VOLUME 114, NUMBER 7

July 2019

Vetted™

Because practice ain't perfect.

Trifexis™

(spinosad + milbemycin oxime)

Chewable Tablets

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

Before using Trifexis, please consult the product insert, a summary of which follows:

Indications:

TRIFEXIS is indicated for the prevention of heartworm disease (*Dirofilaria immitis*).

TRIFEXIS kills fleas and is indicated for the prevention and treatment of flea infestations (*Ctenocephalides felis*), and the treatment and control of adult hookworm (*Ancylostoma caninum*), adult roundworm (*Toxocara canis* and *Toxascaris leonina*) and adult whipworm (*Trichuris vulpis*) infections in dogs and puppies 8 weeks of age or older and 5 pounds of body weight or greater.

Dosage and Administration:

TRIFEXIS is given orally, once a month at the minimum dosage of 13.5 mg/lb (30 mg/kg) spinosad and 0.2 mg/lb (0.5 mg/kg) milbemycin oxime body weight. For heartworm prevention, give once monthly for at least 3 months after exposure to mosquitoes (see **EFFECTIVENESS**).

Dosage Schedule:

Body Weight	Spinosad Per Tablet (mg)	Milbemycin oxime Per Tablet (mg)	Tablets Administered
5 to 10 lbs	140	2.3	One
10.1 to 20 lbs	270	4.5	One
20.1 to 40 lbs	560	9.3	One
40.1 to 60 lbs	810	13.5	One
60.1 to 120 lbs	1620	27	One
Over 120 lbs	Administer the appropriate combination of tablets		

Administer TRIFEXIS with food for maximum effectiveness. To ensure heartworm prevention, owners should observe the dog for one hour after dosing. If vomiting occurs within an hour of administration, redose with another full dose. If a dose is missed and a monthly interval between doses is exceeded, then immediate administration of TRIFEXIS with food and resumption of monthly dosing will minimize the opportunity for the development of adult heartworm infections and flea reinfestations.

See product insert for complete dosing and administration information.

Heartworm Prevention:

TRIFEXIS should be administered at monthly intervals beginning within 1 month of the dog's first seasonal exposure and continuing until at least 3 months after the dog's last seasonal exposure to mosquitoes (see **EFFECTIVENESS**). TRIFEXIS may be administered year round without interruption. When replacing another heartworm preventative product, the first dose of TRIFEXIS should be given within a month of the last dose of the former medication.

Flea Treatment and Prevention:

Treatment with TRIFEXIS may begin at any time of the year, preferably starting one month before fleas become active and continuing monthly through the end of flea season. In areas where fleas are common year-round, monthly treatment with TRIFEXIS should continue the entire year without interruption.

To minimize the likelihood of flea reinfestation, it is important to treat all animals within a household with an approved flea protection product.

Intestinal Nematode Treatment and Control:

TRIFEXIS also provides treatment and control of roundworms (*T. canis, T. leonina*), hookworms (*A. caninum*) and whipworms (*T. vulpis*). Dogs may be exposed to and can become infected with roundworms, whipworms and hookworms throughout the year, regardless of season or climate. Clients should be advised of measures to be taken to prevent reinfection with intestinal parasites.

Contraindications:

There are no known contraindications to the use of TRIFEXIS.

Warnings:

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

Serious adverse reactions have been reported following concomitant extra-label use of ivermectin with spinosad alone, a component of TRIFEXIS (see **ADVERSE REACTIONS**).

Precautions:

Treatment with fewer than 3 monthly doses after the last exposure to mosquitoes may not provide complete heartworm prevention (see **EFFECTIVENESS**).

Prior to administration of TRIFEXIS, dogs should be tested for existing heartworm infection. At the discretion of the veterinarian, infected dogs should be treated with an adulticide to remove adult heartworms. TRIFEXIS is not effective against adult *D. immitis*. While the number of circulating microfilariae may decrease following treatment, TRIFEXIS is not indicated for microfilariae clearance (see **ANIMAL SAFETY**).

Mild, transient hypersensitivity reactions manifested as labored respiration, vomiting, salivation and lethargy, have been noted in some dogs treated with milbemycin oxime carrying a high number of circulating microfilariae. These reactions are presumably caused by release of protein from dead or dying microfilariae.

Use with caution in breeding females (see **ANIMAL SAFETY**). The safe use of TRIFEXIS in breeding males has not been evaluated.

Use with caution in dogs with pre-existing epilepsy (see **ADVERSE REACTIONS**).

Puppies less than 14 weeks of age may experience a higher rate of vomiting (see **ANIMAL SAFETY**).

Adverse Reactions:

In a well-controlled US field study, which included a total of 352 dogs (176 treated with TRIFEXIS and 176 treated with an active control), no serious adverse reactions were attributed to administration of TRIFEXIS. All reactions were regarded as mild.

Over the 180-day study period, all observations of potential adverse reactions were recorded. Reactions that occurred at an incidence >1% (average monthly rate) within any of the 6 months of observation are presented in the following table. The most frequently reported adverse reaction in dogs in the TRIFEXIS group was vomiting.

Average Monthly Rate (%) of Dogs With Adverse Reactions

Adverse Reaction	TRIFEXIS Chewable Tablets[a]	Active Control Tablets[a]
Vomiting	6.13	3.08
Pruritus	4.00	4.91
Lethargy	2.63	1.54
Diarrhea	2.25	1.54
Dermatitis	1.47	1.45
Skin Reddening	1.37	1.26
Decreased appetite	1.27	1.35
Pinnal Reddening	1.18	0.87

[a]n=176 dogs

In the US field study, one dog administered TRIFEXIS experienced a single mild seizure 2 ½ hours after receiving the second monthly dose. The dog remained enrolled and received four additional monthly doses after the event and completed the study without further incident.

Following concomitant extra-label use of ivermectin with spinosad alone, a component of TRIFEXIS, some dogs have experienced the following clinical signs: *trembling/twitching, salivation/drooling, seizures, ataxia, mydriasis, blindness and disorientation.* Spinosad alone has been shown to be safe when administered concurrently with heartworm preventatives at label directions.

In US and European field studies, no dogs experienced seizures when dosed with spinosad alone at the therapeutic dose range of 13.5-27.3 mg/lb (30-60 mg/kg), including 4 dogs with pre-existing epilepsy. Four epileptic dogs that received higher than the maximum recommended dose of 27.3 mg/lb (60 mg/kg) experienced at least one seizure within the week following the second dose of spinosad, but no seizures following the first and third doses. The cause of the seizures observed in the field studies could not be determined.

For technical assistance or to report suspected adverse drug events, contact Elanco US Inc. at 1-888-545-5973. For additional information about adverse drug experience reporting for animal drugs, contact FDA at 1-888-FDA-VETS or http://www.fda.gov/AnimalVeterinary/SafetyHealth

Effectiveness:

Heartworm Prevention:

In a well-controlled laboratory study, TRIFEXIS was 100% effective against induced heartworm infections when administered for 3 consecutive monthly doses. Two consecutive monthly doses did not provide 100% effectiveness against heartworm infection. In another well-controlled laboratory study, a single dose of TRIFEXIS was 100% effective against induced heartworm infections.

In a well-controlled six-month US field study conducted with TRIFEXIS, no dogs were positive for heartworm infection as determined by heartworm antigen testing performed at the end of the study and again three months later.

Flea Treatment and Prevention:

In a well-controlled laboratory study, TRIFEXIS demonstrated 100% effectiveness on the first day following treatment and 100% effectiveness on Day 30. In a well-controlled laboratory study, spinosad, a component of TRIFEXIS, began to kill fleas 30 minutes after administration and demonstrated 100% effectiveness within 4 hours. Spinosad, a component of TRIFEXIS, kills fleas before they can lay eggs. If a severe environmental infestation exists, fleas may persist for a period of time after dose administration due to the emergence of adult fleas from pupae already in the environment. In field studies conducted in households with existing flea infestations of varying severity, flea reductions of 98.0% to 99.8% were observed over the course of 3 monthly treatments with spinosad alone. Dogs with signs of flea allergy dermatitis showed improvement in erythema, papules, scaling, alopecia, dermatitis/pyodermatitis and pruritus as a direct result of eliminating the fleas.

Treatment and Control of Intestinal Nematode Infections:

In well-controlled laboratory studies, TRIFEXIS was ≥ 90% effective in removing naturally and experimentally induced adult roundworm, whipworm and hookworm infections.

Palatability:

TRIFEXIS is a flavored chewable tablet. In a field study of client-owned dogs where 175 dogs were each offered TRIFEXIS once a month for 6 months, dogs voluntarily consumed 54% of the doses when offered plain as if a treat, and 33% of the doses when offered in or on food. The remaining 13% of doses were administered like other tablet medications.

Storage Information:

Store at 20-25°C (68-77°F), excursions permitted between 15-30°C (59-86°F).

How Supplied:

TRIFEXIS is available in five tablet sizes. Each tablet size is available in color-coded packages of 6 tablets.

5-10 lbs (140 mg spinosad and 2.3 mg milbemycin oxime)
10.1-20 lbs (270 mg spinosad and 4.5 mg milbemycin oxime)
20.1-40 lbs (560 mg spinosad and 9.3 mg milbemycin oxime)
40.1-60 lbs (810 mg spinosad and 13.5 mg milbemycin oxime)
60.1-120 lbs (1620 mg spinosad and 27 mg milbemycin oxime)

NADA 141-321, Approved by the FDA

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Greenfield, IN 46140

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'Golden death' bacteria digests roundworms from the inside out

A team from Glasgow University has discovered a new species of bacterial pathogen that could help veterinary teams treat nematode infestation in animals.

Despite its catchy nickname, the "golden death" bacteria isn't about to wreak havoc on the population of a specific beloved dog breed.

Instead, it shows promise to help prevent illness in veterinary patients. This newly discovered species of bacterial pathogen, *Chryseobacterium nematophagum*, has shown to be fatal to nematodes in a laboratory setting.

In a study published recently in the journal *BMC Biology*, researchers collected rotting food from around the world and tested for bacteria. They discovered *C. nematophagum* in a rotten apple from France and a rotten fig from India, and found that it successfully killed the nematode *Caenorhabditis elegans*. None of the other food collected contained this bacterial strain.

During testing, the *C. elegans* worms ingested the *C. nematophagum* bacteria, and in the next three to four hours, 50% of the roundworm population died. After seven hours, the entire population of *C. elegans* was dead, and after 48 hours, "only outline traces of the larvae, representing the undigested cuticles," were visible to investigators, according to the study.

Chryseobacterium nematophagum growing on an agar with sheep blood.

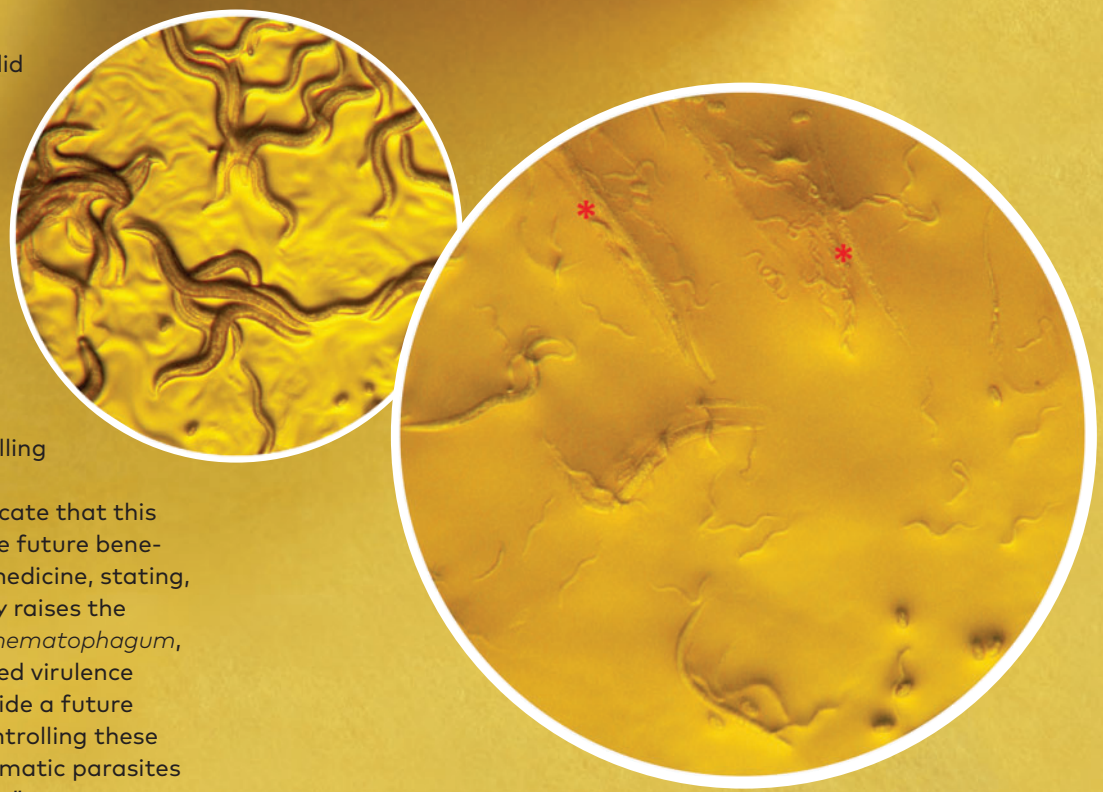
The "golden death" bacteria were then introduced to other parasitic nematodes, including trichostrongylid and strongylid pathogens found in livestock and domesticated animals. Researchers presented *C. nematophagum* to the eggs and larvae of these nematodes (including *Trichostrongylus vitrinus* and *Teladorsagia circumcincta*), and 24 hours later, 100% of the nematodes were dead.

The colorful nickname is derived from the fact that bacteria belonging to the *Chryseobacterium* genus is also called "golden" bacteria. This

PHOTOS COURTESY OF TONY PAGE

genus grows on solid media to produce mucoid colonies that are golden in color (and apparently stink). The "death" part of the nickname presumably comes from the fact that *C. nematophagum* is so effective at killing nematodes.

Researchers indicate that this bacteria could have future benefits to veterinary medicine, stating, "This pathogenicity raises the possibility that *C. nematophagum*, or indeed its isolated virulence factors, could provide a future novel means of controlling these increasingly problematic parasites of grazing livestock."



Normal worms (left) and worms dissolved by golden-death bacteria (right).

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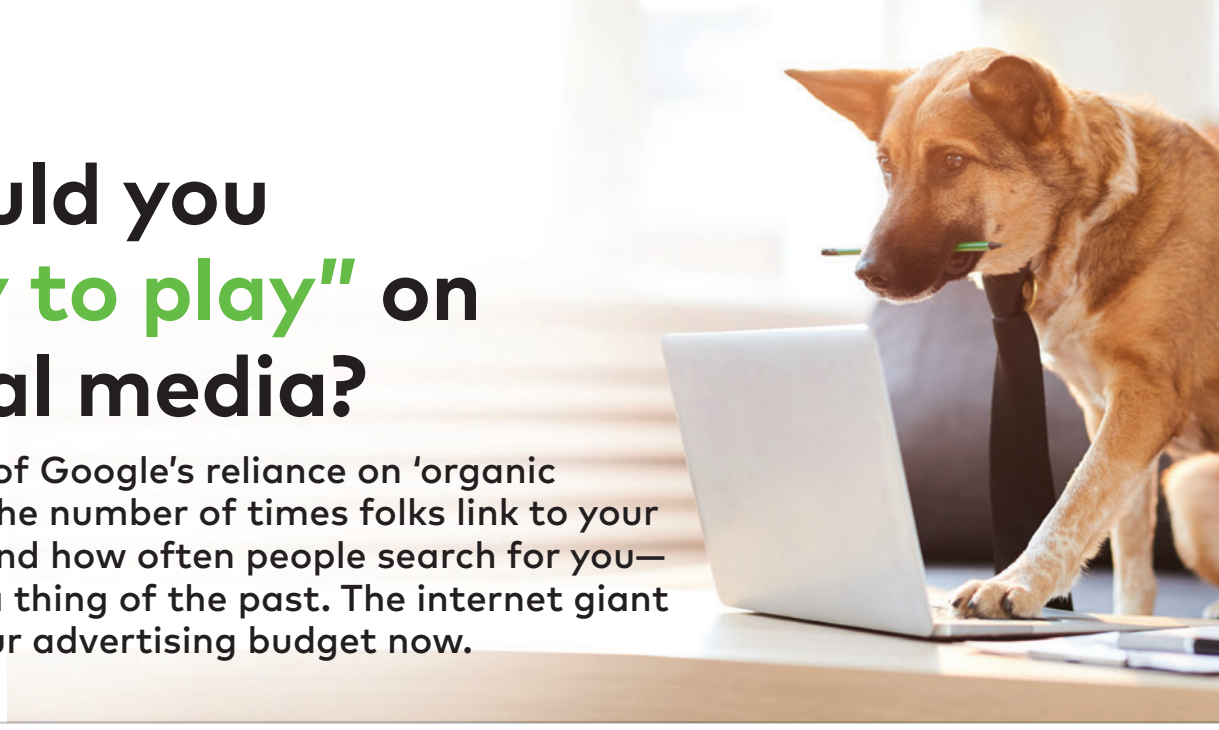
Should you "pay to play" on social media?



The days of Google's reliance on 'organic search'—the number of times folks link to your website and how often people search for you—could be a thing of the past. The internet giant wants your advertising budget now.

If you think success marketing your veterinary practice is just a good-looking website with a few pictures of puppies and your mailing address, then digital marketing maestro and Fetch dvm360 conference speaker Bill Schroeder urges you to reconsider. He says that in terms of getting your clinic found, one type of search is pushing the other out of the picture.

First, the kinds of search:

- Organic: traditional, unpaid posts
- Paid: well ... you get it?

There was a time when loading your site with good material and pertinent search terms could get you found by search engines' spiders, crawling the web for relevant content. That's no longer true.

"There are huge indicators out there now that organic is becoming less and less relevant and that successful practices are engaging in a robust pay-per-click plan," Schroeder says.

Case in point: Google has placed ads around the local maps that show up at the top of search results pages. You can try established methods of increasing the number and quality scores of your Google reviews and hence increasing your rank in order to be seen. Or you can simply pay.

How do you start this process? Schroeder suggests getting yourself a detailed analysis of beneficial keywords and phrases, so you know the right words to use in your ads. This will put your practice in the right space. Additionally, he says to be sure the copy in the ad itself is extremely clear, has a relevant call to action and links to a germane landing page. Once users click through, you can present relevant information and offer a digital form to collect a potential veterinary client's information.

Client handout: Does your pet's smile hurt?

When a canine or feline patient presents with swollen gums and bone loss, it's enough to set even your teeth on edge. Unfortunately, your veterinary clients just aren't seeing the signs. Use these handouts as a guide to help them not only identify potential problems, but know how to treat—and prevent the stages of periodontal disease. Bonus: We've got one for dogs and for cats!

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*Brunetto MA et al. Effects of nutritional support on hospital outcome in dogs and cats. *J Vet Emerg Crit Care*. 2010; 20: 224–231. Mohr AJ et at. Effect of early enteral nutrition on intestinal permeability, intestinal protein loss, and outcome in dogs with severe parvoviral enteritis. *J Vet Int Med*. 2003; 17: 791–798.

When you make the worst mistake

"How to screw up and kill your patient, Method #4,372!"

By Meghann Berglund, DVM

I spent four years learning all the things I shouldn't do if I wanted my veterinary patients to live—don't mess up the decimal, don't write abbreviations, don't mix up Drug A with Drug B.

I learned all about how to give bad news: "I'm afraid I have bad news that will be difficult for you to hear, Mrs. Smith."

I never learned how to say, "Mrs. Smith, something horrible happened, and it was my fault."

I thought if I took careful notes on all the ways that I could screw up, I would be protected from doing it. If I buried my clients in waivers and disclaimers, I could make them sign away my anxiety. If I monitored my technicians diligently and thoroughly, they would never make mistakes—and they certainly wouldn't complain to my superiors about my micromanaging personality and lack of faith in their abilities. (Spoiler alert: They totally did.)

I read the cautionary tales of negligence, oversight and shame sent to me monthly by my liability insurance company and said to myself, "That won't be me. That can't be me." I put mental placeholders between me and the infamous "Dr. A." I would have double-checked the dosage. I would have recommended referral. I would have used an E-collar. I realize now this roundabout form of victim-shaming was only a subconscious way to try to protect my mind from the truth: One day this was going to happen to me.

Medical errors are exceedingly common, both in human and veterinary hospitals. Yet even though everyone makes mistakes, almost no one is talking about them. Not to each other, not to the public, sometimes not even to our closest friends or loved ones. Why?

Shame.

Defined by my personal hero, author and speaker Brené Brown, as a fear of disconnection and unworthiness of belonging, shame

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(and avoiding it) is at the heart of every perfectionist. Be perfect, and everyone will love you. Slip up, and you will be exiled. And so, when we inevitably make a mistake, we suffer in silence. We fear that we are alone in our failure and that there is something critically wrong with us.

Maybe we leave the field. Maybe we take our lives. This happens too much, and for the health of our profession and everyone in it, it has to change.

We do what we have to in order to get through the moment. Then maybe we go home and cry or fall into a bottle of wine or a Netflix binge to numb the doubtful thoughts that whisper, *We shouldn't be trusted with anything that anyone loves for the rest of our lives.* Maybe we wake up the next morning and think about not going to work, that day or ever again. Maybe we go to work, but we have such high anxiety and fear that we can't function.

Maybe we leave the field.

Maybe we take our lives.

This happens too much, and for the health of our profession and everyone in it, it has to change.

It's well-documented that both patients and caregivers experience trauma, stress and grief related to medical errors. Administrative processes and protocols often focus on assigning (or denying) blame and punishing or removing those involved. There are rarely procedures put in place to address the systemic flaws that lead to errors or to help those who have committed the mistake, commonly referred to as "second victims."

In fields where only the most exceptional get through the academic and professional rigors required to succeed, it only seems natural that the field becomes self-selecting for perfectionists. And sometimes a perfectionist runs up against the cold, hard truth that sometimes bad things will happen no matter what you do. Even more difficult? Sometimes bad things will happen because of what you do—that jarring reality is nearly unbearable. We are told from an early age that we must *be* good, not just *do* good. And so, when errors occur, our self-talk is not "I did something bad," but rather "I am bad."

A 2009 study describes the healthcare provider as a "second victim" after adverse patient events.[1] The study also shows that there are three themes that emerged in providers' long-term recovery from a medical error:

Thriving. We are able to put the event into context and realize that we are imperfect—but still good—

On empathy— and perfectionism

dvm360 contributor, speaker and author Kimberly Pope-Robinson, DVM, CCFP, talks about the dangers of— and misconceptions about—two big parts of many veterinarians' psychology.

First: Empathy isn't what you think it is. It doesn't mean taking ownership of others emotions and all the crazy things that happen every day.

"We believe being empathetic means giving all of ourselves in all of that moment, and we own it," Dr. Pope-Robinson says. "But what I've grown to realize is, that's not what empathy is."

When a pet owner can't afford treatment or your very best medical work still doesn't save a patient, empathy doesn't mean you're 100 percent responsible for what's happening. You don't control pet owners' finances and choices. And you don't control life and death.

"Empathy is just connecting to that individual, being present in the moment and being mindful," she says. "Have that conversation and then move forward. We don't need to own it, we don't need to control it, we don't need to have it live with us for the rest of our day."

Dr. Pope-Robinson also believes vet professionals suffer from perfection paralysis. She uses her book as an example: "I'm dyslexic. I hate the written word. It scares me. It's very, very difficult for me to write something on paper, so I sit there and I don't do it, because my perfectionism tells me I can't do it."

Oh, and because she takes her own advice—don't fear making a mistake so much that you get nothing done—she finished that book.

doctors. We build our personal resiliency. We work to learn from the mistake and make our workplace safer.

Surviving. We "move on" in a literal sense, but only because we feel we have no choice. We repress our feelings and discussion about the event. At best, we can function with no visible adverse effects, but no added wisdom. At worst, we continue to be traumatized by the memory of the event. We overcompensate, double- and triple-check, micromanage our staff, and harbor a deep distrust in ourselves.

Dropping out. We can't live with the memory of our mistake or the fear and certainty that we will make another one. We feel paranoid, depressed and hopeless. Feeling unredeemable and untrustworthy, we may even contemplate self-harm. Dropping out may involve ceasing the performance of a certain procedure, changing fields or leaving the profession altogether.

So what helps? How do we process mistakes in a way that allows us to walk the path of long-term resilience instead of repeated trauma? To this, I'll add my personal thoughts, with the disclaimer that my only credentials are that I am a flawed, human veterinarian who walked away from a good job that I was really skilled at performing because I was too afraid to make another mistake.

> Remember that your merit is not binary. One mistake in a career of lives saved and bettered does not make you a bad doctor.
> Understand resiliency is an action, not an attribute. You are not "born brave." Small, everyday acts of courage build your strength, one molecule at a time.
> Create a personal narrative that embraces a growth-based mindset. You are a work in progress—always. So is everyone else.
> Don't strive for perfection. Understand that letting go of the need to be perfect does not equate to lowering your standards.
> Create good habits for positive self-talk. Surround yourself with people who will hold you to it.
> Break up with superstition. It perpetuates the idea that your actions can prevent bad things from happening to you, and if bad things do happen, you've done something wrong.
> Explore your "bone pile." Take a look at those cases and mistakes that haunt you—but don't live in it. Understand the events are in the past, but what you can learn from them can stretch far into the future.
> Remember that every fail-safe was born out of failure. From calculators to childproof lids to traffic lights—these things exist because someone lived out their worst nightmare and decided to make the world a safer place because of it.

And finally, when it comes to processing our own failures, understand that it's not just about learning to move on, but about learning that we are fallible—that effort, merit, failure and worthiness can all exist simultaneously in the same beautifully flawed, complex human being.

One thing I tell my daughters when they experience fear and anxiety about the unknown is to find someone who looks more scared than you. Help that person feel at ease. Help them feel less alone. More than likely, the positive things you tell them are what you need to hear yourself.

As someone who has marinated in my perfectionism until my toes got wrinkly, this tactic has helped me have a healthier outlook on mistakes. I share my bone pile with my colleagues. I tell them about the things that scare me. I tell

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them about the near misses. I tell them about the patients and cases that still twist up my insides at 3 in the morning.

The best part? Instead of responding with silence, judgment or shame, more often than not I find they reach back out to me and open themselves up in return. Even more amazingly, they will often then share their own suggestions for getting through those cases, or talking to those clients, or moving on from those heartaches. And in that moment, the world feels a little smaller, a little safer and a little kinder. It's the kind of world that a profession full of perfectionists and self-critics deserve to spend a little more time in.

References:
1. Scott SD, Hirschinger LE, Cox KR, et al. The natural history of recovery for the healthcare provider "second victim" after adverse patient events." *Qual Saf Health Care* 2009;18(5):325-330.

Dr. Meghann Berglund is a proud Colorado State University Ram and the owner of Red Dog Veterinary Relief Services in Colorado. Her hobbies include camping, labeling things and catastrophizing. She is the co-founder of Collective Geekery, the handcrafted art business that steals her free time but returns her inner peace.

Can we give you a hand with that?

Aggression. Anxiety. Panic and potential danger. Here's how to handle small animal behavioral problems in a flash. *By JoAnna Pendergrass, DVM*

Despite the complexities of behavioral cases, many affected pets can respond to treatment. Here with some "behavior quickies" is E'Lise Christensen, DVM, DACVB, who owns two practices: Behavior Vets of New York City and Behavior Vets of Colorado. Dr. Christensen defines behavior quickies as fast-acting, general solutions to behavioral problems that can manage behavior proactively, meet owners' expectations for improvement and fulfill species-specific needs. Here are her examples.

Avoiding triggers. Removing a pet from the source of its behavioral problem can be effective. For example, if a dog is aggressive toward strangers in the home, its owner can teach the dog to be comfortable in a "safe zone," such as a crate in a separate room. The dog can stay there happily when unfamiliar people visit.

Enrichment. Food puzzles are a great way to provide enrichment for pets. These puzzles can be as simple as food placed in a cardboard box for a pet to retrieve. For puppies that are being housetrained, food puzzles should be easy enough to complete without disrupting the housetraining schedule.

Structured interactions. Dr. Christensen notes that pet owners often interact with their pets in ways that are physically intrusive and bizarre to the pet (yes, pets find hugging and kissing a little odd). Structured interactions that allow for normal species-specific behavior can de-escalate behavioral problems. Teaching a dog an easy task, such as sitting, before allowing it to do anything it enjoys is an example of a structured interaction.

Reward-based training. This involves reinforcing positive behavior that cannot be performed simultaneously with the

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A fast glance at "behavior quickies"

In small animals, behavioral problems such as aggression and separation anxiety can be complex. Fortunately, solutions are available to improve these issues significantly in a relatively short time. We got the skinny on these "behavior quickies" from E'Lise Christensen, DVM, DACVB, who owns two practices: Behavior Vets of New York City and Behavior Vets of Colorado.

Behavioral wellness is evident, Dr. Christensen says, when the animal:

> Can handle being alone
> Is friendly
> Is housebroken
> Explores and manipulates its environment
> Quickly and completely adjusts to change
> Tolerates or ignores loud noises, storms and fireworks
> Demonstrates normal vocalization, licking and grooming patterns
> Enjoys veterinary visits and can undergo most wellness care without sedation.

Because behavioral problems are often very complex, Dr. Christensen recommends referring to a veterinary behaviorist for any behavioral case that a general practice veterinarian does not feel comfortable treating. "Be kind to yourself," she advises, and acknowledge when a case is "out of your league." Referrals can also be made when psychoactive medications are being considered for behavioral management. Of course, referral is a feasible option only when there is access to a veterinary behaviorist and the client accepts the referral.

negative behavior. Repeatedly rewarding this positive behavior can quickly reduce behavioral problems. Punishment-based training, such as shock collars and choke collars, should be avoided because they don't treat the underlying problem; rather, they only address the sign of a problem. In addition, these devices damage the human-animal bond, decrease learning and increase the risk of aggressive and fearful behavior.

Pheromone therapy. Pheromones, such as Feliway and Adaptil, can help pets calm down and reduce problem behaviors.

Exercise. "Exercise can help improve behavioral problems but must be tailored to the individual pet," Dr. Christensen says. Too much or too little exercise may not help. For example, if a dog has a naturally high energy level, too much exercise can simply get the dog more worked up.

Dr. Christensen notes that pets with separation anxiety do not respond well to exercise alone because exercise does not address their panic. "True separation anxiety is a panic attack that triggers a fight-or-flight response," she says, "so it doesn't matter [whether the pet is] tired from exercise. Many well-exercised dogs will still panic."

Safety tools. Safety tools, such as body harnesses and basket muzzles, may be necessary for some pets. For a veterinarian who can choose only one safety tool and does not have time to explain behavior modification to a client, Dr. Christensen recommends a body harness.

Body harnesses, such as the Freedom No Pull Harness and Balance Harness, should be fitted to allow a dog to move its shoulders freely, she advises. Dogs with aggressive behaviors can be taught to wear a basket muzzle happily in trigger situations.

Supplements. Both fast-acting supplements (e.g. Zentrol and Anxitane chewable tablets) and slower-acting supplements (e.g. Solliquin, Zylkene) are available to manage behavioral problems. However, Dr. Christensen cautions, supplements (especially OTC supplements and those intended for humans) are not necessarily safer than traditional drugs. In addition, some supplements may interact with traditional drugs. "At least consider the potential for drug interactions when combining supplement use with traditional behavior modification medications," she advises.

Because supplements tend to work slowly in dogs, starting treatment with a supplement can increase the risk of reduced or slow efficacy, Dr. Christensen says. She notes that it is most ethical to treat anxiety with fast-acting medications to start, given that panic attacks associated with anxiety are harmful to the brain. However, for cases in which the speed of effect is not a concern, Dr. Christensen recommends a slow-acting and consistent medication such as fluoxetine (Reconcile—Novartis), clomipramine hydrochloride (Clomicalm—Elanco), or paroxetine rather than a supplement alone. Veterinary supplements (e.g. Solliquin, Anxitane, Zylkene) are often safe with a variety of medications and can improve treatment response. A client's comfort level with supplements can also influence whether they are part of the treatment plan for anxiety.

Medications. Fast-acting medica-

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tions, particularly those that work in 20 to 90 minutes, provide the quickest relief for behavioral problems. Examples include benzodiazepines, clonidine, trazodone and gabapentin. Slower-acting medications include fluoxetine, clomipramine and selegiline.

"A benefit of fast-acting medications is that they can succeed or fail quickly," Dr. Christensen says. "The quicker an adverse effect or a lack of response is observed, the quicker a veterinarian can make a new treatment plan." She recommends administering a fast-acting medication during an office visit so the client can see the effects. Having the client observe a medication's positive effects on behavior can improve client compliance with the treatment plan.

Putting behavior quickies into practice

For general practice veterinarians incorporating behavior quickies into a treatment plan for behavioral problems, Dr. Christensen offers several pieces of advice.

Start with the same quickie for all cases. Dr. Christensen recommends that veterinarians with a favorite among the behavior quickie options start with that one for each case.

Don't undertreat. Undertreating a behavioral problem increases the likelihood of treatment failure. If a treatment fails, a pet owner may give up on addressing the problem and not come back for further treatment.

Address concerns about personality changes. Clients can be concerned that psychoactive medications will change their pet's personality. When used correctly, however, these medications will not cause negative personality changes in pets, Dr. Christensen says. If a negative personality change does occur, stopping the medication will likely reverse that change.

The concern about personality changes may stem from fear. Dr. Christensen recommends having an honest conversation with clients about their goals and fears regarding their pet's behavioral problems. Counseling the client and talking openly about the suffering that behavioral problems are causing are important, she says.

Encourage the clients to have fun. Owners of pets with behavioral problems often feel hopeless and at their wits' end with trying to manage the problem at home. They may also be afraid that the veterinarian is going to judge them. Encouraging clients to work as a team with the veterinarian to solve the behavioral problem can help the clients actually have fun and enjoy their relationship with their dog again, Dr. Christensen says.

Dr. Pendergrass received her DVM degree from the Virginia-Maryland College of Veterinary Medicine. Following veterinary school, she completed a postdoctoral fellowship at Emory University's Yerkes National Primate Research Center. Dr. Pendergrass is the founder and owner of JPen Communications, a medical communications company.

Behavior issues: Lessen the guilt, lead the way

Has a client mentioned that their dog is acting a little combative toward other dogs or messed up the house when left alone? Fetch dvm360 conference speaker Julia Albright, MA, DVM, DACVB, says these may be emotionally based and not due to bad training. That's a relief for owners who might be quick to take on the blame. And she says you can do something about it.

While some cases may require a boarded veterinary behaviorist or the hand of a certified dog trainer, Dr. Albright suggests that you can get the ball rolling locally. By helping clients recognize instances that can be handled by, say, avoidance, as well as navigating the many pop culture training ideas, you'll set a course for success.

What's more, you can have a team member—a licensed technician or even one without a professional degree—act as your internal behavior contact.

"You can certainly have somebody on your staff do one-on-one—clients love that," Dr. Albright says. "Not everybody wants to go to dog training class."

Need more encouragement? She says this can be a excellent source of revenue as well.

Dr. Julia Albright is assistant professor of veterinary behavior and PetSafe Chair of Small Animal Behavioral Research at the University of Tennessee's College of Veterinary Medicine.

Fear Free visits can be quick—if you know these tips

Dr. Julie Reck shares a few ways to make these appointments as efficient as possible.

One of the potential reservations about implementing Fear Free veterinary visits is that they have the potential to take a lot longer per exam than a traditional visit. Fetch dvm360 conference speaker Julie Reck, DVM, says that it doesn't have to be a drag on efficiency, if you know these 10 tips.

1: Understand the organizational change needed

Moving to Fear Free is a change and change is a process, Dr. Reck says. Initially, change may be met with excitement, but as the change goes on, productivity may dip as the team adjusts to the new protocols.

2: Understand how human behavior changes

Human behavior change usually requires someone to react with their rational brain, Dr. Reck says. But you have to also appeal to their emotional side. To help with this change, ask open-ended questions of your team, such as "What is an ideal patient experience in our practice?" and "How can we achieve this together?"

3: Pre-appointment communication is important

Communicating with clients before they arrive for their pet's appointment will help keep it running on time. Dr. Reck recommends having clients do the following:

> Bring in a fresh stool sample so if the stool sample is present from the beginning of the appointment, technicians can begin processing it, leaving the doctor free to do other things.

> Bring the pet in with a leash and collar or in a carrier for cats.

> Bring the pet hungry.

Dr. A will see appointments every 30 minutes, starting at 8 a.m., and Dr. B will see patients every 30 minutes, starting at 8:15 a.m.

For seven more expert tips, head to **dvm360.com/quickfearfree**.

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Truisms to live by

By Dean Scott, DVM

Whether you're four months or 40 years into practicing veterinary medicine, there are certain truths in the world of vet med that must be accepted as unavoidable. While these truisms are a large source for our many headaches in practice, I always think it's best to laugh at them. Here are a few of my favorite truisms that I've learned throughout my career:

- People will always double what they say they spent at the vet's compared to what they actually did spend.
- You'll be held responsible for what you say, what you don't say, how you say it and what the client thinks you said.
- If you're told a pet "doesn't like men" you'll find the truth is ... it doesn't like anyone.
- The additional pet brought to the exam who is "just along for the ride" ... isn't.
- If the pet owner is asking if "substance A" is OK to give to their pet, they've already given it.
- You will know exactly where you stand with a client and what they think of you the first time you ever tell them "no."

A graduate of UC Davis School of Veterinary Medicine, Dr. Dean Scott has enjoyed 35 years in the veterinary profession, including five years with the U.S. Army Veterinary Corps. He now practices small animal medicine at Animal Clinic of Brandon in Brandon, Florida.

What I wish I knew before starting practice

You are never fully prepared when you leave veterinary school and enter the real world. Here's some wise and practical advice for new graduates about to embark on their professional journey.

By Melissa Detweiler, DVM

One of my coworkers has a daughter in her first year of veterinary practice. She sometimes visits our clinic, and because my coworker and I have a combined 40-plus years of practice wisdom between us, we find ourselves sharing all sorts of insights. These conversations have left me wondering what I would have told myself 16 years ago when I was on the verge of entering this profession. What nuggets of know-how would have helped me along this journey? Looking back, there are several things that I wish I had learned sooner ...

Make your incision longer! You'll waste more time (and cause more trauma) trying to stretch various abdominal organs up into your surgical field than you would by just extending that incision an inch or two in the first place.

When that miniature dachshund comes in for a neuter, double-check his weight. Confirm that it makes sense. Don't draw up your anesthetic drugs based on a recording error. It will save you from having to make a horrific phone call to a very upset client.

Never treat a parvo case without getting the money up front. Never. Never. Never.

Don't hesitate to say, "I don't know." You are not failing your patients by it, and your clients ultimately will respect you more when you are honest with them. "Fake it 'til you make it" doesn't really work in most cases.

Learn to work up a case with only $100. Choose the tests that will give you the most answers, and remember that sometimes response to treatment can be regarded as a diagnostic aid. Keep a quarter in your pocket, because things really might come down to a coin-toss.

Document everything—especial-

ly in the situation described above. The people with the least amount of money often have the highest expectations. Don't get burned.

You will never love orthopedics. Save your money on that CE course because you will be much happier sending those cases to someone who is a thousand times better and faster than you are.

Stand your ground. Don't let that client talk you into attempting a bovine C-section in a snowstorm, guided by the glow of your truck's headlights. Your instruments will freeze to the poor heifer's hide and it absolutely won't end well.

Prepare for Dr. Google. You already know about establishing trust with your clients. Good. Always do that. But prepare yourself for having to combat the hundreds of other untrustworthy virtual veterinarians who accompany clients into your exam room. Dr. Google will not be an esteemed colleague of yours.

Your kids are not going to be impressed with your job. They won't care that someone's dog just got hit by a car, but they will want you to be with them on the couch during family movie night. No amount of reasoning or explanation will change their minds. Just hug them and go.

Make up a fake job when you sit next to strangers. Don't let that woman at the hotel pool strike up a conversation about when she should euthanize her Chihuahua—it will put a real damper on your Caribbean getaway.

On your days off, turn off your phone. Better yet, lock it in the trunk of your car.

When your kids ask if they can join 4-H, say no. You will have so much more free time during the summer.

Above all else, laugh. Some days, it will be your only defense. You'll be tempted to yell. You'll be on the verge of tears more times than you care to admit.

But through it all, you'll learn that you're stronger and smarter than you ever gave yourself credit for.

When you find yourself getting sucked into the vortex of burnout, take a minute and watch something funny on YouTube (which you'll be able to do with that smartphone you were so sure you would never need) or reminisce about that time you had to explain paraphimosis to a mortified millennial pet parent. The humor and smiles are there to be found. You just have to take the time to look.

Dr. Melissa Detweiler is an associate veterinarian at Bern-Sabetha Veterinary Clinic in Sabetha, Kansas. In her free time, she enjoys reading, being out in the yard during the warm months, running, fishing, following K-State sports and, above all, spending time with her husband, children and their Rottweiler mix, Lucy.

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BUYER'S REMORSE

Feeling like you made a mistake becoming a veterinarian? You're not alone—and you'll get over it. Don't believe us? Read this: **dvm360.com/remorse**.

Spark joy!

While the KonMari Method is all the rage in homes across the country, medical—and veterinary—offices are still cluttered messes. But why compartmentalize tidiness and joy to the home? Why shouldn't vet professionals discover the freedom, productivity and serenity that a tidy hospital can bring? *By Heather E. Lewis, AIA*

The question you may ask first is—why? Who really cares? Will you make more money decluttering rather than tending to patients and clients? Is it really your job to do this? Aren't there enough pressures in the profession as it is? Yup. But, there are good reasons for working in a decluttered medical environment:

Biological risk management. Cluttered medical spaces are difficult to sanitize. All those things on the floors and counters are potential fomites.

Better inventory management. If you don't know where your supplies are, you also don't know if resources are being used responsibly and tracked accurately. The relationship between lack of clutter and good inventory management is well known among warehouse managers. We can apply the same rigor to small animal medicine.

Mental health. Excess clutter is linked to anxiety (hoarders, anyone?). Even in moderately cluttered surroundings, a sense of well-being is disturbed. Clutter is also easily observed by your clients. They can be put off by stacks of paper and other visual distractions, too.

Get started

Ask each of your team members to start this journey on his or her own in their personal work spaces before tackling a common space. This way, when you do group cleaning activities, they will already be positively engaged. Let them have a go at it first and encourage them to take home, recycle, donate or trash items they don't need at the vet hospital anymore.

Organize a group cleaning day with defined tasks. Knock off a few hours early on Friday, order some pizza and get to work. Give each of your team members an area of the hospital with instructions about what should be done with items. For example:

> Expired medications and supplies go in one area for proper disposal.
> Books go in one place. When your team sorts books, ask: Will you ever use it again at the clinic? If not, it goes home with someone or gets donated.
> Papers go in one pile to sort to see if they're needed. (Here's a hint—if you didn't know they existed, they aren't needed.)
> Broken things go in a pile.
> Good, useful supplies go in one area to reorganize once the space is clean again.
> The next day, come back in, perhaps with one stoic coworker, and get rid of the items marked for disposal. Restage useful supplies in one area so they are ready for restocking.

The bottom line is that your excess piles are not doing anything good for you or your clinic and are likely actively working against your day-to-day enjoyment of your job. So start sparking that joy—vet med is difficult enough.

Heather Lewis, AIA, NCARB, is a partner at Animal Arts, an architecture firm in Boulder, Colorado, and frequent HospitalDesign360 conference speaker. She's a lighting geek and a (seriously) devoted advocate of minimizing pets' stress and anxiety during their veterinary visits.

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What's MONEY, ANYWAY?

a dvm360 comic

To all the Emilys out there: We salute you for your choice to become a part of the veterinary profession (even if your parents still think you're nuts) and your dedication to your dream of caring for pets. And yet we also recognize that schools could do a better job of preparing you for staggering debt, meager starting salaries and mental health challenges you encounter on the daily. We hope you find inspiration in this issue (particularly from Dr. Megan Berglund in "When you make the worst mistake" (page 6) and practical advice from Dr. Melissa Detweiler in "What I wish I knew before starting a practice" (page 16). And if you're feeling particularly burned when it comes to your own money management, check out dvm360's top 10 articles for better personal finance at **dvm360.com/top10finance**.

ILLUSTRATION BY ADRIENNE WAGNER

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