and we began talking about horse feet. My passion has always been equine lameness and surgery, and I never missed a chance to talk to someone else with the same zeal.

We talked about how to shoe for navicular problems, or side bone, or bone spavin. He had some great ideas and was trying things I'd never heard of. Randy told me who he'd trained under and all about how he'd evolved in his philosophy of keeping horses sound and correctively shoeing those that weren't.

I was fascinated, and I asked Randy if he'd come to my clinic to shoe horses once a week. I told him we could get the locals to drive to the clinic so he wouldn't have to travel from place to place and could get more done in the same amount of time. I could save all the horses that needed corrective work in my practice for that day as well.

He just smiled with a little Copenhagen smokeless tobacco between his front teeth and said, "Nope, I'm not interested in that at all."

Man, that was disappointing. He was nice about it, but there was no doubt left in the barn that this fella wasn't going to work at some vet clinic.

We talked a little longer and shook hands, and I figured that was the end

of my dealings with Randy Bradshaw. He was plenty nice, but he was independent and completely uninterested in having some snotty-nosed veterinarian telling him how to shoe a horse.

The months passed and circumstance led to us working on a few horses together—he was the client's farrier and I was the veterinarian. We would talk on the phone and I would tell him what the radiographs showed and how the horse blocked out. We would bounce a few ideas off each other and then Randy would work his magic. I was continually impressed with his knowledge and skills, but most of all I was impressed with the pride he took in fixing broken horses.

As time passed we worked on more horses together. After a few successes and a few failures, it became obvious that we made a pretty good team. One day when we were talking about a case, Randy asked if the offer was still good for him to come work at the clinic once a week. I didn't hesitate a second and told him it absolutely was.

For the next 10 years Randy came to Brock Veterinary Clinic on Tuesdays. We went to continuing education meetings all over this part of the world together. He taught me stuff about horses' feet that will always be a part of how I approach lameness. He brought me new clients from all over our region and had faith that I would do my best to fix them.

I always wanted to be a horse vet in a mixed animal practice in rural America. I have been blessed to get to do that at the highest level, and for much of that I credit Randy Bradshaw. He gave me confidence in the early years of my practice—confidence just because he was around to help me figure out how horses move and what changing their feet does to that movement. We became best of friends and still are today.

I've often wondered what my career would be like if Randy hadn't wandered into my world. It would be different—much different. So here's to you, Randy Bradshaw, and all the other farriers out there who are making a difference.

Bo Brock, DVM, owns Brock Veterinary Clinic in Lamesa, Texas. His latest book is Crowded in the Middle of Nowhere: Tales of Humor and Healing From Rural America.

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dvm360 leadership challenge

Buyer's remorse

Feeling like you made a mistake becoming a veterinarian? You're not alone—and you'll get over it. **p6**

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What you **DIDN'T LEARN** in vet school

dvm360 leadership challenge

There's a disconnect between required classes in veterinary school and required skills in everyday practice. Why don't veterinarians learn more about dentistry, nutrition, behavior, client communication, and business and personal finance savvy before they're thrown into private practice? Where do new team members learn this stuff they didn't get in classes? Our experts help new grads fix this and give mentors the tools they need to onboard new associates faster and better.

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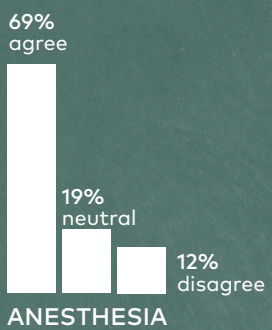
This dvm360 Leadership Challenge is supported with an educational grant from Banfield.

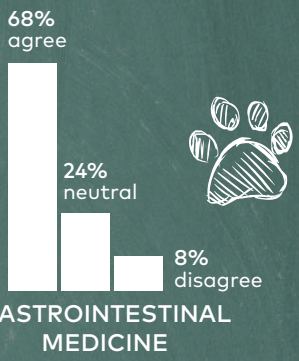
BE PREPARED

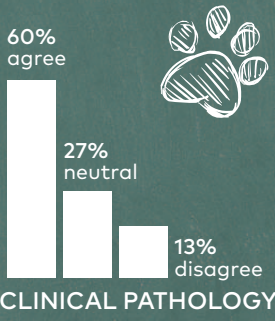
You know the old Boy Scout motto, "Always be prepared." And as a vet student, it probably felt as though that's all you did—study, study, study. But just how valuable were the things you learned—and can you readily identify gaps in your education that you wish you could've addressed back in the days of organic chem? We recently surveyed readers* to ask about the level of preparation you felt coming out of school and how you think veterinary education could be improved as part of our Vet School Leadership Challenge. Here's what we found. And there's much more at **dvm360.com/vetschool**.

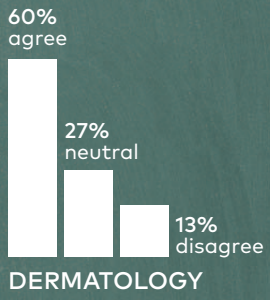
I was ready out of the gate!

"My education adequately prepared me for my first year in practice in the following clinical areas ..."









*The dvm360 Vet School Survey was sent in March 2018 to subscribers of *dvm360*, *Vetted* and *Firstline*. The survey garnered 346 responses with a margin of error of 5%.

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I DIDN'T KNOW WHAT I DIDN'T KNOW.

Out of those we surveyed, here's what readers cited as areas where they felt the most underprepared out of vet school ...

52% said dentistry

49% said behavior

41% said orthopedic surgery

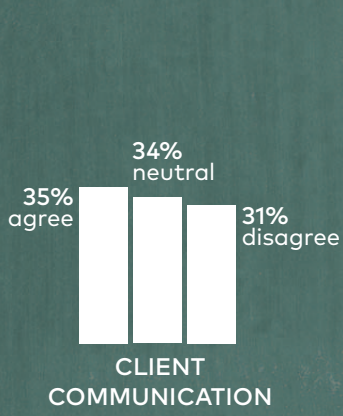
33% said nutrition

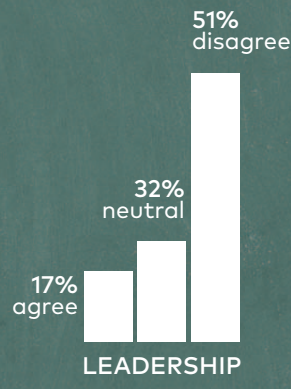
74% of veterinary professionals surveyed felt inadequately prepared for **compassion fatigue** in their first year

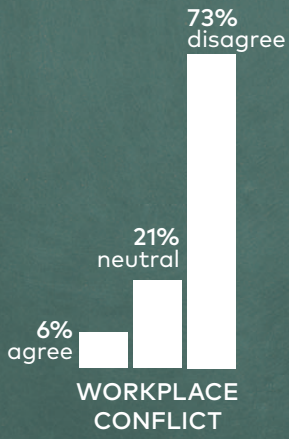
72% of veterinary professionals surveyed felt inadequately prepared for **personal wellness** in their first year

I was shy on soft skills.

"My education adequately prepared me for my first year in practice in the following nonclinical areas ..."







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BUYER'S REMORSE: Expect it three to five years after vet school

Feeling like you made a mistake becoming a veterinarian? You're not alone—and you'll get over it.

By Jessica Fusch, DVM

Buyer's remorse is a type of cognitive dissonance that occurs when there's a gap between what we expect to gain from a purchase and the cost we incur to obtain it. Houses and cars are generally the largest purchases people make. Therefore they tend to generate the feeling of buyer's remorse most often.

An expensive graduate degree like veterinary medicine, which often costs more than our first home and rarely pays us back to the extent we expected it to, is very likely to result in some level of buyer's remorse. The problem is that most of us aren't prepared for it when it hits.

We spend a lot of time and money getting into vet school. Since not many people do, we're elated to be among the chosen few. During school we buckle down and learn all we can, not paying much attention to the money we're spending during those four years. We emerge on the other side as new doctors, excited to embark on our new career. This is a happy time. Our families are proud and our future is bright.

Six months after graduation we begin to pay back our student loans. Our first round of taxes is often a great experience because we've worked only half the year and are still entitled to some student tax credits.

> "I propose that the question 'Why did I become a veterinarian?' is completely normal and we should expect it."

The next year we learn we're making too much money to even write off our student loan interest and we're paying one-third to one-half our monthly income back to the government—and this is scheduled to go on for 10 to 25 years. For a new vet school grad in their midtwenties, this is literally a lifetime.

During this time we may also find that the mentorship we'd hoped for is not available. Patients die despite our best efforts. Clients get angry and don't appreciate what we do. We still have an enormous amount to learn. For these reasons we tend to dislike our first jobs so much that we question why we chose this profession in the first place. I certainly felt this way myself, and more and more of my colleagues have expressed these sentiments than not.

I propose that the question "Why did I become a veterinarian?" is completely normal and we should expect it. Between years three and five after graduation we feel like we're giving too much of our income back to the government to pay for a profession we're not even sure we want—and we're stuck. It would cost us too much to go back to school and choose to do something else. So on we trudge.

By this time we may have

SOMRAK JENDEE/SHUTTERSTOCK

bought a house (or wanted to), gotten married and had a baby or two. These life changes often aggravate our feelings of buyer's remorse. The cost of our schooling just doesn't feel like it's worth it anymore. But it's too late. It's done.

Despite all this, veterinary medicine is our passion and we really do love the science and most of the patients and clients. So most of us would probably choose to be veterinarians again if we had it to do over. But we advise others against following in our footsteps. These simultaneous realities might not add up logically—hence the cognitive dissonance—but we should talk about them and realize the conflicting feelings are normal.

Once we come to terms with (get used to) our student loan payments, become more comfortable and competent as clinicians, and begin to earn more based on our experience, the negative feelings will dissipate. Most of us will find our groove and discover that we're grateful and glad to be veterinarians.

If the potential for buyer's remorse were discussed during veterinary school, at least we wouldn't be so shocked and often debilitated by the experience. We would know that we're not alone, this is normal, and this too shall pass.

Dr. Jessica Fusch owns Key Veterinary Care in Elkton, Florida.

Why MENTORSHIP matters

By Dave Nicol, BVMS, Cert. Mgmt MRCVS

In veterinary medicine, a happy workplace and healthy relationships are just as important as solid clinical skills. To that end, lean in and listen up, because this matters a great deal: It is essential that you have a mentor.

A good mentor will be an asset to you like no other. Here are a few qualities you should expect. A good mentor ...

- Knows more than you and can teach you things.
- Is outstanding at what they do.
- Gives honest advice and feedback.
- Sees your potential but isn't afraid of calling out your BS.
- Has your back but will also push you forward.
- Asks you difficult questions that will help you unlock the breakthroughs in your life.
- Will pick you up, dust you off and help you stand up again when life knocks you over. (And trust me: If that hasn't happened yet, it will.)

Take my advice: If you're not currently in a mentoring relationship, seek one out. Identify a good candidate and sit down with them ASAP to work out a regular meeting schedule where you'll get exclusive access to each other's brain for at least an hour every two to four weeks (I like two-week intervals best).

And here's a note to you seasoned docs with lots of wisdom to share: Anyone who's had the privilege of working with a great mentor would be mad not to offer the same support to each and every employee.

So how do you find a mentor?

Here are the qualities you should look for:

They have to care. A good mentor has to be concerned about you and your welfare! Lots of people out there are knowledgeable enough to teach you, but they must care enough to spend time with you.

They have to have time. You can work with the most adept clinician in the world, but if she's moving a million miles an hour and doesn't have any spare time, there's no point hassling her to be

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your mentor. It's never going to happen.

They have to display the qualities you want to display yourself. A truism of life is that you become the sum of the people you spend time with. This is especially the case with your mentor! I encourage you to choose someone who's emotionally intelligent. How do you know who that is? It's the doctor who has a busy day and doesn't freak out. It's the manager who actually enjoys working with the team—and vice versa. Emotionally intelligent people make relationships look easy.

They have to see the upside for them. A good mentor looks for a good mentee: someone who's interested in the subject matter, who shows up and is present in the conversation, and who asks meaningful questions. There's nothing better as a mentor than working with someone who's eager to learn. So, be a nice person to mentor in the first place, and you'll have a much higher chance of pairing with someone great.

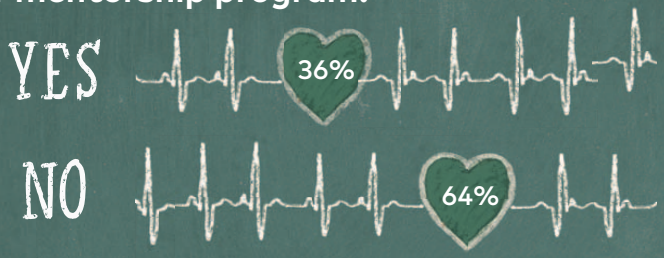
For more mentoring tips, go to **dvm360.com/mentorship**.

ROOBCIO/SHUTTERSTOCK

Where have all the mentors gone?

Did you have a mentor in your first job? Based on our research, we'd guess many of you didn't. But that doesn't mean it's too late to turn the tide. The 2016 Deloitte Millennial Survey shows just how vital mentoring is to your new workforce. According to their research, 66 percent of millennials expect to leave their jobs by 2020. The study also indicates it's a lack of mentorship pushing some millennials to move on, with 63 percent reporting their leadership skills are not being fully developed. The 2018 dvm360 Vet School Survey examined veterinarians' opinions about how prepared they were for their first year of practice. Here's a look at how mentorship shakes out in the veterinary profession.

Did your first job have any type of mentorship program?



Have you had any mentorship experience since your first job after graduating ?

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Filling in the **education gaps**

Fetch dvm360 conference educators share the top things they wish veterinary (and veterinary technology) schools would teach.

The practice of medicine understandably eats up most of the time spent in veterinary school. But Fetch dvm360 conference speaker Ori Scislowicz, BS, LVT, says most vet professionals would also benefit from some education on emotional intelligence. Working in the pressure cooker of a practice magnifies personalities—and not always for the better.

"Because we have the long hours, we have an intense work that we do—it's very emotional—there are going to be a lot of difficult conversations," she says.

She believes that entering the profession equipped to deal with disparate dispositions will ultimately curb burnout and turnover in the veterinary field.

Watch Scislowicz's video—and find additional resources to boost your emotional intelligence—at **dvm360.com/vetschoolEQ**.

What else didn't you learn in school? Fetch dvm360 conference educators weigh in: Dr. David Dycus thinks good surgeons need to start out as good surgical assistants. Dr. Paul Bloom wants students to learn more about the link between methicillin-resistant *Staphylococcus aureus* and antibiotic administration. Dr. Matthew Brunke stumps for more education on rehabilitation, while Danielle Russ, LVT, pitches for vet tech curricula around client communication and emotional intelligence. See what they have to say at **dvm360.com/vetschooled**.

KUZNETSOV ALEXEY, NIKITEEV_KONSTANTIN/SHUTTERSTOCK

How I'd change VET SCHOOL

How my four years of school could have better prepared me for the real world.

By Sarah J. Wooten, DVM

In veterinary school, I learned so much great stuff but once I hit actual practice, I saw a few areas I felt I might have been better prepared for. Here's my completely unfiltered list (warning: brutal, honest truth here):

1 **Make it so that students only study and become licensed to treat the species they intend to treat after graduation.** For example, I would not study cows, horses or anything except dogs and cats because that's what I want to see. As a small animal veterinarian who is never going to practice on horses, cows, or goats, all that s*** was a complete waste of my time.

2 **Stop wasting an entire year on biochemistry,** something that everybody already had as a prerequisite to get in—memorizing stuff like the Krebs cycle and other crap we never, ever use.

3 **Condense reproduction into one semester** and only give the basics for small animal students who intend to go into private practice. Almost every animal I see is spayed or neutered. How much time do I need to spend memorizing rare fetal birth defects in one-eyed sheep fetuses because they ate furry cabbage? If you intend to do repro, then that can be an elective.

4 **Make pathology one semester.** Just the basics.

5 **Dump epidemiology and statistics,** unless you're going into public health.

6 **Expand nutrition to teach us what we need to know** and how to have conversations with clients about food and counseling and following up on obesity cases.

7 **Focus dentistry on extractions, prophylaxis and critical client conversations about dental health wellness.** Save all the fancy stuff for elective material if students want to learn more.

KISIALIOU YURY/SHUTTERSTOCK

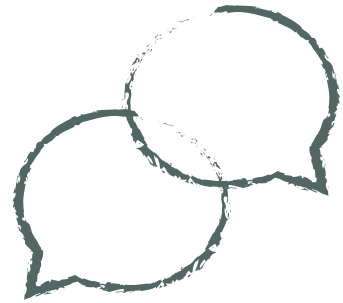
8 **Add an entire year of general practice:** ears, anal glands, torn toe nails, puppy wellness visits, vaccines, parasiticides, anal sacs, arthritis management, urinary incontinence, mitral valve disease, parvovirus treatment, geriatric care, annual blood work, therapeutic drug monitoring … you get the idea. It's all the common, day-to-day stuff I didn't learn because I was too busy acting like a human retractor or learning about rare zebra cases. I'd involve students in spay-and-neuter-a-thons—including common surgical complications, such as slipped ligatures and lacerated spleens—and force students to deal with these complications. But not on live dogs! Instead, we'd need a realistic virtual-reality experience or dummies that bleed everywhere.

9 **Where's the soft skills track to teach communication skills, how to "read" clients, how to deliver estimates and how to deal with angry clients?** Students would finish this course feeling prepared to communicate with clients in general practice.

10 **How about a personal development track?** It could include, among other things, a class on how to create résumes, interview well, learn how much you're worth in the market and negotiate for a good salary and benefits. Imagine if a vet school out there was so well known for strong candidates who came out of the gate swinging that headhunters would come to the school early to recruit?

My final two cents: It seems to me that the current value of a vet school depends heavily on the publishing rate of faculty and residents. While this is important for many reasons, including advancing scientific research, there needs to be equal weight given to graduating functional, confident, emotionally resilient DVMs. I think the tide is turning and we are getting better, but we have a long way to go.

Dr. Sarah Wooten divides her professional time between practice in Greeley, Colorado, public speaking on associate issues, leadership, and client communication, and writing.



Dr. Downing weighs in: Get them talking early!

Exposure to real patients and real clients and training in effective communication should start in the first year. We learn in many complex ways, but we know that repetition helps to build expertise as does in-person exposure to skill sets. Get students in the same space with patients and clients right away!

—Robin Downing, DVM, DAAPM, DACVSMR, CVPP, CCRP, CVA, MS

3 THINGS new grads need to know

Corporate medicine, client interactions and stress management: Three Fetch dvm360 speakers have some strong opinions about what the nation's veterinary schools could be doing to prepare their graduates for life on the outside ...

Bash Halow, LVT, CVPM

You didn't learn this in vet school: Private practice is changing forever

Vet students should know that the veterinary world is radically transforming and will be very much changed in as little as five years. This is mostly because of private equity money and larger corporations seeking to consolidate and take advantage of America's growing obsession with pets and the recession resiliency of animal healthcare. A career as a veterinarian once provided gifted, precocious individuals a chance to experiment, risk, learn, be charitable, be entrepreneurial, be community leaders, be sources of local employment, be mentors, friends, and—eventually—wise, wealthy, experienced humans. I think the inevitable changes that are happening have trimmed that list considerably.

Whoever is running the show, corporation or private practitioner, they'll have choices. Should we pay our team members well? Should we strive for a great client service experience? Should we work hard to do the right thing by animals? Just because it's a corporation calling the shots doesn't mean it has to be miserly and Dickensian. Perhaps veterinary professionals simply have to rethink how this job will be done. Maybe fewer will fly solo and more will be part of a cooperative of focused individuals managing their hospital(s) for great client satisfaction and patient outcomes, but with an especially clearer focus on profit and efficiency. Maybe access to more capital from private equity will finally give vet professionals the resources they need to really win at

Sarah Wooten, DVM

I didn't learn this in vet school: Talking to clients about money and managing stress is hard

I didn't know how to present a large estimate to a client. I had no idea how to talk about money when I graduated. Most clients I saw at the university were already prepared by the doctors or receptionists at their practice on how much money they were going to spend, so when we showed estimates with multiple zeros and a comma, clients didn't bat an eye. I graduated thinking that every sick pet got the minimum database of bloodwork, urinalysis, thoracic radiographs and abdominal ultrasound, and when I couldn't get clients to do that in my first job, I felt frustrated—like I was a failure. I wish somebody would have taught me that discounting is addictive, that it attracts the wrong customers, and that it erodes the value of what I provide and the practice's value. My motto shall be: If Grandma can't do what I'm offering on her kitchen table, then I should not feel bad about charging for my services.

I didn't know how to work with staff. I was stressed all of the time at work—God bless 'em, my first team. Nobody taught me any leadership skills or stress management, so I took it out on them. I was petulant, demanding and short with my team. I know there are business management and stress classes at vet school now, but I also know that the students don't value them as highly as they do their clinical classes. I wish vet school would take soft skills seriously and treat them with as much respect as they do their clinical skills.

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I didn't learn this in vet school: Introversion doesn't help

The selection process for admission at veterinary schools continues to increase the population of introverts in the profession. Because effective communication with clients is at the heart of our ability to deliver medical care to our patients (or to pursue alternative careers to practice), for the majority of veterinarians, introversion is an enormous obstacle to be overcome. That isn't to say that introverts cannot be excellent veterinarians, but the point is that there is already so much medicine to learn, with exponential growth of that body of knowledge with each passing year, that adding one more barrier seems counterproductive.

Also, you don't need an internship or residency to be a great doctor. Students should not be conditioned to believe that in school. While mentoring on the job after graduation is necessary, internships and residencies are not, and there are many graduates pursuing those positions who would be much better suited for alternative paths.

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