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Ticks in 2015

dvm86



Just breathe!

How to rock

6

Price matching:

9

Phone nightmares: Put a positive spin 13

What's the deal

24

10 WAYS to be an anti-to be an anti-with grumpy clients p16





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Digestive Care



Quick script: Lick this parasite question

By Ciera Miller, CVT

Do your clients have worms on the brain? Unfortunately not. They come in with a sweet, new puppy

and all they think about is how "cute" all her little kisses are. It's our job to make learning about and managing parasite infections one of the owner's top priorities. Here's a common parasite question and answer to help make those kisses a little safer.

I haven't seen worms in my pet's stool. Doesn't that mean she doesn't have any parasites?

Each type of parasite has a unique life cycle. The current stage of these life cycles can affect the evidence a potential parasite may leave behind. Although a "negative" fecal exam could mean the parasite isn't currently shedding eggs for us to find, it helps us get one step closer to finding and treating any parasites. This is also why the veterinarian may recommend repeating a fecal in a month or so if your pet is showing signs of an infection even after a "negative" test.

Once you've addressed this common hitch in the parasite conversation, you can hand that kiss-factory back to her parents for some much deserved TLC!



Free Form: Scratch pets' itch with a handy client dermatology questionnaire from *Veterinary Medicine*. Grab your copy at dvm360.com/DermHistoryForm

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PEARLS of practice

Dental corner

To gag or not to gag—that is the question

Why you should trade your spring-loaded mouth gag for a gentler solution—especially for cats.

By Mary Berg BS, RVT, RLATG, VTS (dentistry)

any veterinary practitioners and technicians have used mouth gags in cats and dogs for years. The spring-loaded mouth gags help the veterinarian or technician hold the mouth open, allowing them to complete procedures in the oral cavity. Have you ever thought about the effects of that spring on the animal? If you have ever had dental work, you know that even holding our own mouths open for periods of time can lead to jaw tenderness and pain. The same is true in our companion animals.

A study published in the *The Veterinary Journal* (2014) showed that the spring-loaded gags generate constant force that could contribute to bulging of the soft tissues between the man-



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dible and the tympanic bulla. This force leads to the compression of the maxillary arteries as they course through the osseous structures. In cats the maxillary arteries are the main source of blood supply to the retinas and the brain.

In this study six healthy cats were anesthetized. Comparisons where made using electroretinography (ERG) and magnetic resonance angiography (MRA). Scans were done without a gag in place, using various sized plastic mouth gags causing submaximal mouth opening and spring-loaded gags creating maximal mouth opening. No changes occurred in smaller gags. One animal had an abnormal MRA on a 42mm plastic gag. The maximal mouth opening produced altercations in the ERG waveforms consistent with circulatory compromise in one of the six cats and reductions in the signal intensity during MRA in four of the six cats.

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The reduction of the blood flow through the maxillary arteries to the retinas and brain can potentially result in temporary or permanent blindness and sometimes neurologic abnormalities. Use caution when placing a gag and minimize the duration of its use to also reduce the risk of masticatory muscle strain and injury to the temporomandibular joints. Opening the mouth wider may not be an advantage in oral surgery. As the mouth is opened wider, the tissues are stretched and become more difficult to retract to allow procedures such as dental cleanings or tooth extraction.

So instead of reaching for that spring-loaded mouth gag, create a gentler gag with the instructions at **dvm360.com/safegag**.

Mary Berg BS, RVT, RLATG, VTS (dentistry) is CEO and founder of Beyond the Crown Veterinary Education in Lawrence, Kansas.

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Scan the QR code above or visit dvm360 .com/safegag to view the form.

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Dogs should be tested for heartworm prior to use. Mild hypersensitivity reactions have been noted in some dogs carrying a high number of circulating microfilariae. Treatment with fewer than 6 monthly doses after the last exposure to mosquitoes may not provide complete heartworm protection. Please see full product label for more information or visit www.virbacvet.com. See brief summary on page 04



Shaping the future of animal health

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Caution

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

Indications

SENTINEL® SPECTRUM® (milbemycin oxime/lufenuron/praziquantel) is indicated for the prevention of heartworm disease caused by Dirofilaria immitis, for the prevention and control of flea populations (Clenocephalides felis); and for the treatment and control of daulti roundworm (Toxocara cains; Toxoscaris leonina), adult hookworm (Ancylostoma caninum), adult whipworm (Trichuris vulpis), and adult tapeworm (Taenia pisforms; Echinococcus multilocularis and Echinococcus granulosus) intections in dogs and puppies two pounds of body weight or greater and six weeks of age and older.

Dosage and Administration

SENTINEL SPECTRUM should be administered orally, once every month, at the minimum dosage of 0.23 mg/b (0.5 mg/kg) milbemycin oxime, 4.55 mg/b (10 mg/kg) litenuron, and 2.28 mg/b (5 mg/kg) praziquantel. For heartworm prevention, give once monthly for at least 6 months after exposure to mosquitoes.

Dosage Schedule

Body Weight	Milbemycin Oxime per chewable	Lufenuron per chewable	Praziquantel per chewable	Number of chewables
2 to 8 lbs.	2.3 mg	46 mg	22.8 mg	One
8.1 to 25 lbs.	5.75 mg	115 mg	57 mg	One
25.1 to 50 lbs.	11.5 mg	230 mg	114 mg	One
50.1 to 100 lbs.	23.0 mg	460 mg	228 mg	One
Over 100 lbs.	Administer the appropriate combination of chewables			

To ensure adequate absorption, always administer SENTINEL SPECTRUM to dogs immediately after or in conjunction with a normal meal.

SENTINEL SPECTRUM may be offered to the dog by hand or added to a small amount of dog food. The chewables should be administered in a manner that encourages the dog to chew, rather than to swallow without chewing. Chewables may be broken into pieces and fed to dogs that normally swallow treats whole. Care should be taken that the dog consumes the complete dose, and treated animals should be observed a few minutes after administration to ensure that no part of the dose is lost or rejected. If it is suspected that any of the dose has been lost, redosing is recommended.

Contraindications

There are no known contraindications to the use of SENTINEL SPECTRUM. Warnings

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

Precautions

Treatment with fewer than 6 monthly doses after the last exposure to mosquitoes may not provide complete heartworm prevention. Prior to administration of SENTINEL SPECTRUM, dogs should be tested for existing heartworm infections. At the discretion of the veterinarian, infected dogs should be treated to remove adult heartworms. SENTINEL SPECTRUM is not effective against adult *D. immitis*.

Mild, transient hypersensitivity reactions, such as labored breathing, vomiting, hypersalivation, 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.

Do not use in puppies less than six weeks of age

Do not use in dogs or puppies less than two pounds of body weight. The safety of SENTINEL SPECTRUM has not been evaluated in dogs used for breeding or in lactating females. Studies have been performed with milbemycin oxime and lufenuron alone.

Adverse Reactions

The following adverse reactions have been reported in dogs after administration of milbemycin oxime, lufenuron, or praziquantel: vomiting, depression/lethargy, pruritus, urticaria, diarrhea, anorexia, skin congestion, ataxia, convulsions, salivation, and weakness.

To report suspected adverse drug events, contact Novartis Animal Health at 800-637-0281 or the FDA at 1-888-FDA-VETS.

Manufactured for: Novartis Animal Health US, Inc. Greensboro, NC 27408, USA

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PEARLS of practice

Fear-Free tip: Just breathe! A calmer client means a calmer pet.

By Mikkel Becker, CPDT

You do it every day. In fact, you're doing it right now. But are you doing it right? And could you help pets, their owners—and yourself—stay calmer with simple changes in breathing?

A case for deep breathing

Deep breathing can decrease stress and promote feelings of calm. It releases tension and promotes wellbeing over mind and body, lowering heart rate and blood pressure. Taking deeper breaths turns on the body's parasympathetic nervous system that counters



the fight-or-flight response and slows down the body when it's stressed. When you take deep breaths the vagus nerve releases a neurotransmitter, acetylcholine, that decreases anxiety while promoting feelings of calm and increased focus. It also reduces stress hormones, including cortisol, and



boosts feel-good hormones like oxytocin and prolactin. And the extra flow of oxygen provides an energy boost and releases endorphins that improve mood and relieve pain.

Calm person, calm pet

Many times stress causes changes in body language, such as hand wringing or muscle tenseness and shallow breathing. In the veterinary environment, not only will clients and coworkers notice these physical changes—animals may notice too. Animals may perceive this anxiety and tension as a signal of a threat and imminent danger. As an animal trainer, I've noticed dogs appearing upset and reacting when their person becomes anxious—holding their breath and tightening the leash, for example. The dog may begin to bark and lunge simply because they correlate their owner's stress to negative events occurring.

For example, when you're about to give an injection you may notice the client hovering over the dog, using anxious talk in an attempt to soothe or grimacing and looking away. And the animal may react defensively or fearfully



in response before any treatment even takes place. So the person's reaction, including breathing that promotes an overall feeling of calm, can lower everyone's stress level.

PEARLS of practice

Learn it, use it and teach it to team members and clients

Taking deep breaths reduces anxiety and stress and presents a calmer, more confident presence to people and animals alike.

How do you take these deep breaths?

- > Breathe in through your nose on the slow count of three and hold the breath just for a moment.
- > Breathe out slowly through a slightly opened mouth, counting to three again. Continue until you feel your body relaxing. Many times deep breathing for a minute or for a repetition of three to six breaths can create the feelings of relaxation.
- > Take deep breaths. Most breathing is shallow and only uses part of the lungs. You can feel the
 - deeper breaths by placing a hand on the belly and feeling the stomach extend and contract with each breath and exhalation.

Focus on sitting or standing upright so you use your full lung capacity.

Now teach Trixie or Fido

Now let's combine our own deep breaths with the deep breathing exercises we can teach to dogs. Animals also have stress patterns related to their breathing. Fluid, regular breaths are associated with a relaxed animal, while shallow and rapid breaths-like stress panting or holding their breath-are associated with anxiety and fight-or-flight reactions. One of the foundational behaviors I teach dogs is to give focused attention while breathing deeply.



The animal is asked to do a relaxed position, like a down or a sit with eye contact while paying special at-

tention to rewarding the animal for keeping their mouth closed. The closed mouth causes the animal to breathe in through the nose, making the breaths deeper and—just as in people—slowing down heart rate and blood pressure and promoting calm.

When the pet and the guardian are entering a stressful environment, such as a veterinary visit, invite



clients to use deep breathing while they simultaneously guide and reward their dog for doing the same with attention exercises. Many times, after only a minute or two, both the animal and person are more relaxed.

When can you use deep breathing?

It's so subtle, it can be embraced without being perceptible while you engage in a conversation or while the other person is talking. Or you can use it just before entering the exam room. When an animal is stressed, take a few moments to decompress yourself and release stress through deep breathing, and invite the client to do the same. And sometimes the momentary pause and



release of anxiety can be enough to calm down the situation enough to be safe to proceed with the exam or procedure.





Use this quick guide to answer common client questions about pain management. By Tasha McNerney, BS, CVT

ften pet parents are faced with the decision whether to put their pets under general anesthesia. You're likely responsible for explaining these procedures to

What tests does my pet

How will vou make sure

my pet's OK when she's

under anesthesia?

need before surgery?

clients to alleviate some of the fear associated with anesthesia. Here are common questions clients often ask before a pet undergoes an anesthetic procedure—and how to answer.

Often preoperative blood work can give us early clues to potential diseases such as diabetes and hyperthyroidism. It's important to check the function of both the liver and the kidneys, since they are the organs responsible for processing and clearing anesthetic drugs from the body. If your pet is a senior, the doctor may recommend more in-depth preoperative diagnostics such as an ECG or cardiac ultrasound to ensure your pet's heart is healthy enough for some anesthetic drugs. Getting a clear picture before anesthesia helps us make sure we use the most appropriate drugs.

During anesthesia we want to monitor changes in temperature, blood pressure and ventilation. These changes can influence not only what drugs we will use in the postoperative period, but will help guide the quality of recovery for your pet.

Tip: Offer the specifics of the monitoring parameters you will use and why this is so beneficial to the pet. If you have a technician whose sole job is to monitor pets under anesthesia, explain the importance of having a dedicated technician anesthetist—so the doctor can focus solely on performing the surgical procedure.



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For more information, talk to your Hill's Representative.

F. Martin

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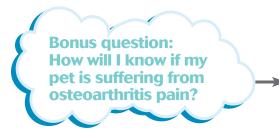


Tip: Also explain to the client that some postoperative pain medications such as opioids may make their pet nauseous and whiny; if this happens they should call the office. Some surgeries will only require a short recovery time. Orthopedic procedures and dentistries with multiple extractions may require a longer recovery time. Also after surgery patients may be unsteady on their feet and unable to walk up or down stairs. If your pet usually sleeps upstairs in your bed, it's important to set up a comfortable area on the first floor for your pet to rest, or be prepared to carry your pet up and down the stairs.



Almost every surgical and dental procedure will involve some level of pain. Let's talk about the expected level of pain and how we will treat the pain.

Tip: Offer the specifics of the pain management plan tailored to the pet. Also talk with the client about the need (if any) for postoperative physical therapy. Orthopedic procedures greatly benefit from postoperative physical therapy such as hydrotherapy, massage therapy and low level laser therapy. Also, many pain medications have to be administered orally. If it's difficult to give the dog or cat a pill, there are now other drug delivery options to ensure the pet stays comfortable in the recovery period.



Older animals who struggle rising from lying down or have trouble with stairs may be suffering from chronic pain due to osteoarthritis. If your pet once loved sleeping on the couch but now can't jump up on the couch or has episodes of weakness or falling, take your pet to your veterinarian for an examination. **FL**

Tasha McNerney, BS, CVT, is a member of the IVAPM, and she is currently pursuing her CVPP. She works as a technician at Rau Animal Hospital in Glenside, Pennsylvania.



Coffee and career growth

Check out our new series "Coffee on the Couch." Tasha McNerney, BS, CVT, talks with Megan Brashear, CVT, VTS (ECC), education manager at DoveLewis in Portland, Oregon, at dvm360.com/CoffeeTalk.

Or scan the QR code on the right to watch it now.







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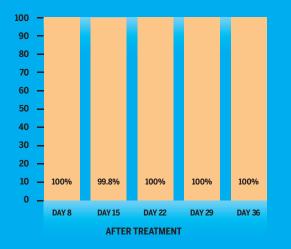
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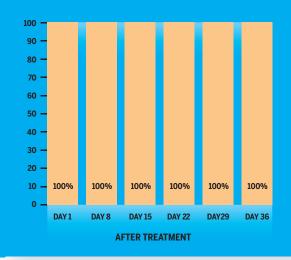


¹ Data on file at Merial.

- ² Kunkle BN, Drag M, Chester TS, Larsen DL. Assessment of the onset of action of afoxolaner against existing adult flea (*Ctenocephalides felis*) infestations on dogs. *Vet Parasitol.* 2014;201(3-4):204-206.
- ³ Hunter JS 3rd, Dumont P, Chester TS, et al. Evaluation of the curative and preventive efficacy of a single oral administration of afoxolaner against cat flea (*Ctenocephalides felis*) infestations on dogs. *Vet Parasito*. 2014;210(3-4):207-211.

Kills NEW fleas all month long³

Percent Efficacy* Against Adult Fleas 24 Hours After Treatment or Reinfestation



- ⁴ Dryden MW. Flea and tick control in the 21st century, Challenges and opportunities. *Vet Derm.* 2009;20:435-440.
- ⁵ Freedom of Information Summary Supplement, NADA 141-406 (05/15/2014), NexGard.
 ⁶ Freedom of Information Summary, NADA 141-406 (09/14/2013), NexGard.
- ⁶ Freedom of Information Su ⁷ Data on file at Merial
- * Percent efficacy = 100×[(C-T)/C], where T and C are the appropriate means of treated and control groups, respectively.

Take out ticks

Ticks now pose a greater threat to dogs across the country than ever before.⁴ Several species of ticks are now commonly found in parts of the country where they previously did not exist.



Black-legged (deer) ticks⁵

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American dog ticks⁶



Dermacentor variabilis



Lone star ticks⁵



Amblyomma americanum

The protection dogs prefer

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IMPORTANT SAFETY INFORMATION: For use in dogs only. The most common adverse reaction is vomiting. Other adverse reactions reported are dry/flaky skin, diarrhea, lethargy, and anorexia. The safe use of NexGard in pregnant, breeding, or lactating dogs has not been evaluated. Use with caution in dogs with a history of seizures.

"I give NexGard an 'A'. I mean, everything that we're looking for in terms of importance, efficacy, not a lot of side effects, palatable to the dog, the clients like it, it scores great on. NexGard's definitely passed the test, it's a keeper."

- Dr. Blythe Waters, Florida

"NexGard really does remind me of HEARTGARD® (ivermectin) [chewables], where you just have to open it up and give it to him, it's done in seconds and you don't have to worry about it again."



"When we first gave (a dog) NexGard, it was just like giving them a treat. The dog was very happy to have it, very excited."

- Amy, Vet Tech, Minnesota

- Beth, dog owner, Minnesota

"It is efficacious. In this area, we see a lot of fleas, but really ticks rule around here. So it is important that we treat both... we've been waiting a long time for an oral flea and tick product that's efficacious." -Dr. Steven Wolchinsky, Maryland



 $\ensuremath{\textbf{CAUTION}}\xspace$ Federal (USA) law restricts this drug to use by or on the order of a licensed veterinarian.

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

Indications:

NEXGARD kills adult fleas and is indicated for the treatment and prevention ALCOMID with adult meas and is indicated on the treatment and prevention of flea infestations (*Clencoephalides feils*), and the treatment and control of Black-legged tick (*loodes scapularis*), American Dog tick (*Dermacentor variabilis*), and Lone Star tick (*Anbhymma americanum*) infestations in dogs and puppies 8 weeks of age and older, weighing 4 pounds of body weight or greater, for one month.

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

Dosing Schedule:

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

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

Flea Treatment and Prevention: Treatment with NEXGARD may begin at any time of the year. In areas where fleas are common year-round, monthly treatment with NEXGARD should continue the entire year without interruption.

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

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

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

Warnings:

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

Precautions: The safe use of NEXGARD in breeding, pregnant or lactating dogs has not been evaluated. Use with caution in dogs with a history of seizures (see Adverse Reactions)

Adverse Reactions: In a well-controlled US field study, which included a total of 333 households and 615 treated dogs (415 administered afoxolaner; 200 administered active control), no serious adverse reactions were observed with NEXGARD. Over the 90-day study period, all observations of potential adverse reactions were recorded. The most frequent reactions reported at an incidence of > 1% within any of the three months of observations are presented in 21.6 while any of the three motions of base values are presented in the following table. The most frequently reported adverse reaction was vomiting. The occurrence of vomiting was generally self-limiting and of short duration and tended to decrease with subsequent doses in both groups. Five treated dogs experienced anorexia during the study, and two of those dogs experienced anorexia with the first dose but not subsequent doses.

Table 1: Dogs With Adverse Reactions

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

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

2Number of dogs in the control group with the identified abnormality. Autimeer of dogs in the control group with the identified abnormality. In the US field study, one dog with a history of seizures experienced a seizure on the same day after receiving the first dose and on the same day after receiving the second dose of NEXGARD. This dog experienced a third seizure one week after receiving the third dose. The dog remained enrolled and completed the study. Another dog with a history of seizures had a seizure 19 days after the third dose of NEXGARD. The dog remained enrolled and completed the study. Attird day with a history of seizures received NEXGARD and experienced no seizures throughout the study.

To report supported adverse events, for technical assistance or to obtain a copy of the MSDS, contact Merial at 1-888-637-4251 or <u>www.merial.com/</u> <u>nexgard</u>. For additional information about adverse drug experience reporting for animal drugs, contact FDA at 1-888-FDA-VETS or online at <u>http://www.</u> <u>fda.gov/AnimalVeterinary/SafetyHealth.</u>

Tha gov/Animalveterinary/SatetyHealth. Mode of Action: Afoxolaner is a member of the isoxazoline family, shown to bind at a binding site to inhibit insect and acarine ligand-gated chloride channels, in particular those gated by the neurotransmitter gamma-aminobutyric acid (GABA), thereby blocking pre- and post-synaptic transfer of chloride ions across cell membranes. Photograd afoxolaner-induced hyperexcitation results in uncontrolled activity of the contral nervous system and death of insects and acarines. The selective toxicity of afoxolaner between insects and acarines and mammale may be informed hy the differential sensitivity of the insects.

and mammals may be inferred by the differential sensitivity of the insects and acarines' GABA receptors versus mammalian GABA receptors. Effectiveness:

In a well-controlled laboratory study, NEXGARD began to kill fleas four hours



Sold exclusively to veterinarians.

after initial administration and demonstrated >99% effectiveness at eight hours. In a separate well-controlled laboratory study, NEXGARD demonstrate 100% effectiveness against adult fleas 24 hours post-infestation for 35 days, advises 200% effective to 12 hours period theoret Day 11 and per . ratad 100% effectiveness against adult fleas 24 hours post-infestation for 35 days, and was 2 93% effective at 12 hours post-infestation through Day 21, and on Day 35. on Day 28, NEXGAPD was 81.1% effective 12 hours post-infestation. Dogs in both the treated and control groups that were infested with fleas on Day 1.9 generated flea eggs at 12- and 24-hours post-treatment (0-11 eggs and 1-17 eggs in the NEXGAPD treated dogs, and 4-90 eggs and 0-118 eggs in the control dogs, at 12- and 24-hours, respectively). At subsequent evaluations post-infestation, fleas from dogs in the treated group were essentially unable to produce any eggs (0-1 eggs), while fleas from dogs in the control group continued to produce eggs (1-141 eggs).

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

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

In well-controlled laboratory studies, NEXGARD demonstrated >94% effectiveness against *Dermacentor variabilis* and *Ixodes scapularis*, 48 hours post-infestation, and against *Amblyomma americanum* 72 hours postinfestation, for 30 days.

Animal Safety:

Administrative and the second and roused intervent the weight, food consumption, clinical pathology, (hematology, clinical pathology, clinical pathology, histopathology, clinical clemistries, or coogulation tests), gross pathology, histopathology organ weights. Vomiting occurred throughout the study, with a similar incidence in the treated and control groups, including one dog in the Sx group that vomited focus after treatment, including one dog

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

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

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

NADA 141-406, Approved by FDA

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1050-4493-02 Rev. 4/2014

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ASK SHAWN: Price-matching pains

'm happy to report that our *I*practice hasn't seen the drop in pharmacy gross sales or margins that so many practices have seen. Not yet, anyway. But we also offer price matching for clients who ask for it. Basically we match the price of online pharmacies—even though we all know they aren't getting the same total package from online pharmacies that we offer. From us, they benefit from convenience, it's manufacturer backed and known to be a good product, we offer direct service if they have questions and so on.

Though this has helped us retain some sales, more clients are requesting price matching. Taking the time to match these prices—and to assure they aren't below our 30 percent minimum price match mark up we established this year—not only costs us more money in staff time but it's starting to really irritate the reception team. My lead receptionist says it can take up to 20 minutes to price match everything for a three- to four-pet appointment. Yikes!

We launched an online store this year, and I think it's time to move away from price matching. Clients need to understand that there's a fee for getting their pets' medications right from us at checkout. Those who want the best pricing need to embrace our online store as a true comparable service to the other



online pharmacies—again, not that it is, because they're still receiving all the benefits of buying from our lobby from our online store too, short of getting product immediately.

So, how can we gently transition to this approach without making too many clients angry? We are in a relatively rural area with a lot of veterinary practices—a town with a population of 50,000 and five practices in town alone—so client satisfaction is huge for us to continue to thrive. —Matched out

Dear Matched,

Great question. I think your movement to the online store is the right thing to do. To soften the blow, roll it out over a sixmonth time period and allow some grace time for clients to get used to the transition. Train your team with a scripted response about the reasons for the change so everyone sends the same message.

You might also consider conducting an internal study on loss leaders. Does offering this price-matching service encourage clients to come to the hospital more often, and do they spend money when they visit? If the answer is yes you might be profiting from the extra service in unexpected ways. Good luck! —**Shawn**



Shawn McVey, MA, MSW, is a member of the *Firstline* and *Veterinary Economics* Editorial Advisory boards and CEO of McVey Management Solutions in

Austin, Texas.

MAKING it meaningful

e slept on our patio for one week and begged for food. Every time we opened the drapes he cried and looked at us with his green, almond-shaped eyes, pink nose and funny Charlie Chaplin moustache.

As a family of three, we took a vote. We decided that although we had lost two other cats to coyotes, we couldn't

The legend of **LUIG**

When a fire destroyed our townhouse, we worried we'd never see our beloved cat

again. By Sandra Shapiro

resist giving this poor emaciated cat food and water.

He had no collar or identification. We had no way of knowing if he was a neighbor's pet. His striped gray coat was lifeless. His watery eyes looked sad, and he scratched his ears constantly. He cried throughout the night, even though he was generously fed.

"Let's take him to the vet," said Brad, my younger son, who instantly fell in love with him.

"If no one claims him within a week, we will take him to the veterinarian. Hopefully he will get well and we will have a new cat in our house," I said.

A feline friend in need

I couldn't stop thinking about the sad animal that now slept on our patio on top of our old blankets. I wanted to take him in my arms, cuddle him and feed him.

After a week, no one came looking for him, despite our posting signs near the mailboxes and telephone poles just outside our townhouse complex. The three of us were already attached to him. He was sweet, smart and responded to food.

When we took him to the vet, we learned he suffered from an eye infection, ear mites and malnutrition. The doctor suspected he had been abused as well. He told us to be gentle and go slowly when we showed our affection to the cat.

The medication cost more than \$150, and the doctor told us it would be at least three months before his hair would be shiny again and he would

MAKING it meaningful

begin to trust us.

At home, the boys fed him and carefully displayed their love while I administered his medication.

"What would you like to call him?" I asked.

"Tiger," said Brad.

"No, Silver Streak," said Marc.

"How about something that describes his funny moustache we love so much?" I suggested.

"I know! Luigi," said my younger son.

"That's it!" We all agreed it was the perfect name.

Luigi made himself at home with our hospitality. Before three months were up, he had improved remarkably. Each day he became more open to letting us touch him, and his disposition was wonderful, despite his sad history. He was fully recovered and definitely our favorite cat of the three we'd previously owned.

The night of the fire

About a year later, the three of us went out to dinner, leaving Luigi at home as usual. When we returned home, we found fire engines along the driveway, near our garage. We didn't get more than 10 feet before a fireman approached our car.

"Sorry, but you'll have to park here. We have a three-alarm fire going and no one can pass through this area right now."

"Can you tell us where and which townhouse?" I asked.

"Yes. The dark brown wooden one over there." He pointed to our home.

"One of your neighbors heard your smoke alarm go off and called

the fire department. We were here in five minutes, but the top portion of the second story had already burned down. The bottom floor is badly water damaged, but we saved some furniture and belongings."

"Did you see our cat?" I asked.

"Yes. When we broke the downstairs window, he flew out so fast we couldn't catch him."

We watched in horror as the firemen axed their way into our blazing home. I was hysterical, and I couldn't stop thinking of Luigi. The boys watched as the fire slowed to the smoldering stage and the flames died down.

Brad started his search for Luigi, while Marc and I stood as though we were in a coma, not able to speak to anyone or believe that this had happened to us.

The next day I walked through the rubble with the insurance company as they carefully assessed the damaged skeleton of our house. It took hours to sift through the rooms and try to mentally reconstruct their original condition from just 12 hours before. We lost all of our family pictures, and my jewelry had melted together into one big heap of gold.

Luigi remained lost. We searched every day, called his name and finally decided to leave food and water on the patio, where he had originally slept as a stray. The three of us prayed he would smell the food and come home.

The final explanation on the cause of the fire was an electrical short in Brad's bedroom wall. The reconstruction took more than





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MAKING it meaningful

three months. We returned each day and the food and water were gone. It was hard to tell whether the neighborhood cats were eating it or if it was indeed Luigi. Brad and Marc were convinced it was Luigi and wouldn't give up hope. He was alive, as far as they were concerned, and too scared to reappear ... just yet. I didn't know what to believe.

After three months, we moved back into our reconstructed townhouse. On our first day home, we thought we heard scratching and Luigi's cry, but we didn't see him.

"Mom, there's a dead bird near the front door," yelled Brad.

"You know what that means, right Brad? It's a gift," said Marc.

"Maybe it's Luigi's way of telling us he's alive and misses us," I said.

Several days later we heard the cry again, but we saw no sign of the cat. When we looked outside, there was a dead mouse. For the next five days, we received similar anonymous gifts.

A week later, I opened the drapes to the patio and heard

scratching on the screen door. I was in the kitchen making dinner when I heard the cry again. I called the boys, and we tiptoed across our wood floor and watched the patio area. To our delight, Luigi jumped over the wood fence and crouched in the corner. He waited for us to welcome him home.

Ecstatic, we brought him his favorite food, which he gobbled up. We stood together and laughed, feeling happy to have Luigi back. After three-anda-half months, our family was complete again. **FL**

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ticks in 2015

Scientists find uncommon virus in U.S. ticks

PLUS Teach clients about tick-borne diseases in the U.S. p2



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p6 Have **YOU** had the **tick talk** with clients? **p7**

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>> 7 things everyone should know about ticks>> 10 steps to prevent zoonotic disease

p08

IQ booster 5 steps to build your tick

5 steps to build your tick IQ

Sample script Team training and scripts to learn to talk ticks

p11

Social media Get ticks off your patients' back

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Test your team and your clients with these tick teasers

Final tip

Fighting the invisible threat

p14

Scientists **find uncommon virus** in southeast U.S. ticks

New findings from the University of Florida suggest ticks may be hosts for an arenavirus. Plus—educate clients with a handout of the tick-borne diseases in the U.S.

he Tacaribe virus, has never been found in an animal or human species in the United States—until now. Scientists from the University of Florida (UF) colleges of Veterinary Medicine and Public Health and Health Professions have discovered the unusual virus in ticks common to the southeastern part of the country, as reported in a study in the journal PLOS ONE in December 2014.

Scientists say the virus belongs to the family *Arenaviridae*. Some arenaviruses are associated with severe hemorrhagic disease and significant mortality rates in people in South American and sub-Saharan Africa. While the Tacaribe virus is not known to cause human infections, a release from the University of Florida says the virus's relative rarity and unknown host in nature intrigue the study's authors.

About 10 percent of the lone star ticks collected in Florida state parks by the study's lead author, Katherine Sayler, PhD, and her fellow researchers were found to have the Tacaribe virus. This is the first time the virus has been found in the United States. Sayler says the discovery expands the range in which these viruses might be circulating and raises interesting questions about human risk. According to the study, the last time the Tacaribe which animal is the natural host of the virus. Her future research will center on whether ticks have harbored the virus for a long time or if this is relatively new.

"Healthcare professionals should also be aware of the potential tick-transmitted patho-



>>> Could Florida ticks be harboring a latent, deadly virus?

virus was isolated was in bats in Trinidad in the late 1950s. A sample from that survey and the new tick-derived specimen was nearly identical genetically, the study says. "We never thought we would find an arenavirus in a tick," Sayler says in a UF release. "These types of viruses are usually transmitted by rodents."

Sayler says it is still unknown

gens that occur besides the one that causes Lyme disease," Sayler says. "Medical doctors can't be aware of every emerging tropical disease, but if we have greater awareness of emerging diseases, we can move forward from a proactive surveillance effort instead of from a reactive effort, when there is suddenly a huge outbreak and a crisis situation."

Help clients protect themselves from ticks

You and your veterinary team probably won't get clients to stop enjoying outdoor activities like camping, hiking and gardening, but you CAN help them keep themselves and their pets safe from the many tick-borne diseases that have become a reality across the country. To download this informational handout from the Centers for Disease Control, scan the QR code below or head over to **dym360.com/ticktoolkit**.

Get the handout now!

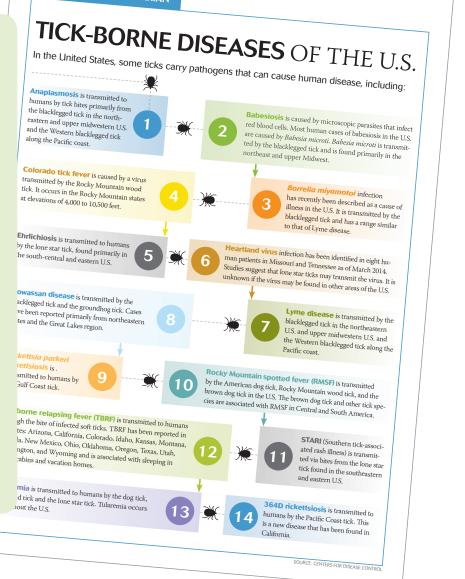




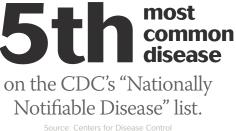
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For the latest in parasitology, including news, video interviews, data analysis, audio, updated recommendations, forecast maps and much, much more, visit the dvm360 Parasitology Center at dvm360.com/parasitology.

FROM YOUR VETERINARIAN







DON'T MISS THIS! To watch these videos and much more, check out dvm360.com/ticktoolkit.





STARRING parasitology experts Mike Dryden, DVM, PhD, and Susan Little, DVM, PhD, DACVM.

Scan to watch now

High elevation risk

Have clients who are headed to the mountains this summer? *Dermacentor andersoni*, the Rocky Mountain wood tick may be there too. Dr. Mike Dryden explains when and where you can expect to see this high-rising tick.

The tick that wants to be a flea

Because of its ubiquitous nature and the fact that it wants to be wherever dogs are, the brown dog tick has been called "the tick that wants to be a flea." Watch as Dr. Susan Little explains more about this "double-agent" tick and the disease it transmits.



Designed to make you scream

Most people agree that ticks are disgusting, but you may never see a tick as frightening as the spinose ear tick. Dr. Susan Little describes the trauma of *Otobius megnini* in this video.

Large and aggressive

Amblyomma maculatum is the vector of *Hepatozoon americanum* and may be called the Gulf Coast tick, but its name hasn't stopped it from moving to interior states and the east coast. In this video, Dr. Mike Dryden also shares the interesting (and a little bizarre) life cycle of *Hepatozoon americanum*.



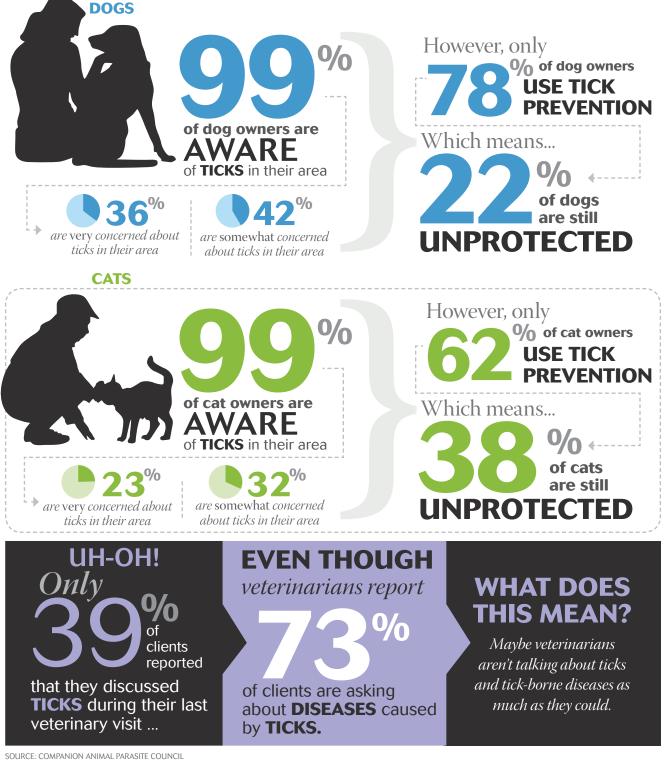






Ticks in **2015**

Is there a communication gap between veterinary professionals and pet owners when it comes to ticks? New data points to yes.



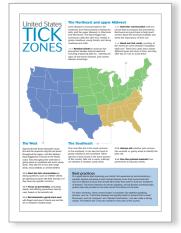
For the tick zone handout and more tick tools, head over to **dvm360.com/ticktoolkit**.

Tackling tough tick talks across the map

Clients are often in the dark about the risk ticks present for their pets. Use these tips to tackle tough tick talks.

Sometimes clients fail to take ticks seriously—and suffer the consequences. "Your veterinary team knows the danger that ticks present to pets," says Ciera Sallese, CVT, a technician at Metzger Animal Hospital in State College, Pa. "But it's important for each of us to remember that the diseases that we're so familiar with may be completely foreign to pet owners. Often, the only chance we get to talk about prevention is when pet owners visit for an annual exam. So it's important to use this time wisely and highlight key facts about tick-borne diseases."

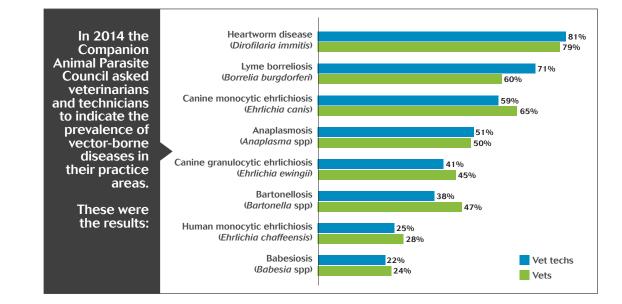
For example, Sallese says team members should highlight the vector-borne diseases that are most common in their area (see data provided by the Companion Animal Parasite Council in the chart below) stressing preventives and regular inspections to protect pets against disease. She says it's also important to explain to clients that even with a perfect prevention protocol, just one tick on a pet can spread a disease. So, routine testing can either assure pet owners that their pet



Use this handout to review tick tips with your team, region by region. Scan the code to download.



has been successfully protected or it can help diagnose a disease so that the veterinarian can offer treatment.



Have **YOU** had the **tick talk** with clients?

Every member of the veterinary team can protect patients.

ne white-tailed deer can support more than 450,000 ticks in a year," says Dr. Julie Clark-Blount, owner of Laurel Oaks Animal Hospital in Kingsland, Ga. And if you calculate about one deer per acre of land, depending on your area—that's a lot of ticks looking to munch on your patients. That's why Dr. Clark-Blount and her team talk to clients about ticks every time they come into the clinic.

"The receptionists are the troubleshooters in the veterinary clinic," she says. They get to the bottom of tick problems with questions like:

> Is this the first time you've seen a tick on Scruffy?

> Is your pet currently on any preventives? If so, which ones?

> Where did you purchase the preventives you're using?

> When was the last time you treated your pet with preventives?

- > Do you live near a wooded area?
- > Do you take Scruffy on walks?
- > Do you take him to the dog park?

Remember, these bloodsuckers don't discriminate—in other words, you can't judge a tick-infested pet by his owner. "One patient came in covered in hundreds of ticks. The owner was a newscaster and had a nice yard and lived in a nice neighborhood," Dr. Clark-Blount says. "Ticks had infested her home—they were crawling up the walls. She had to throw out a couch."

This is why Dr. Clark-Blount highly recommends getting to know your area and finding local tick hot spots. The more you research nearby neighborhoods, the better you can warn clients, she says. It's also a good idea to debunk common tick myths in the exam room.

"Lighting a match behind an embedded tick and covering it with Vaseline or alcohol are old wives' tales," Dr. Clark-Blount says. "Actually these actions can aggravate ticks and make them throw up, essentially shooting Lyme disease right into the pet." Download a handout that explains more myths at **dvm360.com/ticktoolkit**.

Another common misconception: Indoor cats don't need to be on preventives. The truth is that dogs can bring ticks into the house. And you never know-Beatrice could get out accidentally, Dr. Clark-Blount says. Pet owners need to know that ticks can give cats cytauxzoonosis-a disease that's fatal to felines. "We usually can't diagnose it until it's too late," Dr. Clark-Blount says. For example, a client recently brought her cat into Laurel Oaks Animal Hospital and the pet died within five hours. Soon after, Dr. Clark-Blount sent the patient's body to the lab for testing and, sure enough, the cat had contracted cytauxzoonosis.

"Tick hosts are surviving through the winter—ticks just aren't as seasonal as they used to be." Dr. Clark-Blount suggests recommending year-round tick prevention to your clients so your patients will always be protected. dvm360 TICKS

dvm360.com/ticktoolkit.

TICK tips

FROM YOUR VETERINARIAN

7 things everyone should know about ticks Protect yourself and your pets with these top tick tips.

All ticks come in small, medium and large sizes.

Ticks have four main life stages: eggs (the smallest size), larvae (equivalent to a grain of sand) nymphs (the medium size, about the size of a poppy seed) and adults (the largest size, about the size of an apple seed).

Ticks crawl up.

Ticks live on the ground no matter the locale. They typically crawl up from grass blades onto a host and migrate upward, which is why they're often found on the scalpthey want to feed around the head, neck, and ears of their host, where the skin is thinner.

Cold and snowy? No big deal.

Yup, winter doesn't bother certain tick species. In fact, adult stage deer ticks become active every year after the first frost. While some ticks go dormant, deer ticks will be active any winter day that the ground is not snowcovered or frozen. This surprises people, especially during a January thaw or early spring day.

Ticks carry disease-causing microbes.

Tick-transmitted infections are more common these days than in past decades. With explosive increases in deer populations, the trend is increasing abundance and geographic spread of deer ticks and lone star ticks; and scientists are finding an ever-increasing list of diseasecausing microbes transmitted by these ticks. Tick bites used to be an annoyance, but now a bite is much more likely to make you sick.

If you (or your dog, cat or horse) are bitten, you probably won't know it.

This is super creepy, but tick bites are painless (ticks' saliva has anesthetic properties) and hosts generally don't feel it. What's worse: fewer than half of people who've been infected with Lyme disease show the "bull's-eye rash" that was once thought to be a telltale sign of the disease. If you start showing flulike symptoms in the middle of summer (fever, chills, aches, and pains are friale borne diseases)



go to the doctor and ask to be tested for the illnesses associated with ticks. This is also why it's essential to keep a close eye on your pet and check for ticks after it spends time outdoors.

The easiest way to remove a tick is with pointed tweezers.

Think of a tick as a little germ-filled balloon. Squeeze it too hard on its back end, and all the germs get pushed to the front end. Using really pointy tweezers, it's possible to grab even the poppy-seed sized nymphs right down next to the skin. The next step is to simply pull the tick out like a splinter. Other tick removal methods, like a hot match, Vaseline, dish soap and cotton, or various little key-like devices don't work, so don't bother trying And your safest bet is going to a doctor or veterinarian for removal.

Tick bites and tick-borne diseases are 100% preventable.

There's really only one way to become infected with tick-transmitted disease, and that's from a tick bite. ing steps to protect yourself (with tick-repellent clo or spraying tick repellent on clothing) and your pe (with year-round preventive medication and regu tick checks) especially if you spend any time outd will drastically reduce your risk of developing tic diseases. Remember, just one bite is all it takes to you or your pet sick-so prevention is your best

FROM YOUR VETERINARIAN

10 STE preve disea

Zoonotic diseases (diseases you ca can be dangerous for you and your follow these steps to keep everyone



Schedule annual or biannual veterinary visits for your pet, which should include fecal examinations.



Keep your pet on year-round monthly parasite prevention, as recommended by your veterinarian.



Keep pets indoors or supervised to discourage hunting, and do not feed pets raw or undercooked meats

Wash your hands frequently, especially after handling animals and working outdoors. Be sure your children wash their hands after playing outside.



Wash any wounds, even small nicks and cuts, promptly and thoroughly.

Protec your h

Alwa

EVERYONE should know

Keep clients (and their pets, of course) safe from ticks and tick-borne diseases with these handouts.

PS to help nt zoonotic ases

n contract from animals) loved ones. Be sure to safe and healthy!

Clean cats' litter boxes daily, wearing gloves, and always wash your hands immediately afterwards. (Though if you're pregnant, you should avoid cleaning litter boxes altogether. Have someone else do it for you.)

Avoid approaching, touching, or andling stray animals.

wer children's sandboxes when y're not in use.

iys wear gloves when gardening.

t yourself from ticks by covering ody with a long-sleeved shirt hile you and your team share a heartfelt interest in the well-being of your patients and their owners, it's also important to realize that your clinic's parasite prevention program can have a larger impact on society. **dvm360** experts emphasize that parasites in the environment can infect people who don't own pets if your clients don't responsibly handle their pet waste and stay current with prevention programs.

"Zoonosis is not one of those things that's someone else's problem. We need to put the message out, but in a way that doesn't scare people. Speak simply, give easy-to-understand instructions, and make sure that what you're asking clients to do is something they can do." —Jay Stewart, DVM, CAPC board member

Most pet owners are good people, and they want to do the right thing. Good people given good information will make the right choices for themselves and for their pets. You and your team are there to facilitate the conversation and guide the educational process for all involved. Use these handouts to help your team spread the tick control message. TICKS

DO YOUR CLIENTS KNOW?

According to a 2013 study by Banfield Pet Hospitals, approximately one in every 130 dogs was infected with the bacterium that causes Lyme disease.



Help your clients become tick experts in no time with this 5-step program to building tick IQ.

Prevention and early detection are key when it comes to safeguarding pets against Lyme disease. Offer clients this simple advice, courtesy of the American Lyme Disease Foundation and Dr. Fred Metzger, Dipl. ABVP, owner of Metzger Animal Hospital in State College, Pennsylvania.

1 Encourage pet owners to inspect their pets every time they go outside.

2 Describe the areas where they're most likely to encounter ticks, from shady, moist ground litter to tall grass, brush, and shrubs.

3 Identify the areas of the body where ticks like to latch, such as protected, creased areas in armpits. Remind your clients not to panic if they notice a tick attached to the pet, and that they can always call your team with questions. Then explain that experts often discourage killing the tick before removal.

Encourage the pet 5 Encourage un owner to visit your practice to have the tick removed, if possible. This guarantees full removal of the tick and allows you to follow up with a discussion about tick prevention programs, Lyme disease vaccinations, and testing for tick-borne diseases.

CRITICAL STAT

DVK? Lyme disease is twice as common in large breed dogs as in toy or small breed dogs.

TICK EDUCATION: What's *your* role?

Learn how the whole team can work together to educate pet owners about ticks and tick-borne disease threats to help protect pets and their owners.

RECEPTIONIST

You're the first line of defense to educate pet owners. Clients often need to hear recommendations five to 10 times before it sinks in. To start a tick discussion, use questions like:

> "What preventives are you using for Roscoe?"

> "How often do you take Harley for walks outside?"

PRACTICE MANAGER

Stock up on tick education handouts, place them in your reception area and hand them out to clients. Hint: You can find free handouts and more at **dvm360.com/ticktoolkit**.

TECHNICIAN

Talk to pet owners about the common tick myths. And don't forget to remind clients that it's important to keep up with prevention, even when temperatures drop—**try the script shown here**.

VETERINARIAN

Set protocols for parasite prevention so your whole team reinforces your message. For example, your protocol might call for using in-clinic tests that detect common tick-borne diseases and you may define which parasite prevention you recommend and why.

SAMPLE SCRIPT: FREEZING OUT PARASITES

YOU: Brrr! Winter just won't quit!

CLIENT: Oh, yes. It's just freezing out there. And I've heard it's only going to get worse.

YOU: You know, lots of people think the winter months are too cold for fleas, ticks, and mosquitoes. Unfortunately, that's not the case.

CLIENT: I thought all those pests died off in freezing temperatures.

YOU: Actually, they do survive, especially indoors. Warm homes and cozy fur provide perfect places to hide from the cold. That's why pets need year-round parasite prevention. It minimizes health risks and provides relief to you and your pet. Do you have any preventives at home, or can we get you some at the end of today's visit? TICKS

Get **ticks** off *your* patients' backs

Help clients tick "learn about blood-sucking parasites" off their to-do list.

Y

Still removing #ticks from #pets with a lit match? That's a surefire way to help the tick deposit more disease. Try tweezers instead.

DVK? Ticks aren't insects. They're a species of parasite called arachnids that belong to the same family as mites. #pethealth #parasites

Tick myth #89: No woods means no possibility of ticks. Truth: Ticks live on the ground no matter the locale. #pethealth #parasites

April-Nov. is high season for ticks, but we recommend year-round preventives. Infections can occur any time of year. #pethealth #parasites

Bad news: Ticks in every U.S. state carry diseases. Good news: There's a preventive for that—and we've got it. #pethealth #parasites



Be honest: Who's still removing ticks with a lit match? Yeah, that's a surefire way to help the tick deposit more disease. The best way to kick the tick? Grasp it as close to the skin as possible with tweezers and pull the tick's body out with a steady motion.

True or false: "Ticks are insects." Five gold stars if you called malarkey. Ticks are actually a species of parasite called arachnids that belong to the same family as mites.

Myth: No woods or trees means no ticks on your four-legged friends. Fact: Ticks live on the ground no matter the locale. They typically crawl up grass blades onto a host. Sorry, but no city-slicker cat or dog is safe. t's never a bad time to pick on ticks. Thanks to these pre-written posts and tweets, your clients' brains will be crawling with information. For these tick facts and figures, go to **dvm360.com/ticktoolkit**. And for more social media posts on topics like behavior, nutrition, dental care, vaccinations and much more, head over to **dvm360.com/postnow**.

TICKS

For more tick tools, head over to **dvm360.com/ticktoolkit**.

TICK TRIVIA *test* yourself

Test your knowledge of these little suckers and the diseases they transmit.

5-year-old neutered male Brittany spaniel from Virginia is presented to the veterinarian lying on its side. The dog is alert and responsive but is breathing rapidly and unable to rise. A physical examination reveals an engorged female *Dermacentor variabilis* tick attached to the left side of the dog's neck, and a diagnosis of tick paralysis is suspected. The tick is removed by using forceps. If the suspected diagnosis is correct, what is the most likely outcome for this dog?

Worsening paralysis and possibly death within 24 to 48 hours

Permanent neurologic deficits due to toxins injected by the feeding tick

C Recovery to full normal function within a few hours

Check to see if you answered correctly on the next page! ------



Have clients test their tick knowledge

Educate clients with a module on tick control in your exam room today. Special features include DIV tips for a tick-free backyard, myths about Lyme disease, and more. Download it now for free—at **dvm360.com/ipadapp**.

For the tools you need to craft a topnotch tick control message, visit dvm360.com/ticktoolkit.





Answer A. Worsening paralysis and possibly death within 24 to 48 hours–Incorrect.

Prompt removal of the tick is the recommended treatment for tick paralysis, and, in North America, clinical disease does not worsen after tick removal. In Australia, the signs associated with tick paralysis due to infection with *Ixodes holocyclus* ticks can become more severe after tick removal, but this phenomenon is not known to occur with *D. variabilis* ticks in North America.

Answer B. Permanent neurologic deficits due to toxins injected by the feeding tick–Incorrect.

Tick paralysis is a potentially fatal disease if the tick is not identified and removed. However, in North America, the clinical effects of tick paralysis only persist for as long as the feeding tick is attached.

Answer C. Recovery to full normal function within a few hours -Correct!

Dogs in North America with tick paralysis recover fully after tick removal as long as all ticks are located and removed. The removal of the tick can serve as both the clinical diagnosis, confirming the cause of the paralysis upon recovery, and treatment for the condition.



The invisible threat

Do your clients show a lackadaisical attitude toward parasites? It's probably because the threat is invisible, says renowned author and speaker Dr. Marty Becker. For example, clients should obviously keep their dogs



on a leash when taking a walk—cars zooming by are a very visible threat.

Parasites, however, don't have the same in-your-face effect. Which means? The message you and your team sends to clients is crucial, especially for clients who think parasites aren't a year-round threat

Dr. Marty Becker

or a problem for all pets, Dr. Becker says. "You can't just use preventives for one pet and not the other," he says. "You can't time dosages based on where you live or the time of year. We have to stress lifetime parasite control for all pets. You wouldn't ignore oil changes in your car, even though that's an invisible threat. Teach clients to put their pets on a parasite control schedule and not to let it lapse."

Just as important, Dr. Becker's team members reinforce his recommendations. "There's nothing more powerful than a team member saying, 'This is what I do for my own pet,'" he says. When a team member says this—assuming it's true—clients can see that veterinary experts follow their own advice. That's an educational device money can't buy.



FLEA AND TICK MANAGEMENT JUST TOOK A GREAT LEAP FORWARD— 12-WEEK PROTECTION,^{*} ONE ORAL CHEW¹



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Bravecto kills fleas, prevents flea infestations, and kills ticks (black-legged tick, American dog tick, and brown dog tick) for 12 weeks. Bravecto also kills lone star ticks for 8 weeks.

IMPORTANT SAFETY INFORMATION: The most common adverse reactions recorded in clinical trials were vomiting, decreased appetite, diarrhea, lethargy, polydipsia, and flatulence. Bravecto has not been shown to be effective for 12-weeks' duration in puppies less than 6 months of age. Bravecto is not effective against lone star ticks beyond 8 weeks after dosing.

Please see Brief Summary on following page. Reference: 1. Bravecto [prescribing information]. Summit, NJ: Merck Animal Health; 2014.

Available by veterinary prescription only.

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www.BravectoVets.com



See brief summary on page 16



BRIEF SUMMARY (For full Prescribing Information, see package insert)

Caution:

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

Indications:

Bravecto kills adult fleas and is indicated for the treatment and prevention of flea infestations (*Ctenocephalides felis*) and the treatment and control of tick infestations [*Ixodes scapularis* (black-legged tick), *Dermacentor variabilis* (American dog tick), and *Rhipicephalus sanguineus* (brown dog tick)] for 12 weeks in dogs and puppies 6 months of age and older, and weighing 4.4 pounds or greater.

Bravecto is also indicated for the treatment and control of Amblyomma americanum (lone star tick) infestations for 8 weeks in dogs and puppies 6 months of age and older, and weighing 4.4 pounds or greater.

Contraindications:

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

Warnings:

Not for human use. Keep this and all drugs out of the reach of children. 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. Wash hands thoroughly with soap and water immediately after use of the product.

Precautions:

Bravecto has not been shown to be effective for 12-weeks duration in puppies less than 6 months of age. Bravecto is not effective against Amblyomma americanum ticks beyond 8 weeks after dosing.

Adverse Reactions:

In a well-controlled U.S. field study, which included 294 dogs (224 dogs were administered Bravecto every 12 weeks and 70 dogs were administered an oral active control every 4 weeks and were provided with a tick collar); there were no serious adverse reactions. All potential adverse reactions were recorded in dogs treated with Bravecto over a 182-day period and in dogs treated with the active control over an 84-day period. The most frequently reported adverse reaction in dogs in the Bravecto and active control groups was vomiting.

Percentage of Dogs with Adverse Reactions in the Field Study

Adverse Reaction (AR)	Bravecto Group: Percentage of Dogs with the AR During the 182-Day Study (n=224 dogs)	Active Control Group: Percentage of Dogs with the AR During the 84-Day Study (n=70 dogs)	
Vomiting	7.1	14.3	
Decreased Appetite	6.7	0.0	
Diarrhea	4.9	2.9	
Lethargy	5.4	7.1	
Polydipsia	1.8	4.3	
Flatulence	1.3	0.0	

In a well-controlled laboratory dose confirmation study, one dog developed edema and hyperemia of the upper lips within one hour of receiving Bravecto. The edema improved progressively through the day and had resolved without medical intervention by the next morning.

For technical assistance or to report a suspected adverse drug reaction, 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.

How Supplied:

Bravecto is available in five strengths (112.5, 250, 500, 1000, and 1400 mg fluralaner per chew). Each chew is packaged individually into aluminum foil blister packs sealed with a peelable paper backed foil lid stock. Product may be packaged in 1, 2, or 4 chews per package.

Distributed by: Intervet Inc (d/b/a Merck Animal Health) Summit, NJ 07901

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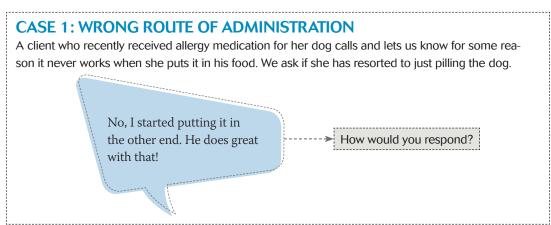
CLIENT communication

PHONE FUN: Nightmare on line 1

Sometimes client conversations take a horrifying turn. Here's help to take control of these discussions. By Oriana D. Scislowicz, BS, LVT

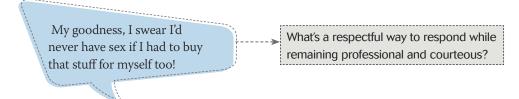
Any of the calls you take are routine. But every once in a while, you're confronted with a situation that just plain takes your breath away. Just remember, the appropriate response can help protect and preserve pets' heath. Below you'll find real calls from pet owners. Take a minute at your next team meeting to review these scenarios and brainstorm your own—and answer these questions for each situation:

- > What's the client's primary concern, regardless of how it's presented?
- > How can you help the client and the pet?
- > What's your primary goal for this conversation? For example, do you want to correct a client's misinformation or to schedule an appointment for the doctor to examine the pet?
- > What are the steps you need to take to educate these clients without offending them?



CASE 2: WHOA—TMI!

As we are collecting payment information for a client to pay for Sildenafil, otherwise known as Viagra, the client hears the total and says:



CASE 3: HOW DID YOU DO THAT?

In a very sad case, an elderly dog with a brain tumor had just left the hospital. While hospitalized, he could not get himself up to walk, and he was in pretty bad shape. The client called us the next day to let us know he was about the same. She then added:

But I've got some great

action shots of my dog to show you guys!

How would you respond?

CASE 4: JUST A PINCH

A client calls concerned about her dog's previously diagnosed arthritis. She explains that he's having trouble getting up and down the stairs, and he seems to have a hard time rising from lying down. She then adds:

I even gave him some of my Vicodin—just a pinch off the end. It didn't seem to help. Not only was she giving her pet human medication without instructions from the veterinarian, but she created a new unit of measure for veterinary medicine. Once you were sure of the dog's medical wellbeing, how would you respond to educate the client and prevent future dosing of medication without explicit instructions from a veterinarian?

One final thought: Stay positive and professional. How you manage these challenging conversations can help protect and preserve pets' wellbeing—and remind clients to always check with the veterinarian to guide their pets' medical care. **FL**



Oriana Scislowicz, BS, LVT, VDT, is a Firstline Editorial Advisory Board member and a technician in Richmond, Virginia.



You tell us!

Have you taken some wild client calls? Send them to us at **firstline@ advanstar.com** and we might feature them in the next issue of "phone fun." Then check out more scary but true phone calls at **dvm360**

.com/phonefun.

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Ways to cope with grumpy pet owners

Use these tips to cope with cranky clients and find better ways to communicate for better pet health. *By Kelley Ferguson-Greene*

he world is full of cranky people. And all of them seem to own pets. Of course, that's a huge exaggeration. But I'm willing to bet we all have days where that feels 100 percent correct.

Today's life is stressful. People face economic challenges while balancing work and family responsibilities in a juggling act extraordinaire. Most of our difficult clients are simply overwhelmed in general. But if we aren't able to handle them with grace, we quickly become just as overwhelmed as they are. If our percentage of cranky clients rises too high it translates into low staff morale and faster burn out.

Empowering everyone in the practice with strategies to cope with those clients in the less-than-congenial category can not only decrease staff stressors but even lower the incidence of escalated confrontations.

Why are they cranky?

Once upon a time, when a client seemed the slightest bit aggravated, team members

would run to me to report, "Mr. Loudo is yelling about his bill and wants to see you!" More often than not, I would find that Mr. Loudo was only yelling because he didn't think anyone was listening. And he only needed to see me because he wasn't getting any answers. Our team had developed what I called combat aversion. The slightest question or resistance from any client prompted them to run for help.

There are always going to be those certain things that have to be handled higher

PROFESSIONAL growth

up the chain of command. But everyone in the practice should be empowered to communicate without fear. These aren't secret tactics. This is just a matter of good service. Understanding how managers handle conflicts often gives the entire team the confidence to speak to clients with greater assurance. This translates into much smoother communication overall.

As a practice team, we routinely discuss tactics for coping with stressful clients while always seeking better ways to communicate effectively. Often, after some discussion, you will learn that your client's frustrations are centered

Listen with your heart. Clients often yell because they think no one is listening to them. You can't listen with your mouth open. So take a moment to really listen to what they're saying. If you speak calmly, nine out of 10 times they will, too. We never suggest that a client calm down. No one wants to be told they've lost their composure. Listen quietly until your client is done speaking before attempting to reply.

Offer red carpet service—even when you don't want to. You may wear many hats, but one of the most important elements of every team member's job is to provide excellent service. If you're doing this first, everything else falls into place behind it. When in doubt, ask yourself, "Am I providing the best service for this client?" If you're not, figure out how to remedy that.

Avoid cut-and-dry pronouncements like, "This is our policy." If you're willing to argue over the ridiculous or trivial, you aren't providing anyone good service.



more on communication and understanding issues than any real anger. Instead of viewing cranky clients as scary, try to encourage your team to view them as mysterious: Why are they cranky and how can we help? Keeping the following communication tools in mind can often extinguish most fires before they rage out of control:



B Don't fixate on the money.

Providing highquality service has nothing to do with money. And refunding money is rarely the answer. Instead, provide the highest quality service for the money-and in some cases you may have to raise the bar. Few people expect services to be cheap, but everyone expects value and fairness.



CHEWABLES

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

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 ascarids (Toxocara canis, Toxascaris leonina) and hookworms (Ancylostoma caninum, Uncinaria stenocephala, Ancylostoma braziliense).

DOSAGE: HEARTGARD® Plus (ivermectin/pyrantel) should be administered orally at monthly intervals at the recommended minimum dose level of 6 mcg of ivermectin per kilogram (2.72 mcg/lb) and 5 mg of pyrantel (as pamoate salt) per kg (2.27 mg/lb) of body weight. The recommended dosing schedule for prevention of canine heartworm disease and for the treatment and control of ascarids and hookworms is as follows:

Dog Weight	Chewables Per Month	lvermectin Content	Pyrantel Content	Color Coding On Foil Backing and Carton
Up to 25 lb	1	68 mcg	57 mg	Blue
26 to 50 lb	1	136 mcg	114 mg	Green
51 to 100 lb	1	272 mcg	227 mg	Brown

HEARTGARD Plus is recommended for dogs 6 weeks of age and older. For dogs over 100 lb use the appropriate combination of these chewables

ADMINISTRATION: Remove only one chewable at a time from the foil-backed blister card. Return the card with the remaining chewables to its box to protect the product from light. Because most dogs find HEARTGARD Plus palatable, the product can be offered to the dog by hand. Alternatively, it may be added intact to a small amount of dog food. The chewable should be administered in a manner that encourages the dog to chew, rather than to swallow without chewing. Chewables may be broken into pieces and fed to dogs that normally swallow treats whole.

Care should be taken that the dog consumes the complete dose, and treated animals should be observed for a few minutes after administration to ensure that part of the dose is not lost or rejected. If it is suspected that any of the dose has been lost, redosing is recommended.

HEARTGARD Plus 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 preventive product in a heartworm disease preventive program, the first dose of HEARTGARD Plus must be given within a month (30 days) of the last dose of the former medication.

If the interval between doses exceeds a month (30 days), the efficacy of ivermectin can be reduced. Therefore, for optimal performance, the chewable 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 HEARTGARD Plus and resumption of the recommended dosing regimen will minimize the opportunity for the development of adult heartworms.

Monthly treatment with HEARTGARD Plus also provides effective treatment and control of ascarids (T. canis, T. leonina) and hookworms (A. caninum, U. stenocephala, A. braziliense). Clients should be advised of measures to be taken to prevent reinfection with intestinal parasites.

EFFICACY: HEARTGARD Plus Chewables, given orally using the recommended dose and regimen, are effective against the tissue larval stage of *D.immitis* for a month (30 days) after infection and, as a result, prevent the development of the adult stage. HEARTGARD Plus Chewables are also effective against canine ascarids (*T. canis, T. leonina*) and hookworms (*A. caninum, U. stenocephala, A. braziliense*).

ACCEPTABILITY: In acceptability and field trials, HEARTGARD Plus was shown to be an acceptable oral dosage form that was consumed at first offering by the majority of dogs.

PRECAUTIONS: All dogs should be tested for existing heartworm infection before starting treatment with HEARTGARD Plus which is not effective against adult *D_immitis_* Infected dogs must be treated to remove adult heartworms and microfilariae before initiating a program with HEARTGARD Plus.

While some microfilariae may be killed by the ivermectin in HEARTGARD Plus at the recommended dose level HEARTGARD Plus 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.

Keep this and all drugs out of the reach of children.

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.

Store between 68°F - 77°F (20°C - 25°C). Excursions between 59°F - 86°F (15°C - 30°C) are permitted. Protect product from light

ADVERSE REACTIONS: In clinical field trials with HEARTGARD Plus, vomiting or diarrhea within 24 hours of dosing was rarely observed (1.1% of administered doses). The following adverse reactions have been reported following the use of HEARTGARD: Depression/lethargy, vomiting, anorexia, diarrhea, mydriasis, ataxia, staggering, convulsions and hypersalivation.

SAFETY: HEARTGARD Plus has been shown to be bioequivalent to HEARTGARD, with respect to the bioavailability of ivermectin. The dose regimens of HEARTGARD Plus and HEARTGARD are the same with regard to ivermectin (6 mcg, kg). 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 use level) than dogs of other breeds. At elevated doses, sensitive dogs showed adverse reactions which included mydriasis, depression, ataxia, tremors, drooling, paresis, recumbency, excitability, stupor, coma and death. HEARTGARD demonstrated no signs of toxicity at 10 times the recommended dose (60 mcg/kg) in sensitive Collies. Results of these trials and bioequivalency studies, support the safety of HEARTGARD products in dogs, including Collies, when used as recommended.

HEARTGARD Plus has shown a wide margin of safety at the recommended dose level in dogs, including pregnant or breeding bitches, stud dogs and puppies aged 6 or more weeks. In clinical trials, many commonly used flea collars, dips, shampoos, anthelmintics, antibiotics, vaccines and steroid preparations have been administered with HEARTGARD Plus in a heartworm disease prevention program.

In one trial, where some pups had parvovirus, there was a marginal reduction in efficacy against intestinal nematodes. possibly due to a change in intestinal transit time.

HOW SUPPLIED: HEARTGARD Plus is available in three dosage strengths (See DOSAGE section) for dogs of different weights. Each strength comes in convenient cartons of 6 and 12 chewables

For customer service, please contact Merial at 1-888-637-4251



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Understand and appreciate grief. Grief can often play an important role in highly emotional displays from angry or upset clients. Understand the steps of the grieving process. Recognize what phase your client may be in and try to be empathetic to their position. Though you may be a target, often you aren't the source of their frustration.



Ask questions. Remind your client, "My job is to help you." Then ask, "How can I help you to resolve this?" Sometimes people want to vent-and not everyone is an articulate communicator. Giving the conversation direction by saying, "Tell me what you would like me to do," often changes the tone. Keep in mind, it doesn't mean in all cases clients will get their way.



Know when to use alternative communication. Some clients aren't receptive to communication because they can't listen themselves. These clients may benefit from a letter or an email where you're able to explain without interruption for their digestion. This can backfire—as anything written can be used against you—so don't use this unless you're confident with your written presentation skills. _



Call for back up. If you feel you're getting nowhere with someone, offer to have someone call them later. A fresh person or perspective, coupled with a cool-down period, can be beneficial.



Know when to part ways. There are those rare instances where a client is so combative or noncompliant that they create more havoc and disruption than they're worth. Consider whether their behavior or the chemistry between you may not be conducive to a positive client and patient relationship. In these cases, asking them to move on to another practice is in everyone's best interest. **Own your mistakes.** Be capable of being wrong. If you're wrong, don't cover it up or lie. Own it. Admit it, apologize and make it right. You can't put a price on integrity.



Protect your team. If for any reason a client threatens violence or risks the safety of the team, don't hesitate to call 911.



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Find it all here

Front Desk Disasters

Rhonda the receptionist means well but she flubs a "weighty" discussion about pudgy Parker the pooch with a pet owner at **dvm360.com/PortlyParker.** Scan the QR code on the right to watch.

Where did Rhonda go wrong and what would you do differently?





Recognize that some people are better communicators than others and this includes your team and your clients. Although it's important to encourage people to practice better communication strategies, it's also important to recognize that some personalities aren't as well-equipped to deal with certain challenges as effectively as others.

It's just as crucial to recognize the strengths and weaknesses of your key people and don't place them in positions that will compromise the peace of your practice. Miss Smarty Pants should probably stay in the back counting inventory, walking dogs or just about any task other than helping Mr. Loudo at the check out counter.

Remember, we work for our clients. If we can't help them we're not succeeding at the most fundamental aspects of our position. Veterinary medicine is a service industry based on the confidence our patient's owners are able to consistently place in us. Every pet and every client is an individual, but people continue to visit your practice because of your ability to expand your common ground. Sometimes that task is as simple as speaking a common language of understanding. **FL**

Kelley Ferguson-Greene is a practice manager at Countryside Animal Hospital in Alachua, Florida.

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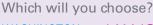
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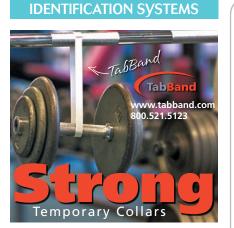
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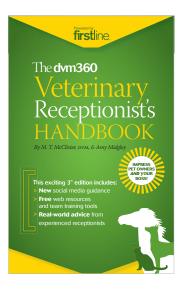
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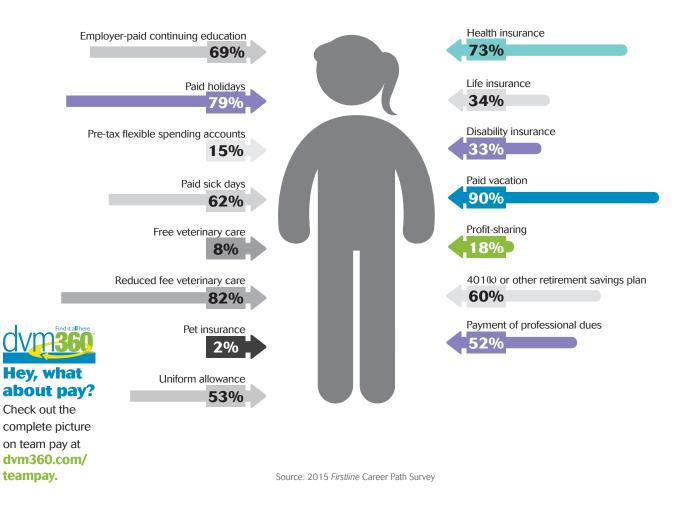


The definitive source for veterinarians and team members for veterinary news, medicine, business, hospital design, events, and community. And the portal site for *dvm360*, *Veterinary Medicine*, *Veterinary Economics*, and *Firstline*.

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Here's a closer look at benefits team members reported receiving in 2014:



What benefits do you receive?



serest

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With 8-month efficacy against fleas and ticks on dogs or cats, Seresto® gets amazing satisfaction scores.

Seresto[®] In-Clinic Experience Trial^{*} Results:

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- >> 94% of veterinarians are likely or very likely to recommend Seresto® to their dog or cat patients (Dogs n=32, Cats n=28)"

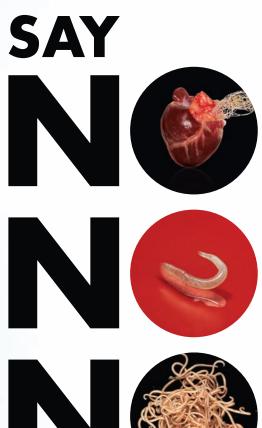
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*The objective of the study was to evaluate the satisfaction of prescribing veterinarians and pet owners with the clients' use of Seresto® on their pets over an 8-month period. Clinics in various geographical locations in the US were selected based on their interest in participating in this study. Clients who presented with a flea and/or tick infestation were given the option to try Seresto® for dogs or cats. Over the course of the 8-month period, veterinarians and clients were asked to report their perceptions addressing their level of satisfaction with the product. Veterinarians received reimbursement for the three office visits and clients received compensation and free Seresto® collars for participation in the study.¹

In month 8, veterinarians participating in the study were asked. "Overall, how satisfied are YOU with Seresto® for DOGS (CATS)?"1 I'n month 8, clients participating in the study were asked, "How satisfied are you now with Seresto® for DOGS (CATS) after 8 months?"1 "In month 8, veterinarians participating in the study were asked, "How likely are you to recommend Seresto® to Clients with DOGS (CATS) in the future?"1 "Data on file. Bayer HealthCare Animal Health.

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TO HEARTWORMS.

TO HOOKWORMS.



TO ROUNDWORMS.

Only HEARTGARD[®] Plus (ivermectin/pyrantel) prevents heartworm disease and treats and controls pre-existing hookworms and roundworms with a Real-Beef Chewable dogs love to take.¹⁻⁵

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HEARTWORMS





HOOKWORMS/ ROUNDWORMS @ 6 WEEKS





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SATISFACTION **GUARANTEED**⁷



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PUPPIES



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Of dogs showing a preference in two studies, all dogs preferred HEARTGARD Plus Chewables to TRIFEXIS® (spinosad + milbemycin oxime) beef-flavored chewable tablets; Executive Summary VS-USA-37807 and VS-USA-37808.

- ² Of dogs showing a preference in two studies conducted, all dogs preferred HEARTGARD Plus Chewables to SENTINEL® (milbemycin oxime-lufenuron) chewable tablets; Executive Summary VS-USA-37809 and VS-USA-37810. Of dogs showing a preference in two studies conducted, all dogs preferred
- HEARTGARD Plus Chewables to IVERHART PLUS® (ivermectin/pyrantel) beef-flavored tablets; Executive Summary VS-USA-37811 and VS-USA-37812. 4 Of dogs showing a preference in two studies conducted, all dogs preferred HEARTGARD Plus Chewables to IVERHART MAX® (ivermectin/pyrantel/praziguantel) beef-flavored tablets; Executive Summary VS-USA-37813 and VS-USA-37814.
- ⁵ Of dogs showing a preference in one study conducted, all dogs preferred HEARTGARD Plus Chewables to SENTINEL[®] SPECTRUM (milbemycin oxime/
- praziquantel/lufenuron) beef-flavored tablet; Executive Summary VS-USA-37801. ⁶ Opinion Research Corporation, Heartworm Prevention Medication Study, 2012.
- Data on file at Merial. 7 Data on file at Merial.